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10th

Annual Report

2014-15

Karnataka Veterinary, Animal and
Fisheries Sciences University, Bidar

Credit Line

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Preface



Much water has flown in Krishna River since last year. Our University has also taken numerous measures to invigorate the functioning of our three-pronged endeavours, namely Teaching, Research and Extension. I am happy to state that our University is successful in getting recognition to the newly started Veterinary Colleges at Hassan and Shivamogga by the Veterinary Council of India, New Delhi w.e.f. the dates

of their inception. I would like to sincerely thank the Hon'ble Minister of Animal Husbandry Shri. T.B. Jayachandra, my colleagues and friends for their support in getting the recognition.

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Another feather in the cap of the University is that our University is one of the consortium partners on the World Bank Aided KWDP-Sujala-III Project implemented by the Government of Karnataka. The University has been assigned the task of carrying out the project on Livestock support and Extension activities in seven Sujala districts namely, Bidar, Kalaburgi, Yadgiri, Gadag, Chamarajnar, Davanagere and Koppal. The project is for a period of over 5 years with a budget of Rs. 936.40 lakhs. The project was formally launched on 4th December, 2014 at University Headquarters, Bidar.

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It is heartening to note that our University has successfully organized 'Januvaru, Krishi, Totagarike & Matsya Mela-2014' held during 27-29 December, 2014 at Bidar in collaboration with University of Agricultural Sciences, Raichur and University of Horticultural Sciences, Bagalkot. A total of 140 stalls were erected and displayed live animals and other technology diaspora by the line departments and private entrepreneurs. About 25000 people including farmers, school children and the general public visited and got benefited from the mela.

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The 7th Convocation of the University was held with the usual ceremonial pomp and gaiety. Dr. S. Abdul Rehman, Former Dean, Veterinary College, Bengaluru & President, Common Wealth Veterinary Association delivered the key note address. His-Excellency, the Governor of Karnataka awarded the degrees and gold medals to the meritorious students. I wish all the staff and students of the University a fruitful year 2015-16 and hope that they will continue to strive hard to keep up the tempo of sustaining the record of excellence in their respective responsibilities.

Editorial



I am happy to note that our University has completed 10 years of its fruitful existence in the service of farming community and in imparting quality education, executing relevant research projects and implementing animal husbandry technologies in farmers' fields. Through the "Farmers' Field school" concept of ICAR our KVK, Dakshina

Kannada has demonstrated that the "Swarnadhara" poultry breed of our University has registered a growth of 1.00 Kg. in 35 days thereby proving that a farmer can earn Rs. 25,000/- in a month by rearing 300 birds!

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Similarly, Pig-cum-Fish culture, Goat farming and Dairy farming technologies are being demonstrated in the field. It is heartening to note that significant strides have been made by the University in the last 10 years. Efforts are being made to compile 'Top-100 Achievements of the University and bring out as a special publication under the title "Decadal performance of KVAFSU, Bidar".

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The period from April, 2014 to March, 2015 witnessed a series of events and programmes, the big one being a three-day "Livestock, Agri, Horti and Fish Fair-2014" held during 27-29th December, 2014 at Bidar in collaboration with University of Agricultural Sciences, Raichur and University of Horticultural Sciences, Bagalkot. During the mela, a variety of live farm animals were on display and "Best Animal" awards were presented. Like-wise, a total of 15 "the state level Best Farmer" awards were also given away to the innovative farmers with citation and a cash prize of Rs. 5,000/- based on the selection through KVKs from across the state. Nearly 25,000 people visited the mela, the majority of which were farmers. Farmers benefited a great deal from the showcase of technologies in Agri, Horti and Fish farming put up in stalls by the line departments and other Universities. The Vice-Chancellors and other Officers of Agri Universities, NGO's, farmers associations, Women Self Help Groups supported by NABARD and other officers of line departments attended the mela. Several training programmes, workshops, national conferences were organized during the period.

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Plans are afoot to organize a series of farmer oriented and rural based programmes in collaboration with NABARD; NFDB, Hyderabad; Department of Animal Husbandry and Fisheries and other line departments, besides academic exercises throughout 2015-16 to mark the Decennary celebrations of the University. Another significant event

was the signing of MoU with Hyderabad-Karnataka Center for Advanced Learning, Kalburgi to impart training in dairy farming to the unemployed rural youth of Bidar district wherein 6 batches have received the training with 40 beneficiaries in each batch. The same exercise will continue in 2015-16. The University is also planning for MoU with Karnataka State Womens' University, Vijayapur and Central University, Kalburgi to extend similar extension programmes in 2015-16.

I take this opportunity to sincerely thank all the Officers of the University, who have provided the required information for this document. I also extend my thanks to all the colleagues who rendered their help.

The compilation of this annual report would not have been possible without the willingness and encouragement of our beloved Hon'ble Vice-Chancellor, Dr. C. Renukprasad, who has been guiding and giving suggestions for the improvement of this document. I whole heartedly thank him for the same.

I wish to place on record my sincere appreciation to all the staff of the Directorate of Extension and other teaching faculty of the University who rendered their hard work in various stages of the preparation of this report.

Place: Bidar

Sd/-
(S.M. Shivaprakash)
Chief Editor & Director of Extension

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Mandate of the University

The prime objective and mandate of the University are to uplift the rural livestock, poultry and fish farmers with a motto of "Rural oriented and Farmer Friendly Activities". The university has a territorial jurisdiction of entire state of Karnataka covering the 30 districts. The major objectives of the university include,

- ❖ To impart higher quality education in different branches of study, particularly veterinary and animal sciences, fisheries and other allied sciences.
- ❖ Advancement of learning and research, particularly in veterinary science, dairy science, fisheries science and other allied sciences to the rural people of the state
- ❖ To undertake the extension education service in veterinary and animal science, dairy science, fisheries science and other allied sciences to the rural people of the state.
- ❖ Such other purpose as the State Government may specify by notification.

Mission of the University

The Mission of the Karnataka Veterinary, Animal and Fisheries Sciences University, Bidar, is to strive hard and provide leadership in teaching, research and extension education services related to veterinary, animal and fisheries to keep pace with new frontiers of science and contemporary developments with social and technical relevance. In this context, the Karnataka Veterinary, Animal and Fisheries Sciences University is strongly committed in absorbing newer paradigms and using them to develop excellent human resource, innovative technologies and their dissemination so as to serve the livestock and fish farming community of the state.

Governance

BOARD OF MANAGEMENT OF THE UNIVERSITY

Chairman : Dr. C. Renukaprasad, Vice-Chancellor

Ex- Officio Members:

The Principal Secretary to Govt. Department of AH & Fisheries or his nominee not below the rank of Joint Secretary.

The Principal Secretary to Finance Department or his nominee not below the rank of Joint Secretary.

The Secretary to Govt. Law Department or his nominee not below the rank of Joint Secretary.

The Director of Animal Husbandry & Veterinary Services Govt. of Karnataka, Bengaluru

The Director of Fisheries, Govt. of Karnataka, Bengaluru.

The President, Karnataka Veterinary Council, Bengaluru

The Registrar of the University Member Secretary.

Other Members

<i>Members of the 4th Board of Management</i>	
<i>Sl. No.</i>	<i>Name of the Board Member</i>
1	Dr. Yogiraj, B. Patil
2	Sri. Nagabhushan Kamthane
3	Sri. Iresh Anchatageri
4	Sri. Mallikarjun Biradar
5	Smt. Mushtari Moyeen
6	Sri. Nagendra Prasad

Our institutions

1. Colleges

- 1) Veterinary College, Hebbal, Bengaluru, established in 1958
- 2) Veterinary College, Nandi Nagar, Bidar, established in 1984
- 3) Veterinary College, Shivamogga, established in 2006
- 4) Veterinary College, Hassan, established in 2007
- 5) Dairy Science College, Hebbal, Bengaluru, established in 1980
- 6) Dairy Science College, Kalburgi, established in 2008
- 7) Fisheries College, Mangaluru, established in 1969
- 8) Veterinary College, Gadag (to be established)
- 9) Veterinary College, Athani, Belgaum (to be established)
- 10) Veterinary College, Puttur, Dakshina Kannada (to be established)

2. Animal Husbandry Polytechnics

- 1) Animal Husbandry Polytechnic, Konehally, Tiptur
- 2) Animal Husbandry Polytechnic, Shiggaon, Haveri

3. Research Institute

- 1) Institute of Animal Health and Veterinary Biologicals, Hebbal, Bengaluru, established in 1926
- 2) Livestock Research and Information Center, (Deoni), Hallikhed, Bidar
- 3) Livestock Research and Information Center (Amruth Mahal and Hallikar), Konnehally, Tiptur
- 4) Livestock Research & Information Center (Sheep), Nagamangala.
- 5) Livestock Research & Information Center (Buffaloe), Dornally, Yadgir
- 6) Canine Research and Information Center Timmapur, Mudhol, Bagalkot
- 7) Fisheries Research & Information Center, Hebbal, Bengaluru.
- 8) Fisheries Research & Information Center (Inland), Hesaraghatta
- 9) Fisheries Research and Information Centre, (Marine), Ankola, Uttar Kannada

- 10) Fisheries Research and Information Centre, Bhutnal, Vijayapura
- 11) Fish seed Production Farm, Shivapura, Koppal (to be taken over / established)
- 12) Institute of Wild Life Veterinary Research (IWVR), Doddaluvara, Kudige, Dist. Coorg
- 13) Rural Veterinary Hospital, Yelahanka, Bengaluru
- 14) Veterinary Hospital, APMC, Gandhigunj, Bidar
- 15) PPMC, Bidar

3. Krishi Vigyan Kendra

- 1) Krishi Vigyan Kendra, Dakshina Kannada

4. Extension Education Centers/ Institutes

- 1) Extension education Center, Bengaluru
- 2) Extension Education Center, Bidar
- 4) Extension Education Center, Hassan
- 5) Extension Education Center, Shivamogga
- 6) Farmer's Training Institute, Bidar

Officers of the University during the period (2014- 2015)

1	Vice-chancellor, KVAFSU, Bidar	Dr. C. Renukprasad
2	Registrar, KVAFSU, Bidar	Dr. H. M. Jayaprakasha
3	Comptroller, KVAFSU, Bidar	Dr. N.A. Patil
4	Director of Extension, KVAFSU, Bidar	Dr. S.M. Shivaprakasha
5	Director of Research, KVAFSU, Bidar	Dr. H.R.V. Reddy
6	Director of Student Welfare, KVAFSU, Bidar	Dr. H.R.V. Reddy
7	Director of Instruction (PGS), KVAFSU, Bidar	Dr. U.S. Biradar
8	University Librarian (I/c), KVAFSU, Bidar	Dr. E. Narayanappa
9	Dean, Veterinary College, Bidar	Dr. S.M. Usturge
10	Dean, Veterinary College, Bengaluru	Dr. S. Yathiraj
11	Dean, Veterinary College, Shivamogga	Dr. R.V. Prasad
12	Dean, Veterinary College, Hassan	Dr. H.N. Narasimha Murthy
13	Dean, Dairy Science College, Bengaluru	Dr. Narasimhamurthy
14	Dean, College of Fisheries, Mangaluru	Dr. K.M. Shankar
15	Director, IAH&VB, Hebbal, Bengaluru	Dr. Byregouda
16	Director, IWVR, Doddaluvara, Kodagu	Dr. H.A. Upendra
17	OSD, Dairy Science College, Mahagaon, Kalburgi	Dr. D.B. Puranik
18	OSD, Veterinary College, Gadag	Dr. K. Chandrapal Singh
19	OSD, Veterinary College, Athani	Dr. N.A. Patil

20	OSD, Veterinary College, Puttur	Dr. M.S. Vasantha
21	Head of Division, Pre & Para Clinical Sciences	Dr. Placid, E. D'Souza
22	Head of Division, Clinical Sciences	Dr. M. Narayana Bhat
23	Head of Division, Animal and Poultry Sciences	Dr. K. Chandrapal Singh
24	Head of Division, Fisheries Science	Dr. B.A. Shamsunder
25	Head of Division, Dairy Science	Dr. Lalit Achot
26	Head, PPMC, KVAFSU, Bidar	Dr. T. Tirumalesh
27	Executive Engineer	Sri. M. K. Satish

Executive Summary

'Animal wealth is Nation's wealth'. In order to realize this and to accomplish productivity in animal husbandry, dairying, poultry and fisheries, Government of Karnataka embarked on starting the state's first Veterinary, Animal & Fisheries Sciences University at Bidar in the year 2005. With its motto of 'Rural Oriented & Farmer Friendly', the University has initiated several measures to help farmers to improve their livelihood security through livestock activities. Further, in Veterinary and Animal Sciences 74 obtained Master's degree and 17 received Doctoral degrees. In Dairy Science 13 and in MBA 07 obtained Master's degree and 01 received Doctoral degree. In Fisheries 19 have taken Master's degree and 03 were awarded Doctoral degrees.

Education

Education is the prime concern of the University. The teaching activities are being carried out in three major disciplines at five campuses through seven colleges under the jurisdiction of this University. Undergraduate degree programmes in Veterinary and Animal Husbandry are being offered at Bidar, Bengaluru, Shivamogga and Hassan. while, Dairy Science & Technology at Bengaluru and Kalburgi and similarly, Fisheries Science at Mangaluru. In addition to these, the Government of Karnataka has sanctioned three more Veterinary Colleges at Gadag, Athani and Puttur, which are at different stages of development. Further, two Animal Husbandry Polytechnics have also been started at Konehally of Tumkuru district and Shiggaon of Haveri district.

The University offers Masters programme in 18 disciplines and Doctoral programme in 14 disciplines in Veterinary and Animal Sciences. In Dairy Science 03 Master's and 03 Doctoral programmes are currently underway. Similarly, in Fisheries Science 06 Masters and 05 Doctoral degree programmes are being offered.

Admission under various degree programmes to KVAFSU was undertaken during 2014-15 and the intake was 388 students, comprising 252 for graduate studies and 136 for postgraduate studies. Among 252 under graduate students, admitted to various degree programmes 161 were for BVSc&AH degree at Bengaluru, Bidar, Shivamogga and Hassan campuses and 59 for B.Tech (Dairy) Degree, and 32 for Bachelor in Fisheries Science Degree. Out of 136 Post Graduate Students, 74 for Master's Degree in Veterinary & Animal Science and 20 for MSc and MBA degree in Dairy Technology and 19 for Master's Degree in Fisheries Science. Doctoral in Veterinary and Animal Science were 19. in Dairy Science 01 and Fisheries Science 03.

A good number of graduates of this University qualified in ICAR Junior Research Fellowship and secured PG admissions in many prestigious institutes like IVRI, CIFE, NDRI and also in overseas Institutions.

Research

“Research without extension is hobby, but extension without research is shallow and teaching without research and extension is hollow”. But, KVAFSU being a farm varsity, it carries out teaching, research and extension under its three tier system to enable its pupils to come out with good knowledge practical exposure to become entrepreneurs. Further, the teachers, scientists and extension functionaries will be able to address field oriented problems to findout suitable solutions through research and practical demonstrations. KVAFSU has been operating 188 Nos. of Research projects amounting to Rs. 8004.28 lakhs with the funding support from State Government, GOI, Dept. of Bio-Technology, ICAR, private institutions and National and International organizations. During 2014-15 as many as 52 Nos. of Research Projects have been completed worth Rs. 342.72 lakhs. Besides, 136 Nos. of ongoing projects amounting to Rs. 7661.56 lakhs are in progress.

In order to cater to the needs of farmers in rural areas, the University has been carrying out need based research in various institutes and also established Research & Information Centers across the state. Our scientists of the University have published 319 Nos. of research papers in the journals of National and International repute. Our scientists have developed several diagnostic kits, vaccines for diagnosis and prevention of diseases in animals, poultry and fisheries sector.

The University has filed applications with the competent authority of the GOI, for granting of patents for the products / technologies developed by the KVAFSU.

Extension

The University has established Extension Education Centers (EECs) at Bengaluru, Bidar, Shivamogga and Hassan Campuses for the transfer of technologies developed by KVAFSU scientists to the un-reached farming community. The University is propagating and popularizing its technologies to the farmers through series of training programmes, demonstrations, animal health camps, field days, farmer-scientists interaction, awareness programmes, treatment of medical, surgical and reproductive problems at Veterinary Colleges, Krishimelas, Farmers Meet, Village adoption, Publication of folders, Bulletins and Books on Package of practices in local language for the benefit of farming community and News Letters and Annual Reports of the University. Besides farmers, the University also

trains departmental staff / KVK SMSs regarding latest technological advancements and shares the knowledge with neighbouring state's scientists through model training courses etc.

To strengthen the extension activities, the University had signed a MoU with Hyderabad-Karnataka Center for Advanced Learning, Kalburgi to impart technical knowledge for the farmers / unemployed youth / beneficiaries of HKCAL, Kalburgi through lectures, demonstrations, field and farm visits and hands on experience at Nandinagar Campus and LRIC, Hallikhed, Bidar.

The University strongly believes in the integrated approach and jointly organized "Januvaru, Krishi, Totagarike & Matsya Mela-2014" during December 27-29th, 2014 at KVAFSU, Nandinagar Campus, Bidar in collaboration with University of Agricultural Sciences, Raichur and University of Horticultural Sciences, Bagalkot at KVAFSU Nandinagar Campus, Bidar for the benefit of farming community of the region by putting up impressive stalls of animal husbandry, dairying, fisheries, agriculture, horticulture, sericulture and other allied activities. A large number of farmers had been benefited from this mela.

Directorate of Extension participated and had put up University Exhibition Stand in Krishi Melas organized by UAS, Dharwad; UAHS, Shivamogga; UHS, Bagalkot and KVAFSU, Raichur.

Sports & Cultural activities

10th KVAFSU INTER COLLEGIGATE MEETS

KVAFSU Inter-Collegiate Badminton (M/W) and Basket Ball (M/W) Tournament: 2014-15 was organized by College of Fisheries, Mangaluru from 30th Sept to 1st Oct, 2014 at Mangaluru.

KVAFSU Inter-Collegiate Chess (M) and Table Tennis (M/W), Tournament: 2014-15 was organized by Veterinary College, Bengaluru from January 12th to 13th, 2015 at Bengaluru.

KVAFSU Inter-collegiate Cricket and Foot Ball Tournament : 2014-15 was organized by Veterinary College, Shivamogga during 24-26th January, 2015 at Shivamogga.

KVAFSU Inter-collegiate Sports and Games Meet: 2014-15 was organized by Veterinary College, Bidar during 6-8th March, 2015 at KVAFSU Bidar.

KVAFSU Inter-Collegiate Youth Festival KALACHILUME : 2014 was organized by Veterinary College, Bidar during 5-7th September, 2014 at Bidar.

IMPORTANT MEETINGS HELD AT KVAFSU, BIDAR DURING 2014-15

<i>#</i>	<i>Meetings</i>	<i>Date</i>	<i>Place</i>
Board of Management Meetings			
1	64 th Meeting of BOM	23.05.2014	Bidar
2	65 th Meeting of BOM	04.07.2014	Bidar
3	66 th Meeting of BOM	01.08.2014	Bidar
4	Special Meeting of BOM	18.08.2014	Bengaluru
5	67 th Meeting of BOM	26.09.2014	Bidar
6	68 th Meeting of BOM	20.10.2014	Bengaluru
7	69 th Meeting of BOM	16.01.2015	Bidar
8	Special Meeting of BOM	21.02.2015	Bengaluru
9	70 th Meeting of BOM	31.03.2015	Bengaluru
Academic Council Meetings			
1	20 th Meeting of Academic Council	19.04.2015	Bengaluru
2	21 st Meeting of Academic Council	25.09.2014	Bidar
3	22 nd Meeting of Academic Council	26.03.2015	Bidar
Research Council Meetings			
1	9 th Research Council	02.07.2014	Bidar
2	10 th Research Council	25.03.2015	Bidar
Farm Development Committee Meetings			
1	9 th Farm Development Committee Meeting	28.02.2015	Bengaluru
Extension Education Council Meetings			
1	9 th Extension Education Council Meeting	02.07.2014	Bidar
2	10 th Extension Education Council Meeting	25.03.2015	Bidar

Planning and Works Committee Meetings			
1	20 th Meeting of Planning and Works Committee	13.05.2014	Bengaluru
2	21 st Meeting of Planning and Works Committee	16.08.2014	Bengaluru
3	22 nd Meeting of Planning and Works Committee	05.01.2015	Bengaluru
Finance Committee Meetings			
1	30 th Finance Committee Meeting	13.03.2014	Bengaluru
2	31 st Finance Committee Meeting	08.01.2015 & 12.01.2015	Bengaluru
3	32 nd Finance Committee Meeting	30.03.2015	Bengaluru

**Important meetings attended by the Hon'ble Vice-Chancellor,
KVAFSU, Bidar during the year 2014-15**

26-04-2014	Participated in "World Veterinary Day" at Veterinary College, Bengaluru & Karnataka Veterinary Council, Bengaluru as Guest of Honor
27-04-2014 to 28-04-2014	Participated in Interactive Conference of the Vice-Chancellors of State Agricultural Universities and Directors of ICAR Institutes convened by Secretary DARE & Director General, ICAR, New Delhi
02-05-2014 to 03-05-2014	Attended XXIV ICAR Regional Committee Meeting and presented the activities of KVAFSU. Attended the meeting with Hon'ble Minister for Animal Husbandry, GOK at Trivandrum.
12-05-2014	Chaired the meeting at IAH&VB regarding FMD vaccine productions & allotment of Land to IVRI for FMD vaccine production center.
14-05-2014	Attended meeting with Hon'ble Minister for Animal Husbandry and Principal Secretary to Government, DAH&F, GOK regarding admission of Veterinary College students 2014-15.
31-05-2014	Meeting with Hon'ble Minister for Animal Husbandry, GOK and Principal Secretary to Govt., DAH&F, GOK regarding admissions to Veterinary Colleges of the University and attended the meeting under the Chairmanship of Additional Chief Secretary & Development Commissioner GOK regarding watershed project.
14-06-2014	Discussed with Dr. N. K. Rai in connection with Public Interest Litigation at Veterinary College, Bengaluru and to meet the VCI inspection team to Veterinary College Shivamogga at Regional Office, Hebbal, Bengaluru.
21-06-2014	Met the Hon'ble Minister for Animal Husbandry, GOK apprising about visit of VCI team; to meet University Advocate regarding issues of the University; to discuss with the Director, IWVR, Kudige regarding MOU with Zoo Authority of Karnataka, Mysuru.
01-08-2014	Chaired 66 th Meeting of Board of Management at University Headquarters, Bidar
04-08-2014	University Convocation dates & Guests for the Convocation were finalized after discussion with the Secretary to Governor of Karnataka

14-08-2014	Attended meeting with Principal Investigator & Co-PI of ICAR Niche Area of Excellence Project.
15-08-2014	Participated in flag hoisting ceremony at Regional Campus, Hebbal, Bengaluru and proceeded to Sira, Tumkuru Dist., participated in inauguration of IAH&VB Lab at Sira, inaugurated by Hon'ble Minister for Animal Husbandry, GOK.
25-08-2014	Attended meeting at ICAR, New Delhi and met DDG, ICAR, regarding ICAR project on Niche Area of Excellence.
28-08-2014	Participated in Interview Selection as Governors Nominee at Kerala Veterinary & Animal Sciences University, Wayanad.
30-08-2014	Met Hon'ble Minister for Animal Husbandry, GoK regarding issues related to Veterinarians and Chaired a meeting in connection with ICAR project on Niche Area of Excellence with PI & Co-PI's.
07-09-2014	Presided valedictory function of Inter Collegiate Youth Festival at University Headquarters, Bidar.
09-09-2014	Attended meeting with Committee of Legislators at Vidhan Soudha, Bengaluru and met His-Excellency, the Governor of Karnataka & Chancellor of the University and invited him for 7 th Convocation of the University.
17-09-2014	Flag hoisted at University Headquarters, Bidar on the occasion of Hyderabad Karnataka Liberation Day.
26-09-2014	Chaired 67 th Board of Management Meeting and participated in Convocation rehearsal at University Headquarters, Bidar
27-09-2014	Participated in 7 th Convocation of the University Chaired by the His-Excellency, the Governor of Karnataka & Chancellor of the University at Headquarters, Bidar.
10-10-2014	Participated in the meeting Chaired by the Chairman, Petition Committee Meeting of Karnataka Legislature at Shivamogga; Met Veterinary College, Shivamogga students who were on strike, addressed the students.
16-10-2014	Attended the meeting chaired by Hon'ble Minister for Animal Husbandry, GOK regarding "KVAFSU Act Amendment Bill-2014" discussed with the Hon'ble minister regarding university issues.

20-10-2014	Chaired 68 th Meeting of Board of Management of the University at Regional Office, Hebbal, Bengaluru.
21-10-2014	Visited Veterinary Council of India (VCI), New Delhi and met Vice-President of VCI to appraise about resolutions of Board of Management Meeting of the University regarding strike called by students of Veterinary College, Shivamogga & Hassan and requested to the Vice-President to accord the recognition to these two colleges.
25-10-2014	Met Principal Secretary, DAH&F, GoK and Chief Secretary to Govt., GOK to get commitment letter to be given to VCI to get recognition and permission for admissions to Veterinary College, Shivamogga & Hassan.
08-11-2014 to 09-11-2014	Participated IAUA Conference on "Making World Class Agriculture Universities in India" at NASC, New Delhi.
10-11-2014	Inaugurated CAFT Program at Veterinary College, Hebbal, Bengaluru and Chaired "Brain Storming Session" at Veterinary College, Hebbal Bengaluru in connection with VCI program.
16-11-2014	Participated as Chief Guest in "Dog Show of Indian Breeds of Dogs" at Bagalkot.
25-11-2014	Met Finance Secretary, GoK regarding issues of the University; meeting with Deans regarding re-scheduling of exams of UG students; meeting with Deans of all colleges regarding enhancement of BVSc&AH seats in Veterinary Colleges as requested by Veterinary council of India; participated recording of radio talk at AIR, Bengaluru.
01-12-2014	Participated in the inaugural function of foundation stone laying function at Veterinary College Shivamogga by Hon'ble Chief Minister of Karnataka.
12-12-2014	Participated in the meeting with new office bearers of Teachers Association and participated in valedictory function as Chief Guest of Karnataka Rajya Vigyan Parishat at Rangmandir, Bidar.
20-12-2014	Participated in Decemary Celebration of 'D' Group Employees Association of the University.
27-12-2014	Participated in the inaugural function of "Januvaru, Krishi, Totagarike & Matsya Mela-2014" inaugurated by the Hon'ble Minister for Animal Husbandry, GOK at Nandinagar, Bidar.

28-12-2014	Attended the "Januvaru, Krishi, Totagarike & Matsya Mela-2014"
29-12-2014	Chaired the Valedictory Function of "Januvaru, Krishi, Totagarike & Matsya Mela-2014" at Nandinagar Campus, KVAFSU, Bidar.
04-01-2015	Attended the South Zone Vice-Chancellor's Conference at VTU, Vellore.
08-01-2015	Chaired the Finance Committee Meeting at Hebbal, Bengaluru. Attended the meeting with Hon'ble Union Minister for Agriculture at Kumar Krupa Guest House, Bengaluru.
09-01-2015	Participated in the inaugural function of new campus of NIVEDI and participated in interactive meeting with Hon'ble Union Minister for Agriculture, GOI at ZPD, Hebbal, Bengaluru.
12-01-2015	Participated in the workshop on R&D activities in various institutions in Karnataka Chaired by the Secretary to Govt., DAH&F at KVC Building, Bengaluru.
16-01-2015	Chaired 67 th Board of Management Meeting at University Headquarters, Bidar
26-01-2015	National Flag Hoisted on account of "REPUBLIC DAY" at University Headquarters, Bidar.
29-01-2015	Inaugurated KVAFSU & KVC sponsored Training Programme on Elephants at KVC, Hebbal, Bengaluru; attended preliminary meeting with Prof. P. V. Subbarao regarding anti snake venom anticera project at Bengaluru; meeting with Secretary to Govt. Dept. of Animal Husbandry & Fisheries regarding KVAFSU Budget and meeting with Mr. Ashok Kumar, M/s. Polycan Systems regarding collaborative project with KVAFSU.
05-02-2015	Chaired the meeting with Faculty of Veterinary College, Bidar regarding establishment of "Gokul Mission" at LRIC (Deoni), Hallikhed, Bidar.
10-02-2015	Attended inauguration of 30 th Annual Conference of IAVPH at KVC Building, Bengaluru.
19-02-2015	Inaugurated 'FISHCO FESTIVAL' programme at College of Fisheries, Mangaluru.

21-02-2015	Chaired Special Meeting of Board of Management at Regional office, Hebbal, Bengaluru.
02-03-2015	Participated in Petition Committee Meeting at Vidhan Soudha, Bengaluru; attended meeting on civil works related to Veterinary College, Hassan, Shivamogga, Athani & Putturu at Secretary's office, Dept. of Animal Husbandry & Fisheries, Bengaluru.
06-03-2015	Inaugurated Inter-Collegiate Sports Meet at University Headquarters, Bidar.
09-03-2015	Chaired meeting with the Registrar & Deputy Comptroller on the issues of group 'D' & DRE demands at University Headquarters, Bidar
15-03-2015	Participated as Chief Guest in R.D. Nanjiah Centenary Celebration at Gandhi Bhavan, Bengaluru.
16-03-2015	Participated as Chief Guest in Industry & Institute Interface at Dairy Science College, Hebbal Bengaluru and to chaired Annual Technical Meet of Animal Science & Poultry Science at Veterinary College, Hebbal, Bengaluru.
31-03-2015	Chaired 70 th Board of Management Meeting at Bengaluru

7th CONVOCATION OF KVAFSU, BIDAR

The 7th Convocation of the University was held on 27th September, 2014 at KVAFSU Nandinagar Campus, Bidar. Dr. C. Renukprasad, Hon'ble Vice-Chancellor, KVAFSU welcomed the esteemed Governor of Karnataka and Chancellor of the University, Chief Guests, Hon'ble Members of Board of Management, Officers of the University, dignitaries and the gathering to the 7th Convocation of the University. In his welcome address, the Vice-Chancellor presented the brief report of activities carried out by the University in Teaching, Research and Extension during the past one year. The esteemed Governor of Karnataka and Chancellor of the University, Shri. Vajubhai Rudabhai Vala presided over the convocation. He stressed that the University must strive hard to enable poor farmers to adopt state of the art farming technologies to achieve livelihood security. Dr. S. Abdul Rahman, President, Commonwealth Veterinary Association and Chairman, OIE Animal Welfare Working Group delivered the Convocation address. In his convocation address, he appreciated the efforts of the University in Teaching, Research and Extension aimed at achieving sustained enhancement in animal productivity including fisheries with most efficient use of natural resources, ensuring equity in research benefits to poor farmers and enlarging commercial production. The technologies developed by KVAFSU are contributing to the improvement of animal health and production of livestock, poultry and fisheries in the state.

During the convocation a total of 353 degrees were awarded, that included 206 Under Graduate, 129 Masters and 18 Doctoral Degrees in the Veterinary, Dairy and Fisheries Sciences. A total of 66 Gold Medals were awarded for the candidates with high academic performance in Undergraduate, Post Graduate and Doctoral Degrees. Three faculty members of the University were honored with Research Grant Incentive and Certificate of Merit for mobilizing Extra-Mural research grants during the 2013-14.

JANUVARU, KRISHI, TOTAGARIKE & MATSYA MELA-2014

The Karnataka Veterinary, Animal & Fisheries Sciences University (KVAFSU), Bidar, University of Agricultural Sciences Raichur and University of Horticultural Sciences, Bagalkot, jointly organised a "Januvaru, Krishi, Totagarike & Matsya Mela-2014" during December 27-29th, 2014 at KVAFSU, Nandinagar Campus, Bidar for the benefit of farming community.

The Fair (mela) was inaugurated by Shri. T.B. Jayachandra, Hon'ble Minister for Animal Husbandry & Pro-Chancellor of the University who said that this type of melas will help the farming community to improve their livelihood. Sri. Ashok Kheni, Hon'ble MLA, Bidar (South) presided over the Inaugural Ceremony. Dr. C. Renukprasad, Vice-Chancellor, KVAFSU, Bidar; Dr. P.M. Salimath, Vice-Chancellor, UAS, Raichur; Dr. D.L. Maheshwar, Vice-Chancellor, UHS, Bagalkot; Dr. C. Vasudevappa, Vice-Chancellor, UAHS,

Shivamogga; Sri. Harsh Gupta, Principal Secretary, Department of Animal Husbandry & Fisheries, GoK, Bengaluru; Hon'ble Members of Board of Management, KVAFSU, Bidar; Dr. Dr. K.P. Vishwanath, Director of Extension, UAS, Raichur; Dr. N. Nagaraj, Director of Extension, UAS, Bengaluru and all the Officers, teaching faculty, non-teaching staff and students of the University and farmers were present on the occasion. Dr. S.M. Shivaprakash, Director of Extension, KVAFSU, Bidar was the Chairman of the Local Organizing Committee. Five Extension publications were released on that occasion.

In the mela a total of 140 stalls were erected to display the research and extension activities by different agricultural Universities, State Development Departments such as Fisheries, Animal Husbandry, Agriculture, KMF, Watershed Development etc. stalls besides the KVAFSU. Further, a good number of stalls from private entrepreneurs and industries were also set up and displayed their activities. About 25000 farmers attended the mela during the three days and benefited. The highlight of the mela was the display of technologies in Agriculture, Animal Husbandry, Dairy, Fisheries and other related areas. The main attraction of the mela was exhibition of different types of breeds of livestock namely, cattle (Deoni, Khillar, Red Khandar, Gir etc.), buffaloes (Murrah, Jafferbadi etc.), horses, dogs Nari Suwarna sheep, Boer goat, rabbit and different types of poultry birds including some of the rare breeds, fodder crops and fishes namely, food fishes, ornamental fishes etc. Technical Consultancy Cell was established in the mela to give technical guidance on different aspects of Agriculture, aquaculture, fisheries and livestock farming and dairy science & technology during the mela for the benefit of farming community. Interesting dog skill shows were also arranged on 28th December, 2014 for the benefit of children, farmers and public.

A total of 15 Best farmers were felicitated and awarded with cash prize of Rs. 5,000/- for each along with citation of their best performance in the area's of dairying, animal husbandry, poultry, fishery, agriculture and horticulture selected from across different districts of Karnataka. The KVKs spread across the state had helped us in the selection process.

The Valedictory Function was held on 29-12-2014 at 3.00 PM. Prof. R.N. Srinivas Gowda, Founder Former Vice-Chancellor, KVAFSU, Bidar; Prof. K.V. Devaraj, Former Vice-Chancellor, UAS, Bengaluru and Dr. S.A. Patil, Former Vice-Chancellor, UAS, Dharwad and Dr. B.S. Janagoudar, Director of Research, UAS, Raichur were the Chief Guests.

Sri. Shivayya Swamy Kamathana, Member, Indian Animal Welfare Board; Dr. A.B. Patil, Director of Extension, UHS, Bagalkot; Hon'ble Members, Board of Management, KVAFSU, Bidar and Officers of KVAFSU, Bidar were the Guests of Honours. Dr. C. Renukprasad, Hon'ble Vice-Chancellor, KVAFSU, Bidar presided over the function. Dr. S.M. Shivaprakash, Director of Extension & Chairman of Local Organizing Committee welcomed the gathering and presented a brief report of the mela.

The significant impact of the mela was the organization of 'Farmer-to-Farmer' interaction session on dairying, fisheries, horticulture, agriculture, seed production and

organic farming etc. A total of four sessions, namely Ornamental fish culture and Scientific fish farming, Management of livestock during draught, Integrated farming and conservation of indigenous breeds of cattle and Fodder production were held during the mela.

The programme was well received by the farmers and public as per the feed back received from them and good awareness was created about Integrated Farming involving agriculture, animal husbandry and fisheries; livestock farming as a source of livelihood security. The Fair was very well covered in the media both in press and in electronic media (TV & Doordarshan). KSRTC had arranged city bus service to transport farmers, public and school children to the mela. Thousands of school children witnessed the exhibition.

Agencies participated in the 'Regional Agricultural Fair'

1. Organizers - Karnataka Veterinary, Animal & Fisheries Sciences University (KVAFSU), Bidar, University of Agricultural Sciences Raichur and University of Horticultural Sciences, Bagalkot,
2. Department of Animal Husbandry & Veterinary Services, Government of Karnataka, Bidar
3. Department of Agriculture, Government of Karnataka, Bidar
4. Department of Fisheries, Government of Karnataka, Bidar
5. Department of Watershed Development, Government of Karnataka, Bidar
6. Department of Horticulture, Government of Karnataka, Bidar
7. Department of Sericulture, Government of Karnataka, Bidar
8. Department of Agricultural Marketing, Government of Karnataka, Kalburgi
9. Karnataka Milk Producer's Union (KMF), Bidar and Kalburgi
10. Zilla Panchayat (all Development Departments), Bidar District
11. University of Agricultural Sciences, Dharwad
12. A large number of private organizations in Organic Farming, Agricultural Implements, Animal Husbandry & Veterinary Equipments & Diagnostics, Feed & Fodder Companies; Fertilizer & Agro Industry Companies have participated by setting up of stalls in the mela.

The Diamond sponsors for the Mela were National Fisheries Development Board, Hyderabad; Canara Bank, Nandinagar Branch, Bidar; State Bank of India, Bidar; State Bank of Hyderabad, Bidar; NABARD, ICAR, New Delhi; Department of Animal Husbandry & Fisheries, Government of Karnataka, Bengaluru; Department of Agriculture, Bidar and KVAFSU.

TOP 100 ACHIEVEMENTS OF KVAFSU, BIDAR

FISHERIES SCIENCES

1. Successfully developed 'AMUR' variety of carp at Fisheries Research and Information Center, Hebbal, Bengaluru through rigorous research. That has a fast growth rate (grows to nearly a kilo in 6 months), has high meat yield and consumer preference. The Technology has been successfully transferred to the State Department of Fisheries and Central Institutes. Millions of Amur fish seed are being distributed throughout the country and the demand for it is on the increase. 'AMUR' - the most preferred fish of farmer and the Pride of KVAFSU, Bidar.
2. A farmer level diagnostic kit for the detection of white spot viral disease in shrimp using monoclonal antibodies developed and commercialized. This technology was sold to Virbac Pvt. Ltd., Mumbai for Rs. 10.00 lakhs.
3. Brood fish development and propagation techniques of indigenous ornamental fishes developed and ready for commercialization.
4. Propagation techniques of ornamental aquatic plants developed and ready for commercialization.
5. Captive brood stock development, induced breeding and larval rearing method have been perfected for olive barb, *Puntius sarana sarana*. Ready for commercialization.
6. A method for captive brood stock development, induced breeding and larval rearing of the Cauvery carp (The State fish of Karnataka), *Puntius carnaticus* developed and ready for commercialization.
7. A method for captive brood stock development, induced breeding and larval rearing of butter catfish, *Ompok bimaculatus*. Ready for commercialization.
8. Kit for Multiplex PCR for shrimp DNA viruses developed. Ready for commercialization.
9. Kit for Reverse Transcriptase Polymerase Chain Reaction (RT-PCR) for the detection of White Muscle Disease (WMD) developed. Ready for commercialization.
10. Recombinant protein vaccine for *Aeromonas hydrophila* infection of fish developed. Ready for commercialization.
11. Recombinant protein vaccine for Edwardsiellosis of fish has been successfully developed. Ready for commercialization.
12. Kit for Rapid detection of *Aeromonas hydrophila* by PCR and dot blot developed. Ready for commercialization.

13. Production of gelatin from fish processing waste developed. Ready for commercialization.
14. Preparation of bioactive peptides from low economic value fish by application of proteolysis technology developed. Ready for commercialization.
15. Ready to eat fish mince-cereal based extruded products developed. Ready for commercialization.
16. Improving the textural properties of fish gelled products by use of endogenous transglutaminase developed. Ready for commercialization.
17. Drying of fish using solar-biomass hybrid dryer successfully designed and demonstrated at the college under EU project. The technology has been transferred to KFDC, Mangaluru.
18. A unique environment-friendly, easy to operate Fish Vending Table designed and fabricated at the College of Fisheries, Mangaluru for sale of fresh fish. Applied for Patent which is under review.
19. Value added products from low economic value fish developed. Ready for commercialization.
20. Development of low cost feed for improved growth rate and better immunity in fish has been achieved and is ready for commercialization.
21. Method to create mass awareness among coastal fisher folk on the need to follow FAO's Code of Conduct for Responsible Fisheries has been demonstrated at 12 major fish landing centers of Karnataka.
22. Bio-film oral vaccine model for fish and shelfish has been developed. The technology is ready for release.
23. Successfully introduced e-learning module for Fisheries Degree Programme at undergraduate and post-graduate levels as per the ICAR syllabus.

PRE & PARACLINICAL VETERINARY SCIENCES

24. Developed Biofilm based vaccine (DBT Project) against Mastitis in bovines.
25. Developed diagnostic tools (DBT Project) for detecting Mycoplasma Infections in poultry
26. Developed DNA based rapid confirmatory tests (ICAR) for detecting Mastitis causing predominant species of bacteria in milk, Infectious Bovine Rhinotracheitis virus in bovines and Bovine Leptospirosis.

27. Patents obtained for detection of Bovine Herpes virus-1; Biofilm based vaccine against Mastitis in bovines; novel bio-film based vaccine for bacterial diseases in poultry.
28. Plastination – a novel technique for preservation of biological specimens has been developed at Veterinary College, Bengaluru for teaching and museum purpose. This technique is unique and environment-friendly in as much as it involves recycling of plastic waste and avoids the use of formalin /absolute alcohol.
29. Flash based innovative technique as an aid in teaching Veterinary Anatomy.
30. Biological specimen samples like skins, nails, horns, tusks and bones etc. submitted by the police and forest officials are screened for identification of species by morphological, histological and FTIR.
31. Recognition as Centre of Excellence in Veterinary Pathology at Veterinary College, Bengaluru.
32. FIST programmes to para clinical and pre clinical departments at Veterinary College, Bengaluru.
33. Setting up Laboratory of International standard for diagnosis of Rabies with collaboration of Crucel (Netherlands) and Commonwealth Veterinary Association in Veterinary College, Bengaluru.
34. Biological control of ticks and hornflies with entomopathogenic nematodes and fungi respectively.
35. Smart class boards, e-learning and improvised audio-visual methods and digital library introduced for teaching efficiency.

ANIMALAND POULTRYSCIENCES

36. The Animal Science Division of the KVAFSU has been striving towards optimizing the health and productive efficiency of livestock. Research activities focused on increased productivity associated with defined quality of product and economical strategies of feeding management.
37. The research contributions have been propogated routinely in the form of conducting training programmes, radio or television telecasts, publication of folders, booklets, popular articles etc. In addition, conducting exhibitions, krishimelas, demonstrations in the model livestock farms and fodder museums have directly benefitted the farmers or other stakeholders involved in livestock production. Capacity building programmes conducted so far on scientific practices have benefitted more than 3000 farmers and 800 veterinary officers of Karnataka state.

38. In the field of Animal nutrition, feeding standards have been validated for Indian dairy cattle and accordingly, scientifically balanced, economical feed formulations evolved. Computerized Feeding programmes have been developed (in CD format) for feeding dairy cattle and sheep, for usage by field veterinarians, learned farmers and feed industries.
39. Feeding strategies developed for dairy cattle with concept of green-fodder free and protein supplement free feeding have been proved economical for raising dairy cows. High energy cattle feed mixtures formulations and specialized feeding management systems have been developed to maximize milk yield and, to produce milk with high protein and SNF content.
40. A postharvest technology has been developed, wherein, after harvesting the cultivated maize or sorghum grains, the fodder residue has been converted into good quality silage. This has helped the farmers to save huge quantities of fodder available, which would otherwise go waste by burning in the field. On farm trials of feeding the maize or sorghum silage using this technology have been demonstrated and shown to increase the milk yield and milk quality in lactating dairy cows.
41. For feeding during scarcity and drought situations, as a potential source of fodder, spineless cactus (*Opuntia ficus indica*) has been developed and evaluated. Cactus cultivation is being propagated as the best way of low cost fodder production, with its high biomass yield, palatability and, its suitability for hardy soil and extreme weather conditions. Spineless cactus is a good source of water and energy for livestock and, in combination with Moringa fodder (a legume), cactus could make up a completely balanced diet for ruminant feeding.
42. Cattle breeding policy guidelines in Karnataka have been developed and recommended to the Karnataka government, department of Animal Husbandry and Veterinary Services. Identification, survey and improvement of indigenous breeds like Malnad Gidda, Amrit Mahal and Deoni cattle are underway. Advanced research facility is available in genetics and breeding with the established Molecular Biogenetic Laboratory at Bengaluru campus.
43. In small ruminant production, stall feeding management system of sheep has been developed with feeding of only chopped straw and cereal grains with non-protein nitrogen supplements. This has provided optimum growth performance and increased economic returns to the shepherd.
44. In poultry sector, the university introduced long ago, Giriraja, (meat type) chicken, for backyard rearing, with the concept of supplementing to the nutrition and income of the farmer. Latest contribution to this backyard rearing is the development of Channadhara, a coloured plumage chicken (egg type) which produces 180 to 200

- eggs per year. Recently, Raja-2, a coloured broiler chicken has been evolved intended for commercial production which can help boost the economy of farmers.
45. Bannur Sheep Rearers Association has been formed to facilitate better coordination of management and marketing of Bannur sheep. National Bureau of Animal genetics Resources, Government of India has recognized this and awarded the best prize in appreciation of the group.
 46. In order to popularize safe meat production Butcher's training programmes have been organized wherein more than 1100 butchers have been imparted with procedures of hygienic slaughter and clean procedures of retailing. University is offering consultancy for establishing small, medium and large poultry processing units. Awareness is being created about the antibiotic and pesticide residues in chicken meat and its effect on the health hazards and, minimizing the levels of these in enhancing the market demand for export is being highlighted. Organized programmes on the slaughter waste management for animal food traders, Environmental officers, Engineers and Municipal administrators.
 47. University has documented the impact of livestock activities on the environment in Karnataka in a report "State of environment report Karnataka 2011" published by Environmental Management Policy Research Institute, Government of Karnataka.
 48. Institutional Livestock Farming Complex has established model dairy, sheep, pig and poultry farm for teaching and demonstration of modern livestock and poultry farming systems. Besides, a fodder museum has been established displaying more than 25 varieties of commonly cultivable fodder plants and trees used in ruminant production.
 49. In Northern Karnataka region, in more than 30 villages under Basavakalyan, Aurad, Humnabad and Balkitalukas of Bidar district, livestock based livelihood support activities have been implemented with significant changes in the socioeconomic development of the farmers. Increased productivity and profits have been realized by introducing and strengthening scientific breeding, feeding management and health care delivery system in crossbred dairy cattle and goat rearing. Upgradation of local Deoni cattle breeds and introducing Osmanabadi breed of goats have helped improving the productivity.
 50. Pashubandha, an online monthly Technical bulletin brought out by the university to provide latest information in veterinary research and update the field veterinarians and practitioners about the treatment and skills in scientific management of livestock.

CLINICAL SCIENCE

Department of VSR Veterinary College, Bidar has developed following surgical techniques in animals

51. General Anaesthesia using isoflurane anaesthetic agent for large cattle and buffaloes is developed.
52. Dynamic compression plating (DCP) and Intramedullary Interlocking Nailing (IILN) were introduced for the first time in Karnataka for repair of long bone fractures in Dogs.
53. Surgical suturing technique for the repair of choke in buffalo and cattle is developed.
54. Standing medial patellar desmotomy technique for the treatment of upward fixation of patella under field conditions is developed.
55. Modified technique for the treatment of horn cancer and horn fracture in bovines is developed.
56. New surgical techniques for balanoposthitis, paraphimosis in bulls, bullocks, rams and buck also introduced fibre glass technique on large scale for fracture repair, in heavy bullocks, sheep and goats and low cost nylon bone plating and poly methyl metha-acrylate (PMMA) plates for fracture repair in dogs and goats are evolved.
57. Orbital Cellulitis – An emerging disease in buffalo calves is reported for the first time in India.

Department of VSR Veterinary College, Bengaluru has developed following surgical techniques in animals

58. External Skeletal fixation technique for the repair of long bone and spinal fractures is developed.
59. Application of stem cells in fracture healing in animals developed.
60. Phaco-emulsification for removal of cataract lens in animals is developed.
61. Standardization of Isoflurane anaesthesia in normal and Sick Dogs is done.
62. General anaesthesia isoflurane in ruminants is standardized.
63. Laparoscopic Ovariohysterectomy, Vasectomy, cryptorchidectomy and inguinal hernia repair are developed.
64. Intraocular lens transplantation after cataract surgery is developed in animals.
65. Arthroscopic technique for diagnosis and treatment of joint disorders in animals
66. Spinal surgery for stabilization of vertebral fractures in animals is developed.

67. Arthrography, Excretory urethrography and osteomedulography techniques are standardized.

Department of VGO, Veterinary College, Bengaluru and Bidar have developed following reproductive techniques in animals

68. Characterization of endometrial thickness as an indice of fertility in bovines was investigated and the results suggested that the technique could be employed as a fertility index of dairy cattle.
69. As endometritis is a significant cause of infertility in dairy cattle, extensive studies have been carried out towards the diagnosis and treatment of the same. It was observed that Trans rectal Ultrasonography diagnosed endometritis at an earlier stage and its efficacy was significantly superior to other techniques. Further, many of the non antibiotic agents such as LPS and Oyster glycogen were found to be superior for treatment as compared to conventional antibiotic therapy.
70. The technique of semen collection and AI in ewes is standardized.
71. The ultrasound characteristics of ovine fetus at different stages of gestation were established.
72. The pharmacological termination of pregnancy in dogs was standardized and the protocol developed is now being extensively used by Veterinary practitioners.
73. Key-hole surgical techniques for spaying in cats and dogs was developed.
74. The Department of Veterinary Gynaecology & Obstetrics, Veterinary College, Bidar started Semen Collection Centre in Deoni bulls, NARI Suvarna rams and Boer bucks and chilled semen is available for insemination of cows, sheep and goats.

Institute of Animal Health and Veterinary Biologicals, Bengaluru

75. Contributed to eradication of Rinderpest disease by producing and supplying vaccine on large scale.
76. The detailed studies on *Parthenium hysterophorus* a weed associated with human allergy, were undertaken to identify the allergen using animal model in collaboration with Indian Institute of Science.
77. Established the Seroprevalence of Trypanosomiasis in cattle and wild felines in Karnataka.
78. Developed molecular methods for the confirmatory diagnosis of Bluetongue and studied the Epidemiology of Blue tongue disease in sheep with molecular characterization of bluetongue virus isolate (sponsored by Karnataka Sheep and Sheep Products Development Board).

79. First to produce tissue culture Rabies vaccine for animal use.
80. Developed bivalent vaccine for Bluetongue for the first time in India for control of Bluetongue. One virus isolate (BTV-16) has been incorporated in pentavalent vaccine developed by ICAR.
81. First to develop tissue culture adapted classical swine fever vaccine in India.
82. First to identify the Malignant Catarrhal Fever (MCF) in Karnataka using molecular diagnostic methods.
83. Produced the Peste des Petits Ruminants (PPR) vaccine on large scale and contributed in effective control of the disease and thereby preventing economic loss to farmers.
84. Microbial fermentation technique was established in GMP standard labs to scale up the vaccine production and contributed to 100% vaccination of livestock against important diseases.
85. Identified many Wildlife diseases like Rabies in elephants and leopard, Haemorrhagic Septicaemia and Anthrax in Bison and Elephants, RP in Bisons, Theileriasis and Babesiosis in Bisons, Trypanosomiasis in captive and wild felines.
86. Developed Duck Cholera vaccine and contributed to control the disease in ducks and turkeys.
87. Southern Regional Disease Diagnostic lab has been established to give referral diagnostic services to southern states.
88. Rapid plate Mycoplasma diagnostic antigen has been developed and being used for diagnosis of the disease.
89. Institute is providing diagnostic services at farmers door steps and vaccine distribution through the network of 13 Animal Disease Diagnostic Laboratory and Information Centers of KVAFSU.

DAIRY SCIENCE

90. The college has developed numerous technologies in the area of indigenous dairy products like paneer, Khoa, gulab jamoon etc and in the production of functional foods in meeting nutritional deficiencies.
91. Geriatric and weaning foods are developed.
92. Studies are under way to modify the processing of milk and milk products in order to improve the keeping quality and reduce the energy use.
93. Several National level seminars have been organized by the College on Green technologies and BSSAI.

94. Training programmes are being imparted on regular basis to house wives, personnel of dairies on quality testing and quality assurance.
95. Good learning is encouraged by good infrastructure and good ambience. In our college constant endeavor is made to improve infrastructure facilities, ambience and quality of education. Wi-Fi Internet, digital library and competent teaching faculty is the main focus of the College in this endeavor.
96. The laboratories of Dairy Science College carry out test on milk and milk products to access the microbial and chemical qualities.
97. The college gives consultancy on dairy products, quality testing and installation of equipment of the dairies of KMF and also private dairies.
98. Significant achievements on clean milk production has been achieved by Department Dairy Microbiology, Chemistry and Technology by preparing a video for spreading the message of clean milk production among the dairy farmers for the purpose of extension.
99. During 2008-09 a new Dairy Science College was started at Mahagaon to impart training in Dairy Technology, with an intake of 30 students per batch.
100. Started two MBA (FOOD BUSINESS) programmes on a self-financing mode in 2009 which is one of its kind in the country and the only MBA program from a Veterinary University in the country. Around 70 students are graduated and are very well placed.

OTHER ACHIEVEMENTS

1. Demonstrated the anti diabetic activity of plants *Momardica charantia*; *Trigonella foenum graceum* *Coccinia indica*; *Gymnema sylvestre* ; *Pterocarpus marsupium*; *Swertia chirayita* in the experimental study conducted in rats and also in cow urine.
2. Validation of several chemotherapeutic agents, biologicals and agents for treatment and diagnosis.
3. Successfully executed field based research work to demonstrate anthelmintic resistance in sheep and cattle, coccidiostats in poultry and acaricidal agents for ticks.
4. Hormone based research to understand infertility in large animals.
5. Focused human resource development activity for capacity building of teachers/scientists by way of training programmes and continuing education.
6. Strengthening post graduate programme through Masters and doctoral degree programme in 7 out of 8 departments.

7. Disease diagnostic services are extended on regular basis for the farmers, veterinarians and medical institutions.
8. The College has adopted a village Somathanahalli in Bengaluru Rural district for development of dairy and livelihoods. A bench mark study on the status of dairy and other livestock products along with livelihood has been prepared. Alternative interventions are being examined to meet the objectives of the program.
9. College has an active SC/ST and women cell which pro actively addresses the problems faced by these vulnerable groups. So far our college has not been faced any problem with regard to this.
10. Final year B.Tech (D.Tech) students undergo vigorous Hands on training to mould them to take up work related to dairy and food industry. In addition, 10 days of Rural Dairy Work Experience Programme (RDWEP) is included as a part of curriculum to encourage clean and pure milk production from dairy farmers which serves as sole means for preparation of best quality final milk products.
11. The students of B.Tech (D. Tech) have high degree of competence and are preferred for employment in overseas Dairy such as Almarai the largest integrated dairy in middle east. Feed back about their performance is very encouraging.
12. Successful adoption of Haniyur and Yeliyuru village (North Bengaluru) providing input to farmers with comprehensive knowhow, subsidies, treatment coverage etc. to benefit and improve the livestock wealth and economy of livestock rearers in these villages.
13. A motorized hoist - sick animal lifter and ambulance vehicle - Dhanvantri is introduced to lift the sick animals from farmer door step to the multi specialty Veterinary Hospitals of Bidar, Bengaluru and Shivamogga under the financial support through Rastriya Krishi Vikas Yojana.
14. Preliminary studies indicated that treatment of infertile cows with hCG, oxytocin or 10 % dextrose intrauterine significantly improved the conception rate.
15. Studies also indicated that caesarean section carried out through a ventral oblique flank incision was easier, rapid and with less post operative complications than paramedian or left flank approach.
16. Delayed ovulation was diagnosed to be the most common cause of repeat breeding and was best treated using ovosynch protocol.
17. The reproductive parameters in NAARI SUVARNA ewes which were so far not available were generated

18. Information was also generated regarding the reproductive efficiency parameters in Osmanabadi goats.
19. The protocol for medical treatment of pyometra has been established.
20. All the four Veterinary College hospitals have been equipped with state of art facility with modern diagnostic equipments such as ultra Sound Scanner (including rectal probe), ECG, endoscopy, C-arm, phacoemulsifier, hematology and biochemical auto analysers, urinary analysers and fluorescent microscope, etc. Hospitals have animal ambulance cum fleet, motorized hoist, hydraulic operation table, large animal anaesthesia machine, fork lift truck, etc.
21. RKVY projects in clinical departments and Niche area of excellence projects in para clinical and clinical departments to provide state of art facilities for diagnosis and treatment.
22. The Department of VSR, Veterinary College, Bidar established large animal operation theatre with state of art facility. Large numbers of suffering animals are brought by farmers from near by villages are being treated regularly.
23. In Veterinary College, Bidar, under the financial assistance of Rs. 98.00 Lakhs from Indian Council of Agricultural Research, New Delhi, CRITICALCARE UNIT was established at City Hospital (TVCC), APMC, Yard, Bidar to cater the needs of emergency and critical veterinary patients.
24. Establishment of teaching animal herd at Dept. of VGO, Veterinary College, Bengaluru.
25. Development of NAARI SUVARNA sheep flock at Dept. of VGO, Veterinary College, Bengaluru.

II. EDUCATION

1) Teaching Institutions

#	<i>Teaching Institute with Location</i>	<i>Year of Establishment</i>	<i>Name of the Dean / Director / Principal</i>	<i>Degree Programmes Offered</i>
1	Veterinary College, Bengaluru	1958	Dr. S. Yathiraj	B.V.Sc.&A.H. M.V.Sc. Ph.D.
2	Veterinary College, Bidar	1984	Dr. S. M. Usturge	B.V.Sc.&A.H. M.V.Sc. Ph.D.
3	Veterinary College, Shivamogga	2006	Dr. R.V. Prasad	B.V.Sc.&A.H.
4	Veterinary College, Hassan	2007	Dr. M.S. Vasantha	B.V.Sc.&A.H.
5	Dairy Science College, Bengaluru	1980	Dr. Narasimha Murthy	B.Tech. (D.Tech) M.Tech. (Dairy Science) Ph.D. (Dairy Science) MBA (Food & Dairy Business)
6	Dairy Science College, Kalburgi	2008	Dr. D.B. Puranik	B.Tech. (D.Tech)
7	College of Fisheries, Mangaluru	1969	Dr. K. M. Shankar	B.F.Sc. M.F.Sc. Ph.D.
8	Institute of Wildlife and Veterinary Research, Kodagu	2007	Dr. H.A. Upendra	M.V.Sc. (Wildlife)
9	Animal Husbandry Polytechnic, Konehally, Tiptur	2011	Dr. Shivakumar, R.	Animal Husbandry Diploma
10	Animal Husbandry Polytechnic, Shiggaon, Haveri	2012	Dr. Shivakumar, K. Radder	Animal Husbandry Diploma

2) No. of Students admitted/on roll to Undergraduate degree programme

Sl. No.	Degree Programme	Year					No. Passed out	College / Institute
		I	II	III	IV	V		
1	B.V.Sc.&A.H.	46	58	85	52	73	88	Veterinary College, Bengaluru
2	B.V.Sc.&A.H.	43	54	56	41	52	62	Veterinary College, Bidar
3	B.V.Sc.&A.H.	34	52	46	47	47	40	Veterinary College, Shivamogga
4	B.V.Sc.&A.H.	38	50	46	50	40	39	Veterinary College, Hassan
5	B.Tech. (D.Tech)	37	37	37	44	NA	32	Dairy Science College, Bengaluru
6	B.Tech. (D.Tech)	22	20	21	14	NA	15	Dairy Science College, Kalburgi
7	B.F.Sc.	32	33	44	41	NA	41	College of Fisheries, Mangaluru
8	Animal Husbandry Diploma	50	49	NA	NA	NA	48	Animal Husbandry Polytechnic, Konehally, Tiptur
9	Animal Husbandry Diploma	47	47	NA	NA	NA	45	Animal Husbandry Polytechnic, Shiggaon Haveri

*NA:- Not Applicable

3) No. of Students admitted to Postgraduate degree and Ph.D. programmes

#	Department	Masters Degree			Ph.D.			
		On roll		Completed	On roll			Completed
		I	II	2014-15	I	II	III	2014-15
VETERINARY COLLEGE, BENGALURU								
1	Veterinary Anatomy & Histology	3	4	3	1	-	2	2
2	Vety. & Animal Husbandry Extension Education	3	3	3	-	-	-	-
3	Veterinary Physiology	2	3	4	1	-	1	-
4	Veterinary Biochemistry	1	2	3	-	1	-	-
5	Veterinary Microbiology	3	4	2	2	2	2	6
6	Veterinary Parasitology	3	2	3	1	1	-	-
7	Veterinary Pathology	4	3	2	2	3	3	3
8	Veterinary Pharmacology & Toxicology	3	5	-	1	-	2	-
9	Veterinary Public Health	-	-	-	-	-	-	-
10	Veterinary Gynaecology & Obstetrics	7	6	5	2	1	5	1
11	Veterinary Medicine	4	4	-	2	2	4	2
12	Veterinary Surgery & Radiology	3	6	5	1	1	1	1
13	Animal Genetics & Breeding	4	2	4	1	1	3	3
14	Animal Nutrition	2	2	3	1	-	1	2
15	Livestock Production and Management	3	2	1	-	1	2	2
16	Livestock Products and Technology	1	2	1	-	-	-	-
17	Poultry Science	4	3	2	2	2	2	-
18	Wild Life	5	3	5	-	-	-	-
Total (A)		55	56	46	17	15	28	22

VETERINARY COLLEGE, BIDAR								
1	Animal Genetics and Breeding	03	02	02	-	-	-	-
2	Animal Nutrition	-	02	-	01	-	01	-
3	Veterinary Anatomy & Histology	02	01	01	-	-	-	-
4	Animal Reproduction Gynaecology & Obstetrics	02	05	-	-	-	-	-
5	Veterinary Medicine	04	05	01	-	-	-	-
6	Veterinary Physiology & Biochemistry	02	02	03	-	-	-	-
7	Veterinary Surgery & Radiology	04	04	02	01	-	-	-
8	Veterinary Microbiology	02	01	-	-	-	-	-
Total (B)		19	22	09	02	- Nil-	01	-Nil-
DAIRY SCIENCE COLLEGE, BENGALURU								
1	Dairy Technology	7	6	4	1	1	2	2
2	Dairy Chemistry	4	3	3	-	-	1	-
3	Dairy Microbiology	2	1	1	-	1	-	-
4	MBA (Food & Dairy Business)	7	-	-	Nil	Nil	Nil	Nil
Total (C)		20	10	08	01	02	03	02
COLLEGE OF FISHERIES, MANGALURU								
1	Aquaculture	6	8	2	-	-	2	6
2	Fisheries Microbiology	4	2	3	1	1	1	2
3	Fisheries Resources and Management	7	6	4	2	2	1	-
4	Aquatic Environment Management	1	3	1	-	1	5	-
5	Fish Processing Technology	1	3	4	-	2	-	2
6	Fisheries Engineering Technology	-	-	1	-	-	-	-
Total (D)		19	22	15	3	6	9	10
Grand Total		113	110	78	23	23	41	34

4) Academic Excellence

(i) Scholarships / Fellowships received

UNDERGRADUATE

ANIMAL AND VETERINARY SCIENCES

#	Scholarship	Year					Total
		I	II	III	IV	V	
General Scholarship							
1	Veterinary College, Bengaluru	3	4	4	5	6	22
2	Veterinary College, Bidar	5	5	5	-	8	23
3	Veterinary College, Shivamogga	4	6	5	5	5	25
4	Veterinary College, Hassan	4	6	6	6	4	26
Merit Scholarship							
1	Veterinary College, Bengaluru	2	2	2	2	2	10
2	Veterinary College, Bidar	2	2	2	2	2	10
3	Veterinary College, Shivamogga	2	2	2	2	2	10
4	Veterinary College, Hassan	2	2	2	2	2	10
National Talent Scholarship							
1	Veterinary College, Bengaluru	-	-	-	-	-	-
2	Veterinary College, Bidar	-	1	4	2	2	9
3	Veterinary College, Shivamogga	-	-	-	-	-	-
4	Veterinary College, Hassan	-	-	-	-	-	-
Fee Concession							
1	Veterinary College, Bengaluru	2	2	1	2	1	8
2	Veterinary College, Bidar	-	-	-	-	-	-
3	Veterinary College, Shivamogga	-	11	3	3	8	25
4	Veterinary College, Hassan	-	-	-	-	-	-
B.C.M.							
1	Veterinary College, Bengaluru	-	-	-	-	-	-
2	Veterinary College, Bidar	-	-	-	-	-	-
3	Veterinary College, Shivamogga	-	-	-	-	-	-
4	Veterinary College, Hassan	13	19	25	23	12	92
IAT Scholarship							
1	Veterinary College, Bengaluru	-	-	-	-	-	-
2	Veterinary College, Bidar	-	-	-	-	-	-

#	Scholarship	Year					Total
		I	II	III	IV	V	
3	Veterinary College, Shivamogga	-	-	-	-	-	-
4	Veterinary College, Hassan	1	-	-	-	-	1
Defense Scholarship							
1	Veterinary College, Bengaluru	-	-	-	-	-	-
2	Veterinary College, Bidar	-	-	-	-	-	-
3	Veterinary College, Shivamogga	-	-	-	-	-	-
4	Veterinary College, Hassan	1	-	-	-	-	1
Govt. of India Scholarship							
1	Veterinary College, Bengaluru	-	-	-	-	-	-
2	Veterinary College, Bidar	-	-	-	-	-	-
3	Veterinary College, Shivamogga	-	-	-	-	-	-
4	Veterinary College, Hassan	7	4	8	6	3	28
Sitaram Jindal Foundation Scholarship							
1	Veterinary College, Bengaluru	-	-	-	-	-	-
2	Veterinary College, Bidar	-	-	-	-	-	-
3	Veterinary College, Shivamogga	-	1	3	3	-	7
4	Veterinary College, Hassan	1	-	-	8	6	15
M.H.R.D. Scholarship							
1	Veterinary College, Bengaluru	-	-	-	-	-	-
2	Veterinary College, Bidar	-	-	-	-	-	-
3	Veterinary College, Shivamogga	-	-	-	-	-	-
4	Veterinary College, Hassan	-	-	12	10	4	26
Minority Welfare Scholarship							
1	Veterinary College, Bengaluru	-	-	-	-	-	-
2	Veterinary College, Bidar	-	-	-	-	-	-
3	Veterinary College, Shivamogga	1	-	-	-	-	1
4	Veterinary College, Hassan	-	-	-	-	-	-
Handicaps Scholarship							
1	Veterinary College, Bengaluru	-	-	-	-	-	-
2	Veterinary College, Bidar	-	-	-	-	-	-
3	Veterinary College, Shivamogga	2	-	1	-	-	3
4	Veterinary College, Hassan	1	1	1	2	-	5

#	Scholarship	Year					Total
		I	II	III	IV	V	
SC/ST Scholarship							
1	Veterinary College, Bengaluru	-	-	-	-	-	-
2	Veterinary College, Bidar	-	-	-	-	-	-
3	Veterinary College, Shivamogga	4	-	3	4	2	13
4	Veterinary College, Hassan	-	-	-	-	-	-
Total		57	68	89	87	69	370

DAIRY SCIENCE

#	Scholarship	Year				Total
		I	II	III	IV	
General Scholarship						
1	Dairy Science College, Bengaluru	5	5	5	4	19
2	Dairy Science College, Kalburgi	-	-	-	-	-
Merit Scholarship						
1	Dairy Science College, Bengaluru	2	2	2	2	8
2	Dairy Science College, Kalburgi	2	2	2	1	7
Govt. of India Scholarship						
1	Dairy Science College, Bengaluru	-	-	-	-	-
2	Dairy Science College, Kalburgi	8	4	5	5	22
Fee Concession						
OBC						
1	Dairy Science College, Bengaluru	-	-	-	-	-
2	Dairy Science College, Kalburgi	9	11	6	8	34
Total		26	24	20	20	90

FISHERY SCIENCE (COLLEGE OF FISHERIES, MANGALURU)

#	Scholarship / Fellowship	B.F.Sc.				Total
		I	II	III	IV	
1	General Scholarship	-	-	1	-	1
2	Merit Scholarship	2	2	2	2	8
3	ICAR - Hands On & Implant Training (RAWE)	-	-	-	39	39
4	ICAR - Merit - Cum- Means (MCM)	-	2	2	-	4

#	Scholarship / Fellowship	B.F.Sc.				Total
		I	II	III	IV	
5	National Talent Scholarship (NTS)	1	1	2	3	7
6	GOI Scholarship	7	3	6	4	20
7	BCM	-	4	-	-	4
8	M.H.R.D. Scholarship	-	-	1	-	1
Total		10	12	14	48	84

Abstract of Undergraduate Scholarship

#	Scholarship	VCH	VCB	VCS	HVC	DSCH	DSCK	FCM	Total
1	General Scholarship	22	23	25	26	19	00	01	116
2	Merit Scholarship	10	10	10	10	08	07	08	63
3	National Talent Scholarship	00	09	00	00	00	00	07	16
4	Fee Concession	08	00	25	00	00	34	00	67
5	B.C.M.	00	00	00	92	00	00	04	96
6	IAT Scholarship	00	00	00	01	00	00	00	01
7	Defense Scholarship	00	00	00	01	00	00	00	01
8	Govt. of India Scholarship	00	00	00	28	00	22	20	70
9	Sitaram Jindal Foundation Scholarship	00	00	07	15	00	00	00	22
10	ICAR-Merit-cum-Means Scholarship	00	00	00	00	00	00	04	04
11	M.H.R.D Scholarship	00	00	00	26	00	00	01	27
12	Minority Welfare Scholarship	00	00	01	00	00	00	00	01
13	Handicap Scholarship	00	00	03	05	00	00	00	08
14	SC/ST Scholarship	00	00	13	00	00	00	00	13
15	ICAR - Hands On & Implant Training (RAWE)	00	00	00	00	00	00	39	39
Total		40	42	84	204	27	63	84	544

POSTGRADUATE

ANIMAL AND VETERINARY SCIENCES

#	Scholarship	MVSc.		Ph.D			Total
		I	II	I	II	III	
General Scholarship							
1	Veterinary College, Bengaluru	-	-	-	-	-	-
2	Veterinary College, Bidar	03	-	-	-	-	03
Merit Scholarship							
1	Veterinary College, Bengaluru	15	9	0	2	1	27
2	Veterinary College, Bidar	08	04	-	-	-	12
Total		26	13	00	02	01	42

WILDLIFE

#	Scholarship	MVSc. (Wildlife).		Ph.D			Total
		I	II	I	II	III	
Veterinary College, Bengaluru							
1	ICAR-JRF	1	1	-NA-			2
Total		1	1				2

DAIRY SCIENCE

#	Scholarship	M.Tech.		Ph.D			Total
		I	II	I	II	III	
Dairy Science College, Bengaluru							
1	Merit Scholarship	3	3	-	-	1	7
Total		03	03	00	00	01	07

FISHERY SCIENCE

#	Scholarship / Fellowship	M.F.Sc.		Ph.D.			Total
		I	II	I	II	III	
1	Merit Scholarship	3	3	1	-	-	7
2	India Africa Fellowship	-	1	-	-	-	1
3	DST – Inspire Fellowship	-	-	1	-	1	2
4	GOI	2	-	1	-	-	3
5	BCM	-	3	-	-	-	3
Total		05	07	03	00	01	16

Abstract of Postgraduate Scholarship

#	Scholarship	VCH		VCB		DSCH		FCM		IITP	Total
		MVSc	Ph.D	MVSc	Ph.D	M.Tech	Ph.D	MVSc	Ph.D		
1	General Scholarship	00	00	03	00	00	00	00	00	00	00
2	Merit Scholarship	24	03	12	00	06	01	06	01	00	34
3	ICAR-JRF	00	00	00	00	00	00	00	00	02	02
4	India-Africa Fellowship	00	00	00	00	00	00	01	00	00	01
5	DST – Inspire Fellowship	00	00	00	00	00	00	00	02	00	02
6	GOI	00	00	00	00	00	00	02	01	00	03
7	BCM	00	00	00	00	00	00	03	00	00	03
Total		24	03	15	00	06	01	12	04	02	47

(ii) UG Gold Medals Awarded.

Sl. No	ID. No.	Name	Medals/Awards	OGPA
VETERINARY COLLEGE, BENGALURU				
1	VHK-848	Correia Salisna Whitney	University Gold Medal	8.69
			Dr. D.N.Vasudeva Mudaliar-(Clinical Subject)	8.63
			Dr. R.F.Patil Memorial (Vet.-Micro)	8.82
			Dr. R.D.Nanjiah Memorial (Vet.Anat, Micro & Pub.Hel)	8.65
			Dr. R.D.Nanjiah Memorial (O)	8.65
			Smt & Sri. M.M.Wadayar-(Animal Sci.)	8.69
			Dr. B.L.Pradeep Memorial-(Vet.Clinical)	8.79
			Sri. T.K.Gurusiddeppa Memorial Gold Medal (O)	8.92
			Dr. Syed Mohiddeen Memorial (Pathology)	8.69
			The Lions International District 304-S-(O)	8.69
			Sri. R. Gundu Rao-F.M.Khan Gold Medal-(O)	8.69
			Dr. K.Y. Jaganath Gold Medal-(Clinical Subjects)	8.69
			Karnataka Veterinary Association Gold Medal(O)	8.63
			Smt. B. Hosahalli Gullamma Gold Medal (O)	8.69
Dr. Chandrashekar Rao Gold Medal (Excelling Sports)	8.69			
2	VHK-828	Correia Salisna Whitney	Dr. R.D.Nanjiah Memorial (Vet.Anat, Micro & Pub.Hel.)	8.65

Sl. No	ID. No.	Name	Medals/Awards	OGPA
3	VHK 859	Shiva Kumar, E	Dr. B.L. Prasad Memorial (Gyn & Obst.)	8.80
			Dr. D.M. Konegowda Memorial Gold Medal (Clinical Vet Medicine Subject)	8.48
4	VHK-808	Avinash, B. Gowda	Prof. S.M. Jayadevappa Gold Medal (Veterinary Surgery & Radiology)	8.59
VETERINARY COLLEGE, BIDAR				
1	VBK-833	Prabha Karan	University Gold Medal	8.37
			Dr. R.V. Paul Memorial Gold Medal (Overall)	8.37
2	VBK-829	Mukesh Urrinkala	Sri. K.R. Rao Memorial Gold Medal (Zoology)	7.58
3	VBK-857	Vivek Vitthal Mallapure	Prof. K. Jayarama Memorial Gold Medal (Highest OGPA Under Agriculturist Quota)	7.86
			State Bank of Hyderabad Gold Medal (Highest OGPA under Agriculturist Quota from among the graduates of Veterinary College, Bidar)	7.86
DAIRY SCIENCE COLLEGE, HEBBAL, BENGALURU				
1	DHK-909	Chithra, H.A.	University Gold Medal	8.92
			Impressions Dairico Batch of 1993-97 Gold Medal	8.92
			Silver Jubilee Gold Medal	8.92
			Smt. Kanthamma W/o Sri. Putta Murthy Gold Medal (in Dairy Technology)	9.04
2	DHK-912	Gagana, K.G	Dr. (Mrs) Krishnavenamma & Smt. Kaveamma Gold Medal (in Dairy Microbiology)	8.58

Sl. No	ID. No.	Name	Medals/Awards	OGPA
COLLEGE OF FISHERIES, MANGALURU				
1	FMK-916	Manu Kumar G.	University Gold Medal	8.69
			Mr. R.N.Ramachandra Memorial Gold Medal	8.69
			Dr. K.V.Devaraj Gold Medal	8.69

(iii) PG Gold Medals Awarded

(a) Masters Degree

Sl. No	ID. No.	Name	Department	Medals/Awards	OGPA
VETERINARY COLLEGE, BENGALURU					
1	MVHK-1126	Manjunatha K	Veterinary Anatomy & Histology	University Gold Medal	9.30
2	MVHK-1158	Ranjitha V H	Veterinary Physiology	University Gold Medal	9.15
3	MVHK-1152	Rekha C	Veterinary Pharmacology and Toxicology	University Gold Medal	9.03
4	MVHK-1142	Dwarakacherla Neeraja	Veterinary Microbiology	University Gold Medal Dr. R.Eswaran Memorial Gold Medal	9.06
5	MVHK-1146	Archana M	Veterinary Parasitology	University Gold Medal	9.35
6	MVHK-1149	Kaveri	Veterinary Pathology	University Gold Medal	9.15
7	MVHK-1164	Ravikumar S	Veterinary Surgery and Radiology	University Gold Medal Prof. S.M. Jayadevappa Gold Medal Prof. B.N. Ranganath Gold Medal	9.10

#	ID. No.	Name	Department	Medals/Awards	OGPA
8	MVHK-1129	Divya V	Veterinary Biochemistry	University Gold Medal	9.51
				Dr. Sivarama krishnier Ramachandran & Dr. Sakkubai Paturi Ramachandran Gold Medal	
9	MWKK-1171	K Nagaraj	Wildlife	University Gold Medal	9.06
10	MVHK-1102	Ayswarya R Venu	Animal Genetics and Breeding	University Gold Medal	9.23
11	MVHK-1116	Netravathi T	Poultry Science	University Gold Medal	9.23
				Dr. B. V. Rao, Venkateshwara Hatcheries Ltd., Gold Medal	
				Mr. H. Sanjeevappa Gold Medal	
12	MVHK-1108	Balaji K H	Livestock Production and Management	University Gold Medal	9.35
13	MVHK-1111	Bheemashankar Kannur	Livestock Products Technology	University Gold Medal	9.10
14	MVHK-1122	Anantrao Desai	Veterinary & animal Husbandry Extension	University Gold Medal	9.21
VETERINARY COLLEGE, BIDAR					
1	MVNK-1115	Jayashree Patil	Veterinary Medicine	University Gold Medal	9.19
				Smt. S.K Sowmya nayakamma Gold Medal	

#	ID. No.	Name	Department	Medals/Awards	OGPA
2	MVNK-1105	Daron Joseph	Veterinary Surgery & Radiology	University Gold Medal	9.34
				Prof. S. M Jayadevappa Gold Medal	9.34
DAIRY SCIENCE COLLEGE, HEBBAL, BENGALURU					
1	MBAK-909	Musaddiq Khan	M.B.A. (Food & Dairy Business)	University Gold Medal	9.13
COLLEGE OF FISHERIES, MANGALURU					
1	MFK-1102	Himanshu Sekhar Swain	Aquaculture	University Gold Medal	9.19
				Prof. H.P.C. Shetty Gold Medal	

(b) Doctoral Degree

#	ID. No.	Name	Department	Medals/Awards	OGPA
VETERINARY COLLEGE, BENGALURU					
1	DVHK-1011	Chandrashekhara N	Veterinary Microbiology	University Gold Medal	9.34
2	DVHK-1018	Indu Tripathi	Veterinary Pharmacology and Toxicology	University Gold Medal	9.27
3	DVHK-1004	Gopinath C R	Poultry Science	University Gold Medal	9.26
				Mr. John.L. Sebastian Gold Medal	
4	DVHK-1014	Krishnamoorthy P	Veterinary Pathology	University Gold Medal	9.30
5	DVHK-1010	Raj Kumar K	Veterinary Medicine	University Gold Medal	9.19
6	DVHK-1020	Ramesh Rathod	Veterinary Surgery and Radiology	University Gold Medal	9.01
7	DVHK-1002	Chandan Paswan	Animal Genetics and Breeding	University Gold Medal	9.37

5) Academic Research (Postgraduate Research)

Thesis accepted during the year 2014-15 for Masters and Doctoral Degree

i) Master's Degree:

<i>Sl. No.</i>	<i>Thesis Title</i>	<i>Name of the Student</i>	<i>Degree</i>	<i>Major Advisor and Dept.</i>
VETERINARY COLLEGE, BENGALURU				
1	Studies on congenital abnormalities of head, neck, thorax and forelimb of cattle in Karnataka	Sathish Kumar B.M.	M.V.Sc.	Dr. K.V. Jamuna Veterinary Anatomy & Histology
2	Studies on urinary components in Malnad Gidda, Jersey cross and Holstein Friesian cross bred cows	Ms. Veena M. V.	M.V.Sc.	Dr. M. Narayana Swamy Veterinary Physiology
3	Antihyperglycemic and antihyperlipidemic effects of aqueous extracts of <i>Coriandrum sativum</i> L. (Coriander) seeds in rats	Mr. Dhananjaya C.N.	M.V.Sc.	Dr. T. Veena Veterinary Physiology
4	Studies on antihyperglycemic and antihyperlipidemic effects of aqueous extracts of <i>Cinnamomum tamala</i> (Cinnamon) bark in rats	Ms. Veena V.	M.V.Sc.	Dr. T. Veena Veterinary Physiology
5	Studies on haematological and biochemical profile in Amrithmahal cattle	Kiran M.	M.V.Sc.	Dr. M. Narayanaswamy Veterinary Physiology
6	Toxicity study of fungal isolates from maize straws in rats	Ms. Rekha Yadav	M.V.Sc.	Dr. N.B. Shridhar Veterinary Pharmacology & Toxicology

<i>Sl. No.</i>	<i>Thesis Title</i>	<i>Name of the Student</i>	<i>Degree</i>	<i>Major Advisor and Dept.</i>
7	Pharmacological and toxicological study of <i>Embelia tsjerium</i> - cotton leaves in rats	Ms. Mathen Melba Sara	M.V.Sc.	Dr. N.B. shridhdar Veterinary Pharmacology & Toxicology
8	Comparative pharmacokinetic study of enrofloxacin and long acting enrofloxacin in rabbits and its safety studies in rats	Mr. Vijaykumar	M.V.Sc.	Dr. Jagadeesh S. Sanganal Veterinary Pharmacology & Toxicology
9	Comparative pharmacokinetic and safety study of enrofloxacin and long acting enrofloxacin in rats	Mr. Sushrut Kumar	M.V.Sc.	Dr. Jagadeesh S. Sanganal Veterinary Pharmacology & Toxicology
10	Analysis of multi-mycotoxins in cattle, poultry feed and feed ingredients using LC-MS/MS	Basavarajendra S. Biradar	M.V.Sc.	Dr. Jagadeesh S. Sanganal Veterinary Pharmacology & Toxicology
11	Pharmacological and toxicological study of <i>Tabernaemontana alternifolia</i> leaves in rats	Rohit Hegde	M.V.Sc.	Dr. N.B. shridhdar Veterinary Pharmacology & Toxicology
12	Comparison of various tests for the diagnosis of Brucellosis in Ruminants	Mr. Muttanagouda R. Biradar	M.V.Sc.	Dr. B. M. Veeregowda Veterinary Microbiology
13	Major microbiota of bubaline mastitis: a bacteriological and molecular genetic study	Ms. Preethi Rani P.L.	M.V.Sc.	Dr. Shrikrishna Isloor Veterinary Microbiology
14	Studies on status of antirabies vaccinal antibodies in dogs	Mr. Shyam Sundar K.A.	M.V.Sc.	Dr. Shrikrishna Isloor Veterinary Microbiology

<i>Sl. No.</i>	<i>Thesis Title</i>	<i>Name of the Student</i>	<i>Degree</i>	<i>Major Advisor and Dept.</i>
15	Studies on babesiosis in cattle in some endemic regions of Karnataka by parasitological and molecular methods	Mr. Vijayakumar K. U.	M.V.Sc.	Dr. G.C. Puttalakshamma Veterinary Parasitology
16	Studies on toxoplasmosis in cats with special reference to copro-PCR assay	Gautham N.	M.V.Sc.	Dr. Placid E. D'Souza Veterinary Parasitology
17	Biological control of common dog and cattle ticks with entomopathogenic nematodes	Zakir Hussain	M.V.Sc.	Dr. Placid E. D'Souza Veterinary Parasitology
18	Pathomorphological and bio-chemical evaluation of chromium in streptozotocin induced diabetes in rats	R. V. Gurika.	M.V.Sc.	Dr. Suguna Rao Veterinary Pathology
19	Studies on pathology and immunosuppressive effect of Ochratoxin in broiler chicken and its amelioration with diatomaceous earth	Anand V.P.	M.V.Sc.	Dr. H.D. Narayanaswamy Veterinary Pathology
20	Studies on the effects of prostaglandin F2 α oxytocin and gonadotropin releasing hormone on libido and semen characteristics of Holstein Friesian bulls	Mr. Amaregouda S.	M.V.Sc.	Dr. A. Krishnaaswamy Veterinary Gynaecology & Obstetrics
21	Studies on estrus synchronization and fertility in ewes	Mr. Yugandhar Manvi	M.V.Sc.	Dr. V.C. Murthy Veterinary Gynaecology & Obstetrics

<i>Sl. No.</i>	<i>Thesis Title</i>	<i>Name of the Student</i>	<i>Degree</i>	<i>Major Advisor and Dept.</i>
22	Studies on semen production potential of Amrithmahal bulls	Mallikarjun R. Iliger	M.V.Sc.	Dr. T.G. Honnappa Veterinary Gynaecology & Obstetrics
23	Studies on ultrasonographic characterization of endometrial thickness in oestrous cycle of cows	Mr. Sharanabasava Sajjan	M.V.Sc.	Dr. G. Sudha Veterinary Gynaecology & Obstetrics
24	A clinical study on induction of parturition in female dogs	Ms. Abhignya Krishna	M.V.Sc.	Dr. A. Krishnaswamy Veterinary Gynaecology & Obstetrics
25	Studies on the incidence of canine brucellosis in and around Bengaluru	Ms. Suja R.	M.V.Sc.	Dr. V.C. Murthy Veterinary Gynaecology & Obstetrics
26	Studies on semen production potential of Hallikar bulls	Premkumar R.	M.V.Sc.	Dr. T.G. Honnappa Veterinary Gynaecology & Obstetrics
27	Studies on transarticular wiring for repair of coxofemoral luxation in dogs	Ms. Smitha S.	M.V.Sc.	Dr. B.N. Nagaraja Veterinary Surgery & Radiology
28	Comparison of phacoemulsification with and without intra ocular lens implantation for management of cataract in dogs	Ms. Lalrinmawii Hmar	M.V.Sc.	Dr. L. Ranganath Veterinary Surgery & Radiology
29	Studies on general anaesthesia by using isoflurane in cattle	Hanumanth B. Sannakki	M.V.Sc.	Dr. L. Ranganath Veterinary Surgery & Radiology

<i>Sl. No.</i>	<i>Thesis Title</i>	<i>Name of the Student</i>	<i>Degree</i>	<i>Major Advisor and Dept.</i>
30	Comparison of corneal and limbal approach for phacoemulsification in dogs with cataract	Madan K.V.	M.V.Sc.	Dr. L. Ranganath Veterinary Surgery & Radiology
31	Studies on metabolic stress on ruminant reproductive performance	Mohamed Faraman F.	M.V.Sc.	Dr. V. Girish Kumar Veterinary Biochemistry
32	Metabolomic basis of repeat breeding in buffaloes	Madhusudhana J.R.	M.V.Sc.	Dr. V. Girish Kumar Veterinary Biochemistry
33	Certain studies on wound management in wild animals	Mr. Mutturaj B.	M.V.Sc.	Dr. H. A. Upendra Wildlife
34	Studies on pathology of certain diseases in wild animals	Mr. Basavarajappa K.M.	M.V.Sc.	Dr. H.D. Narayanaswamy Wildlife
35	Studies on xylazine – ketamine and medetonidine – ketamine anaesthesia in spotted deer (<i>Axis axis</i>)	Mr. Yashaswi Naravi	M.V.Sc.	Dr. M.S. Vasanth Wildlife
36	Studies on gastrointestinal parasites of captive and wild birds of Karnataka	Mr. Nandeesh C.	M.V.Sc.	Dr. M. Narayana Bhat Wildlife
37	Studies on anaesthetic effects of xylazine – ketamine combination with or without midazolam in lions (<i>Panthera leo</i>)	Mr. Kiran Kumar K.	M.V.Sc.	Dr. M.S. Vasanth Wildlife
38	Nutritional evaluation of <i>Azolla</i> (<i>Azolla pinnata</i>) and its supplementary effect on <i>in vitro</i> digestibility of crop residues and total mixed ration	Ms. Kavya K.	M.V.Sc.	Dr. T.M. Prabhu Animal Nutrition

<i>Sl. No.</i>	<i>Thesis Title</i>	<i>Name of the Student</i>	<i>Degree</i>	<i>Major Advisor and Dept.</i>
39	Nutritional evaluation of Urea treated maize (<i>Zea mays</i>) husk as a source of roughage in growing lambs	Venkatesh B. Sannabidari	M.V.Sc.	Dr. T.M. Prabhu Animal Nutrition
40	Effect of supplementation of L-Threonine on the performance of commercial broilers	Thahir Ahamed	M.V.Sc.	Dr. R. Gideon Glorigoss Animal Nutrition
41	Molecular genetic studies on Butyrophilin gene in Malnad Gidda cattle and its association with milk quality traits	Mr. Vishwanath B.	M.V.Sc.	Dr. C. S. Nagaraja Animal Genetics & Breeding
42	Study on association of growth hormone gene polymorphism with milk production in cattle	Punya J.	M.V.Sc.	Dr. C. S. Nagaraja Animal Genetics & Breeding
43	A study on genetic polymorphism of DAZL gene in sheep	Vageesh Pandith S.	M.V.Sc.	Dr. R. Nagaraja Animal Genetics & Breeding
44	Studies on genetic polymorphism of Alpha S1 casein gene in Nandidurga goats	Umesha Kavali	M.V.Sc.	Dr. M.R. Jayashankar Animal Genetics & Breeding
45	Study on Beta casein Polymorphism in Malnad Gidda and Crossbred cattle	Navyashree T.C.	M.V.Sc.	Dr. C. S. Nagaraja Animal Genetics & Breeding
46	Impact of rearing Giriraja chicken under backyard system in Kolar district	Ms. Latha M.	M.V.Sc.	Dr. T. Munegowda Poultry Science
47	Effect of different levels of crude protein on the performance of Red Cornish birds	Shankar V M	M.V.Sc.	Dr. K. Venkata Reddy Poultry Science

<i>Sl. No.</i>	<i>Thesis Title</i>	<i>Name of the Student</i>	<i>Degree</i>	<i>Major Advisor and Dept.</i>
48	Assessment of milk yield in Mandya ewes and its relation to body weight gain in lambs	Mr. Chandra Naik M.	M.V.Sc.	Dr. U. Krishna moorthy Livestock Production & Management
49	Studies on occurrence of foodborne <i>Salmonellae</i> in the market samples of poultry products	Mr. Rajashekhar D.B.	M.V.Sc.	Dr. Md. Nadeem Fairoze Livestock Products Technology
50	Marketing pattern of coloured broiler birds in Karnataka	Ms. Lavanya R.	M.V.Sc.	Dr. K. Satyanarayan Veterinary & A.H. Extension
51	An action oriented approach on intensive cultivation of <i>Sesbania Grandiflora</i> for sustainable dairy farming	Mrs. Pramila	M.V.Sc.	Dr. K. Satyanarayan Veterinary & A.H. Extension
52	Buffalo rearing pattern – an exploratory study in Bidar district	Ms. Vranda R.	M.V.Sc.	Dr. K. Satyanarayan Veterinary & A.H. Extension
VETERINARY COLLEGE, BIDAR				
1	Histomorphology of pancreas in Bidri goat and Deccani sheep	Mr. Mahesh	M.V.Sc.	Dr. K.M. Gadre Veterinary Anatomy & Histology
2	Comparative histological study of lung in Bidri goat (<i>Capra hircus</i>) and Deccani sheep (<i>Ovis aries</i>)	Ms. Ashwini S.	M.V.Sc.	Dr. Ashok Pawar Veterinary Anatomy & Histology
3	Evaluation of Reproductive Performance of Kenguri Ewes by Breeding with NARI Suwarna Frozen Semen	Mr. Hiralal S. Janagi	M.V.Sc.	Dr. M.K. Tandle Veterinary Gynaecology & Obstetrics

<i>Sl. No.</i>	<i>Thesis Title</i>	<i>Name of the Student</i>	<i>Degree</i>	<i>Major Advisor and Dept.</i>
4	Comparative evaluation of radiography and ultrasonography in canine abdominal disorders	Mr. Santosh Kunderagi	M.V.Sc.	Dr. D. Dilipkumar Veterinary Surgery & Radiology
5	Study on Horn cancer in Deoni cattle	Mr. Chandrashekhar Bulgouda	M.V.Sc.	Dr. B.V. Shivaprakash VSR
6	Study on dog bite wounds in goats and calves	Ms. Reshma Liza Cherian	M.V.Sc.	Dr. B.V. Shivaprakash VSR
7	Comparison of xylazine and dexmedetomidine as a preanaesthetic for ketamine anaesthesia for various surgeries in dogs	Mr. Shivanand Samsuddi	M.V.Sc.	Dr. S.M. Usturge, VSR
8	Study on cervical and thoracic oesophageal obstruction in bovines	Mr. Yallappa Athani	M.V.Sc.	Dr. B.V. Shivaprakash VSR
9	Comparative evaluation of induction combination midazolam – ketamine and glyceryl gauiacolate – acepromazine – ketamine under isoflurane anaesthesia in ruminants	Mr. Chandrashekhar Y. Bhjantri	M.V.Sc.	Dr. D. Dilipkumar VSR
10	Study on metabolic profile in pre and post parturient buffaloes	Mr. Mujeeb	M.V.Sc.	Dr. N. A. Patil Veterinary Medicine
11	Gastrosopic studies in canine gastritis with special reference to its diagnosis and therapeutic management	Ms. Keerti	M.V.Sc.	Dr. Vivek R. Kasaralikar Veterinary Medicine
12	Study on allergic mammitis in buffaloes and its therapeutic management	Mr. Samudra	M.V.Sc.	Dr. Vivek R. Kasaralikar Veterinary Medicine

<i>Sl. No.</i>	<i>Thesis Title</i>	<i>Name of the Student</i>	<i>Degree</i>	<i>Major Advisor and Dept.</i>
13	Therapeutic management of theileriosis in cattle	Mr. Vittal	M.V.Sc.	Dr. N. A. Patil Veterinary Medicine
14	Effect of monensin supplementation on dry matter intake, milk yield and milk composition in early lactating buffaloes	Mr. Prashant Bellundagi	M.V.Sc.	Dr. Shrikant Kulkarni Veterinary Physiology
15	Effect of monensin supplementation on blood and rumen metabolic profile in early lactating buffaloes	Mr. Prathviraj	M.V.Sc.	Dr. Shrikant Kulkarni Veterinary Physiology
16	Effect of amino acids as additives on the freezability of epididymal and ejaculated ram semen	Ms. Sharon Sangeeta	M.V.Sc.	Dr. Shrikant Kulkarni Veterinary Physiology
17	Effect of banana pseudostems (<i>Musa sapientum</i>) silage supplemented with urea and maize grain on the performance of Osmanabadi kids	Mr. Jayaprakash Ginni	M.V.Sc.	Dr. Ramachandra B. Animal Nutrition
18	Effect of feeding banana pseudostem (<i>Musa sapientum</i>) silage supplemented with slow release nitrogen compound (<i>SRNP</i>) on the performance of Osmanabadi kids	Ms. Anusha V.	M.V.Sc.	Dr. Ramachandra B. Animal Nutrition
19	Genetic divergence study among Kenguri, Mouli and Yalaga sheep breeds by random amplified polymorphic DNA	Ms. Divyashree H.B.	M.V.Sc.	Dr. M.M. Appannavar Animal Genetic & Breeding

<i>Sl. No.</i>	<i>Thesis Title</i>	<i>Name of the Student</i>	<i>Degree</i>	<i>Major Advisor and Dept.</i>
20	Morphological characterization of Mouli sheep	Mr. Shashikant M. Sindagi	M.V.Sc.	Dr. M.M. Appannavar Animal Genetic & Breeding
21	Analysis of calpastatin (CAST) gene polymorphism in Kenguri sheep	Mr. Rajashekhar Nagur	M.V.Sc.	Dr. M.M. Appannavar Animal Genetic & Breeding
DAIRY SCIENCE COLLEGE, BENGALURU				
1	Development of Guduchi – Promogranate-Whey Based Beverage	Mr. Shankarlingayya Sthavarmath	M.Tech. (D.Sci.)	Dr. D.B. Puranik Dairy Technology
2	Studies on the manufacture of paneer kheer using millets	Mr. Shivakumar	M.Tech. (D.Sci.)	Dr. H. Arun Kumar Dairy Technology
3	Development of carrot based yoghurt drink	Ms. Rashmi M.R.	M.Tech. (D.Sci.)	Dr. H.G.R. Rao Dairy Technology
4	Studies on the manufacture of ready to use millet based paneer using reconstituted milk	Ms. Swapna K.V.	M.Tech. (D.Sci.)	Dr. Venkatesh M. Dairy Technology
5	Quality attributes of probiotic Dahi incorporated with foxtail millet (<i>Setaria italic</i>) flour	Ms. Syama M.A.	M.Tech. (D.Sci.)	Dr. Jayashree Hiremath Dairy Chemistry
6	Compositional features and physico-chemical attributes of yoghurt prepared by using caprine milks	Mr. Manmatha Raja S.R.	M.Tech. (D.Sci.)	Mr. C. Kempanna Dairy Chemistry
7	Studies on bio availability of proteins iron and zinc from dahi	Priyanaka	M.Tech. (D.Sci.)	Dr. Narasimha Murthy Dairy Chemistry
8	Study on carrot enriched probiotic shrikhand	Mahesh S. Patil	M.Tech. (D.Sci.)	Dr. R. Prabha Dairy Microbiology

<i>Sl. No.</i>	<i>Thesis Title</i>	<i>Name of the Student</i>	<i>Degree</i>	<i>Major Advisor and Dept.</i>
COLLEGE OF FISHERIES, MANGALURU				
1	Rearing of murels on forage fishes	Mr. Shoabkhan Madiwale	M.F.Sc.	Dr. H. Shivanand Murthy Aquaculture
2	Effect of dietary supplementation of methionine on growth, survival and immune response of Indian major carp, <i>Labeo rohita</i>	Ms. Nilima Priyadarshini	M.F.Sc.	Dr. H. Shivanand Murthy Aquaculture
3	Physiological and histological changes in Indian major carps (<i>Labeo rohita</i>) exposed to heavy metal, Lead	Mr. Adnan Amin	M.F.Sc.	Dr. A.T.R. Naik Aquatic Environment Management
4	Suitability of fibrous casing for the production of fish ham	Ms. Rajalakshmi R.	M.F.Sc.	Dr. C.V. Raju Fish Processing Technology
5	Assessment of the quality of salted and dried fish using solar biomass hybrid drier and its comparison to traditional sun drying	Mr. Vijayakumar Munka	M.F.Sc.	Mr. R.M. Prabhu Fish Processing Technology
6	Climate change and its impact on microbes associated with planktons	Mr. Aathreya H. J.	M.F.Sc.	Dr. Indrani Karunasagar Fisheries Microbiology
7	Breeding seasonality of <i>Anodontostoma chacunda</i> (Hamilton, 1822) and <i>Nematalosanus</i> (Bloch, 1795) off Mangaluru coast	Ms. Ramya V.C.	M.F.Sc.	Dr. S. Benakappa Fisheries Resources & Management
8	Identification of <i>Nemipterus randalli</i> Russell, 1986 using DNA barcoding	Ms. Saritha S.	M.F.Sc.	Dr. H.N Anjanayappa Fisheries Resources & Management

<i>Sl. No.</i>	<i>Thesis Title</i>	<i>Name of the Student</i>	<i>Degree</i>	<i>Major Advisor and Dept.</i>
9	Suitability and effect of soil and water quality on <i>Litopenaeus vannamei</i>	Mohankumar K. C.	M.F.Sc.	Dr. S. Varadaraju Fisheries Engineering & Technology
10	Suitability and effect of soil and water quality on growth of <i>Litopenaeus vannamei</i>	Manjunatha A.R.	M.F.Sc.	Dr. B. Hanumathappa Fisheries Engineering & Technology

ii) Doctoral Degree:

<i>Sl. No.</i>	<i>Thesis Title</i>	<i>Name of the Student</i>	<i>Degree</i>	<i>Major Advisor and Dept.</i>
VETERINARY COLLEGE, BENGALURU				
1	Gross and histomorphological studies on forestomach of wild ruminants in comparison with domestic ruminants	Mrs. Lakshmishree K.T.	Ph.D.	Dr. R.V. Prasad Veterinary Anatomy & Histology
2	Studies on identification of animal species based on morphology, FT-IR spectroscopy and molecular methods	Mr. Shambhulingappa Y. Baddi	Ph.D.	Dr. R.V. Prasad Veterinary Anatomy & Histology
3	Comparative oral bioavailability and pharmacokinetics of piroxicam and piroxicam loaded polyvinyl pyrrolidone nanofibres in wistar albino rats	Mr. Manohar C.	Ph.D.	Dr. Jagadeesh S. Sanganal Veterinary Pharmacology & Toxicology
4	Pharmacological and toxicological studies of 6-mercaptopurine loaded chitosan based nanoparticles	Mr. Prem Kumar G.	Ph.D.	Dr. Jagadeesh S. Sanganal Veterinary Pharmacology & Toxicology

Sl. No.	Thesis Title	Name of the Student	Degree	Major Advisor and Dept.
5	<i>In vitro</i> and <i>in vivo</i> evaluation of anti-cancerous property of <i>Asteracantha longifolia</i>	Mr. Santoshkumar C.N.	Ph.D.	Dr. N.B. Shridhar Veterinary Pharmacology & Toxicology
6	Pharmacological and Toxicological studies of azathioprine loaded chitosan based nanoparticles	Ms. Suhasini	Ph.D.	Dr. Jagadeesh S. Sanganal Veterinary Pharmacology & Toxicology
7	Residual analysis of certain mycotoxins in colored broiler chicken tissues	Ms. Jayashree Pattar	Ph.D.	Dr. N.B. Shridhar Veterinary Pharmacology & Toxicology
8	Studies on efficacy and safety of 5-fluorouracil and 5-fluorouracil loaded nanoparticles	Mr. Mahesh Kadagi	Ph.D.	Dr. N.B. Shridhar Veterinary Pharmacology & Toxicology
9	Molecular epidemiology of bovine leptospirosis and its diagnosis by serogroup specific multiplex PCR	Mr. Shivaraj	Ph.D.	Dr. D. Rathnamma Veterinary Microbiology
10	Molecular epidemiology and diagnosis of classical swine fever by reverse transcriptase polymerase chain reaction	Mr. D.B. Shivaraj	Ph.D.	Dr. D. Rathnamma Veterinary Microbiology
11	Nucleoprotein gene-based molecular epidemiology of rabies virus and development of isothermal nucleic acid amplification assay for its detection	Mr. Nithin Prabhu K.	Ph.D.	Dr. Shrikrishna Isloor Veterinary Microbiology

<i>Sl. No.</i>	<i>Thesis Title</i>	<i>Name of the Student</i>	<i>Degree</i>	<i>Major Advisor and Dept.</i>
12	Development of recombinant antigen based ELISA for the diagnosis of peste des petits ruminants	Ms. Apsana R.	Ph.D.	Dr. B.M. Veeregowda Veterinary Microbiology
13	Isolation, antigenic analysis and molecular typing of <i>Pasteurella multocida</i> from haemorrhagic septicaemia cases	Mr. Somashekhar	Ph.D.	Dr. B.M. Veeregowda Veterinary Microbiology
14	Development of sheep pox virus vectored foot and mouth disease vaccine for sheep	Mr. Channabasayya Hiremath	Ph.D.	Dr. B.M. Veeregowda Veterinary Microbiology
15	Studies on low levels of T-2 toxin induced immunotoxicity in broiler chicken and immunomodulation by arginine and vitamin E supplementation	Mr. Ramesh B.K.	Ph.D.	Dr. H.D. Narayanaswamy Veterinary Pathology
16	Studies on low levels of aflatoxin induced immunotoxicity in broiler chicken and Amelioration	Mr. Shivasharanappa G. Yalagod	Ph.D.	Dr. H.D. Narayanaswamy Veterinary Pathology
17	Pathomorphological, biochemical and molecular evaluation of Methotrexate induced hepato-toxicity and its amelioration by <i>Tinospora cordifolia</i>	Deepak J.N.	Ph.D.	Dr. Suguna Rao Veterinary Pathology
18	Studies on certain strategies to improve synchronization of estrus and ovulation in ewes under controlled and field conditions.	Mr. Ravindranatha B.M.	Ph.D.	Dr. V.C. Murthy Veterinary Gynaecology & Obstetrics

<i>Sl. No.</i>	<i>Thesis Title</i>	<i>Name of the Student</i>	<i>Degree</i>	<i>Major Advisor and Dept.</i>
19	Studies on epidemiological, clinical and molecular diagnosis of leptospirosis in dogs	Mrs. Nandini M.K.	Ph.D.	Dr. P.T. Ramesh Veterinary Medicine
20	Studies on visceral gout in broiler chicks	Poonam Vishwakarma	Ph.D.	Dr. H.A. Upendra Veterinary Medicine
21	Epidemiology diagnosis and therapy of bubaline mastitis	Jouher Sulthana C.M.	Ph.D.	Dr. Narayana Bhat Veterinary Medicine
22	Studies on lumbar vertebral body stabilization by ventral approach using polymethyl methacrylate and pins in dogs	Mr. Anil S. Patil	Ph.D.	Dr. B.N. Nagaraja Veterinary Surgery & Radiology
23	Effect of supplementation of two sources of non protein nitrogen in the diets based on finger millet straw and sorghum on the performance of growing lambs	Mr. Shivasharanappa Biradar	Ph.D.	Dr. K. Chandrapal Singh Animal Nutrition
24	Effect of supplementation of two sources of non protein nitrogen in the diets based on finger millet straw and maize on the performance of growing lambs	Mr. Vikram C.	Ph.D.	Dr. K. Chandrapal Singh Animal Nutrition
25	Molecular characterization of indigenous chicken in different geographical locations of Karnataka	Mr. Rudresh B. H.	Ph.D.	Dr. H.N. Narasimha Murthy Animal Genetics & Breeding
26	Studies on genes	Mr. Naveenkumar G.S.	Ph.D.	Dr. B.N. Nagaraja

<i>Sl. No.</i>	<i>Thesis Title</i>	<i>Name of the Student</i>	<i>Degree</i>	<i>Major Advisor and Dept.</i>
	associated with cryptorchidism in native sheep of Karnataka			Animal Genetics & Breeding
27	Selective genetic studies on local goats of Karnataka	Mrs. Jayashree R.	Ph.D.	Dr. M.R. Jayashankar Animal Genetics & Breeding
28	Genetic studies on pure, crossbreds and reciprocal crosses of four color plumaged meat lines	Mr. Venugopal S.	Ph.D.	Dr. H.N.N. Murthy Poultry Science
29	A critical appraisal of the management practices of Deoni cattle in Bidar district	Patil Vivek Mahadev	Ph.D.	Dr. Y.B. Rajeshwari Livestock Production & Management
30	Effect of drying versus ensiling of sorghum stover on chemical composition and feeding value to lactating crossbred cows	K. Ningaraju	Ph.D.	Dr. R. Bhaskaran Livestock Production & Management

DAIRY SCIENCE COLLEGE, BENGALURU

1	Development of nutritious ready to cook milk-cereal based noodles like products	Mrs. Thejaswini M.L.	Ph.D.	Dr. H.G.R. Rao Dairy Technology
2	Application of continuous microwave processing and modified atmosphere packaging for enhancement of shelf life of Shrikhand	Mr. Venkatesh M.	Ph.D.	Dr. H.G.R. Rao Dairy Technology

COLLEGE OF FISHERIES, MANGALURU

1	Development of biofilm of <i>Escherichia coli</i> with subunits of <i>Aeromonas hydrophila</i>	Mr. Naveenkumar B.T.	Ph.D.	Dr. K.M. Shankar Aquaculture
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<i>Sl. No.</i>	<i>Thesis Title</i>	<i>Name of the Student</i>	<i>Degree</i>	<i>Major Advisor and Dept.</i>
2	Studies on reproductive biology of estuarine sand whiting, <i>Sillago vincenti</i> (McKay 1980)	Manjappa N.	Ph.D.	Dr. N. Basavaraja Aquaculture
3	Effect of carotenoids on growth, immune response and disease resistance in giant freshwater prawn, <i>Macrobrachium rosenbergii</i>	Mr. Ali Hosseinpoor Zelaty	Ph.D.	Dr. H. Shivananda Murthy Aquaculture
4	Reproductive biology of <i>Puntius pulchellus</i> (Day)	Mr. Pau Biak Lun K	Ph.D.	Dr. N. Basavaraja Aquaculture
5	Effect of oligosaccharide and betaglucan growth, survival and immune response in giant freshwater prawn, <i>Macrobrachium Rosenbergii</i> (de Man)	Mr. Shashikanth J. Meshram	Ph.D.	Dr. H. Shivananda Murthy Aquaculture
6	Ecological assessment of the Hebbal Lake, Bengaluru	Mr. Nagendra Babu R.S.	Ph.D.	Dr. H.R.V. Reddy Aquatic Environment Management
7	Nutrient and phytoplankton dynamics along the riverine, estuarine and coastal transects off Mangaluru, South-West coast of India	Kota Madhavi	Ph.D.	Dr. Gangadhara Gowda Aquatic Environment Management
8	Stabilization of proteins from freshwater fish mince during frozen storage by use of cryptotectants	Mr. Manjunath Reddy	Ph.D.	Dr. B.A. Shamasundar Fish Processing Technology

<i>Sl. No.</i>	<i>Thesis Title</i>	<i>Name of the Student</i>	<i>Degree</i>	<i>Major Advisor and Dept.</i>
9	Application of proteolysis for the production of fish protein hydrolysate and its characterization	Mr. Elavasaran K.	Ph.D.	Dr. B.A. Shamasundar Fish Processing Technology
10	Properties of bioactive peptides derived from seafood processing waste by enzymatic hydrolysis and fermented fish products	Phadke Girija Gajanan	Ph.D.	Dr. B.A. Shamasundar Fish Processing Technology
11	Development of recombinant protein and RNAi to protect shrimp from white spot syndrome virus (WSSV) infection	Ms. Akhila D.S.	Ph.D.	Dr. Indrani Karunasagar Fisheries Microbiology
12	Characterization of ammonia reducing microbes isolated from seafood processing and sewage effluent plants and aquaculture ponds	Mr. Devivaraprasad Reddy A.,	Ph.D.	Dr. Indrani Karunasagar Fisheries Microbiology
13	Efficacy of recombinant protein and double stranded RNA (dsRNA) for the protection of shrimp against Hepatopancreatic parvovirus (HPV)	Mrs. Safeena M. P.	Ph.D.	Dr. Indrani Karunasagar Fisheries Microbiology
14	Antibiotic resistance associated with Gram negative bacteria from the environment and its impact	Santosh K.S.	Ph.D.	Dr. M.N. Venugopal Fisheries Microbiology

6) Library and Information Services

(i) Print Media (books, journals/periodicals)

#	Particulars	VCH & DSCH	VCB	VCS	HVC	DSCK	FCM	AHPK	AHPS	TOTAL
1	Books	14433	10445	4816	5619	2040	15825	120	226	53524
2	Theses	1610	948	-	-	-	765	-	-	3323
3	Reports	964	44	-	-	-	3172	-	5	4185
4	Pamphlets	712	-	-	-	-	965	-	150	1827
5	Bound Volumes	10958	2369	-	-	-	6330	-	-	19657
6	Gift Books	1243	09	-	-	-	280	-	5	1537
7	SC/ST Books	2273	2162	452	576	-	500	-	292	6255
8	Indian Journals	84	33	11	31	-	12	2	-	173
9	Foreign Journals	25	05	-	-	-	8	-	-	38
10	Back Volumes	-	2369	-	721	-	-	-	-	3090
11	Others	-	122	-	12	-	-	2	-	136
Total		32302	18506	5279	6959	2040	27857	124	678	93745

(ii) Non-print Media (e-resources) - list of e-journals/CD

#	Particulars	VCH & DSCH	VCB	VCS	HVC	DSCK	FCM	AHPK	AHPS	Total
1	IP Based Login	3164	-	-	-	-	-	-	-	3164
2	User Profile Login	0388	-	-	-	-	-	-	-	388
3	Abstract	5386	-	-	-	-	-	-	-	5386
4	Full-text	3354	-	-	-	-	-	-	-	3354
5	CD-Rom : (Books)	0035	-	-	-	-	-	-	-	35
6	e-journals / CD	-	350	44	123	-	-	-	41	558
7	CeRA e-journals	-	3500	-	-	-	-	-	-	3500
Total		12327	3850	44	123	00	00	00	41	16385

(iii) Membership Usage

#	Particulars	VCH & DSCH	VCB	VCS	HVC	DSCK	FCM	Total
1	Students at UG Level	94	13406	255	323	77	225	14380
2	Students at PG Level	83	4652	-	-	-	50	4785
3	Staff	96	773	72	66	14	150	1171
Total		273	18831	327	389	91	425	20336

7) Student Welfare Activities

DIRECTORATE OF STUDENT WELFARE, KVAFSU, BIDAR

10th KVAFSU Inter-Collegiate Badminton (M/W) and Basket Ball (M/W) Tournament 2014-15 was organized by College of Fisheries, Mangaluru from 30th Sept to 1st Oct, 2014. All constituent Colleges viz., Veterinary College, Bidar/Shivamogga/Hassan/Bengaluru, Dairy Science College, Bengaluru/Kalburgi and College of Fisheries, Mangaluru participated in the events. The Inter-Collegiate Badminton (M/W) and Basket Ball (M/W) Tournaments - 2014-15 was inaugurated by Dr. B.V. Shivaprakash, Director of Student Welfare, KVAFSU, Bidar. Dr. Kishore Kumar, C.K., Director & Chairman, Dept of Physical Education, Mangaluru University, Mangaluru and Shri. Parshwanath, P., Sr. Assistant, Director of Fisheries, Mangaluru participated as Chief Guests and Dr. K.M. Shankar, Dean (Fisheries), College of Fisheries, Mangaluru presided over the function.

#	Event	Position	College
1	Badminton Men	Winners	College of Fishers, Mangaluru
		Runners	Veterinary College, Shivamogga
2	Badminton Women	Winners	Veterinary College, Bengaluru
		Runners	Veterinary College, Hassan
3	Basket ball Men	Winners	Veterinary College, Bengaluru
		Runners	Veterinary College, Bidar
4	Basket ball Women	Winners	Veterinary College, Bengaluru
		Runners	Veterinary College Bidar

The valedictory function was organized on 01-10-2014, Sri. Ivan Patrao, General Secretary, Dakshina Kannda District Badminton Association, Dr. B.A. Shamsundar, Head of Division (Fisheries Science), College of Fisheries, Mangaluru and Dr. Yashwanth Kumar, DDSW, KVAFSU Bidar were Chief Guests for the function and Dr. K.M. Shankar, Dean (Fisheries), College of Fisheries, Mangaluru presided over the function.

10th KVAFSU Inter-Collegiate Chess (M) and Table Tennis (M/W), Tournament - 2014-15 was organized by Veterinary College, Bengaluru from Jan- 12th to 13th -2015. All constituent colleges viz., Veterinary College, Bidar /Shivamogga /Hassan/Bengaluru, Dairy Sciences College Bengaluru/Kalburgi, and College of Fisheries, Mangaluru participated in the events. The Inter-collegiate Chess (M) and Table Tennis (M/W) Tournaments - 2015 was inaugurated by Dr. C. Renukprasad, Hon'ble Vice-Chancellor KVAFSU Bidar, and Dr. Yathiraj, Dean, Veterinary College, Bengaluru presided over the function.

The Winners and Runners of the Inter-collegiate Chess (M/W) and Table Tennis (M/W) Tournaments were as follows,

#	Event	Position	College
1	Chess (M/W)	Winners	Veterinary College, Bidar
		Runners	College of Fisheries, Mangaluru
2	Table Tennis Men	Winners	Veterinary College, Hassan
		Runners	Veterinary College, Shivamogga
3	Table Tennis Women	Winners	Veterinary College, Hassan
		Runners	College of Fisheries, Mangaluru

The valedictory function was organized on 13-01-2015, Dr. B.V. Shivaprakash, DSW, KVAFSU, Bidar was the Chief Guest for the function. Dr. Kishna Swamy, Dean, Veterinary College, Bengaluru presided over the function.

10th KVAFSU Inter-collegiate Cricket and Foot Bali Tournament - 2014-15 was organized by Veterinary College, Shivamogga during 24-26th January, 2015. All constituent colleges viz., Veterinary College, Bidar /Shivamogga /Hassan/Bengaluru, Dairy Sciences College, Bengaluru/Kalburgi, and College of Fisheries, Mangaluru participated in the events. The Inter-collegiate Sports and Games Meet - 2014-15 was inaugurated by Dr. B.V. Shivaprakash, Director of Student Welfare, KVAFSU, Bidar, Dr. Narasimha Murthy, Dean, Dairy Science College, Hebbal, Bengaluru. Dr. H.N. Narasimha Murthy, Dean, Veterinary College, Hassan participated as Chief Guest. Dr. R.V.Parsad, Dean, Veterinary College, Shivamogga presided over the function.

The Winners and Runners of the Inter-collegiate Cricket and Foot Ball Tournaments were as follows,

#	Event	Position	College
1	Foot Ball	Winners	College of Fisheries, Mangaluru
		Runners	Veterinary College, Bidar
2	Cricket	Winners	Veterinary College, Bidar
		Runners	Dairy Science College, Bengaluru

The valedictory function was organized on 26-01-2015, Dr. C. Vasudevappa, Hon`ble Vice-Chancellor, Agricultural and Horticultural Sciences University, Shivamogga and Dr. Yashwant Kumar, Deputy Director of Student Welfare, KVAFSU, Bidar were Chief Guests for the function. Dr. R.V. Parsad, Dean, Veterinary College, Shivamogga presided over the function.

10th KVAFSU Inter-collegiate Sports and Games meet,2014-15 was organized by Veterinary College, Bidar from during 6-8 March, 2015 at KVAFSU Bidar. All the constituent colleges viz., Veterinary College, Bidar /Shivamogga /Hassan/Bengaluru, Dairy Sciences College Bengaluru/Kalburgi and College of Fisheries, Mangaluru participated in the events. The Inter-collegiate Sports and Games Meet - 2015 was inaugurated by Dr. C. Renukprasad, Hon`ble Vice-Chancellor, KVAFSU, Bidar. Shri. Nagbhushan Kamthane and Shri. Mallikarjun Biradar Hon`ble Members of Board of Management, KVAFSU, Bidar, Dr. H.M. Jayaprakash, Registrar, KVAFSU, Bidar; Dr. S.M. Shivaprakash, Director of Extension, KVAFSU, Bidar; Dr. N.A. Patil, Comptroller, KVAFSU, Bidar; Dr. U.S. Biradar, Director of Instruction(PGS), KVAFSU, Bidar; Dr. B.V. Shivaprakash, Director of Student Welfare, KVAFSU, Bidar Dr. E. Narayannappa, Librarian KVAFSU, Bidar and Shri. K. Ramappa, Estate Officer, KVAFSU, Bidar participated as Chief Guests. Dr. S.M. Usturge, Dean, Veterinary College, Bidar presided over the function.

10th Inter-collegiate Youth Festival KALACHILUME-2014

10th KVAFSU Inter-Collegiate Youth Festival KALACHILUME-2014 was organized by Veterinary College, Bidar during 5-7th September, 2014. All the constituent colleges viz., Veterinary College, Bidar /Shivamogga /Hassan/Bengaluru, Dairy Sciences College Bengaluru/Kalburgi and College of Fisheries, Mangaluru participated in the evenets. Dr. Raghvendra Bhat, Director, NIANP, Bengaluru inaugurated the mega event. Dr. Y.B. Patil, Sri. Nagbhushan Kamthane, Sri. Iresh Anchatgeri Hon`ble Members, Board of Management, KVAFSU; Dr. H.M. Jayaprakash, Registrar, Dr. N.A. Patil, Comptroller, Dr. S.M. Shivprakash. Director of Extension were the Chief Guests for the function. Dr. C. Renukprasad, Hon`ble Vice-Chancellor, KVAFSU, Bidar presided over the inaugural function held on 5th Sept-2014.

The winners of the inter-Collegiate Youth Festival are as follows,

<i>Place</i>	<i>Name of Winner/s</i>	<i>College</i>
Light Vocal		
First	Suruma K Ramesh	Dairy Science College, Hebbal
Second	Swagathika Sahu	Veterinary College, Hebbal
Third	Manoj Kumar	Veterinary College, Bidar
Group Song		
First	Surama K Ramesh, Pravalika V N, Tanushree R, Niranjan, Pradeep M L, Basavaprabhu, H N	Dairy Science College, Hebbal
Second	Swagathika Sahu, Jeevan C, Theerthakumar A R, Vasudhar Bhat, Chandan Patil, Papilraj Methre	Veterinary College, Hebbal
Third	Amrutha B M, Bhavana S, Kaveri M C, Vidyarani H B, Srinidhi Y R, Hithaishi V	Veterinary College, Hassan
Patriotic Song		
First	Surama K Ramesh, Pravalika V N, Tanushree R, Ramya, Sahana Hs	Dairy Science College, Hebbal
Second	Amrutha B M, Bhavana S, Kaveri M C, Vidyarani H B, Srinidhi Y R, Hithaishi V	Veterinary College, Hassan
Third	Swagathika Sahu, Jeevan C, Theerthakumar A R, Vasudhar Bhat, Chandan Patil, Papilraj Methre	Veterinary College, Hebbal
Debate (Kannada) FOR		
First	Kaveri M C	Veterinary College, Hassan
Second	Suprith B	Veterinary College, Bidar
Third	Sheetal Kumar N P	Veterinary College, Shivamogga
Debate (Kannada) AGAINST		
First	Santosh Kumar	Veterinary College, Shivamogga
Second	Ashwini A	Veterinary College, Hassan
Third	Basavaprabhu H N	Dairy Science College, Hebbal
Elocution (Kannada)		
First	Reshma A C	Veterinary College, Hebbal
Second	Ashwini A	Veterinary College, Hassan
Third	Basavaprabhu H N	Dairy Science College, Hebbal

<i>Place</i>	<i>Name of Winner/s</i>	<i>College</i>
Extempore (Kannada)		
First	Vidyashree	Dairy Science College, Kalburgi
Second	Ashwini A	Veterinary College, Hassan
Third	Suprith B	Veterinary College, Bidar
Debate (English) FOR		
First	Sharat Joshi	Veterinary College, Bidar
Second	Reshma A C	Veterinary College, Hebbal
Third	Tejaswini S	Dairy Science College, Hebbal
Debate (English) AGAINST		
First	Archana G	Veterinary College, Hassan
Second	Vanditha Sajjan	Dairy Science College, Kalburgi
Third	Germin Tom George	Dairy Science College, Hebbal
Elocution (English)		
First	Tejaswini S	Dairy Science College, Hebbal
Second	Aishwarya R	Veterinary College, Hassan
Third	Sharat Joshi	Veterinary College, Bidar
Extempore (English)		
First	Archana G	Veterinary College, Hassan
Second	Divya Ganesh	Veterinary College, Hebbal
Third	Tejaswini S	Dairy Science College, Hebbal
QUIZ		
First	Balraj S , Sharat Joshi	Veterinary College, Bidar
Second	Sheethal Kumar N P, Gururaj V Koujalagi	Veterinary College, Shivamogga
Third	Chethangowda U C, Ananth Krishna	Veterinary College, Hebbal
Skit		
First	Vidyasagar N C, Vidyarani H B, Kanaka K K, Rakshitha P, Ashwini A, Kiran Kumar S	Veterinary College, Hassan
Second	Deeraj Prakash G, Jeevan C, Chandan Patil, Theerthakumar A R, Anvita Hansoge, Yateeshgowda	Veterinary College, Hebbal
Third	Manjunath Adiga N, Sangamesh Mamma, Karan Hosmani, Sharat Joshi, Medha Rao, Prashant R G	Veterinary College, Bidar

<i>Place</i>	<i>Name of Winner/s</i>	<i>College</i>
One Act Play		
First	Madhusudan S V, Vidyasagar N C, Jeevan K, Kanaka K K, Rakshitha P, Srinidhi Y R, Kumbi Vishwapriya M A, Ashwini A, Kiran Kumar S	Veterinary College, Hassan
Second	Deeraj Prakash G, Jeevan C, Chandan Patil, Anvita Hansoge, Shashwath Kumar G S, Vasudhar Bhat, Satya Sooryan, Annappaswamy A S, Ragini J	Veterinary College, Hebbal
Third	Sangamesh Mamma, Suprith B, Sharat Joshi, Medha Rao, Niveditha M, Geeta S Rajannavar, Tanuja H R, Shivanand, Smitha J S	Veterinary College, Bidar
Mime		
First	Deeraj Prakash G, Satya Sooryan, Annappaswamy A S, Sanjay K P, Akshatha Desai, Venkatesh Dharmanaik	Veterinary College, Hebbal
Second	Dinesh M B, Gururaj V Koujalagi, Prakash V Sogalannavar, Shivanagowda S Patil, Revanasiddappa Yadawad, Mohammed Arshad K	Veterinary College, Shivamogga
Third	Vijay Kumar V M, Hemanth Kumar H N, Shivanand, Archana M, H Ambika, Dileep N	Dairy Science College, Kalburgi
Mono Acting		
First	Kanaka K K	Veterinary College, Hassan
Second	Vasudhar Bhat	Veterinary College, Hebbal
Third	Geeta S Rajannavar	Veterinary College, Bidar
Rangoli		
First	Jeevan K	Veterinary College, Hassan
Second	Sanjana M C	Dairy Science College, Hebbal
Third	Niveditha M	Veterinary College, Bidar
On the Spot Painting		
First	Kadlappa	Veterinary College, Bidar
Second	Chethangowda U C	Veterinary College, Hebbal
Third	Bhavana S	Veterinary College, Hassan

<i>Place</i>	<i>Name of Winner/s</i>	<i>College</i>
Cartooning		
First	Prashant G Kurbet	Veterinary College, Bidar
Second	Neha Rana	Dairy Science College, Hebbal
Third	Chethangowda U C	Veterinary College, Hebbal
Collage		
First	Pradeep M L	Dairy Science College, Hebbal
Second	Mansingh	Dairy Science College, Kalburgi
Third	Abhishek B Gowda	College of Fisheries, Mangaluru
Poster Making		
First	Ekmath V Mudholkar	Veterinary College, Shivamogga
Second	Bhavana S	Veterinary College, Hassan
Third	Chethangowda U C	Veterinary College, Hebbal
Clay Modelling		
First	Kadiappa	Veterinary College, Bidar
Second	Jeevan K	Veterinary College, Hassan
Third	Pradeep R K	Veterinary College, Shivamogga
Folk Dance		
First		Dairy Science College, Hebbal
Second		College of Fisheries, Mangaluru
Third		Veterinary College, Hassan
Overall Championship		
First	Veterinary College, Hassan	
Second	Veterinary College, Hebbal, Bengaluru	
Third	Dairy Science College, Bengaluru	

The valedictory function was organized on 07-09-2014. Dr. C. RenukaPrasad, Hon'ble Vice-Chancellor, KVAFSU, Bidar; Dr. M. Devaraj, Shri. Nagbhusan Kamthane, Shri. Mallikarjun Biradar and Shri. Nagendra Prasad, A.M., Hon'ble Members of Board of Management, KVAFSU, Bidar; Dr. H.M. Jayaprakash, Registrar; Dr. H.R.V. Reddy, Director of Research; Dr. U.S. Biradar, D.I(PGS); Dr. E. Narannappa, University Librarian; Shri. M.K. Satish, Estate Officer and Dr. B.V. Shivaprakash, Director of Student Welfare, KVAFSU, Bidar were Chief Guests for the function. Dr. S.M. Usturge, Dean, Veterinary College, Bidar presided over the function.

Debate on Cooperative movement

“Intercollegiate debate on Co-operative movement” was organized by Dairy Science College, Bengaluru on 22-11-2014 the programme was inaugurated by Dr. Narasimha Murthy, Dean, Dairy Science College, Ms. Kaveri Jambagi, II BVSc., of Veterinary College, Bidar Secured First Prize and Miss. Anu, G.S., I BVSc, of Veterinary College, Shivamogga secured Second Place.

ANIMAL HUSBANDRY POLYTECHNIC, SHIGGAON, HAVERI

Conducted Volley ball, Badminton, Carom, Chess, Kho Kho and Cricket and throw ball events for students of Animal Husbandry Polytechnic, Shiggaon.

ANIMAL HUSBANDRY POLYTECHNIC, KONEHALLY, TIPTUR

(i) **Sports Activities:** Animal Husbandry Diploma Students were participated in all sports activities which were organized by Dasara Tournament at Siddapura, karikere at Tiptur Tq and got prizes in some of the sports events.

(ii) **Youth Festival of various constituent Institutions of the University:** Animal Husbandry Diploma Students participated in Cultural activities in the celebrations of Independence Day and Karnataka Rajyotsava which were held during 15.08.2013 and 01.11.2013 respectively.

8) National Service Scheme (NSS)

VETERINARY COLLEGE, BENGALURU

Dr.Jagadeesh S Sanganal and Dr.Shri Krishna Isloor were programme officers for 2014-2015. The NSS Programme was implemented at veterinary college, KVAFSU, Hebbal, Bengaluru comprised of unit 1(1st BVSc and AH) and unit 2 (2nd BVSc and AH) with 144 volunteers. The NSS activity for the current year started with a successful orientation program for volunteers of both the units. The following activities were organised during the current year: 2014-2015.

1. SHRAMADHANA

The volunteers of both of the NSS units actively took part in cleaning the premises of the college including the surroundings of library and park. The volunteers also ensured to keep the campus as “PLASTIC FREE ZONE”.

2 Services at the orphanage and age homes

Volunteers of NSS Unit II were also involved in raising funds for the orphans of ‘Ashraya’ Muddenapallya, Tavarakere and Sri Sai Jyothi Old age Home in the same place. The fund was raised from the donations of the general public. This activity helped the volunteers to develop a commitment to the society on the humanitarian ground.

3 Participation in the national level pre-Republic Parade:

Two volunteers of NSS Unit II viz., Mr. Myalarappa and Ms. Namitha A attended the national level pre-Republic Parade training held from 13/09/2014 to 16/09/2014 in Mysuru with a view to develop leadership qualities among volunteers. This was jointly organized by NSS Regional centre, GOK and University of Mysore.

4 Dr.Jagadeesh S.Sanganal attended NSS Advisory Committee meeting for 2014-15 on 07/08/2014 at Vikas Soudha, Bengaluru.

5 Dr.S Isloor attended state level NSS program officers meet for 2014-15 at M S Building, Bengaluru on 9/09/2014.

VETERINARY COLLEGE, BIDAR

Two National Service Scheme units with 180 registered Volunteers are working at Veterinary Collage Bidar. The various NSS regular activities are carried out by both NSS units as follows.

NSS Programme Officer Unit-I	Dr. Shrikant Kulkarni Associate Professor, Dept of Veterinary Physiology and Biochemistry
NSS Programme Officer Unit-II	Dr. Channappagouda Biradar Assistant Professor, Dept of Veterinary & Animal Husbandry Extension

Abstract of NSS regular activities, Veterinary College, Bidar

NSS units	Allocated Volunteer Strength	Actual Enrolment	Blood Donation	Tree Planted
Unit-I	115	115		156
Unit-II	115	115		144

Unique activities:

Sl.No	Name of the events	place	No. of beneficiaries/ units
1	Vanamahotsava	August- September, 2014-KVAFSU Campus behind main building	300 saplings

Annual NSS special Camp-2014-15

- Student of I year and II year B.V.Sc & A.H. participated in the annual NSS special camp held at Hokrana, Bidar from 10th to 16th March 2015.
- The central Theme of this year annual NSS special camp was on "Yuvakara Nade Swacchate Yade".

- Dr. Shrikant Kulkarni, Associate Professor (VPB), Dr. Channappagouda Biradar, Assistant Professors (VAHEE), Dr. Vinay Tikare were the camp officers while Dr. Shivshankar M Usturge, Dean Veterinary College Bidar was the Camp Director.
- The Camp was officially inaugurated by Prof. Sidaramappa Masimade, president Kannada Sahitya Parishat Bidar on 10-03-2015. The programme was presided by Dr. S. M. Usturge Dean, Veterinary College, Bidar, NSS programme officers other faculty of Veterinary College Bidar and village leader were present.
- During the camp volunteers participated in the range of Shramadan activities like cleaning the drainage, roads and public places
- During this annual special camp every day evening, the guest lectures and interactive sessions were held for the benefits of volunteers on various topics by inviting experts from different fields like Animal Husbandry Agriculture Woman employment and cleanliness importance.
- As special camp was around youth and cleanliness a Jatha was organised on 14-03-2015 by involving village youth and school children's. This event was organised with co-operation from Gram Panchayat, Barur.
- A survey was carried out by NSS volunteers in Hokrana village about the place and water availability with villagers for toilet construction and existing toilet utility.

Daily Lecture Series		
Date	Topic	Resource Person
11-03-2015	Importance of Organic Farming	Dr. Ravi Deshmukh, Programme Coordinator, KVK Bidar
	Sustainable Agriculture	Dr. Sunil Kulkarni SMS KVK Bidar
	Importance of livestock in integrated farming	Dr. Prakashkumar Rathod, Assistant Professor, Veterinary College, Bidar
12-03-2015	Woman and Nation Development	Prof. Poornima G., President, Gyana Sudha Education Society, Bidar
	Woman and livestock	Dr. Siddaling Swamy Hiremath, Assistant Professor, Veterinary College, Bidar
13-03-2015	Livestock Feed Management	Dr. Tirumalesh, Professor, Veterinary College, Bidar
	Livestock Health Management	Dr. Ravindar B. G, Associate Professor, Veterinary College, Bidar
	Clean Milk Production	Dr. Jagannathrao, Assistant Professor, Veterinary College, Bidar
	Projects of Veterinary Department	Dr. Neelkant Chensheeti

Daily Lecture Series		
Date	Topic	Resource Person
14-03-2015	Activities of Self Help Group in Bidar	Shree Subrmanyaa Prabhu, Director of Sahardha Society, Bidar
		Dr. Ananthrao Desai, Assistant Professor, Veterinary College, Bidar
15-03-2015	Importance of cleanness in Rural Area	Dr. Goutam Aralli Coordinator of Zilla Panchayat, Bidar

- The valedictory programme of the camp was held on 16th march, 2015 in the presence of Dr.B. V. Shivaprakash, Director of Student Welfare, KVAFSU, Bidar and Dr. Goutham Arali, Nodal Officer (Swaccha Bharat), Zilla Panchayat, Bidar.
- Shree Veerendra Nijampure, Deputy Manager, J.K cement Hyderabad was the Chief Guest. The NSS camp officers and Volunteers narrated the activities carried out during the camp.

VETERINARY COLLEGE, SHIVAMOGGA

NSS Activities

Introduction:

In India, the idea of involving students in the task of national service dates back to the times of Mahatma Gandhi, the father of the nation. The central theme which he tried to impress upon his student audience time and again was that they should always keep before them, their social responsibility. The first duty of the students should be, not to treat their period of study as one of the opportunities for indulgence in intellectual luxury, but for preparing themselves for final dedication in the service of those who provided the sinews of the nation with the national goods & services so essential to society. Advising them to form a living contact with the community in whose midst their institution is located, he suggested that instead of undertaking academic research about economic and social disability, the students should do "something positive so that the life of the villagers might be raised to a higher material and moral level".

The overall aim of National Service Scheme (NSS) is to give an extension dimension to the higher education system and orient the student youth to community service while they are studying in educational institution. As the National Service Scheme Motto says "NOT ME BUT YOU", reflects the essence of democratic living and upholds the need for "SELF-LESS SERVICE". Advising them to form a living contact with the community in whose midst their institution is located.

NSS unit-I of Veterinary College, Shivamogga is successfully running for 2nd consecutive year. Students has got opportunity to stay in villages, where they have close relation with villagers, understanding problems and helping to solve their problems were

made under this scheme. And also by greening and cleaning of campus, concern about the campus was also highlighted. From October 2012, Dr. Giridhar, K. S., Assistant Professor of Dept. of Animal Nutrition working as NSS Programme Officer.

NSS Regular Activities for 2014-15: From April 2014 to March 2015

April-2014: Cleaning the premises of the college and watering of plants planted in the year 2013

May-2014: Orientation given to volunteers regarding NSS activities.

June-2014: Planning for plantation and pits made for plantation with the support of Forest Department.

July-2014: About 4600 plants supplied by Forest Department and 200 plants purchased from Sri Annapoorneswari Nursery, Shivamogga (Budget provision: College and BOP & BOP Head). Plantation made by Forest Dept and NSS volunteers.

August-2014: Plantation continued at our college campus

15th August 2014: Independence Day was celebrated. On this occasion all staff, students of college and Forest Department official were participated in the activities of plantation and cleaning of plastics.

September-2014: Prepared badminton court at quadrangle of the college by Shramadaana

19th September-2014: Felicitation to forest dept for support of plantation at our campus.

October-2014: Watering of plants made.

1st October 2014: Poster and Slogan writing competition held on the topic "Swaccha Bharath Abhiyaan".

2nd October 2014: Gandhi Jayanti celebrated, oath pledge made towards the cleanliness of our college and Shramadaana made by all staff and volunteers.

November-2014: Watering of plants and cleaning at our college.

21st November 2014: NSS Advisory Committee meeting was held regarding progress and planning for NSS activity.

December-2014: Plant survey made by volunteers at our campus.

20th December 2014: Swacch Bharath Abhiyaan held at Devakatikoppa village, Shivamogga talluk. In this Abhiyaan, Swacch Bhaarath Jatha, Street Play and Shramadaana made by our college staffs and volunteers.

January-2014: Various group activities like Quiz Programme, Word Building Games and Team Games organized by volunteers held in this month.

12th January-2014: National Youth Day-Vivekananda Jayanti was celebrated.

17th January-2014: NSS volunteers given orientation programme by Secretary and Joint Secretary of Youth Hostel, Shivamogga regarding Trekking Programmes and facilities available at Youth Hostels in India.

February-2014: Watering of plants

March-2014: Watering of plants, Blood Grouping and Orientation regarding NSS annual special camp given to volunteers and preparation made towards NSS annual special camp. This year's NSS annual special camp planned in Ragihosalli village, Shivamogga taluk.

14th March-2014: Blood Donation Programme was conducted and 25 units of blood donated to Rotary Blood Bank, Shivamogga.

NSS Annual Special Camp was planned to conduct between 26th March to 1st April 2015 in Ragihosalli village, Shivamogga taluk.

In summary, NSS Regular activities at our college included watering of plants, Deweeding, Mulching, Cleaning of Play Ground and College Premises, Orientation, Presentation by students and Adaptation of plants by volunteers were made. Still there is a vast scope for conducting and performing NSS activities at our campus.

NSS Annual Special Camp: 26/03/15 to 01/04/15:

NSS Annual Special camp was organized at Ragihosalli Village, Near Ayanur, Shivamogga Taluk from 26/03/15 to 01/04/15. Prof. R. V Prasad Dean was Camp Director and Dr. Giridhar, K. S. the Camp Programme Officer. Dr. Siddeswar, N. C., Veterinary Officer, Kumsi, Dr. Satheesha G M, Dr. Desai and Dr. Prashanth and Sri Nagaraj, were the Assistant Camp Officers. Sri. Anil Kumar and Kum. Shruthi were the student leaders.

NSS Annual Special camp was inaugurated by Smt. Prema Sudhakar, ZP member and presided by Smt. Basamma, President, Mandaghatta Grama Panchayat, Prof. Veeranna K. C., Prof. Madhavaprasad, Prof. Ganesh Udupa, and Prof. Nagabhushan, Veterinary College, Shivamogga graced the function and Sri. Shankar H. C, Sri Harish and Sri Palaksha and other villagers were actively present at camp and also staff and students of Veterinary College, Shivamogga were present.

Male volunteers were accommodated in Godown and Female volunteers accommodate in the Anganawadi. Morning activities were conducted in school premises. The evening and cultural programmes was arranged at the temple premises and food preparation was carried out in the godown.

ACTIVITIES OF NSS ANNUAL SPECIAL CAMP:

- Shramadaana, Swacch Bharath Abhiyaan and Parisara Jaatha
- Village survey made regarding socio economic status and livestock health status.
- Animal Health Camp and Deworming camp was conducted
- Livestock show was conducted
- Balanced Ration and Silage Making was demonstrated
- Milk Product Preparation was demonstrated
- For villagers, Quiz and Rangoli competition and other activities were organized
- On behalf of International Yoga Day, Yoga Health programmes
- Plantation in the school and temple premises
- Educative awareness programmes for villagers and volunteers.
- Cultural programme by volunteers and villagers

All the activities of students were well appreciated by villagers. In the coming days it was sure that linkage between the Ragihosalli village and volunteers will be maintained. Overall the basic objective of NSS, learning and living in village life by volunteers was fulfilled. Valedictory function was held on 1st April 2015 at 7.00 PM.

Morning activities of the camp:

At 6.30 AM, NSS Flag hoisting made by local leaders of village. Followed by simple exercise and the volunteers were taken around village side to give them a pleasant feeling. After breakfast volunteers were involved in Shramadaana. The volunteers were very enthusiastic at work. The details of the morning activities carried out are given below.

Sl. No.	Date	Activity done	Experts / Guests
1	27.03.15	Shramadaana: Cleaning at Temple and Removal plastics	Volunteers and Villagers
2	28.03.15	Shramadaana: Cleaning at Godown and Removal plastics	Volunteers and Villagers
3	28.03.15	1. Door to Door deworming of calves 2. Importance of Deworming 3. Animal Health camp 4. Infertility camp	Dr. Murugeppa Dr. Ravikumar B P Dr. Suresh Patel Dr. Nagarj. L Dr. Dhanalakshmi Dr. Veerannagowda B G Dr. Mahesh V

Sl. No.	Date	Activity done	Experts / Guests
			Dr. Malatesh Dr. Naveen Dr. Siddeshwara N C
4	29.03.15	Shramadaana: Swaccha Bharath Abhiyaan	Volunteers and Villagers
5	29.03.15	1. Blood donation camp 2. Dental health checkup and treatment camp	Rotary Blood Bank Sharavathi Dental College and Hospital
6	30.03.15	Shramadaana: Cleaning at School Premises	Volunteers and Villagers
7	30.03.15	1. Yoga Class 2. Quiz programme for volunteers and villagers	Sri. Ashok., Shivaganga Yoga Centre, Shivamogga. Dr. Sukhaputra and Dr. Bharathbhushan VCS
8	31.03.2015	Shramadaana: Cleaning at Village	Volunteers and Villagers
9	31.03.2015	1. Health camp: for Repeat Breeding cows 2. Calf show, Cattle and Bullock show and competition	Prof. Dhabale R B Dr. Ravikumar B P Dr. Siddeshwara N C Dept. of AH & VS Dr. Gopal G T Dr. Umesh B U Dr. Krishnamurty T N Dr. Sukhaputra N O
10	01.04.15	1. Plantation at school and temple premises 2. Parisara Jatha	Sri. Charankumar, RFO, Ayanur Volunteers and Villagers

Afternoon Activities of the Camp:

After the morning activities, the volunteers used to take bath and their lunch. After the lunch they were allowed to prepare for the evening activities. The following programmes were arranged in the NSS special camp in the afternoon sessions.

Sl. No.	Date	Activity done	Experts / Guests
1	27.03.15*	Balanced Cattle Feeding and Silage Making	Dr Umashankar, Dr Ravindra, B. D. and Dr. Harish
2	29.03.15	Rangoli Competition	Volunteers
3	30.03.15*	Milk Products Preparation Demonstration	Dr. Chinandaiah, Dr Desai and Dr. VijayKumar S
4	28.03.15; 31.03.15 & 01.04.2015	Other creative activities	Volunteers and Villagers

Evening activities of the camp:

The evening activities were arranged according to requirement of villagers. Preliminary meetings with villagers and accordingly availability of experts following activities were conducted in the camp. And these activities were conducted with active involvement of volunteers and they also get benefitted.

Sl. No.	Date	Event/ Topic	Experts / Guests*
01	27.03.15	"Values of Life"	Sri. Vidvaan Natesh G S., Kasturba College
02	28.03.15	"Profitable Dairying"	Dr. Satheesha G M, VCS
03		"Contagious Disease of Cattle"	Dr. Sundareshan, VCS
04		"Clean Milk Production"	Dr. Nageppa K, VCS
05	29.03.15	"Yoga and Health"	Sri. Rudraaradhya, Rajyotsava awardee, Shivaganga Yoga Kendra
06		"Life style and Food"	Smt. Mamatha P N., Lecturer, Kamal Nehru College
07	30.03.15	"Rain and Agriculture"	Prof. Shashidhar, Agri College
07		"Cleanliness of Soul and Body"	Prof. Onkarappa, Rtd Professor
08	31.03.15	"Youth Power"	Dr. Ramesh N D., Lecturer, Kamal Nehru College
09		"National Integration"	Sri. Nagaraj Kumar, Lecturer, Kamal Nehru College

* In all the functions local leaders were chairing the functions or were invited as Chief Guests

Inference from the feedback of volunteers and villagers:

- Like the activities of NSS Annual Special Camp
- Resource persons of the Evening Programmes were very much liked by villagers and volunteers
- Volunteers liked the village and cooperation given by the villagers
- Find no problem with Food and Accommodation
- Understanding & Cooperation between them was improved
- Most of them liked the Shramadaana in village
- Method of conducting the stage function was known
- Some of volunteers thought duration of camp should be increased
- Cultural programmes given by villagers/ school children were more and good
- Volunteers must show their talents in cultural programmes

Learning from the camp:

- Selection of village: very good
- Cooperation must be learnt from them
- Time of camp: no problem for volunteers as well as for villagers
- Fund: OK
- Accommodation: made in school was OK
- Transport vehicles: support from the college was good hence no problem
- Sanitation facility: found difficulty for male volunteers
- Audio-visual aids: support from the college and also from the villagers

Suggestions for improvement of the conduct of the future camps:

- Planning of camp to be still improved
- Volunteers must conduct all programmes of the camp
- Volunteers must organize the Educative Cultural Programmes
- Other interesting activities to be made for volunteers like group activities involving villagers
- Volunteers should also involved in selection and planning of camp

Financial statement: 2014-15

Sl. No.	Particulars	Budget allocated	Budget Spent
1.	Regular activities	Rs 25,000	Rs 19,110
2.	Annual Special Camp	Rs 28,350	Rs 33,569 ⁺

Proposed activities for the year 2015-16:

The NSS unit would extend its whole hearted support to the College administration in the process of greening the campus. NSS unit will actively involve in any creative and constructive activities of college.

VETERINARY COLLEGE, HASSAN

Sl. No.	NSS regular and Special camp Activities done for the year 2014-15
1	The regular activities were inaugurated for the year 2014-15 on 18-07-2014. An oath was taken by the new volunteers of I B.V.Sc. & A.H. students promising hard work and volunteership for the progress of the nation. Inauguration of the programme was done by lighting lamp by Dr. Placid E D'Souza, Dean (I/C), Veterinary College, Hassan. Dr. Narayana Bhat, Head, TVCC, NSS Programme Officer were present.
2	Varun Sastry, Harish, B., Rahi M. Kittur, and Sumithra B. Mallur participated in State Level Pre Republic day camp held at Bengaluru University, Jnan Bharathi campus from 08-09-2014 to 13-09-2014. (Harish, B., Rahi M. Kittur and Sumithra B. Mallur were selected for South Zone RD camp).
3	Communal Harmony Campaign and Flag Day was observed from 19th to 25th of November. Drawing and painting competitions were organized during the period. Preetham, M.R., Vismithashree, V., Varun Sastry secured I II and III prizes respectively. Flags were distributed among students and staff of the college. A donation of Rs.2000/- was collected and deposited into National Foundation for Communal Harmony account.
4	Rahil M. Kittur and Sumithra B. Mallur participated as a member of Karnataka State NSS unit marching team on 26 th January, 2015 at Manic Shaw parade ground, Bengaluru.
5	On the occasion of National Youth Week from 12 th to 19 th January, 2015 and Birth Anniversary of Swami Vivekananda, a lecture was organized on 'The life history of Swami Vivekananda and his path'. Sri Kadappa Hanchinal, Assistant Teacher of Govt. High School, Hassan spoke on the occasion. During the Valedictory programme of the Youth Week on 19 th January, 2015, Dr. Shiva Prakash, Director of Extension, KVAFSU, spoke on Plastic Awareness and Role of Youth in society. Dr. Hemanna Gowda, Assistant Professor, Dept. of Veterinary Physiology and Biochemistry delivered a lecture on the effects of plastic and its eradication and control.
6	Along with all these activities NSS Unit made a sincere effort to 1) Clean the campus area 2) Watering the plants and pots

Sl. No.	NSS regular and Special camp Activities done for the year 2014-15
	3) Made the campus area plastic free 4) Preparation of sports grounds 5) Active participation in Swatch Bharath Abhiyaan 6) Making campaign to make campus tobacco free, etc.
7	NSS Annual Special Camp is scheduled to be held at Halekoppalu, Hassan Taluk, from 23-04-2015 to 29-04-2015 for the year 2014-15. The following activities have been scheduled for the benefit of the villagers and campers. <ol style="list-style-type: none"> 1. Free dental check up 2. Free eye check-up and treatment 3. Ayush & Homeopathy health camp 4. Animal health and treatment camp 5. Film by Information Department on different Government programmes 6. National Flag Training by Bharath Sevadal 7. First Aid & Tent Pitching By Scout and Guides

DAIRY SCIENCE COLLEGE, BENGALURU

- NSS unit of Dairy Science College, Bengaluru is actively involved in various regular and annual special camp activities
- Dairy Science College students student volunteers participated in different services as under :
 1. cleaning, removal of waste and plastics
 2. students were exposed to village atmosphere during special camp where they are engaged in exercise, yoga and shramadana in maintaining cleanliness in the village
 3. arranged evening talks for the benefit of unemployed youth
 4. Dairy farmwomen, house wives and unemployed youths were were given special attention and advised to take up Dairy activities or dairy entrepreneurship.

Sl.No.	Month & Year	Activity
1	April -2014	<ul style="list-style-type: none"> ◦ Orientation for NSS volunteers ◦ Cleaned the college area and ksheeradara milk parlour
2	May -2014	<ul style="list-style-type: none"> ◦ Maintenance of the garden plants -pruning, removal of dried leaves and stem of the plants and trees. cleaning terrace, building sajjas
3	June-2014	<ul style="list-style-type: none"> - Involved in the celebration of world milk day at UAS, Campus school. (Procession with slogans on the milk and milk

Sl.No.	Month & Year	Activity
		products. motivated students to drink milk every day. UAS Campus school president was the chief guest and Dean, Dairy Science College Dr.Narasimha Murthy was presided over the function. Finally milk was distributed to the school children) <ul style="list-style-type: none"> • Removed plastics in and around college and campus school
4	July-2014	<ul style="list-style-type: none"> • Engaged in cleaning of college, parlour and hostel premises
5	Aug -2014	<ul style="list-style-type: none"> • Cleaning of college premises , Participated in independence day celebration on 15th August 2014
6	Sep-2014	<ul style="list-style-type: none"> • Removed plastics, fountain and made college premises clean • Special drive to make Campus a plastic free zone.
7	Oct -2014	<ul style="list-style-type: none"> • On 2nd Oct 2014 involved in Swachha Bharat Mission at Dairy Science College, Bengaluru along with Division Head Dr.Lalith Achouth • Removed plastics and wastes in the college premises
8	Nov-2014	<ul style="list-style-type: none"> • Watering the plants, cleaned the SEDP and milk parlor area
9	Dec-2014	<ul style="list-style-type: none"> • Planted Christmas tree in front of the Dairy Science College, Bengaluru, watering the garden plants. Cleaning the fountain
10	Jan-2015	<ul style="list-style-type: none"> • Conducted Plastic free campaign with Dean Dr.NarasimhaMurthy on 13.1.2015 and drive was inaugurated by Dean through distributing the milk in paper cups to the NSS volunteers, then along with Dean procession was carried out in the college campus and bus stop. • On 20.1.2015 cleaned the provided rooms and premises at Gandhigram University, during state education tour. • Participated in Republic day celebration
11	Feb-2015	<ul style="list-style-type: none"> • Manuring and watering the plants
12	Mar-2015	<ul style="list-style-type: none"> • Conducted annual special camp at Melekote, Doddaballapur Tq From 4.2.2015 to 10.2.2015 • Cleaning of 5 big water tanks, watering the plants, cleaned the fountain , lifted waste plastic material in catatle shed area and around agriculture fields (grape) • Students collected information about the dairying, farm land, area, water, electricity, transport, economical status, tradition, by-products utilization etc. • Cleaning of MPCs premises and functioning hall of the village.

❖ NSS-Annual Special Camp at Melekote, Doddaballapur Tq from 4.2.2015 to 10.2.2015

- 4.2.2015: Reached Melekote, accommodated girls students in Bharatha Nirmana Rajiv Gandhi Seva Kendra and boys are placed in Govt school building. Cleaned the kitchen place and residential area. Introduced our students to villagers, later on students and villagers exchanged their thoughts and intension of NSS camp. Arranged the evening talk on cattle feed by Dr. Prabhu, Veterinary college, Bengaluru.
- 5.2.2015: Formal inauguration of camp, Cleaning near Anganavadi premises and watering of plants in school premises
- 6.2.2015 : Involved in cleaning of Bulk milk chilling unit, Lifted waste plastic materials in cattle shed area and around Agriculture field (grapes field)
- 7.2.2015: Cleaned five big water tanks in the village in different batches
- 8.2.2015: Lecture-cum-demonstration on conversion of milk in to value added dairy products preparation at village level for the benefit of dairy farm women and housewives and unemployed youths
- 9.2.2015: Cleaned rooms & premises of primary school, higher middle school and veterinary health centre (Pashu Aarogya Kendra) Melekote
- 10.2.2015: Made provision for collection of rain water for gardening in school ground.

The annual special camp- NSS was concluded on 10.2.2015 by distributing certificates to NSS volunteers by the Dr. Narasimha Murthy, Dean, Dairy Science College, Bengaluru.

DAIRY SCIENCE COLLEGE, KALBURGI

NSS camp was organised by Programme Co-ordinator Mr Devaraju R, Asst. Professor and Head (DE) from 21st to 27th December, 2014 at Pattana village, Kalburgi Dist. for a period of 7 days.

COLLEGE OF FISHERIES, MANGALURU

NSS activity

The following activities were conducted by the NSS wing of the College during 2014-15.

1. Planting coconut saplings was undertaken in the College hostel premises on 26-07-2014. The programme was inaugurated by the Honourable Vice-chancellor of KVAFSU, Dr. C. Renukprasad.
2. Plantation of saplings of fruits bearing plants was conducted in the College Campus on 04.09.2014.
3. The Global Hand Washing day was celebrated on 15-10-2014. An awareness programme in the form of lecture and demonstration was conducted for the benefit of staff and students of the College. Dr. M. N. Venugopal, Professor and Head, Microbiology Dept gave a talk on the occasion followed by demonstration.

4. Under the Swach Bharath Andolan campaign the NSS wing along with the staff carried out cleaning of College campus on 2.10.2014 and 12.02.2015

ANIMAL HUSBANDRY POLYTECHNIC, KONEHALLY, TIPTUR

National Service Scheme (NSS): Animal Husbandry Diploma Students were involved in the activities of cleaning in and around premises of the campus at regular interval they were also involved in all the agricultural activities of LRIC(A), Konehally.

9) Other Co-curricular Activities

VETERINARY COLLEGE, BENGALURU

Hostel Activities

The foundation stone for Veterinary College Hostel was laid by Shree K.F.Patil, Minister of Food, Forest and Transport, Mysore on 24th March 1960. The hostel was named as Kamadhenu. Many veterinary graduates have dwelled in this hostel from that time including our beloved former Honorable Vice-Chancellor of KVAFSU Prof. R.N.Sreenivasa Gowda and present Animal Husbandry Commissioner, Government of India Prof. Suresh Honnappagol.

Accommodation available

Student rooms	:	120
Guest room	:	3
PT room	:	1
Gymnasium room	:	1
TV rooms	:	2
Internet room	:	1
Mess	:	2
Workers resting rooms	:	4
Total	:	134

Boarder detail

The total number of the boarders	:	350.
No.SC/ ST boarders	:	54
Cat I students	:	12
The average mess bill/month		
a. NV mess :		Rs: 2350
b. Veg mess		Rs:1900

Many boarders of the hostel have passed ICAR examinations and other competitive examinations in top position. The students had participated in NSS camp.

Development works taken during the year 2014-15

1. Internet facility was provided to the hostel with 9 computers from 4.00 PM to 11.00 PM.
2. The internet rooms and readings were provided with quire mats and painting.
3. Renovation process of the hostel was completed an amount of Rs 61 Lakhs viz renovation and modernization of kitchen, bath rooms and toilets and complete painting work.
4. To keep the vicinity of the hostel clean many measures have been taken including providing sufficient dust bins in all the blocks and all the rooms.
5. Sufficient quantity of disinfectants are provided.
6. All the blocks have been provided with ROUV water purification system.
7. Water coolers are provided.
8. All the workers have been provided with uniform
9. Re-lacement of the window glasses and the lightings are being taken up.
10. Draotic steps are taken to avoid the wastage in the mess by alteration in the seating arrangements for the boarders during the lunch, dinner and breakfast.
11. The menu for both veg and non veg mess is changed and continuous efforts are put to improve the quality of the food.
12. A proposal of construction of new PG Hostel is also being submitted to the University.
13. A 5 KVA UPS is provided to the Internet room for continuous power supply.
14. 27 rooms are provided with new seating systems and the room is painted.
15. Installation of steam cooking system in both messes.
16. Provided 2 x 380 L water cooler with RO system in both blocks and outside with 100 litre
17. Purchased all utensils required for both messes.
18. Constructed cloth washing area with shelter facility in both blocks.
19. Provided credit card swiping machine to pay the mess bill in time with minimal price
20. Provided xerox facility and scanning facility.
21. Provided Sony 46" LED TV to both TV rooms blocks
22. Provided 30 KVA diesel generator for power supply
23. Provided good bandwidth WiFi facility and efforts are being put to improve the bandwidth and distribution.
24. Inside the both quadrangles created garden with walking path.
25. All the rooms are provided with new cots, chairs and tables.

Development works taken during the year 2015-16 are as follows;

1. Construction of bike parking stand
2. Painting entire hostel including all rooms

3. Purchase of iron cots and other furnitures (Already 20 Lakhs sanctioned, executed soon)
4. Construction of compound wall surrounding hostel
5. Renovation of toilets in I block
6. Providing stainless steal dining table and bench in NV mess
7. Providing vitrified flooring to all the rooms
8. Construction of separate PG hostel (Proposal being submitted to ICAR for funding)

HOSTEL MESS

The hostel has got two messes, vegetarian mess and non veg mess which are being run in two separate halls. Separate staff like care taker, Assistant Cook, Cook, serving personnel, cleaning personnel's and persons for cleaning the grains etc. The mess is run by dividing system and managed by prefects.

MAGAZINES PROVIDED IN THE COMMON ROOM

Sudha, Taranga, Prajavani, Kannada Prabha, Samyukta Karnataka, Sports, Deccan Herald, Hindu, Competition Success, Week, Employment News, Udayavani, Blitz, Times of India, DNA, Rajasthan Patrika, Vijaya Karnataka, Bengaluru Mirror, Hindu, Sports Star, Film Fair, Roopatara, Frontline, Outlook, India Today, Hai Bengaluru, Star Dust, Week

INTERNET FACILITY

Internet and computer and computer facility is provided to the students by using eight computers from evening 5.00 PM to night 11.00 PM. Printing and scanning facilities are also created and nominal charge of Rs: 10/hour is being collected from the boarders. Unlimited BSNL broadband facility is adopted for the benefit of the boarders. The students are using the computers for preparing the power point presentations, using it for preparing the assignments and scanning the documents for presentation. The printing facility is also provided with nominal charge of Rs: 1.00 per page to the boarder of the hostel. Annual maintenance is provided to all the computers to avoid the breakdown. A 2 KVA UPS is installed to provide the uninterrupted power supply to the computers. Daily, on an average 25 boarders are getting the benefit of the facility. Now the WiFi facility is provided to both blocks with 100 mbps speed.

HOSTEL RENOVATION

The hostel is established about 50 years back. The painting was totally bad. The bath rooms and toilets needed the renovation. The kitchen to be modernized. Hence, the proposals were sent to the university and ultimately the University released an amount of Rs: 70 Lakhs to the modernization of the hostel which included all the above said works. Now the renovation process of painting, renovations of all bath rooms and toilets, both kitchen are over

GENERATOR FACILITY: Due to interruption of the power, there was problem in cooking, grinding, water pumping and in night reading. Hence, a generator of 30 KVA was purchased and installed in the hostel.

HOSTEL DAY CELEBRATION: The hostel day was not celebrated since many years. On 29-09-2014, Hostel Day was celebrated. Dr.S.Yathiraj, Dean, Veterinary College, Hebbal, Bengaluru presided over the function The Chief Guest was Mr. Ramanujam who gave a talk on leadership development. Dinner was served to more than 500 boarders and guest.

VETERINARY COLLEGE, BIDAR

#	Date	Activity
1	14-04-2014	Celebration of Dr. B.R.Ambedkar Jayanti
2	26-04-2014	Celebration of world veterinary day
3	02-05-2014	Celebration of Basava jayanti
4	18-08-2014	Orientation for I yr students
5	05-09-2014	Teachers day celebration
6	05-07 Sept., 14	Organization of intercollegiate youth festival
7	02-10-2014	Gandhi jayanti celebration
8	08-10-2014	Valmiki jayanti celebration
9	08-11-2014	Celebration of Kanakdas jayanti
10	22-11-2014	One student participated in debate competition at Dairy Science College Bangaluru
11	12-12-2014	Organization of fresher's day
12	30-01-2015	X-ceft and M-ceft awards to toppers of 13-14 batch
13	19-02-2015	Celebration of Shivaji Maharaj Jayanti
14	21-02-2015	Celebration of Sarvagnya Jayanti
15	18-27 Feb., 15	Special coaching to SC, ST students under SCSP-TSP grants
16	25-03-2015	Celebration of Devar Dasimayya Jayanti

VETERINARY COLLEGE, HASSAN

#	Date	Activity
1	14 th April, 2014	Ambedkar Jayanti
2	26 th April, 2014	World Veterinary Day Celebrations
3	17 th July, 2014	Souvenir Programme of 2 nd Graduating Batch (2009-14)
4	2 nd October, 2014	Swaccha Bharat
5	1 st January, 2015	Fresher's Day
6	12 th March, 2015	Hostel Day

DAIRY SCIENCE COLLEGE, BENGALURU

#	Date	Activity
1	1 June 2014	<ul style="list-style-type: none"> • World Milk Day was celebrated with great zeal by organizing a procession involving all students, teaching & non-teaching staff of the College to UAS Campus School. Awareness was created amongst the students' fraternity through talks and placards. Peda and flavoured milk were distributed to the students and staff of UAS Campus School.
2	26 July, 2014	<ul style="list-style-type: none"> • College Annual Day celebrations
3	1 August, 2014	<ul style="list-style-type: none"> • Orientation Programme for I Year B. Tech. (D. Tech.) newly admitted students during 2014-15
4	18-24 August, 2014	<ul style="list-style-type: none"> • 7 days Training Programme on Social Entrepreneurship for final year B. Tech. (D. Tech.) students conducted by Rajiv Gandhi National Institute of Youth Development, Ministry of Youth Affairs & Sports, Govt. of India, Sri Perumbudur.
5	5-7 September 2014	<ul style="list-style-type: none"> • Students participated in the Youth Festival "Kala Chilume" 2014 and won prizes as under : <ol style="list-style-type: none"> 1. Solo singing - 1st place 2. Group Song - 1st place 3. Patriotic Song - 1st place 4. Folk Dance - 1st place
6	11 September, 2014	<ul style="list-style-type: none"> • Dayananda, C.R. and Shiva Prasad, D.P. participated in the 11th National Dairy Product Judging Contest organized by AAU, Anand, Gujarat
7	12 September, 2014	<ul style="list-style-type: none"> • Mukesh Kumar, G.H. and Praveen Kumar, Y.S. participated in the 7th National Dairy & Food Quiz Contest at AAU, Anand, Gujarat.
8	20 September, 2014	<ul style="list-style-type: none"> • Freshers Day celebrated to welcome the newly admitted students
9	2 October, 2014	<ul style="list-style-type: none"> • Swachh Bharath Campaign was initiated. Filth, dirt and plastic materials in and around the premises of Dairy Science College, Bengaluru was removed.
10	31 October, 2014	<ul style="list-style-type: none"> • Dr. Vijay Bhasker Reddy, an alumnus of DSC, Bengaluru working as a Consultant gave a talk on Opportunities in Food Industry for the benefit of final year B. Tech. (D. Tech.) students
11	26 November, 2014	<ul style="list-style-type: none"> • Indian Milk Day was celebrated in commemoration of Dr. Verghese Kurien, the Father of White Revolution in India.

DAIRY SCIENCE COLLEGE, KALBURGI

#	Date	Activity
1	24-12-2014	Animal Health Check up and Calf Exhibition was Held at Pattana village Tq and Dist Kalaburagi

ANIMAL HUSBANDRY POLYTECHNIC, SHIGGAON, HAVERI

#	Date	Activity
1	14-04-2014	Ambedkar Jayanti: Ambedkar jayanti was celebrated at Animal Husbandry Polytechnic, Shiggaon. Students participated in elocution regarding life and achievements of Bharat Ratna Dr. Baba Saheb Ambedkar.
2	02-05-2014	Basava Jayanti: Basava jayanti was celebrated at Animal Husbandry Polytechnic, Shiggaon.
3	02-10-2014	Gandhi Jayanti / Swachh Bharat Abhiyaan at AHP, Shiggaon : On the occasion of 146 th Birth Anniversary of Mahatma Gandhi, as part of Swachh Bharat Abhiyaan , cleanliness drive was organised at the premises of Animal Husbandry Polytechnic, Shiggaon. After paying rich tributes to Mahatma Gandhi, Dr. Shivakumar K. Radder, Principal, AHP, Shiggaon highlighted importance of cleanliness to students. Staff and students of AHP, Shiggaon cleaned the premises of the campus.
4	08-10-2014	Valmiki Jayanti: Valmitki jayanti was celebrated at Animal Husbandry Polytechnic, Shiggaon.
5	01-11-2014	Kannada Rajyotsava: Kannada Rajyotsava was celebrated at Animal Husbandry Polytechnic, Shiggaon with great fervor. Various competitions were held for students. Viz. Patriotic Songs and Bhaav Geete singing competition, Rangoli competition. Students enthusiastically participated in these events and winners were given prizes. A state level workshop on "Popular Article Writing in Kannada" was organized on the occasion
6		Kanaka Dasa Jayanti: Kanaka Daasa jayanti was celebrated at Animal Husbandry Polytechnic, Shiggaon. Students recited Vachanas of various Daasas.

7	15-08-2014 & 26-01-2015	Independence day and Republic Day : Independence day and Republic day were celebrated at Animal Husbandry Polytechnic, Shiggaon with great fan fare. Students participated in patriotic songs singing and elocution on the Indian National Movement.
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ANIMAL HUSBANDRY POLYTECHNIC, KONEHALLY, TIPTUR

Sl.No.	Date	Activity
1	14.04.2014	Celebration of Dr. B.R Ambedkar Jayanthi
2	26.04.2014	Celebration of World Veterinary Day
3	05.06.2014	Celebration of Environment Day
4	15.08.2014	Celebration of Independence day
5	05.09.2014	Celebration of Teachers Day
6	02.10.2014	Celebration of Gandhi Jayanti
7	01.11.2014	Celebration of Karnataka Rajyotsava.
8	12.11.2014	Celebration of First Year Students Welcome
9	14.11.2014	Celebration of Children's Day
10	01.12.2014	Celebration of World AIDS Day
11	26.01.2015	Celebration of Republic Day

FISHERIES RESEARCH & INFORMATION CENTER, BELA, ANTIKOT

#	Date	Activity
01	1-04-2014	Dr. Mansing Naik attended as a paper setter for M.T. Marine Biology examination was invited by Marine Biology P.G. Centre, Karwar.
02	12-04-2014	Dr. Mansing Naik attended the Board of studies meeting conducted by College of Fisheries, Mangaluru.
03	19-05-2014	Dr. Mansing Naik attended the subsidy committee meeting organized by MPEDA at Kadwad, Karwar.
04	11-06-2014 To 13-06-2014	Dr. Mansing Naik attended the examination duty as external evaluator which was conducted by Marine Biology P.G. Centre, Karwar.
05	12-1-2015 To 6-6-2015	Dr. Mansing Naik offering Fisheries 101(0+1)for Diploma Agriculture students Diploma Agriculture/ARS, Kumata, UAS, Dharwad.

III. RESEARCH

University is vested with the mandate of Teaching, Research and Extension. Various research activities in the sphere of Veterinary, Animal, Dairy and Fisheries Sciences are being undertaken at different organizations/institutions.

1) Completed Projects

a) Project Details

<i>Dept.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Yr. of Compl.</i>	<i>Principal Investigator</i>
VETERINARY COLLEGE, BENGALURU						
VAN	Flash based innovative technique as an aid in teaching Veterinary Anatomy	-	0.30	2011	2015	K.V. Jamuna
AGB	Molecular genetic studies on Butyrophilin gene and its association with milk quality traits in cattle	KVAFSU	-	2013	2015	C.S. Nagaraja
VMD	Clinical Assessment of Herbal Ectoparasitic Repellent (YESPRAY & KENNEL) spray in Dogs	Strategi Herbal Pvt. Ltd	0.15	2014	2014	P. T. Ramesh
P.Sc.	Effect of supplementation of yeast (<i>Saccharomyces cerevisiae</i>) and medicinal herbs on the growth performance of Giriraja chicken	M/s. Vamso Biotechnologies	91.00	2013	2014	K. Venkata Reddy

<i>Dept.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Yr. of Compl.</i>	<i>Principal Investigator</i>
VAHEE	Marketing Pattern of Coloured Broilers in Karnataka	KVAFSU	0.20	2013	2014	V. Jagadeeswary
VPY	Biocontrol of dog and cattle ticks With entomopathogenic nematodes (EPN)	ICAR	Recurring Contingency (RC)	2013	2014	Placid E. D'Souza
VPY	Studies on prevalence of liver fluke and amphistomes in ruminants under different managemental systems in Bengaluru districts	ICAR	RC	2013	2014	Puttalakshamma G.C.
VSR	Studies on General Anaesthesia by using Isoflurane in Cattle	KVA FSU	0.50	2014	2015	L. Ranganath
VPA	Centre of excellence in pathology and establishment of modern histopathology	VGST-GOK	-	-	2014	M.L. Satyanarayana
ANN	Evaluation of a slow release nitrogen product feed supplement on the performance of growing lambs.	-	-	2013	2014	K. Chandrapal Singh
ANN	Effect of supplementation of limiting amino acids to optimize the	-	-	2013	2014	R. Gideon Gloridoss

<i>Dept.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Yr. of Compl.</i>	<i>Principal Investigator</i>
	protein requirement of commercial broilers					
ANN	Evaluation of azolla (<i>azolla pinnata</i>) as a micronutrient supplement by chemical and <i>in vitro</i> methods	-	-	2013	2014	T.M. Prabhu
ANN	Evaluation of maize (<i>zea mays</i>) husk as a source of roughage for feeding sheep.	-	-	2013	2014	T.M. Prabhu
LPM	Genetic upgradation of cattle and buffaloes	RKVY	119.00	2010	2015	U. Krishna moorthy
LPM	Feed and fodder evaluation & development of cost effective feeding strategies to increase ruminant production & reduce environmental impact	RKVY	32.00	2010	2015	U. Krishna moorthy
VETERINARY COLLEGE, BIDAR						
VSR	Reconstructive surgery in management of wounds	KVAFSU	0.50	2014	2015	Doddamani Jahangirbasha
VSR	Comparative evaluation of isoflurane inhalant anesthesia with combinations of midazolam,	KVAFSU	0.25	2013	2015	Bhagvantappa B.

<i>Dept.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Yr. of Compl.</i>	<i>Principal Investigator</i>
	ketamine, propofol or thiopental as induction agents in dogs.					
TVCC	Comparative evaluation of Radiography and Ultrasonography in the diagnosis of reticular disorders in ruminants.	KVAFSU	0.45	2014	2015	Manjunatha, D. R
VPY	Study on the status of Acaricidal Resistance in cattle ticks by <i>in vitro</i> method.	KVAFSU	0.05	2013	2014	Pradeep. B S
VPT	Study of Hematological and Biochemical changes after antibiotic Ceftriaxone administration in cows	KVAFSU	Non financial	2012	2014	Santhosh.C.R
VPT	Study of Hematological and Biochemical changes after antibiotic Gentamicin usage in cows	KVAFSU	Non financial	2012	2014	Santhosh.C.R
VPT	Study of hematological and biochemical changes after prolonged Enrofloxacin usage in dogs	KVAFSU	Non financial	2012	2014	Vinay.P.T

<i>Dept.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Yr. of Compl.</i>	<i>Principal Investigator</i>
VPT	Analysis of hematological and biochemical Changes after prolonged Ampicillin + cloxacillin administration in dogs.	KVAFSU	Non financial	2012	2014	Vinay.P.T
VPT	Comparative efficacy evaluation of herbal methionine supplements & synthetic methionine in improving growth and performance in broilers	Ayurved Delhi	0.56	2013	2014	Vijaykumar.M
VPT	Pharmacological Evaluation of MPL formulation in Bovines	MSD Ltd,Pune	2.82	2014	2014	Vijaykumar.M
ILFC	Efficacy of Feeding Herbal Performance Enhancer on Growth, Overall Performance and Immune Response of Broilers.	M/s Vetpet Formulations, Mangaluru	0.49	2013	2014	Siddaling Swamy Hiremath
ANN	Comparative study on growth performance of Kenguri strain-1 lambs fed with milk and milk replacer	KVAFSU	0.20	2013	2015	Thirumalesh
ANN	Effect of banana plant stem silage	KVAFSU	0.25	2013	2015	Ramachandra

<i>Dept.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Yr. of Compl.</i>	<i>Principal Investigator</i>
	supplemented with urea and slow release NPN source on body weight gain, intake and digestibility in Osmanabadi kids.					
VETERINARY COLLEGE, SHIVAMOGGA						
VMC	Study on <i>invitro</i> antimicrobial sensitivity/resistance of the isolates obtained from bovine mastitis cases in and around Shivamogga	KVAFSU	0.30	2013	2014	P.Sheela
VPE	Experimental studies on inoculation, sanitation and recovery of <i>Listeria monocytogenes</i> in raw shelled eggs at ambient and refrigeration temperature and its risk assessment for egg safety'	KVAFSU	0.15	2013	2015	Santosh A. Sajjan
VPE	Development of rapid test for detection of adulterants in milk	KVAFSU	0.20	2014	2015	Nagappa, K.
ILFC	Effect of seasonal variation on reproductive performance of large white Yorkshire pigs.	KVAFSU	0.10	2013	2015	Satheesha,G.M.

<i>Dept.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Yr. of Compl.</i>	<i>Principal Investigator</i>
AGB	Study of backyard Chicken production system in Shivamogga taluka	KVAFSU	Nil	2013	2014	Rudresh, B.H.
AGB	Genetic upgradation of non-descript cattle in Malnad area: scope for refinement at grass root and decision making levels	KVAFSU	Nil	2011	2014	Rudresh, B.H.
VMD	Epidemiological investigation of nematodal infestation in goats	-	-	2012	2014	Nagaraja L.
VETERINARY COLLEGE, HASSAN						
VAHE E	Survey of Livestock Shandies in Hassan District	KVAFSU	0.10	2012	2014	Sushant Handage
ILFC	Effect of methionine producing probiotic microorganisms on the performance of layers	KVAFSU	0.40	2013	2014	Suresh, B.N.
VPH	Use of effective micro organisms technology for treatment of coffee pulping waste water	KVAFSU	0.36	2014	2015	Ravikumar, P.
VPY	Evaluation of MozziQuit mosquito trap in the control of mosquitoes and other Nematoceran insects	Leowin Solutions Pvt. Ltd. Mangaluru	0.30	2014	2015	Placid E. D'Souza

<i>Dept.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Yr. of Compl.</i>	<i>Principal Investigator</i>
VPY	A pilot study on prevalence of arthropods in and around Hassan	KVAFSU	0.25	2014	2015	H. Dhanalakshmi
VSR	Studies on bovine papilloma in Malanad area and its surgical management	KVAFSU	0.30	2015		Sudheesh Nair
TVCC	Studies on efficacy of antibiotic and prostaglandin for treatment of high risk uterine disease (HRUD) in dairy cows	KVAFSU	0.30	2013	2015	G.J. Renukaradhya
VMD	Incidence of cryptosporidiosis and enteritis due to other parasites in calves in and around Hassan	KVAFSU	0.25	2013	2014	Chethan Kumar
VMD	Studies on helminthic infestation in small ruminants and anthelmintic efficacy in and around Hassan	KVAFSU	0.30	2013	2014	K. Kavitha
LPM	Effect of feeding Azolla on growth and health of grower pigs	KVAFSU	0.20	2013	2015	S.B. Prasanna
DAIRY SCIENCE COLLEGE, BENGALURU						
DT	Development of health food for	DST	19.45	2011	2014	D. B. Puranik

<i>Dept.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Yr. of Compl.</i>	<i>Principal Investigator</i>
	enhancement of immunity in geriatrics					
DAIRY SCIENCE COLLEGE, KALBURGI						
DT	Development of Technology for the Production of Ready to Reconstitute Masaala Chaas (buttermilk) powder	KAVFSU	0.30	2013	2014	Sharangouda, B.
COLLEGE OF FISHERIES, MANGALURU						
FMC	Development of shrimp densovirus dsRNA as and immunoprotectant and delivery via probiotics and nanoparticle mode. (Indo-Australian project)	DBT, GOI	61.39	2011	2014	Indrani Karunasagar
Aqua	Effect of carotenoids on growth, survival and immune response in shrimps and prawn	M/s Avesthagen Ltd, Bengaluru	1.20	2012	2014	H. Shivananda Murthy
FRM	An investigation into the relationship between increased fishing capacity, ichthyofaunal biodiversity and profit maximization: A case of the introduction of high speed fishing boats in Karnataka	Dept. of Fisheries, GOK	0.95	2013	2014	S. Benakappa

<i>Dept.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Yr. of Compl.</i>	<i>Principal Investigator</i>
FPT	Assessment of Harvest and Post-Harvest Losses of Major Crops and Commodities in India	MoFPI	7.00	2012	2014	C.V. Raju
LIVESTOCK RESEARCH & INFORMATION CENTER, NAGAMANGALA						
AGB	Pre-weaning Growth Performance of Mandya Lambs under Semi-intensive Rearing.	MSSP (MS), ICAR	-	2013	2014	R. Nagaraja
ANN	Effect of Supplementation of Cellulolytic Enzymes on the Performance of Growing Mandya Lambs fed with Urea treated Farm Sugarcane Bagasse.	MSSP (MS), ICAR	-	2013	2015	Manja G U
VPA	Etiopathology of Lamb Mortality in Mandya Sheep	MSSP (MS), ICAR	-	2013	2015	Roopa Devi Y S
ANIMAL HUSBANDRY POLYTECHNIC, KONEHALLY, TIPTUR						
AHP, Konehally	Studies on the prevalence of helminthic infestation in small ruminants and the anthelmintic efficacy in Tumkuru district	KVAFSU	0.20	2013	2014	Lathamani, V.S.

ABSTRACT OF COMPLETED RESEARCH PROJECTS

#	College /Institute	Research Projects	
		Total Nos.	Amount (Rs. Lakhs)
1	Veterinary College, Bengaluru	15	243.15
2	Veterinary College, Bidar	13	5.57
3	Veterinary College, Shivamogga	7	0.75
4	Veterinary College, Hassan	10	2.76
5	Dairy Science College, Bengaluru	1	19.45
5	Dairy Science College, Kalburgi	1	0.30
6	College of Fisheries, Mangaluru	4	70.54
7	Animal Husbandry Polytechnic, Konehally	1	0.20
TOTAL		52	342.72

b) Research Highlights

VETERINARY COLLEGE, BENGALURU

“3-D based innovative technique as an aid in teaching Veterinary Anatomy”

3-D animation video graph of the fore limb of buffalo calf with details of blood supply and orientation of the muscles running on the bones of fore limb has been completed. The nerve supply to the same component in under progress. In addition to that the video graph of the original fore limb dissection along with audition is also made. Description of the individual muscles and their blood supply is also highlighted in the animated E-Module. Lastly a quiz pertaining to the limb is also added in the text for the assessment of the student's efficiency.

Title: Molecular genetic studies on Butyrophilin gene and its association with milk quality traits in cattle

- The Butyrophilin locus in Malnad Gidda was found to be polymorphic.
- Higher frequencies were observed for A allele (0.88) and AA genotype (0.76).
- The population was in Hardy Weinberg equilibrium.
- Animals possessing genotype AA had higher fat and SNF percentage

Title: Clinical Assessment of Herbal Ectoparasitic Repellent (YESPRAY & KENNEL) spray in Dogs

The efficacy of herbal ectoparasiticide Yespray was evaluated in-vivo and in-vitro against ectoparasites of 40 dogs of different age, sex and breed. The formulated concentration was effective in controlling ectoparasites by 12-16 body spray, at twice a week frequency of application, which resulted in reduction in number of parasites, pruritus, itching and overall improvement of skin health in vivo. Formulated concentration was effective in killing Fleas, Ticks and Mites at 15min, 72hr and 8hr of post exposure respectively invitro.

In present study 40 Dogs of different age, sex and breed were selected. Upon usage of formulated concentration of herbal ectoparasiticide Kennel spray, it was found to be effective in control of Ticks, Fleas, and Mites at an average of 13 to 16 kennel spray, with twice-a-week application interval with reduction in number of parasites, pruritus, itching and overall improvement of skin health in vivo. The results were supported by In-vitro study, that formulated concentration of product was effective in killing Fleas, Ticks and Mites at 15min, 72hr and 8hr of post exposure respectively.

Title: Effect of supplementation of yeast (*Saccharomyces cerevisiae*) and medicinal herbs on the growth performance of Giriraja chicken

Compilation of Results under progress

Title: Marketing Pattern of Coloured Broilers in Karnataka

- ▶ Majority of the coloured broiler farmers were young and graduated. They were enthusiastic to take up coloured broiler farming.
- ▶ Producer-nearest shopping place- consumer was the most popular marketing channel followed by producer-consumer
- ▶ Majority of the small farmers marketed their birds at 6 weeks of age whereas medium and large farmers marketed their birds at 8 weeks age.
- ▶ The major transportation mode utilised was tempo followed by two wheeler and rickshaw.
- ▶ Consumption preference was positive towards coloured broiler farmers.
- ▶ No common forum for coloured broiler farmers and reliable markets are very far-personal constraints
- ▶ Fluctuations in market price, high interest rate and high transportation cost –financial constraints
- ▶ Lack of marketing information, lack of awareness among public regarding coloured broilers, malpractices in weighing- technical and other constraints

Title: Biocontrol of dog and cattle ticks with entomopathogenic nematodes (EPNs)

A study was conducted to assess the bio efficacy of three entomopathogenic nematodes (EPNs) viz., *Steinernema carpocapsae*, *Steinernema thermophilum* and

Heterorhabditis indica on engorged females of dog tick *Rhipicephalus sanguineus*. Ticks were exposed to all three EPNs at a concentrations of 1250, 2500 and 5000 infective juveniles (IJs) / Petri dish in triplicates. *H. indica* induced 100% mortality in *R. sanguineus* within 48 -72 h at all three concentrations. There was a significant reduction in the egg production ie 3.85 mg-10.2 mg at all three concentrations in contrast to 357.8 gm of eggs produced by untreated control ticks. Besides reducing the egg mass weight, EPNs lead to the production of infertile eggs (no hatchability) with hatchability of 3.89%-59% in dog tick in contrast to 87% hatchability in untreated control group. Whereas *S. carpocapsae* induced 100% mortality within 72-96 h. There was a significant reduction in the egg production ie 2.7-179.3 mg at all three concentrations in contrast to 537.2 mg of eggs produced by untreated control ticks. *S. carpocapsae* lead to the production of infertile eggs (no hatchability) in dog ticks in contrast to 87% hatchability in control group,

However, in *S. thermophilum* 100% mortality was observed after 192- 312 h in *R. sanguineus*. There was a significant reduction in the egg production ie 59.6-221.35 mg at all three concentrations in contrast to 537.2 mg of eggs produced by untreated control ticks. Reduced hatchability of 18-22% was observed in *R. sanguineus* in contrast to 87% hatchability in control group.

Title: Studies on prevalence of liver fluke and gastrointestinal protozoans under different managerial systems in Bengaluru district

A total of 792 faecal samples were collected out of which, 593(Grazing), 75 (Stall fed), 35 (Buffaloes), 62 (sheep) and goats (27) were examined for Parasitic ova. Out of 593 samples of grazing cattle screened 33(5.56%) were found positive for Amphistome & 2 (0.33%) were found positive for fasciola ova. 75 fecal samples from stall fed cattle were positive for Buxtonella(14.6%). 35 samples collected from buffaloes on grazing 3 samples were positive for Amphistome ova (8.5 %). The sheep (62) & goat (27) samples examined were found negative for Fasciola and amphistome ova. The other infections recorded from cattle were Buxtonella cysts followed by mixed infection of Buxtonella & *Schistosoma indicum*. In Buffaloes *S. Indicum* was commonly observed followed by Buxtonella. Mixed infection of Buxtonella *S. Indicum* Buxtonella strongyle. The ova of strongyle were commonly seen in sheep goat samples. Mixed infection with Buxtonella cyst strongyle ova in sheep Trichuris infection found positive in goats.

- In grazing cattle, low prevalence of fasciolosis and amphistomosis may be due non-availability of water bodies for snail breeding in the urban areas.
- There was no prevalence of fasciolosis and amphistomosis in stall fed cattle.
- In sheep and goats, prevalence of fasciolosis and amphistomosis was not recorded which could be probably due to frequent dosing of anti-helminthodral drugs.

The efficacy of MICROCYDLE-300 (EM-300) was evaluated at different dilutions of viz 1:100, 1:75, 1:50, 1:25, 1:10 on the ova and larvae of parasites. The plates were examined at 6, 24, 48 and 72 hrs of treatment to determine the hatchability and mortality

percentage of larvae. Examination after 6 hours showed an average mortality of 1.11%, 1.67% and 9.44% in dilutions 1:50, 1:25 and 1:10 respectively. After 24 hours post treatment the treatment revealed significant mortality of larvae. An average percentage mortality of 15.55, 41.11, 78.89, 82.77 and 87.78 was observed in respective dilutions. Average mortality of 95.55% was noted in treatment group which received 1:50 dilution, after 48 hours post treatment. After 72 hours of treatment, none in the treatment group revealed the presence of first stage larvae, whereas in the control group first stage larvae along with pupal stages were present. The hatchability of ova was affected by all dilutions of the solution.

The dilution 1:50 proved effective in killing the larvae of house flies within 72 hours. This dilution can be effectively used in poultry sheds for making the litter free from immature stages of flies which can effectively prevent the eggs of flies from hatching.

Title: Studies on General Anaesthesia by using Isoflurane in Cattle

The general anaesthesia in cattle may be carried out safely and effectively by using the anesthetic protocol employed in the present study.

Title: Centre of excellence in pathology and establishment of modern histopathology

- Some of the equipments required for the project were procured to set up the laboratory.
- Renovation of laboratories was completed after following the approved procedure.
- Research work on indigenous drug/preparation was initiated and is under progress.

Hypoglycaemic effects of the following indigenous herbal extracts have been evaluated in experimentally induced diabetes in comparison with a known sulphanylurea preparation – Glibenclamide[®] with following parameters.

- Phytochemical evaluation of the herbal preparations.
- Induction of diabetes in rats experimentally by streptozotocin
- Evaluation of antidiabetic /hypoglycemic effect of herbal extracts by biochemical and pathomorphological studies
- Evaluation of insulin level by Radio immune assay and IHC

The following projects have been taken up for evaluation.

1. Evaluation of hypoglycemic effect of extract of *Gymnemasylvestre* and cow urine in diabetic rat model.
2. Evaluation of hypoglycemic effect of *Momordica charantia* extract and cow urine in diabetic rat model.
3. Studies on hypoglycemic effect of aged garlic extract on experimentally induced diabetes mellitus in rats.
4. Biochemical and pathomorphological studies on diabetes mellitus in rats and its amelioration using green tea.

5. Pathomorphological studies on induced diabetes in rats and evaluation of antidiabetic efficacy of *Pterocerpumarsupium* and *Swertiachirayita*.
6. Evaluation of antidiabetic property of *Trigonellafoenumgratium* and *Cocciniaindica* in induced diabetes in rats with special emphasis on pathomorphological changes.
 - The above herbal extracts have been found to have hypoglycemic effect in induced diabetic models.
 - The biochemical and morphological parameters in treated groups reverted back to normalcy by 45 days.
 - A significant improvement in Insulin level, liver enzymes, and glutathione, superoxidase and catalase levels were observed from 15th day onwards and were almost normal by the end of the experiment.
 - The antidiabetic/hypoglycemic effect of herbal extracts were on par with effects of Glibenclamide.
 - The hypoglycemic effect of herbal extract was attributed to
 - a. Antioxidant property of the active principles of the herbal extracts
 - b. Repair and regeneration of the beta cells of the Islets of Langerhans

Title: Evaluation of a slow release nitrogen product feed supplement on the performance of growing lambs.

Slow release nitrogen product (SRNP) can safely be used as a NPN source in the diet to replace urea or conventional protein feed, when lambs were fed finger millet straw and sorghum grain as basal feed.

Title: Effect of supplementation of limiting amino acids to optimize the protein requirement of commercial broilers

The crude protein content of broiler diets can be reduced up to 1% through supplementation of limiting amino acids.

Title: Evaluation of maize (*zea mays*) husk as a source of roughage for feeding sheep

Maize husk can be fed as such or with 2% (w/w) urea treatment for sheep under stall fed conditions.

Title: Evaluation of azolla (*azolla pinnata*) as a micronutrient supplement by chemical and *in vitro* methods

Azoila can only serve as a good source of protein, amino acids and minerals with no beneficial effect either on digestibility or metabolizability of crop residues or total mixed

Title: Feed and fodder evaluation and development of cost effective feeding strategies to increase ruminant production and reduce environmental impact

The sorghum stover harvested soon after physiological maturity / grain harvest can be converted into silage of acceptable quality. A higher DMI, higher milk production and better milk quality can be achieved by feeding SstS as compared to SstD. Therefore, conservation of sorghum stover as silage is a better option than in the conventional dry form. This can have a significant impact on resource utilization specially in mitigating fodder shortage during lean season.

VETERINARY COLLEGE, BIDAR

Title: Reconstructive surgery in management of wounds

Management and reconstruction of large wounds was performed using various techniques such as bandaging, leaving open drains, suturing using different suture materials use of supplementation (herbal, homeopathic and allopathic), and reconstructive techniques depending upon the cases presented

Title: Comparative evaluation of isoflurane inhalant anesthesia with consciousness of midazolam, ketamine, propofol or thiopental as induction agents in dogs.

- The dogs were given preanesthetics i.e. atropine 0.045 mg /kg and midazolam (1.4mg /kg B.wt.and followed by induction agents like propofol (4mg/kg, G-I), ketamine (10mg/kg, G-II) and thiopental sodium (12.5mg/kg, G-III). All cases were maintained with 1% isoflurane till the completion of surgeries.
- The anesthetic combinations were suitable for all type of surgeries in dogs and especially the animals with compromised cardiovascular conditions. The group- I and II animals had smooth induction and faster recovery when compared to the group III animals.

Title: Comparative evaluation of Radiography and Ultrasonography in the diagnosis of reticular disorders in ruminants.

Ultrasonography is reliable and safe technique as compare to radiography in diagnosis of reticular disorders like reticular abscess, reticular adhesion, diaphragmatic hernia and diagnosis of motility of reticulum but radiography was found to be superior in diagnosing radio opaque foreign bodies compare to ultrasonography.

Title: Study on the status of Acaricidal Resistance in cattle ticks by *in vitro* method.

Deltamethrine treated ticks (*Rhipicephalus (Boophilus) microplus*) in the five trials revealed an average 34 % resistance while Cypermethrine treated ticks in (*Rhipicephalus (Boophilus) microplus*) the five trials revealed an average 56 % resistance.

Title: Study of Hematological and Biochemical changes after antibiotic Ceftriaxone administration in cows

There were no significant differences in any of the biochemical and hematological parameters in the treated groups. Ceftriaxone was found better tolerated by the animals during treatment period.

Title: Study of Hematological and Biochemical changes after antibiotic Gentamicin usage in cows

There were no significant differences in any of the biochemical and hematological parameters in the treated groups. Gentamicin was found better tolerated by the animals during treatment period.

Title: Study of hematological and biochemical changes after prolonged Enrofloxacin usage in dogs

Slight variation in the WBC and platelet count was observed during 3rd day of the treatment. No adverse effects on blood composition or liver and kidney function tests were observed. Enrofloxacin was found better tolerated by the animals during treatment period.

Title: Analysis of hematological and biochemical changes after prolonged ampicillin + cloxacillin administration in dogs

Slight variation in the eosinophils count, AST and ALT were observed during 7th day of the treatment. No adverse effects on blood composition or liver and kidney function tests were observed. ampicillin + cloxacillin was found better tolerated by the animals during treatment period

Title: Comparative efficacy evaluation of herbal methionine supplements and synthetic methionine in improving growth and performance in broilers

Herbal methionine supplementation has provided good FCR, bodyweights, immunity and antioxidative status in comparison to synthetic methionine*

Title: Pharmacological Evaluation of MPL formulation in Bovines

MPL formulation was evaluated in General Medicine, Surgical and Gyneacological Cases in comparison with various NSAIDS under various clinical conditions and the safety and efficacy of the formulation was better than the traditionally used NSAIDS.

Title: Efficacy of Feeding Herbal Performance Enhancer on Growth, Overall Performance and Immune Response of broilers.

There was significant ($P < 0.05$) improvement in final body weight of the treated group (2.27 ± 0.01 kg) when compared with non-supplemented group (2.23 ± 0.01 kg). Feeding of herbal product to broilers resulted in increased titres of antibodies against Ranikhet disease indicating better protection of birds, against the disease thereby indirectly contributing to better health of broilers.

Title: Comparative study on growth performance of Kenguri strain-1 lambs fed with milk and milk replacer

Marginally higher status of nutrients in cow's milk and milk replacer fed groups showed an improvement in weight gain when compared to the lambs maintained on dam's milk alone. However, the milk replacer fed up to 75g/day /lamb (300ml) did not cause any adverse effect on lambs which indicated that milk replacer can be fed safely when dam's milk is insufficient to meet the requirement in case of twins or triplets.

Title: Effect of banana plant stem silage supplemented with urea and slow release NPN source on body weight gain, intake and digestibility in Osmanabadi kids.

Fresh banana stem (90% moisture) cannot be stored as quality silage. The DMI was low with fresh silage and improved with addition of roughage but addition of urea or SRNP with maize grain did not improve the growth rate or DMI. Banana stem and its silage can be equated to poor quality roughage of non maintenance type. However, the silage quality can be further improved either by wilting it to 65-70% moisture or addition of other dry fodders along with fermentable carbohydrate source.

VETERINARY COLLEGE, SHIVAMOGGA

Title: Study on *invitro* antimicrobial sensitivity/resistance of the isolates obtained from bovine mastitis cases in and around Shivamogga

1. In total, 66 samples were collected from clinical cases of bovine mastitis and processed for bacterial isolation. Of these, 55 samples yielded 75 isolates and 11 samples did not yield any bacterial isolate.
2. *Staphylococcus* spp., *Streptococcus* spp. *K. pneumoniae* and *E. coli* were the predominant species obtained.
3. Highest sensitivity was recorded for chloramphenicol followed by ceftriaxone, enrofloxacin and clotrimoxazole.
4. Highest resistance was recorded for colistin followed by gentamicin, streptomycin and penicillin-G.
5. Methicillin resistance (phenotypic) was most common in *Staphylococcus* spp. followed by *Streptococcus* spp.
6. All *Pseudomonas aeruginosa* isolates were multi-drug resistant.

Title: Experimental studies on 'Inoculation, sanitation and recovery of *Listeria monocytogenes* in raw shelled eggs at ambient and refrigeration temperature and its risk assessment for egg safety'

- Benzalkonium chloride and hydrogen peroxide could be effectively used at 50 ppm and 3% concentration, respectively as sanitizers to eliminate *Listeria monocytogenes* from the surface of shelled eggs. The utility of benzalkonium chloride as one of the sanitizer in egg sanitation can be considered for better

shelf life and safety of raw shelled eggs owing to its efficacy at very low concentration and cost effectiveness.

- Sanitation of raw shelled eggs with benzalkonium chloride and hydrogen peroxide reduces the risk of listeriosis through ingestion of eggs. While the chlorine was not effective in eliminating *Listeria monocytogenes* from the surface of shelled eggs at its MIC concentration (30 ppm) but it was found to be effective at 200 ppm as observed in the present study.
- *Listeria monocytogenes* can grow in wide range of pH from 5.5 to 9.5 in artificially inoculated albumen, yolk and whole egg contents of chicken eggs. The growth of *Listeria monocytogenes* is more luxuriant in yolk followed by whole egg contents than albumen.

Title: Development of rapid test for detection of adulterants in milk

- a) Paper strips were developed for the detection of adulterants namely starch, powdered soap/detergent, neutralizers and hydrogen peroxide in the milk.
- b) Developed paper strips were evaluated and validated at different laboratories of Veterinary College, Shivamogga for its performance on detection of above mentioned adulterants.

Title: Effect of seasonal variation on reproductive performance of large white Yorkshire pigs

Maximum percentage of farrowing usually takes place around the winter season and also during the beginning of summer season. The percentage of piglet mortality was highest during the middle of the winter season followed by rainy season. Usually 60% sows show two farrowing in a year i.e. around the middle of winter and during the end of the summer.

Title: Study of backyard Chicken production system in Shivamogga taluka

Five to ten per cent of the livestock holding families are involved in backyard chicken rearing per village. The average chicken holding per household is around five to six including rooster, hens and chicks. About seventy per cent of poultry raisers are landless farmers. Most of them raise replacements from their own stock. The replacement chicks, eggs and adult birds are the main outputs

Title: Genetic upgradation of non-descript cattle in Mainad area: scope for refinement at grass root and decision making levels

The non-descript cattle account for 40 to 60 % of the cattle population. The non-descript cattle contribute between 25-30% of the village milk production. Their contribution in the form of cattle manure and draught purpose male calves cannot be accounted correctly. Majority of the ND cattle are not covered by AI deliberately by farmers. They are highly resistant to many diseases which affect crossbred cattle

Title: Epidemiological investigation of nematodal infestation in goats

- i) Study was conducted: in Bommanakatte, Sominakoppa, Gejjenahalli, Tyjavalli, Konagavalli, Kotegongur, Gadikoppa, Alkoi, Holebennavalli, Hosalli- villages of Shivamogga Taluk
- ii) Period of the study: June to December, 2013 (2nd phase of the study -6 months)
- iii) Total number of fecal sample examined for parasitic eggs – 3800.
- iv) Total number of infested goats subjected for haematological profile: 180.

Total number of infested goats treated with Fenbendazole at 7.5mg/Kg b.w orally once in three months

VETERINARY COLLEGE, HASSAN

Title: Survey of Livestock Shandies in Hassan District

Five livestock shandies of Hassan district were studied and livestock transactions were peak in the morning hours in all the shandies between 6 a.m. to 11 a.m. All the shandies were governed by APMC. Farmers from nearest villages in the vicinity of the shandy around 10 to 15 kms were the major participants. A typical observation in all the shandies were the presence of middle men, full time traders for Kenguri breed of Sheep (for rearing) procured from Raichur and Sindhanoor areas and Sirohi cross goats (for slaughter) procured from Rajasthan. People from far of places participated in Gandsi shandy to purchase the Hallikar breed of cattle. All the shandies topped in sheep and goat trading except for Gandsi where cattle transactions were highest. Chanrayapatna was potential for desi poultry trading.

Majority of the buyers (77%) and less number of sellers (28%) were broker dependent for profitable transactions. Negotiation was the tool for financial settlements and there was absence of regulated market prices. 61 per cent of farmers expressed the transaction as business and 31 percent due to financial constraints. All the markets were facilitated with drinking water. Hotels were also available near the shandies. Vehicles were easily accessible for animal transport but all shandies lacked veterinary facilities. The study also indicated that shandies are focal points of livestock business and provided employment to number of people including non-farmers. Every farmer had free choice of making selection.

Title: Effect of methionine producing probiotic microorganisms on the performance of layers

A probiotic microorganism isolated from milk, producing sufficient quantum of methionine, procured from AICRP on Post Harvest Technology, UAS Raichur, was tried as a source of methionine in laying hen diets. The results indicated that the methionine producing micro-organisms supplementation was on par with synthetic methionine and also economical.

Title: Use of effective micro organisms technology for treatment of coffee pulping waste water

The project was implemented in a large coffee estate near Chikamagalur. Initially the coffee pulping waste waters were collected and subjected for the estimation of total plate count, BOD, COD, DO and other hydrological parameters. The average values of BOD & COD prior to treatment were 26288 & 33100 mg/L respectively. The pH was 5.39 and there was no microbial growth when the samples were subjected to total plate count estimation using nutrient agar. The waste waters were treated in four stages: Acidification followed by neutralization, treatment with effective microorganisms, treatment with macrophytes and treatment with Water Hyacinth. The BOD & COD reduced to 9357mg/L and 12970mg/L respectively and the pH was 7.26. The total dissolved and suspended solids in waste waters also showed a decreasing trend during the successive stages of the experiment. The turbidity of waste water was 4240 NTU initially which was reduced to 960 NTU at the end of the experiment. It was concluded that the effective microorganism technology was successful in bringing down the BOD, COD, turbidity and total solids in coffee pulping waste waters and rendered the coffee pulping waste water suitable for let out into the waterways.

Title: Evaluation of MozziQuit mosquito trap in the control of mosquitoes and other Nematoceran insects

The attracting, trapping and killing efficiency of 'MozziQuit' was assessed during the period of May 2014 to August 2014. During this period of study, a number of insects were attracted, trapped and killed by this device. A large number of mosquitoes were attracted and killed along with the other flies like Psychodida, moths, midges and Culicoides. Among mosquitoes, maximum number of Culex species were attracted and killed followed by Aedes and Anopheles species found in the vicinity.

Maximum number of mosquitoes were attracted and killed during the months of May and June when the mosquito population was high. 'MozziQuit', an electrical device was found to be very effective in attracting, trapping and killing the maximum number of mosquitoes in livestock farms. This indicates that all the farm animals and poultry birds are devoid of annoyance caused by the mosquitoes and as mosquito population reduces there are less chances of transmission of other parasitic and viral diseases to animals and man. This indirectly helps to increase milk yield in bovines and weight of poultry birds because of proper feeding, sleep and no nuisance or irritability.

This device is cost effective and eco-friendly, does not involve personnel for monitoring or supervision and also for evaluation. Daily operating cost claimed by the manufacturer is said to be at very lower level equivalent to 15 Watts for MQ-MAX and 3Watts for MQ-MINI for electricity consumption. "MozziQuit" attracts, traps and kills mosquitoes without use of any chemicals, no liquids or pills or any variables like sugar or smoke or ash.

More number of mosquitoes were attracted and trapped during the month of May and June compared to July and August. This variation could be probably due to the change in the

environmental temperature. In later months, when this device was assessed there was enough rain in Karnataka state and the environmental temperature was reduced.

This trap named 'MozziQuit' can be used for effective control of mosquitoes and related insects in all farms, residential areas and institutions with no side effects and economically viable as well with increase in production levels from farm animals. Presently available mosquito repellents in the market made out of chemicals do not kill mosquitoes. Repelled mosquitoes lay eggs at their external breeding location and multiply into multi folds making it difficult to control mosquito population. It is possible to eradicate mosquito population by use of 'MozziQuit' Mosquito Trap as it eliminates further multiplication of mosquitoes by attracting, trapping and killing.

Title: A pilot study on prevalence of arthropods in and around Hassan

This study was conducted to study the prevalence of flies, ticks and mites of Veterinary importance in Hassan. The work was carried out between June 2013 to February 2015 in and around Hassan. Out of the 300 cattle screened, 180 were found to be infected with ticks and twenty were infected with lice. A total of 100 animals were infected with *Haemaphysalis bispinosa*, followed by *Boophilus annulatus* and *Rhipicephalus haemaphysaloides*. The lice were identified as *Linognathus vituli*. There was no mixed infestation. Of the 150 sheep screened, 85 were infested with ticks. Among them, 55 animals had *Haemaphysalis bispinosa* and 30 animals had *Boophilus annulatus*. Out of the 20 goats screened, all of them were infested with *Haemaphysalis bispinosa* ticks and *Linognathus stenopsis* lice. Thirty horses were found to be infested with *Haemaphysalis spp.*, ticks and *Damalinea equi* lice. Out of 50 desi birds screened, 30 were infested with *Lipeuris caponis*, 10 had mixed infection with *Goniocotes gigas* and *Menopon gallinae spp.*, Two birds had *Ornithonyssus bursa*. Out of the 35 dogs screened, all of them were infested with *Rhipicephalus sanguineus spp.*, and two were infested with *Demodex canis*. A total 10 skin scrapings of pigs were examined and were positive for *Sarcoptes scabiei var suis*. Flies were collected using insect traps from. The flies included *Musca spp.* (50), followed by *Chrysomya bezziana* (20), *Stomoxys spp.* (20), *Haematobia spp.* (20), *Sarcophaga spp.* (20), *Tabanus spp.* (15), *Hippobosca spp.* (19), *Pseudolynchia canariensis* (5), *Culicoides spp.* (2) and *Melophagus ovinus* (1). Maggots were collected from 100 different cases. It was found that 40 wounds had *Chrysomya spp.* 60 had *Musca spp.* 18 had *Sarcophaga spp.* and 12 had *Phormia spp.* larval stages.

Title: Studies on efficacy of antibiotic and prostaglandin for treatment of high risk uterine disease (HRUD) in dairy cows

Study was designed to compare the efficacy of long acting crystalline ceftiofur and prostaglandins injections in high risk uterine disease cows (HRUD)

- Group 1: Received ceftiofur high dose @ rate of 6.3mg/kg but all the animals had an history of minor pyometra, second degree of retention of foetal membranes

- Group II- Received PGF 2 alpha injection @ rate of 25mg/animal, all the animals had an history of either dystocia, cesarian section or retention of foetal membranes
- Group III-Control group, all the animals had and history of either dystocia, cesarian section or retention of foetal membranes

In all the groups' leukocytosis and decreased haemoglobin concentration was evident before the start of treatment. 15 days after the treatment in all the groups the leucocyte count decreased significantly but still mild increase in the leucocyte count was evident in group II and Group III. 15 days after the treatment in all the groups the Hb concentration returned to normal range. Group I showed 70% conception rate compare to 50% and 30% in group II and III respectively. The study suggests that use of long acting ceftiofur had a positive impact on the appearance of 1st post-partum oesrus, cleansing of uters after parturition, and increased conception rate which in turn helps in faster involution of uterus and early restoration of ovarian activity in HRUD dairy cows.

Title: Incidence of cryptosporidiosis and enteritis due to other parasites in calves in and around Hassan

Total of 372 faecal samples were analysed, of which 278 samples from non diarrhoeic animals and 94 samples from diarrheic animals.

Incidence of Cryptosporidiosis was more common in diarrhoeic animals than non diarrhoeic animals and more common in Younger age group animals than in adult animals. Cryptosporidiosis was commonly encountered in winter season.

Strongyle spp. and Amphistomes spp. were most common cause of parasitic diarrohoea in Hassan. Parasitic enteritis was common in rainy season followed by autumn and winter season.

Title: Studies on helminthic infestation in small ruminants and anthelmintic efficacy in and around Hassan

Necessitates implementation of urgent measures to slow down the development of resistance. Periodical screening of flocks for resistance by FECRT is also recommended. The results of the present study have indicated the need for strategic drenches in combination with grazing management for slowing down the spread of anthelmintic resistant worm populations in sheep and goats.

Title: Effect of feeding Azolla on growth and health of grower pigs

The azolla supplementation experiment involved 24 weaned piglets (after 56 days) grouped into 3 with 8 in each (4 M +4 F). T1 group: concentrate feed supplemented with 10% (DMB) Fresh azolla (Avg 5% DM).T2 group: concentrate feed supplemented with 10% (DMB) Sun Dried azolla (Avg 80% DM) and T3 group Control with Only standard ration.

The mean body weight gains in the three groups were non significant and were 12.35, 12.06 and 12.84 kg in T1, T2 and T3 groups respectively. The weekly cumulative feed intake for 12 wks (3 m) were non significant at 40.75, 38.85 and 40.73 kg in T1, T2 and T3 groups respectively. The FCR was better in Control (2.74) followed by T2 (2.86) and T1 (3.02).

Hence Azolla feeding showed no significant changes in the growth performance of piglets during the initial growth stage of 5 months of age.

DAIRY SCIENCE COLLEGE, BENGALURU

Title: Development of health food for enhancement of immunity in geriatrics

1. Health Food has been developed using Ragi malt (4%), whey protein isolate (5%), lactoferrin (2%), probiotic culture (3%), sugar (8%) and double toned milk (78%).
2. Clinical trials are pending

COLLEGE OF FISHERIES, MANGALURU

Title: Development of shrimp densovirus dsRNA as and immunoprotectant and delivery via probiotics and nanoparticle mode.

The shrimp densoviruses, Hepatopancreatic parvovirus (PmDENV) and Infectious hypodermal and hematopoietic necrosis virus (PstDENV) have devastated the aquaculture industry by bringing about retarded growth that has resulted in severe economic losses in India and Australia. Viral specific dsRNA molecules have been constructed against PstDENV, PmDENV, MrNV, XSV and WSSV and an antisense construct for WSSV and found effective in inhibiting viral replication in *P. monodon*, *L. vannamei* and *M. rosenbergii*. The immunoprotectant effect of dsRNA, antiviral studies and finally the delivery of the dsRNA was standardized. The synthesis of dsRNA of three major genes was achieved, which included one structural and two non-structural proteins of Hepatopancreatic virus (PmDNA) and Infectious hypodermal and hematopoietic necrosis virus (PstDNA). The generation of dsRNA against nodavirus causing white tailed disease in prawns yielded promising results, wherein oral administration of dsRNA provided protection during challenge studies giving high survival.

Oral delivery of bacterial expressed dsRNA NS2 of IHNV was protective when given to animals and inhibited viral replication. However, for HPV the dsRNA NS1 was more effective than NS2 and VP. The delivery of viral specific dsRNA's by oral feeding with artemia yielded excellent results in protecting the animals. Chitosan nanoparticles used as carrier also showed promising results and offered high protection when used as carrier to deliver dsRNA. A similar study on the protection of Pacific white shrimp against the dreaded white spot syndrome viral disease by injection and oral administration of dsRNA showed efficient protection. The results of challenge and the survival observed in shrimps confirmed their possible field application.

Title: Effect of carotenoids on growth, survival and immune response in shrimps and prawn.

The studies were conducted to evaluate the effect of marigold oleoresin and lutein-zeaxanthin extracted from dehydrated marigold flowers (*Tagetes erecta*) on growth, survival and immune response in tiger shrimp, *Penaeus monodon* and freshwater prawn, *M. rosenbergii*. The marigold oleoresin (MO) and lutein-zeaxanthin extract were supplemented at 0, 60, 120 and 180 ppm with the diet containing 38 % protein and tested in different experiments for a period of 60 days.

The results showed that the inclusion of marigold oleoresin and lutein-zeaxanthin concentrate at the rate of 60 ppm and 120 ppm respectively enhanced the immune response in shrimp and prawn. And also showed marginal increase in growth and survival when compared with the control diets in tiger shrimp.

Title: An investigation into the relationship between increased fishing capacity, ichthyofaunal biodiversity and profit maximization: A case of the introduction of high speed fishing boats in Karnataka

A total 180 trawlers were studied along Mangaluru coast during the study period. The trawlers were classified into three categories based on Horse Power of engine viz. <140 HP, 141-300 HP and >300 HP and the average commercial catch recorded were 4 t, 7.79 t, 8.8 t and trash catch 1.25 t, 2.15 t, 3.24 t respectively. Along Malpe coast a total 99 trawlers were studied during the study period. Here also the trawlers were classified into three categories based on Horse Power of engine viz. <140 HP, 141-300 HP and >300 HP and the average commercial catch recorded were 6.5t, 8.32t, 7.79t and trash catch 1.75t, 2.77t, 5.57t respectively.

During present study, it was observed that the fishermen were aware about introduction of high speed engines and 53.33 per cent responded that it may have adverse impact on fish biodiversity and 43.89 per cent, it will increase profitability of fishing. The 2.78 percent fishermen responded for survival in fishing introduction of high speed engines along Mangaluru coast is inevitable. Even along the Malpe coast the fishermen were aware about introduction of high speed engines and 54.55 per cent responded that it may have adverse impact on fish biodiversity and 43.43 per cent it will increase profitability of fishing. The 2.02 per cent fishermen responded for survival in fishing introduction of high speed is unavoidable.

The diesel requirement both in terms of liter per hour and liter per day varies across the crafts in tune with engine HP. The diesel requirement per trip forms the basis of economics of fishing operations. The fishing vessels fitted with >140 HP or 140- 300 HP engines require around 2,000 to 3,000 liters for one fishing operation whereas the High Speed Diesel Engine fitted vessels with >300 HP require around >4,000 liters Diesel for one fishing operation. The diesel use efficiency can be seen in terms of cost reduction due to subsidized diesel. It was found that with diesel subsidy the cost per trip in case of High Speed Fishing Trawler would be Rs 1.30 to 2.02 lakh. In case of trawlers the same was Rs.0.90 to 1.30 lakh.

It was observed that the majority of trawl owners were aware about introduction of high speed fishing vessels and suggested that it may have adverse impact on fish biodiversity but it will increase profitability of fishing. The majority of trawl owners are deciding fishing trip based on previous fishing experience followed by PFZ information provided by State Fisheries Dept.

Based on this study it can be concluded that to understand the short and long term impact of the introduction of high speed fishing boats on the sustainability of marine fisheries needs experimental trawling using normal and high speed fishing boats.

Title: Assessment of harvest and post-harvest losses of major crops and commodities in India.

The Mangaluru centre was allotted two districts namely Dhakshina Kannada and Shivamogga. Then these districts were divided into two blocks viz., Surathkal, Kadaba and Agrahara, Bhadravathi respectively. Further, five villages in each block were allotted where the data enumeration was conducted by both observation and enquiry periodically for various crops.

The crops enumerated for the assessment of the loss included Paddy, Maize, Sorghum, Bajra, Milk, Pigeon pea, Groundnut, Sunflower, Safflower, Mango, Grapes, Guava, Sapota, Papaya, Tomato, Onion, Chilli, Coconut, Arecanut, Egg, and Marine fish. According to the 20 schedules provided by the MoFPI the data was collected by four field investigators for the above area for a period of two years. The data obtained was entered into software provided by CIPHET, Ludhiana.

LIVESTOCK RESEARCH & INFORMATION CENTER (SHEEP), NAGAMANGALA

Title: Pre-weaning Growth Performance of Mandya Lambs under Semi-intensive Rearing

Pre-weaning growth performance of Mandya lambs born over a period of three years during January, 2010 to December, 2013, under semi-intensive system of management was evaluated in the present study. Pre-weaning growth performance of lambs was analyzed based on their birth weight and subsequent weight gain that was recorded on biweekly basis until weaning at twelfth week of age. Influence of sex of the lamb, season of birth, parity and their interaction with ewe body weight were also analyzed. The overall body weight at birth, second, fourth, sixth, eighth, tenth and at twelfth week of age was 2.05 ± 0.02 , 3.90 ± 0.04 , 5.18 ± 0.05 , 6.47 ± 0.06 , 7.66 ± 0.07 , 8.74 ± 0.08 and 9.88 ± 0.09 kg, respectively. Average daily gain (ADG) during pre-weaning growth phase at 0-2, 2-4, 4-6, 6-8, 8-10, 10-12 and 0-12 week of age was 123.19 ± 1.94 , 85.10 ± 1.64 , 86.28 ± 1.62 , 79.47 ± 1.80 , 71.85 ± 1.77 , 75.68 ± 1.99 and 86.93 ± 0.93 g, respectively. Male lambs had significantly higher birth weights and they continued to maintain the tempo of higher growth performance compared to female counterparts during pre-weaning period. Lambs born during Season-II (Jul-Dec) recorded significantly higher birth weight as well higher growth performance compared to those born

during Season-I (Jan-Jun). Similarly, between the seasons, the recorded ADG at different time points from fourth week old till twelfth week of pre-weaning period was found to be highly significant. Parity and dam's body weight showed a significant positive correlation with both birth weight and subsequent growth performance in pre-weaning lambs.

Title: Effect of Supplementation of Cellulolytic Enzymes on the Performance of Growing Mandya Lambs fed with Urea treated Farm Sugarcane Bagasse

The present study was conducted to assess the effect of feeding farm Sugarcane bagasse (FSCB) fortified with cellulase and hemicellulase enzymes on intake, ADG and digestibility in Mandya sheep fed with 3% urea treated Ragi straw as basal diet. Eighteen sheep (male lambs 6-9 month age) were selected and divided in to three groups of six animals in each treatment. The trial lasted for 12 weeks. The sheep of T-1, T-2 and T-3 groups were fed with 3% urea treated Ragi straw and CFM T-1 considered as control group. In T-2 group 50% of Ragi straw was replaced with 0.5% cellulase and hemicellulase treated FSCB. In T-3 group 75% of Ragi straw was replaced with 0.5% cellulase and hemicellulase treated FSCB. The mean roughage DMI was 338.15, 213.16 and 191.74 g/d in T-1, T-2 and T-3 groups, respectively. The DMI varied significantly ($P < .0001$) between the groups. ADG was 77.14, 51.91 and 55.67g/d for T-1, T-2 and T-3 groups respectively which was statistically non-significant but in control group ADG was higher compared to treatment groups. The digestibility of different nutrients varied non-significantly among the groups. Results of this study indicate that, even though supplementation of fibrolytic enzyme failed to improve the DMI of FSCB where the ADG was not affected. The palatability of FSCB is not improved by 3% urea treatment and fibrolytic enzyme addition but it is an indicative of more beneficial with increasing level of both urea and fibrolytic enzyme supplementation to FSCB. Further study should focus on supplementation of fibrolytic enzymes with urea treatment at effective activity level to promote optimum growth performance and nutrient utilization in sheep.

Title: Etiopathology of Lamb Mortality in Mandya Sheep

The present study was carried out to investigate the lamb mortality at LRIC(S), Nagamangala in Mandya Sheep born during the year 2013 and 2014. The pattern of lamb mortality studied keeping the factors such as year of birth, month, gender, birth weight of lamb, age of lamb, parity of dam, and etiology. The overall mortality percentage was recorded to be 27.7%. Based on number of lambs born during 2013 and 2014 the mortality was found to be 17.9% and 37.24%, respectively. Based on gender of lamb mortality was found to be 30.74% and 28.62% in male and female lambs, respectively. The patterns of mortality were calculated based on the percentage derived from the total mortality percentage. Highest mortality found in the lamb group with the birth weight of less than 2 kg. Perinatal mortality recorded highest with 24.18 %. Maximum lamb mortality found in the first and second parity dams with 20.44% and 34.07%, respectively. Peak mortality was found during the month of November and December with 10.60% and 14.91%, respectively. Causes of lamb mortality are grouped as Abortion, still birth, low vigor, starvation & hypothermia, parasitic, infectious and miscellaneous. Lamb mortality due to infectious agents

found to be the major cause with 47%. The organisms such as E-coli, Staphylococcus, Pseudomonas, Pasteurella and Clostridium were isolated from the tissue samples collected during necropsy. The parasitic agents such as Haemonchus, Strongyles, Coccidia and Moneizia were also found contributing to lamb mortality in spite of regular deworming schedule. Lung and intestine were the major organs affected in lamb mortality. Pneumonia, Pneumonia and enteritis complex were observed during necropsy as the major lesion.

CANINE RESEARCH & INFORMATION CENTER, TIMMAPUR, BAGALKOT

Title: Normal biochemical parameters of Mudhol hound dogs

- The haemtological and Serum biochemical parameters are on par with other hound breeds and all breeds of dogs.
- No significant differences in value among the different sex.

2) Ongoing Projects

a) Research Details

<i>Depts.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Principal Investigator</i>
VETERINARY COLLEGE, BENGALURU					
VAN	Flash based innovative technique as an aid in teaching Veterinary Anatomy	VGST	0.30	2011	R.V. Prasad
VAN	"Infrastructure development , FIST"	DST	0.55	2014	V. Girish Kumar
VPB	IEF study of LDH isozymes in colored birds	KVAFSU	-	2012	V. Girish Kumar
VPB	FIST, DST	DST	55.00	2013	V. Girish Kumar
AGB	Molecular genetic studies on traits of economic importance in Mandya sheep and its variants	KVAFSU	-	2013	R. Nagaraja
AGB	MHC and Fecundity linked microsatellite analysis in goats in Karnataka	KVAFSU	0.80	2013	R. Jayashree.
AGB	Polymorphism of meat quality genes and their association with carcass traits in Mandya ram lambs	KVAFSU	0.60	2014	Naveen Kumar, S.

<i>Depts.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Principal Investigator</i>
LPT	Promoting Health, Livelihood and Sustainable Livestock Systems; India Research Initiative on Peri-Urban Human-Animal-Environment Interface	PHFI	32.83	2015	Manish Kakkar
P.Sc.	Strengthening of Poultry Feed Analytical Laboratory at Veterinary College, Hebbal, Bengaluru	GOK	140.00	2013	K. Venkata Reddy
P.Sc	Automation of Giriraja breeder house	RKVY	200.00	2013	K. Venkata Reddy
P.Sc	Strengthening of Poultry farm at Poultry science Department, Veterinary College, Bengaluru for empowerment of rural youth and rural women	CSS, GOI	83.70	2013	K. Venkata Reddy
P.Sc	Comparative evaluation of Giriraja, Swarnadhara and Native fowl for meat and egg quality traits	KVAFSU	0.20	2014	Malathi. V
P.Sc	Effect of supplementation of	M/s Vennar	1.44	2014	Malathi, V.

<i>Depts.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Principal Investigator</i>
	processed vegetable market waste on growth performance of chicken	Organics Pvt Ltd Bengaluru			
VAHEE	Popularization and Intensive cultivation of Medicago Sativa (Lucerne) for Sustainable dairy farming in Gowribidanur Taluk	KVAFSU	0.20	2014	V. Jagadeeswary
VMC	Monitoring of quality of water at major waterholes in Bandipur Reserve	GOK	3.47	2014	D. Rathnamma
VMC	Screening of elephants for Tuberculosis by Tuberculin and PCR tests	GOK	6.53	2014	D. Rathnamma
VMC	Evaluation of <i>Brucella abortus</i> strain 19 reduced dose conjunctival route vaccination in bovines	M/s. Indian Immunologicals Ltd. Hyderabad	3.00	2014	Shrikrishna Isloor.
VPH	Out Reach Programme on Zoonotic Diseases in XI Five Year Plan, ICAR (2012-2017)	ICAR	73.08	2012	Leena, G
VPT	Anti-cancerous and safety study of <i>Bridelia retusa</i> in rats	NM Academy	3.43	2012	N.B. Shridhar

<i>Depts.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Principal Investigator</i>
VPT	Evaluation of anti-diabetic property of few breeds of cow urine in rats	Dharmachakra Trust	5.73	2012	N.B. Shaidhar
VPT	Pharmacokinetics, bio distribution and efficacy studies of enrofloxacin (Enrocin®) and Bayrocin® in broiler chicken	Zoetis, Mumbai	4.01	2013	Jagadeesh S Sanganal
VSR	Animal Disease registry & Tissue Bank	ICAR	579.00		H.D. Narayana swamy
VSR	Evaluation of Cold Plasma in management of Wound	ICAR	1.30		S. Yathira
VPA	Outreach programme on Zoonotic diseases with special reference to Rabies and Anthrax	ICAR	75.00	2009	M.L. Satyanarayana
VPA	Funds for Improvement of infrastructure in Para-clinical Division	DST	33.00	2008	M.L. Satyanarayana
VPA	Animal disease registry and tissue bank.	ICAR	592.10	2012	H.D. Narayana swamy
VPA	Efficacy of Diatomaceous Earth in mycotoxicosis	Agripower	10.20	2013	H. D. Narayana swamy
LPM	A study on	KVAFSU	0.50	2014	Y.B. Ramesh Babu

<i>Depts.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Principal Investigator</i>
	performance of rabbits with azolla feeding				
LPM	In vitro evaluation of complete diets based on Cactus (<i>Opuntia ficus indica</i>) for ruminant feeding	KVAFSU	0.30	2014	Y. Madhura
VGO	Enhancement of reproductive efficiency in sheep through estrous synchronization and AI	RKVY	210.00	2012	A. Krishnaswamy
VETERINARY COLLEGE, BIDAR					
VGO	Evolving new Kenguri strain of sheep with high prolificacy for sustainable sheep production in Northern Karnataka	KVAFSU, Bidar	-	2013	S M Usturge
VGO	Effect of GnRH administration on day 15 th on post partum fertility in Kenguri sheep	KVAFSU, Bidar	0.2	2014	R G Bijurkar
VMD	Assessment for insect repellent property of herbs against <i>Culicoides</i> midges	KVAFSU, Bidar	0.3	2015	Ravindra B.G.
VAN	Morphology and Cytoarchitecture of Ovary Nucleus	KVAFSU, Bidar	0.35	2014	Gish, M.H

<i>Depts.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Principal Investigator</i>
	in the brain stem of sheep and Goat				
VPA	To evaluate the status of anthelmintic resistance by <i>In vitro</i> and <i>In vivo</i> methods in Sheep	KVAFSU, Bidar	0.10	2014	Veena.M
VPB	Effect of Age, Sex and Season on Haematological and Biochemical Parameters in Kenguri Sheep	KVAFSU, Bidar	0.30	2014	Srinivas Reddy Bellur
VPB	Parthenogenetic Activation of Buffalo Oocytes: Effect of Different Activation Protocols	KVAFSU, Bidar	0.80	2014	Sathisha K. B
VPE	Detection of Adulterants in Market Milk of Bidar District	KVAFSU, Bidar	0.50	2014	Arun G. Kharate
VPT	Evaluation of Druggability Targets of Salmonella Sps. in Broilers	KVAFSU, Bidar	0.50	2014	Vijaykumar.M
VMC	Efficacy Testing of Brucella Rev-1 vaccine through subcutaneous and conjunctival routes in sheep and goats.	Indian Immunologicals Ltd, Hyderabad	2.14	2014	Basavaraj Awati

<i>Depts.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Principal Investigator</i>
LPM	Comparative efficacy of herbal products supplementation in improving growth, performance and carcass quality in broilers	M/s Ayurvet Ltd., Solan	0.689	2015	N. V. Jadhav
LPM	A study of the performance of Nari Swarna x Kenguri crossbreds	KVAFSU, Bidar	0.05	2013	Prashant Waghmare
LPT	Application form for Assistance for Creation of Infrastructural Facilities under the Scheme for Human Resource Development- Establishment of Small animal slaughterhouse (Capacity: 10-12 animals/ day)	NMFP	75.00	2014	Sudarshan S
VAHEE	Support Livestock and Extension activities (In Bidar District)	World Bank through WDD	100.00	2014	Channappagouda Biradar
ANN	Effect of polyherbal products on growth performance of Yorkshire pigs	Ayurvet Ltd. HP, India	0.98	2015	Thirumalesh
ANN	Study on growth potentiality of kenguri strain -1 lambs	KVAFSU, Bidar	0.60	2015	Thirumalesh

<i>Depts.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Principal Investigator</i>
VETERINARY COLLEGE, SHIVAMOGGA					
VAN	Gross anatomy of bones of Mudhol Hound Dog	KVAFSU	0.22	2013	Mutturaj P
VPT	Analysis of PK-PD properties of veterinary antimicrobials with reference to current MIC values against common pathogens	KVAFSU	0.40	2016	Pavithra B.H
VPT	Evaluation of pharmacodynamic interactions between meloxicam with certain flouroquinolones.	KVAFSU	0.50	2016	Lokesh L.V
VGO	Incidence and Therapeutic Measures for Fungal Infections in Repeatbreeder Bovines in and around Shivamogga District	KVAFSU	0.40	2014	Ravikumar, B.P.
VPB	Molecular characterization of promoters of milk protiens' genes of Malnad Gidda Breed	KVAFSU	0.40	2014	A.M. Kotresh
VPA	Studies on prevalence of GI parasites of wild animals of Shivamogga region	KVAFSU	0.35	2014	Ananda K J

<i>Depts.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Principal Investigator</i>
VMC	Study of prevalence and characterization of normal bacterial flora in captive wild life of Malnad (Shivamogga) region	KVAFSU	0.50	2014	Phaniraja.K.L
VPE	Application of polyclonal hen egg yolk antibodies for the prevention of zoonotic food borne Salmonellae of poultry	SERB, DST	24.80	2013	Nagappa Karabasanavar
VPE	Livestock support and extension activities - Sujala III component.	WDD, GOK	9.40	2014	Veeranna K.C.
ILFC	Effect of Lignocellulose on performance of Commercial Broilers	KVAFSU	0.15	2011	Umesh B.U.
ANN	A comprehensive study on Dairy production practices and herd health status in urban and peri-urban Shivamogga	KVAFSU	0.30	2013	K.S.Giridhar
ANN	Evaluation of chemical composition and nutritive value of areca sheet as an alternate source of roughage for sheep	KVAFSU	0.50	2014	Umashankar B.C.

<i>Depts.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Principal Investigator</i>
AGB	Malnad Gidda Research and Information centre	GOK	100.00	2012	Head, Department of AGB
AGB	Survey of management and breeding strategies adopted by Malnad Gidda Cattle Rearing farmers in Shivamogga District	KVAFSU	0.20	2015	V.B.Shettar
LPT	"Upgrading the facilities in the area of meat processing including establishment of mini abattoir and quality control"	MoFPI under NMFP	75.00	2015	Chidanandaiah
VAE	Livestock support and Extension Activities	KWDP-Sujala, GoK	7.33	2014	K.C.Veeranna
VAE	Study on Self Help Groups (SHGs) and their Income Generation Activities in Shivamogga District and Identification of Constraints with respect to livestock Production activities	KVAFSU	0.10	2013	Gopala.G.T
VMD	Epidemiological investigation of schistosomosis in cattle and buffaloes	KVAFSU	0.30	2013	Nagaraja, L.

<i>Depts.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Principal Investigator</i>
VPP	A systematic documentation of the pathological conditions in captive wild animals in and around Shivamogga	KVAFSU	0.60	2014	Kavitha Rani
VETERINARY COLLEGE, HASSAN					
VAN	Comparative study on gross morphology and histology of alimentary canal in Hassan, Mandya and Kenguri breeds of sheep	KVAFSU	0.30	2013	Rajashailesha, N.M.
VPH	Field studies on the efficacy of herbal preparations: Mastilep gel, herbal spray (AV/AMS/15) and Kohkin herbal gel on subclinical mastitis in dairy cattle	M/s Ayurved limited	1.04	2015	Ravikumar, P.
HVC	Efficacy of indigenous feed supplements for protection against bacterial infections in broilers at farmers fields	National Innovation Foundation	5.88	2013	Vasanth, M. S.
ANN	Establishment of data on hindgut fermentation kinetics of pig diets	KVAFSU	0.20	2014	H.S. Madhusudhan

<i>Depts.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Principal Investigator</i>
	using in-vitro gas production technique				
ILFC	Utilization of maize cob shank and its sheath as a fodder source for dairy animals	NABARD	9.45	2015	B.N. Suresh
ILFC	Effect of feeding sorghum silage and hay in sheep	KVAFSU	0.20	2015	Mahadevappa D. Gouri
VSR	Studies on etiological aspect & surgical management of hoof lesions in dairy cattle in and around Hassan district.	KVAFSU	0.15	2016	N. Nagaraju
TVCC	Studies on use of chelated minerals during transition period on reproductive performance of dairy cow	KVAFSU	0.5	2014	G.J. Renukaradhya
LPM	Effect of dietary supplementation of extracted nucleotides and mannan-oligosaccharides at graded level on performance of broilers.	KVAFSU	0.20	2014	H.C. Indresh

<i>Depts.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Principal Investigator</i>
LPM	To study the efficacy of Cordyceps (Sericepins) and Essential oil (Super organic) at graded level on growth performance and immunity in broiler birds.	Sericare	0.95	2014	H.C. Indresh
AGB	Herd registration and field performance recording in Amruthmahal cattle breed of Karnataka	KLDA	41.33	2014	G.S. Naveen kumar
DAIRY SCIENCE COLLEGE, BENGALURU					
DT	Use of Bioactive Peptides from Lactic Acid Bacteria in the Development of Functional Food	DST	9.50	2013	H.G. Ramachandra Rao
DT	Establishment of Food Technology and Rheology Laboratory	MoFPI, GOI	75.00	2014	D.B. Puranik
DT	Establishment of Food Processing Training Centre	MoFPI, GOI	15.00	2014	D.B. Puranik
DMC	VTCC - Dairy Microbes	ICAR	3.40	2010	Manjunatha H.
DEBM	To Study the inter-sectoral linkage in Urban fringe agriculture - A case	-	-	2014	Lalith Achoth

<i>Depts.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Principal Investigator</i>
	study of Melekote Village, Bengaluru Rural				
DAIRY SCIENCE COLLEGE, KALBURGI					
DT	KWDP –II, Sujala -III Project on “Livestock support and Extension Activities “	World Bank and GOK	7.30	2014	Sharangouda, B
COLLEGE OF FISHERIES, MANGALURU					
FMC	Prevalence & Impact of Antibiotic resistance bacteria of Non-Human origin (Associated with Livestock practices) on Human Health management	ICMR, New Delhi	27.20	2012	Indrani Karunasagar
FMC	Defense genes of tiger shrimp (<i>Penaeus Monodon</i>) with respect to bacteria (<i>Vibrio harveyi</i>) and white spot virus (WSSV) infection	ICAR	68.65	2012	M. N. Venugopal
FMC	DBT – Bioinformatics – “Distributed Information Sub Centre (DISC)	DBT, GOI	9.73	2007	M. N. Venugopal
FMC	National Surveillance Programme for Aquatic Animal	-	70.44	2013	M. N. Venugopal

<i>Depts.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Principal Investigator</i>
	Diseases (Brackishwater)				
FMC	Capture and removal of ammonia from fish processing waste using Archaea	ICAR	78.30	2011	S.K. Girisha
Aqua	Improving food security by reducing post harvest losses "SECUREFISH"	European Union	73.92	2012	B.A. Shamasundar
Aqua	National Surveillance Programme for Aquatic Animal Diseases (Freshwater)	-	76.94	2013	K.M. Shankar
Aqua	Effect of amino acid supplemented diets on growth, survival and immune response of Indian major carp, <i>Labeo rohita</i>	M/s Evonik Degussa, Germany	1.70	2014	H. Shivananda Murthy
FRM	Influence of Oceanographic Parameters on Plankton Assemblage and Pelagic Fisheries using Satellite data along the Coast of Dakshina Kannada and Udupi Districts of Karnataka	INCOIS, Hyderabad	60.17	2013	S. Benakappa

<i>Depts.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Principal Investigator</i>
AEM	Ecological monitoring of Arabian Sea receiving effluents from MCF Ltd	MCF	5.15	Monitoring project (MP)	Gangadhara Gowda
AEM	Treated effluent analysis and monitoring of seawater quality off Chitrapur near the marine outfall of effluent from MRPL-ONGC, Mangaluru	MRPL-ONGC	10.50	MP	H.R.V. Reddy
AEM	Coastal water quality monitoring near M/s. UPCL seawater intake and effluent discharge point off Padubidri	UPCL	12.69	MP	H.R.V. Reddy
AEM	Bio-monitoring of treated effluent samples – Sequent scientific Ltd	Sequent scientific Ltd. Mangaluru	0.45	MP	Gangadhara Gowda
AEM	Monitoring of pollution impact by discharge of treated effluents from BASF, Mangaluru	BASF	8.33	MP	H.R.V. Reddy
AEM	Sustaining livelihood security in rural women of Dakshina Kannada - Integrated Livestock and Fisheries Production	-	40.00	-	Mandula Rajesh

<i>Depts.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Principal Investigator</i>
AEM	Influence of oceanographic parameters on plankton assemblage and pelagic fisheries using satellite data along the coast of Dakshina Kannada and Udupi districts of Karnataka	INCOIS	60.17	2017	S. Benakappa
AEM	Determination of conservative values of Mangroves of Karnataka	NCSCM	10.50	2015	H.R.V. Reddy
FPT	Improving food security by reducing post harvest losses in the fisheries sector	European Union	168.05	2012	B. A. Shamasundar
FPT	All India Coordinated Research project on Post-Harvest Technology	ICAR	339.30	2012	C.V. Raju
FPT	Application of irradiation for preventing post harvest losses in fish and fishery products	BRNS	23.75	2013	B. Manjanaik
INSTITUTE OF ANIMAL HEALTH & VETERINARY BIOLOGICALS, BENGALURU					
IAH & VR	All India Co-ordinated Research Project on Animal	ICAR	11.00	1998	P. Giridhar

<i>Depts.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Principal Investigator</i>
	Disease Monitoring and Surveillance				
IAH&VB	All India Co-ordinated Research Project for Epidemiological Studies on Foot and Mouth disease	ICAR (75%) & State (25%)	50.00	1997	M. D. Venkatesha
IAH&VB	Southern Regional Disease Diagnostic Laboratory	GOI	264.00	1999	M. D. Venkatesha
Biological Production Division (BPD)	All India Network Project on Blue Tongue Disease	ICAR	7.20	2001	M. D. Venkatesha
BPD	Strengthening of Biological prod. Division of IAH&VB for increased production of vaccines for total health coverage of livestock and poultry rural farmers	RKVY	1447.0	2009	M. D. Venkatesha
BPD	Up gradation of vaccine production laboratories as per GMP for consistent supply of vaccines to livestock and poultry of farming community	RKVY	400.00	2010	M. D. Venkaiesha
BPD	Centre for development of	RKVY	400.00	2010	M. D. Venkatesha

<i>Depts.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Principal Investigator</i>
	vaccines and diagnostics with a special reference to emerging diseases affecting livestock and poultry of farming community				
Disease Investigation Division	Establishment of Disease Diagnostic Laboratories at Bagalkot (Bagalokot Dist), Kolar (Kolar Dist), Sira (Tumkuru Dist) Sira (Hassan Dist) and Kannada Dist)	RKVY	190.00	2012	P. Giridhar
BPD	Development of vaccine and Diagnostic antigen for Mycoplasma infection in small Ruminants	RKVY	100.00	2011	M. D. Venkatesha
BPD	Development of Mycoplasma vaccine and diagnostic antigen for small ruminants	IAH&VB	2.00	2012	S. M. Byregowda
BPD	Development of combined Sheep pox and PPR vaccine for small ruminants	NCP-PPR	4.00	2013	S.M. Byregowda
BPD	Standardization of Black Quarter Vaccine Using Montanide Adjuvant	IAH&VB	2.75	2012	S.M. Byregowda

<i>Depts.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Principal Investigator</i>
INSTITUTE OF WILDLIFE VETERINARY RESEARCH, KODAGU					
IWVR	Study of the various measures adopted by people in selected areas of Kodagu district to prevent entry of wild animals in human habitats	KVAFSU	0.30	2013	Madhukar
IWVR	Studies on foot problems in Asian Elephants	KVAFSU	0.25	2014	H.A. Upendra
IWVR	Retrospective Study of Mortality Pattern of Animals and Birds at Sri Chamarajendra Zoological Garden	ZAK	0.95	2014	H.A. Upendra
LIVESTOCK RESEARCH & INFORMATION CENTER (SHEEP), NAGAMANGALA					
AGB	Mega Sheep Seed Project (Mandya Sheep)	ICAR	184.02	2009	R. Nagaraja. Naveen Kumar S & Siddalinga Murthy H K
AGB	Genetic Improvement of Mandya Sheep for Important Economic Traits through Artificial Breeding Technologies	MSSP MS	-	2013	R. Nagaraja & Siddalinga Murthy H K
WDD	Karnataka Water Shed Development Project Sujala III, Chamarajanagar District	GOK	7.34	2014	Manju, G.U.

<i>Depts.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Principal Investigator</i>
LIVESTOCK RESEARCH & INFORMATION CENTER, KONEHALLY, TIPTUR					
LRIC, Tiptur	Establishment of Amrithmahal cattle breeding station at Livestock Research and Information Centre, Konehally, Tiptur	DAH&VS	251.00	2009	M.S.Rudraswamy
LIVESTOCK RESEARCH & INFORMATION CENTER, HALLIKHED					
LRIC, Hallikhed	Studies on Production and Reproduction parameters of Osmanabadi goats	KVAFSU	0.15	2015	Satishchandra Biradar
CANINE RESEARCH & INFORMATION CENTER, TIMMAPUR, BAGALKOT					
CRIC, Timmapur	"Livelihood Security through mudhol hound rearing" and "Study of normal behavioural, cellular and hormonal changes of Estrous cycle in mudhol hound bitches"	SCP-TSP	300.00	2013	Mahesh, S. Dodamani
FISHERIES RESEARCH & INFORMATION CENTER, HEBBAL, BENGALURU					
FRIC, Hebbal	Establishment of fish seed, production cum demonstration farms for extension activities	NFDB, Hyderabad	23.94	2014	K.N. Prabhudeva
FRIC, Hebbal	Monitoring water quality of few selected lakes (15 lakes) in Bengaluru city.	LDA, Bengaluru	-	2014	K.N. Prabhudeva

<i>Depts.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Principal Investigator</i>
FRIC, Hebbal	Survey on status of fish production, supply and demand, processing industries and management strategies in Karnataka state”	KFDC, Mangaluru	4.00	2014	K.N. Prabhudeva
FRIC, Hebbal	Fish culture demonstrations in Short duration watersheds in Chamarajnagar district	Sujala-III WDD, Bengaluru	7.33	2014	K.B. Rajanna
FISHERIES RESEARCH & INFORMATION CENTER, HESARAGHATTA					
FRIC, Hesaraghatta	Development of Brood Bank of Common carp	NFDB, Hyderabad	60.00	2011	Y. Basavaraju
FRIC, Hesaraghatta	Intensive Aquaculture Through Recirculatory system	KVAFSU	2.5	2014	N. Manjappa
FISHERIES RESEARCH & INFORMATION CENTER, ANKOLA					
FRIC, Ankola	All India Network Project on Mariculture	ICAR	83.50	2014	E.G. Jayaraj
FRIC, Ankola	Dial feeding periodicity of Pearl Spot, <i>Eetroplus suratensis</i> (Bloch) in Ankola (Bela) waters	Dept. of Agriculture, Karwar	1.47	2014	Mansingh Naik
FRIC, Ankola	To strengthen the infrastructure of farm to enhance the efficiency in the research outcome ,production and development of	Gramapan chayat, Babrnwad, Ankola	5.50	2014	Mansingh Naik

<i>Depts.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Budget (in lakhs)</i>	<i>Yr. of Comt.</i>	<i>Principal Investigator</i>
	human resource of Ankola under NREAGA				
FRIC, Ankola	To take up as an attempt to culture of Brackish water fishes (Mullet) alternative to shrimp farming	Dept. of Agriculture, Karwar	1.50	2014	Mansingh Naik
FRIC, Ankola	Development and adoption of best management practices (BMP) of shrimp farming to maximize benefits to small stake holders for improved livelihood	VGST, GOK	5.00	2014	Manjappa, N.
ANIMAL HUSBANDRY POLYTECHNIC, SHIGGAON, HAVERI					
AHP, Shiggaon	Livestock Support & Extension Activities	Sujala 3, KWDD	7.34	2014	Shivakumar, K. Radder
AHP, Shiggaon	On-farm trial on effect of feeding calf starter on performance of cattle and buffalo female calves	KVAFSU	0.60	2014	Chethan, K.P.
AHP, Shiggaon	Study on the prevalence of haemoprotozoan diseases of bovines in Haveri District	KVAFSU	0.35	2014	Shivakumar, K. Radder

ABSTRACT OF ONGOING RESEARCH PROJECTS

#	<i>College /Institute</i>	<i>Research Projects</i>	
		<i>Total Nos.</i>	<i>Amount</i>
1	Veterinary College, Bengaluru	30	2116.27
2	Veterinary College, Bidar	16	182.51
3	Veterinary College, Shivamogga	19	221.45
4	Veterinary College, Hassan	11	60.20
5	Dairy Science, College, Bengaluru	5	102.90
6	Dairy Science College, Kalburgi	1	7.30
7	College of Fisheries, Mangaluru	20	1145.94
8	IAH&VB, Bengaluru	12	2877.95
9	IWVR, Doddaluvara, Kodagu	3	1.50
10	LRIC, (Sheep), Nagamangala	3	191.36
11	LRIC (A), Konehally, Tiptur	1	251.00
12	LRIC, Hallikhed	1	0.15
13	CRIC, Timmapur	1	300.00
14	FRIC, Hebbal	4	35.27
15	FRIC, Hessaraghatta	2	62.50
16	FRIC, Ankola	5	96.97
17	AHP, Shiggaon	3	8.29
TOTAL		137	7661.56

b) Research Highlights

VETERINARY COLLEGE, BENGALURU

Title: Flash based innovative technique as an aid in teaching Veterinary Anatomy

3-D animation video graph of the fore limb of buffalo calf with details of blood supply and orientation of the muscles running on the bones of fore limb has been completed the nerve supply to the same component in under progress. In addition to that the video graph of the original fore limb dissection along with audition is also made. Description of the individual muscles and their blood supply is also highlighted in the animated E-Module. Lastly a quiz pertaining to the limb is also added in the text for the assessment of the student's efficiency.

Title: Molecular genetic studies on traits of economic importance in Mandya sheep and its variants

- Preliminary work of identification of true to breed Mandya sheep and its variants is completed.
- Identification of polymorphic pattern of DAZL gene, a fertility linked marker in breeding is in progress.
- Identification of MHC Ovar-DRB1 gene polymorphism and its possible association with growth traits in Mandya sheep is in progress.

Title: MHC and Fecundity linked microsatellite analysis in goats in Karnataka

- DNA was isolated from blood samples of 60 male and female breeding goats from four agro-climatic zones of Karnataka.
- Amplification of DNA samples were carried out through five MHC associated markers, three Booroola gene associated markers and two Inverdale gene associated markers
- Standardization of PCR was done for all the ten primers
- 23 samples were subjected to amplification with all the 10 primers.
- The PCR products were subjected to PAGE analysis and 9 allelic pattern were observed for the MHC gene linked primers and 10 allelic patterns were observed for Fec B gene linked primers.
- The remaining samples will also be subjected to PCR and PAGE analysis and the results shall be compiled.

Title: Polymorphism of meat quality genes and their association with carcass traits in Mandya lambs.

- Blood samples were collected from 110 Bandur ram lambs and DNA was isolated. Calpastatin gene was amplified and genotyping was done by PCR-RFLP technique.
- Three genotypes were identified by PCR RFLP technique. PCR Products from each genotype was sent for sequencing. Six ram lambs for each genotype of calpastatin were slaughtered as they reached 6 months of age and carcass and meat quality traits were recorded.
- The meat samples from all the eighteen ram lambs slaughtered were sent to Animal Feed Analytical and Quality Assurance Laboratory, TANUVAS, Veterinary College and Research Institute, Namakkal – 637 002 for proximate principle analysis and Omega 3 fatty acids.
- Designed and procured primers for amplification of Calpain gene (exon 5 and 6 including intron between them). The calpain gene was amplified and genotyping with SSCP (50:1) was done for 100 samples.
- PCR products for each genotype observed were sent for sequencing and the results are awaited.

Title: IEF study of LDH isozymes in colored birds

LDH separation in birds by PAGE or by PAGE-IEF is not possible and hence it has been decided to attempt separation of isozyme by using IPG strips at 2000 V and 2.5 mA with help of 2-D electrophoretic apparatus

Title: FIST, DST

The funds were not released in 2014-15 as the Terms and conditions were to be submitted and the same was submitted. The release of funds are awaited for taking up the project.

Title: FIST Promoting Health, Livelihood and Sustainable Livestock Systems; India Research Initiative on Peri-Urban Human-Animal-Environment Interface

- a. Estimate the burden
 - Estimate the prevalence of *M. bovis* infection among livestock in small holder dairy farms in peri-urban areas.
 - Describe and quantify antibiotic use and associated levels of milk production, including testing of pooled milk samples for antibiotic residues.
- b. Describe the problem
 - i. Assess the drivers and farm-level risks of Bovine tuberculosis to workers, their families, animals and the larger community.
 - ii. Identify drivers of antibiotic use at the farm, market and policy levels.

- c. Identify policy targets
 - i. Inventory policies and farm practices in 3 different dairy producing regions in India.
 - ii. Evaluate them against International practices to minimize the prevalence of *M. bovis* and antimicrobial use and the spread of resistance.
- d. Knowledge-to-action
- e. Develop and implement examples of best practices to demonstrate sustainable and locally relevant alternatives to reduce the risk of *M. bovis* and antibiotic use.

Title: Strengthening of Poultry Feed Analytical Laboratory at Veterinary College, Hebbal, Bengaluru

Procurement of equipment going on through e-procurement. Civil works completed

Title: Automation of Giriraja breeder house and Establishment of Hatcheries at constituent colleges of the University

To establish Giriraja and Swarnadhara breeder stock at each of the constituent colleges of KVAFSU Hassan and Shivamogga including creation of infrastructure at KVAFSU, Poultry Farm, Hebbal, Bengaluru

Title: Strengthening of Poultry farm at Poultry science Department, Veterinary College, KVAFSU, Hebbal, Bengaluru for empowerment of rural youth and rural women

- Distribution of 4 week old chicks to the beneficiaries initiated
- Separate revolving fund to the project created

Title: Comparative evaluation of Giriraja, Swarnadhara and Native fowl for meat and egg quality traits

Meat and egg samples have been collected. Protein, fat and cholesterol content of eggs is completed

Title: Effect of supplementation of processed vegetable market waste on growth performance of chicken

Biological trial has been completed, sample analysis under progress.

Title: Popularisation and Intensive cultivation of Medicago Sativa (Lucerne) for Sustainable dairy farming in Gowribidanur Taluk.

The first phase of work has been completed. In the first phase 50 farmers were selected and were mobilised for cultivation of Lucerne. Training and awareness programmes were conducted on the Cultivation of Lucerne. Seeds have been purchased. Farmers have started the cultivation of lucerne. Recordings and analysis of the data are yet to be made which will be completed by 2016 June.

Title: ICAR-Niche area of Excellence Project on “Innovative Methods for Diagnosis of Disease in Animals”

- A direct rapid immunohistochemical test (dRIT) to detect rabies virus antigen was developed by incorporating various components of existing immunoperoxidase techniques. The test was based on capture of rabies nucleoprotein (N) antigen in brain smears using a cocktail of biotinylated monoclonal antibodies specific for the N protein and colour development by streptavidin peroxidase-amino ethyl carbazole and counter staining with haematoxylin. Out of the 60 brain samples tested, 52 (86.6%) were positive for rabies in both tests. There was 100 % correlation between the results obtained by the two tests. Also, interpretation of results by dRIT was easier and only required a light microscope. In conclusion, this newly developed dRIT technique promises to be a simple, cost effective diagnostic tool for rabies and will have applicability in field conditions prevalent in developing countries.
- Serogroup specific Multiplex PCR assay was developed for simultaneous detection of four serogroups of *Leptospira* i.e., *canicola*, *hebdomadis*, *icterohaemorrhagiae* and *sejroe* which are responsible for Leptospirosis in bovines
- Seroepidemiology, isolation of *Mycobacterium paratuberculosis* and molecular diagnostics for diagnosis of Johne’s disease in ruminants will be taken up for 2015-16

Title: Monitoring of quality of water at major waterholes in Bandipur Reserve

- A total of 94 samples (40 samples from 8 water points in the Bandipur forest range and 54 samples from 9 water points in the Nagarhole forest range) during the months of June, July, August, September, and Oct-November were collected. Samples were processed for total bacterial load and total coliform count and total *E.coli* counts. The bacterial load was high in the samples collected during June and July, low in samples collected during rest of the months. Samples were also subjected for bacterial isolation which yielded 5 *Vibrio* species, 8 *E.coli*, 2 *Serratia* spp. 3 *Salmonella* spp. 32 unidentified Gram negative bacteria, Staphylococci, *Bacillus* spp and unidentified Gram positive bacteria.

Title: Screening of elephants for Tuberculosis by Tuberculin and PCR tests

- Chemicals and Reagents, antigens were procured for isolation and molecular assays for identification of *Mycobacteria*
- Samples (Trunk lavage and blood samples) has to be collected from 40 animals at Nagarhole Range and 25 animals at Ramapura camp of Bandipur range

Title: Evaluation of *Brucella abortus* strain 19 reduced dose conjunctival route vaccination in bovines

The IAEC approval was obtained vide proposal No. LPM/IAEC/171/2013, approval date 25.09.2013

The study was carried out in the cattle population maintained at Bengaluru Gorakshana Goshala, Garudacharpalya. Initially, cattle population was screened for Brucellosis and Brucella seronegative animals were selected and were then categorized into three groups viz., Conjunctival vaccination group, subcutaneous vaccination group and control group. The study animals are being monitored and being evaluated for 150 days post vaccination. Blood samples have been collected for estimation of *Brucella abortus* antibodies on 0th, 21st, 60th, 90th, 120th and 150th days post vaccination. The animals in the conjunctival vaccination group were also administered a booster dose on day 120. The plasma and serum samples collected at various aforementioned intervals of time were tested by Gamma Interferon assay and MAb based competitive ELISA for serum antibodies respectively.

A gradual reduction in the level of IFN gamma was noticed in both conjunctival and S/C groups. Interestingly higher level of IFN gamma level was seen in case of conjunctival group than the S/C group on days 60, 90 and 120. This is an important observation in view of protection conferred primarily by the CMI response than humoral immune response in case of brucellosis. However, Competitive ELISA showed higher level of antibodies in S/C group than the conjunctival group. It is an established fact that antibodies are just the indicators of either infection or vaccination with out playing major role in protection.

Title: Out Reach Programme on Zoonotic Diseases in XI Five Year Plan, ICAR (2012-2017)

1. 202 brain samples were collected and preserved at -80°C and glycerol saline for dRIT and FAT. Also the positive and negative tissues were collected and preserved in formalin for histopathology and Immunohistochemistry.
2. FAT was carried out using Anti Rabies FITC conjugate in 202 cases during this period.
3. dRIT was carried out in 202 cases during this period.
4. RT-PCR for partial N gene of Rabies virus using Specific self and designed primers was carried out.
5. Rabies virus G protein based ELISA kit was procured as a standard to develop ELISA for Sero monitoring. Post vaccinal Serum samples were collected from 135 pet dogs. Estimation of protective antibody titre was carried out both in pet and stray dogs.
6. Histopathology was performed on 81 brain tissues.
7. A new immunohistochemical test was standardized on brain tissue section as an extension of technique from dRIT.
8. RFFIT standardized using BHK21 cells, RABV Larchis strain (PV 3462) and WHO international reference serum. Overall 87 out of 150 serum samples (58%) showed protective titre (> 0.5 IU/ml).
9. Collection of brain tissue by other alternate methods for diagnosis of rabies for the benefit of field veterinarians is being standardized.

10. Experimentally rabies infection was induced in mice at NIMHANS with BCL3 lab facility, with CVS and Street virus to evaluate the pathomorphological changes and to determine the expression of proinflammatory cytokines by Real time PCR.

Particulars regarding number of anthrax attacks and deaths in Karnataka.

Year	No. of attacks	No. of deaths
2009 -10	1234	158
2010- 11	44	47
2011- 12	11	11
2012 - 13	115	23
2013 - 14	1597	127

Title: Anti-cancerous and safety study of *Bridelia retusa* in rats

- Induction of the mammary tumor in rats with DMBA (Dimethylbenz (a)-anthracene) is done in rats.
- The plant methanol extract was given in various doses to different groups of rats and @ 400 mg/kg it was proved to have anti-cancerous property.
- The toxicity study is being conducted as per standard protocols/guidelines and is under progress.
- The plant extract @ 400 mg/kg showed to be moderately toxic.

Title: Evaluation of anti-diabetic property of few breeds of cow urine in rats

- The urine of cows of Malnad breed was collected.
- Prepared the distillate of the above said cow urine in the similar to the traditional manner.
- Chemically induced the diabetes in rats using streptozotocin.
- Completed the study of Malnad Gidda cow urine distillate for its anti-diabetic property.
- It was found that the Malnad Gidda cow urine distillate showed anti-diabetic property. When compared to the standard drug, it was non significant.

Title: Pharmacokinetics, bio distribution and efficacy studies of sarafloxacin (Enrocin®) and Bayrocin® in broiler chicken.

The project is just initiated and the results are awaited.

2010: Outreach programme on zoonotic diseases with special reference to Rabies and Anthrax

- dRIT was standardized and used for diagnosis of rabies.
- dFAT was standardized for rabies diagnosis.
- RT-PCR was standardized for rabies diagnosis.
- Comparison of sensitivity and specificity of these tests in diagnosis of rabies was carried out.
- ELISA for monitoring antibody in vaccinated and non-vaccinated animals has been standardized.
- Epidemiological survey on incidence of rabies in Karnataka was carried out.
- Epidemiological survey on incidence of anthrax in Karnataka was carried out.
- Histopathological and immunohistochemical evaluation of rabies infection in brain tissue was carried out.
- Experimental induction of rabies in mice for the study of gross and histopathological changes in brain tissue and demonstration of antigen by immunohistochemistry, FAT, dRIT, RT-PCR.
- Studies on Anthrax is under progress.

2010: Funds for Improvement of Infrastructure under Science and Technology

- The equipments sanctioned by the Department of Science and Technology were procured through tender process for the division of Paraclinical studies
- Books were procured
- Computer laboratory with Internet facility was established for the benefit of all the post graduate students.
- Detailed progress report, statement of Expenditure, AUC have been submitted for the release of second installment.

2010: Animal Disease Registry and Tissue Bank

- Research activities on mycotoxins (aflatoxin, T-2 toxin and ochratoxin) is under progress.
- Modernization of Laboratory.
- **CANINE EHRLLICHIOSIS**
Clinically suspected cases:- 100. 38 samples positive by PCR, Serum analysis under progress.
- 10 animals died and tissue samples such as spleen, lymphnode, bone marrow, kidney, heart and blood clot collected.

- **CANINE PARVO VIRAL INFECTION**

Clinically suspected cases:- 48, number samples positive by PCR, 10, and 44-9 animals died and of which 8 animals were found positive to Parvovirus. Analysis of serum and histopathology under progress.

- **PARATUBERCULOSIS IN SHEEP**

50 samples of blood and serum collected from animals, tissue samples collected from 11 dead animals, stomach and intestinal contents were collected for Paratuberculosis. Tissue samples collected from 11 animals for histopathology.

- **STUDIES ON CANINE CANCER**

42 different tumor samples collected from Veterinary Surgery Department. post mortem examination, Histopathology and Molecular analysis of tumor under progress.

Title: Efficacy of Diatomaceous Earth in Mycotoxico-sis

Diatomite is a latest mycotoxin adsorbent and it was evaluated for Aflatoxin, ochratoxin and T-2 toxin amelioration in poultry. In broiler chickens revealed effectiveness of diatomite at 800 and 2400 ppm to reduce these toxins in feed. The study was also revealed diatomite to not alter the palatability of the feed.

Title: Enhancement of reproductive efficiency in sheep, estrus synchronization and AI

- Reproductive parameters for NAARI SUVARNA ewes has been established comparable with other Indian breeds.
- However, Incidence of twinning in NAARI SUVARNA is as high as 20 per cent.
- Incidence of twinning not affected by type of grazing
- However, ewes maintained only on pasture grazing deliver lambs with low birth weight and a high incidence of neonatal mortality (30 per cent)
- Ewes on pasture grazing had very poor milk yield and motherly care.
- For best results NAARI SUVARNA are to be maintained on pasture as supplementation of a balanced concentrate mixture
- NAARI SUVARNA flock has been established and the animals have been used in other departments such as LPM, Anatomy, Physiology and AGB for research.
- Supplementation of cows milk improves the gain in weight per head.
- The technique of AI is easy and adoptable under field conditions.
- The technology of estrous synchronization is available and can be used under field conditions.
- There has been plenty of enquiry regarding production of NAARI SUVARNA.

VETERINARY COLLEGE, BIDAR

Title: Evolving new Kenguri strain of sheep with high prolificacy for sustainable sheep production in Northern Karnataka

A group of 20 Kenguri ewes were inseminated with NARI Suvarna Frozen thawed semen. The lambing rate by inseminating the Kenguri ewes with frozen thawed semen was lowest (10%) in trans-cervical method. None of the Kenguri ewe showed any disease or accident during gestation and lambing after using NARI Suvarna frozen thawed semen. The sex of both the lambs was female with body weight ranging from 2.35 to 2.60 with gestation period range of 147 to 151. A new Kenguri strain-1 of sheep (Kenguri > 50% + Deccani < 40% + Garole < 10%) can be produced using frozen thawed semen of NARI Suvarna strain from Kenguri breed.

In another trial, 30 Kenguri ewes were inseminated with fresh NARI Suvarna semen during oestrus period and a total of 26 Kenguri ewes lambed (86.66%) with 16 female and 11 males and 1 ewe recorded stillbirth. Out of 26 Kenguri ewes 1 reported twinning.

Title: Effect of GnRH administration on day 15th on post-partum fertility in Kenguri sheep

More than 50% research work is completed & further the work is in progress.

Title: Assessment for insect repellent property of herbs against *Culicoides* midges

- The abundance of *Culicoides* midges near sheep farm was monitored by deploying down draught light trap
- A total of 4 herbs (leaves, flowers/ its products) were selected for the present study to assess their insect repellent against *Culicoides* midges
- The plant parts (leaves, flowers) about 10 kg were collected and dried in shade. The dried parts were pulverised by mechanical grinder and the active components are extracted by Rotary evaporator extraction using the organic solvents like methanol, acetone and diethyl ether.
- The drop trap for the present study was designed as per the standard method

Title: SUJALA-III Project - Support Livestock and Extension activities (In Bidar District)

- Initial establishment of project office and staff recruitment done.
- Pilot survey of project villages and base line survey carried out

VETERINARY COLLEGE, SHIVAMOGGA

Title: Gross anatomy of bones of Mudhol Hound dog

Procured the bones from mudhol hound dogs and applied the studies on the gross anatomy of appendicular bones of mudhol hound dog. The Diagram of Gross anatomy of scapula of Mudhol haund dog was presented at 29th IAVA conference, Durg, chattisgarh.

Title: ‘Application of polyclonal hen egg yolk antibodies for the prevention of zoonotic food borne Salmonellae of poultry’

- a) A total of 569 poultry samples including chicken, eggs and cloacal swabs were analyzed for the presence of *Salmonella*. About 17 *Salmonella* isolates were recovered based on biochemical, serological and molecular identification.
- b) All the isolates showed virulence gene as revealed by the amplification of 284 bp virulence-specific amplicon.
- c) The strains are identified as *Salmonella* Enteritidis, *Salmonella* Typhimurium and *Salmonella* Gallinarum.
- d) White leghorn chickens were immunized with *Salmonella* Typhimurium and *Salmonella* Enteritidis to raise the serotype-specific immunoglobulins.
- e) Immunoglobulins were isolated from egg yolk using ammonium sulphate precipitation method and were purified further. Purified immunoglobulin showed 180 kDa band by native PAGE.
- f) *In vitro* growth inhibition assay confirmed the inhibition for growth of *Salmonella* serotypes by their specific immunoglobulins.

Title: Livestock support and extension activities – Sujala III component

Project work initiated in Watershed villages of Davanagere district coming under Sujala III component

- a) Recruitment of the project staff
- b) Establishment of Office at Davanagere.
- c) Liaisons established with the officers of the line department.
- d) Baseline general information collected and specific detailed information for identification of critical needs for interventions is going on at village levels
- e) Two workshops at Gram panchayat level was organized which included training and demonstrations to livestock farmers.
- f) Samples namely faecal, feed/fodder, milk and water were collected for analysis

Title: Effect of Lignocellulose on performance of Commercial Broilers

Straight run commercial broilers were procured in the month of March first week and presently 3 weeks are completed and the performance parameters were taken on weekly basis. Lignocellulose fed group performance were found to be satisfactory and the experiment will be completed by April, 2015.

Title: Survey of management and breeding strategies adopted by Mainad Gidda Cattle Rearing farmers in Shivamogga District

The works related to creation of infrastructure and purchase of equipments and furniture is undertaken. The villages for survey are selected and survey in two talukas is completed.

Title 2: Development of facilities in the area of meat processing including establishment of milk processing and quality control

i) Construction of slaughter house for sheep & goat is under progress (Foundation & wall work done / feet has completed)

Title 3: Technical support and Extension Activities and Study on Self Help Groups (SHGs) and their Income Generation Activities in Shivamogga District and Identification of Constraints with respect to livestock Production activities

i) Appointment of RA and Field Investigators

ii) Establishment of camp office at Davanagere

iii) Conducted socio-economic survey and RRA

iv) Training of demonstration-03

v) Collection and analysis of faecal, milk, water, feed and fodder samples

Title 4: Prevalence and seroprevalence of schistosomiasis in cattle and buffaloes

i) A number of infectious reports on the prevalence of the infection have been received. The samples collected from Ambulatory adapted Village Tyjavalli and other villages in Shivamogga, Lembehakoppa, Gejjehalli, Konagavalli, Kotegongur, Davanagere, etc. have been and clinical cases presented to TVCC, VCS - All belong to the following breeds

ii) Breeds of animals included: Jersey Cross, HF Cross, Malnad gidda Amrithmahal, Malnad HF Buffaloes.

iii) Age of animals: 8-12 years (including Heifer, drought, lactating and pregnant animals)

iv) Clinical signs: Animal having snoring sound, cauliflower-like growth in nasal passage, profuse mucopurulent nasal discharge and animal having abdominal distension, open mouth breathing.

v) Period of study: April 2014 to March 2015 (1st phase of the study -12 months).

vi) The material of nasal and fecal sample examined for *Schistosoma nasale* and *Schistosoma* spp. eggs - 2/6.

vii) The number of infested cattle and buffalo subjected for haematological profile: 52.

viii) The number of cattle and buffalo found positive for schistosoma eggs: 36.

Title 5: A systematic documentation of the pathological conditions in captive wild animals found around Shivamogga

Thirteen cases of wild captive animals received for post mortem examination were of different species. Shivamogga have been subjected to various types of pathological conditions. Histopathological, bacteriological, parasitological, haematological investigations are being

DAIRY SCIENCE COLLEGE, BENGALURU

Title: Use of Bioactive Peptides from Lactic Acid Bacteria in the Development of Functional Food

Bioactive peptides are produced from Lactic Acid Bacteria in *CHEPPELA, Argentina*. Finger millet (Ragi) based functional foods were developed in DT department. Malted milk was used in the production of functional foods. The developed finger millet based functional foods are subjected to sensory analysis. Incorporation of bioactive peptides in malted Ragi based functional foods are being undertaken.

Title: VTCC – Dairy Microbes

- 20 - Isolates obtained from dahi samples Genotypically identified, freeze dried and Submitted to NCDC, Karnal. During the year 2014-15. Out of 20, 14 numbers of gene sequenced isolates obtained from dahi samples of North eastern zone (Bengaluru) & central dry Zone (Hiriyur) were freeze dried labeled and submitted to NCDC, Karnal during 2014-15. Further - 6 numbers of gene sequenced isolates obtained from southern dry zone (Bengaluru & Chamarajnagar) were freeze dried labeled and submitted to NCDC, Karnal.
- A total of 12 lactic isolates have been obtained from dahi samples collected from southern dry zone (Bengaluru & Chamarajnagar) will be genotyped during early during 2015-16.
- A total of 60 lactic acid bacterial isolates with genotypic characterization and established functional properties isolated from dahi samples collected from various zones of Karnataka were freeze dried and submitted to NCDC, Karnal.

Title: To Study the inter-sectoral linkage in Urban fringe agriculture - a case study of Melekote Village, Bengaluru Rural

- The present study shows that contribution of rain fall an important factor for agriculture to productivity of crops is only 3%, while the growth rate of water is 0.19%.
- The water availability determines the cropping pattern. (Increase in agricultural water is difficult as currently we are seeing shrinkage in cultivable area).
- In addition to increased agricultural demand for water, water availability is reduced due to urbanization and industrialization along with poor water management.
- Hitherto most of the growth in productivity is due to fertilizer consumption. Rain is contribution a meager amount.

COLLEGE OF FISHERIES, MANGALURU

Title: Prevalence & Impact of Antibiotic resistance bacteria of Non-Human origin (Associated with Livestock practices) on Human Health management

Antimicrobial agents have been widely used in both human and non-human application worldwide, to treat infections caused by a variety of bacterial pathogens. But their irrational and improper use has led to the rapid evolution and spread of antimicrobial resistance that becomes a curse in the pursuit of treatment of bacterial infectious agents. Now antimicrobial resistance has become a global public health issue.

In the present study, a total of 259 samples were collected consisting of fish and fishery products (83), poultry (40), fish farm water (35), pond sediment (30), processing industry effluent (17), piggery (13) and livestock waste (41) were collected from different sampling stations in and around Mangaluru. Samples were analysed for the presence of antibiotic resistant Gram negative bacteria. Out of 259 samples analysed till date, a total of 894 antibiotic resistant bacteria has been isolated, of which 280 isolates were *E. coli*, 30 *Vibrio parahaemolyticus*, 54 *Vibrio* spp., 12 *V. vulnificus*, 12 *Salmonella* spp., 16 *Klebsiella* spp., 40 *Enterobacter* sp., 10 *Providencia* spp., 14 *Proteus* spp., 17 *Citrobacter*, 8 *Serratia* spp., and 33 were *Pseudomonas* spp.

Antibiotic resistant isolates were selected to test the presence of antibiotic resistance gene determinants and the rate of resistance was determined. Isolates from the study exhibited diversity in their antibiotic resistance determinants indicating the existence of antibiotic resistance in natural environment. Occurrence of tetracycline resistance genes in resistant isolates were distributed widely in both terrestrial (livestock associated) and aquatic bacteria (aquaculture associated). Further, the antibiotic resistance genes were characterized and agents of transfer such as plasmids and class I integrons were identified and studied. Isolates resistant to quinolone showed double point mutation at the 83rd (Ser to Tyr) and 87th (Asp to Gly) position in quinolone resistance determining region (QRDR) of *gyrA* and also a novel point mutation at the 50th position (Tyr50Cys) in QRDR was identified. There was no mutations even in the *gyrB*, *parC* and *parE* of the QRDR region of any of tested isolates. Interestingly, some quinolone resistant isolates encountered without any mutation but tested positive for *qnr* determinants in their plasmid. Thus it evidenced the plasmid mediated quinolone resistance (PMQR) in the isolates from the study.

Antibiotic resistance is naturally transmissible between bacteria through genes by different modes involving genetic recombination mechanisms such as transformation, transduction or conjugation. Horizontal transmission of antibiotic resistance gene between bacteria was performed experimentally. In this study, plasmid of *E. coli* isolate EC10 possessing *tet(B)* gene in its plasmid was transferred to *E. coli* K12 cells at the rate of 1.92×10^4 cfu/ μ g of plasmid. This confirmed the transformation mode of resistance transfer in in-vitro conditions. Some *E. coli* isolates (EC157, EC159) carrying *tet(A)* gene were selected to test the conjugation mode of resistance transfer with *E. coli* K12 cells. It resulted in transfer of antibiotic gene into recipient cell through conjugation. Detection of *intCTX* gene in phage (ϕ S/EC) isolated from the environment and in isolated lysogens in the study, revealed transduction mode of genetic recombination upon phage mediated transfer.

Title: Defense genes of tiger shrimp (*Penaeus monodon*) with respect to bacteria (*Vibrio harveyi*) and white spot virus (WSSV) infection

The objective of this project was to study the expression level of some of the potent defence genes at different time points in different tissues like hemocytes, lymphoid organ, gills etc. of the tiger shrimp *Penaeus monodon* with the infection of *Vibrio harveyi*, WSSV and combined infection with WSSV and *Vibrio harveyi*. Further, shrimps were administered with β -glucan incorporated immunostimulant feed and subsequent challenging with WSSV and *V. harveyi* was performed to analyze the expression of potent defence genes quantitatively by real time PCR. Differences in the expression between surviving and succumbing animals were analyzed to identify the most promising defence molecules. The novel genes involved in shrimp immune defence were further cloned, expressed in the prokaryotic expression system and the purified protein was characterized. The antimicrobial and minimum inhibitory (MIC) activity of the recombinant defence proteins were checked against various potent microbial pathogens associated in shrimp culture environments.

The potent defence genes were phosphatase-like protein, Crustin, death associated protein and cyclophilin A. Crustins are a unique group of cationic antibacterial peptides of 7-14 kDa specific to crustaceans, have a conserved cysteine-rich region at N-terminus and whey acidic protein (WAP) domain at C-terminus. Various isoforms like type I, II and III are found; with shrimp crustins belonging to Type II. They display a strong antimicrobial activity against Gram positive bacteria; also play roles as immune regulators in shrimp immunity. Phosphatases like protein (PLP) are primarily effectors of dephosphorylation, belong to phosphoprotein phosphatase superfamily. Cyclophilin A (Cyp A) is predicted to have mainly antiviral effect in shrimps.

Death-associated protein-like (DAP) are associated with apoptosis, presumably prolonging the survival of infected shrimps. Differentially expressed defence peptides *viz.* PLP, Crustin, Cyp A and DAP from *Penaeus monodon* were isolated, cloned, expressed and characterized. Antimicrobial activity of a PLP and cloning and expression of DAP from shrimp was first to be reported in this study. Recombinant crustin and phosphatase-like protein from *P. monodon* exhibited broad range antibacterial activity, against shrimp pathogenic *V. harveyi*. Low MIC of recombinant crustin and phosphatase was encountered indicating the bactericidal activity of these peptides even at low concentrations. Recombinant crustin and PLP from *P. monodon* could serve as therapeutic agents in the aquaculture sector for controlling bacterial diseases of shrimp including vibriosis. There are still lacunae in understanding of the various defence mechanisms that function in shrimp innate immune system. Identification of new genes involved in immune response and their mode of action will be an important step towards better understanding of innate immune system of shrimps.

Title: DBT – Bioinformatics – Distributed Information Sub Centre (DISC).

The facilities available in the bioinformatics centre were extensively used for research and teaching activities of the department. This involved designing and planning the laboratory experiments, analysis of research results, preparing research publications, and

submission of nucleotide sequences to GenBank. Some of the bioinformatics related research work carried by the centre included aspects related to bacterial typing and identification by genomic analysis of 16S–23S rRNA intergenic transcribed spacer (ITS) sequences, study on the protective efficacy of recombinant structural proteins of white spot syndrome virus, characterization of a nodavirus associated with mass mortality in Asian seabass (*Lates calcarifer*), broad spectrum anti-bacterial activity of a recombinant phosphatase-like protein isolated from the shrimp *Penaeus monodon*, detection of ammonia-oxidizing archaea in fish processing effluent treatment plants, antibiotic resistance genes in food and clinical samples, and adhesive genes among uropathogenic *Escherichia coli* strains isolated from patients with urinary tract infection.

The Centre has deposited complete genome sequence of *V. parahaemolyticus* (1) and 42 nucleotide sequences in GenBank pertaining to Archaea (11); *Edwardsiella tarda* (4); *Escherichia coli* (7); *Salmonella* (9); *V. vulnificus* (3); *Penaeus monodon* (3); *Macrobrachium rosenbergii* (2); *V. anguillarum* (1) and *V. parahaemolyticus* (2).

Twelve research papers with bioinformatics support were published in both National and International journals.

Title: National surveillance programme for aquatic animal diseases: surveillance of shrimp diseases in coastal Karnataka.

Shrimp farms in Udupi district and Uttara Kannada district were regularly visited during all crop seasons, interacted with the farmers, collected all the baseline information regarding culture operations using a data collection proforma prepared for the purpose, samples of shrimp and pond water collected and brought to the laboratory for the disease diagnosis and detection of bacterial and viral pathogens. During the period 6 visits were made covering 28 shrimp farms (11 in Udupi and 17 in Uttara Kannada District). Besides samples sent by the farmers were also tested. The tests results were communicated to the farmers to help them take appropriate disease management measures.

The shrimp samples were tested for the presence of DNA viruses (WSSV, MBV, HPV, IHNV) and RNA viruses (TSV, YHV and IMNV) by PCR technique using specific primers. During the investigation a total of 5 farms culturing *Litopenaeus vannamei* in Kumta region of Uttara Kannada district showed positive for WSSV at 3rd level diagnosis. Two farms culturing *P. monodon* in Ankola region of Uttara Kannada were positive for WSSV whereas one of the farm was also positive for MBV.

Two awareness programme on the importance of surveillance programme was also conducted to the shrimp farmers of Kumta region on 22.01.2015 at Kumta and 13-02-2014 in Kundapur. About 30 shrimp farmers and officials of Dept of Fisheries attended the programme.

Title: Capture and removal of ammonia from fish processing waste using Archaea

The present research is an attempt at isolation and characterization of efficient ammonia oxidizing microbes in fish processing effluents. Further, several sets of primers

including those designed in the study were evaluated for the detection of AOM in FPETPs. Primer sets targeting 16S rRNA and ammonia monooxygenase subunit-A (*amoA*) gene of AOA and AOB were used for the detection of AOA and AOB. Sequencing of the products generated and phylogenetic analysis of the AOA-*amoA* gene revealed that the AOA was affiliated to thaumarchaeal group. Quantitative real time PCR (q-PCR) of *amoA* gene was used to study the functional gene copy number of AOA and AOB in samples. The successful isolation of autotrophic AOB and its characterization from the FPETPs was achieved. 16S rRNA gene sequencing and phylogenetic analysis showed AOB affiliation to *Nitrosomonas marina*, *N. nitrosa* and *Nitrospira* lineages of α -proteobacteria. The obtained isolates were further confirmed with specific fluorescence *in situ* hybridization (FISH) assay using *amoA*-AOB gene specific probes.

The isolates were studied for the influence of pH, temperature, salinity and ammonia on their *amoA* gene expression and nitrification activity. Freshwater medium with pH 8 at temperature $30\pm 1^\circ\text{C}$ was found to be most effective in ammonia removal. The AOB-12, AOB-21 and consortia was found to have higher *amoA* gene copy number in low, medium and high ammonium concentrations respectively. A biofilm was fabricated for in-situ application studies and the efficacy of the isolates. The native AOB cultures of FPETPs obtained in the present study shows promise as a biotechnological tool for removal of ammonia from FPETPs and aquaculture ponds where ammonia levels are a concern in the effluent.

Title: Improving food security by reducing post harvest losses "SECUREFISH" (European Union project).

Development of MAb based tests for residues of pesticides / antibiotics: Development of MAbs for pesticide residue, Chlorpyrifos (Trichlorophos - TCP). TCP was conjugated with BSA and OVA. Conjugation confirmed by LCMS and SDS - PAGE. Balb C mice injected with conjugated TCP for production of hybridoma. Hybridoma screened by ELISA. Five positive hybridoma to be characterised by Western blot. ELISA / RapiDot will be developed, compared with LCMS as diagnostic test.

Development of MAb for residues of antibiotics - Oxytetracycline and Sulphadimethoxine: Antibiotics conjugated with BSA (Coating Ag) and Keyhole Limpet Hemocyanine (KLH) (immunising antigen). Conjugation confirmed by SDS-PAGE and UV - vis spectra. Balb C mice injected with conjugated antibiotic. Positive hybridoma (20 Nos) selected for further characterisation and development of ELISA/RapiDot.

Title : National surveillance programme for aquatic animal diseases (Freshwater).

Base line survey of the culture system has been carried out in identified six districts, namely Mysuru (18), Mandya (17), Shivamogga (14), Ballari (6), Raichur (12) and Vijayapur (2). Farmers awareness meetings were held in Raichur, Shivamogga, Ballari and Vijayapur. Fish samples were collected from 51 farms in Karnataka and screened for KHV, Ictaluri Herpes Virus and Spring Viremia of Carp. In Raichur, Shivamogga, Ballari and Vijayapur both KHV and SVCV. Farm queries were addressed in Ballari, Shivamogga, Raichur and Vijayapur. Navilahalli estate, Sakaleshpura and Begurpet are under surveillance.

Title: Effect of amino acid supplemented diets on growth, survival and immune response of Indian major carp, *Labeo rohita*.

Studies on growth performance and survival of fingerlings rohu fed the experimental diets for 90 days were carried out. Survival of all fish groups was 94% at the end. Final mean body weight, specific growth rate and weight gain of fish significantly increased with supplementation of the methionine into the basal diet. The best growth performance was observed in fish fed on the diet containing 0.48 % methionine. Fish fed on the diet containing methionine showed higher feed conversion efficiency than that of fish fed control diet, indicating a significant improvement in feed conversion efficiency. Daily feed intake and protein efficiency ratio was not different among fish groups.

Fish fed on the diet containing 0.08% & 0.48% methionine showed higher feed conversion efficiency than that of fish fed control diet, indicating a significant improvement in feed conversion efficiency. Daily feed intake and protein efficiency ratio was not significantly different among treatment groups. Immune response was enhanced in fish fed amino acid supplemented diets compared to control.

Based on the results of the experiments, it can be concluded that methionine supplementation of 0.48% in the diet is effective in promoting growth, survival and humoral response of *Labeo rohita*

Title: Influence of Oceanographic Parameters on Plankton Assemblage and Pelagic Fisheries using Satellite data along the Coast of Dakshina Kannada and Udupi Districts of Karnataka.

Sampling points were fixed, off Mangaluru and Malpe coast and experimental fishing was carried out at fixed depths (30 m and 40 m) contour as suggested by INCOIS. Experimental trawling: Experimental trawling was carried out at Mangaluru and Malpe at depth contour of 30 and 40 meters. A time series data were recorded on total quantity of fish catch and oceanographic parameters. Besides, the experimental trawling was also carried out in notified (PFZ) and non-notified areas. Physico-chemical characteristics of water in PFZ / non PFZ area along the Mangaluru and Malpe coast were recorded. The catch was sorted and identified up to species level. The water quality parameters were analyzed following standard methods. Photographs were taken for documentation.

Dissemination of Potential Fishing Zone (PFZ) advisories: PFZ advisory, brought out by Indian National Centre for Ocean Information Services (INCOIS), Hyderabad, during the cloud free days was disseminated through Telephone and Message (SMS) to identified active fishermen along Mangaluru and Malpe boat owners/crew members. Active fishermen identified were made to register their name and contact numbers. The day on which advisory was available, was disseminated to the fishermen through telephone and Message (SMS). Besides, as per the requirement from fishermen the ocean weather information was also disseminated. A total 100 active fishermen involved in different fishing operations along Mangaluru and Malpe coast were regularly monitored by providing PFZ advisory and collected data related to the research project.

Oceanographic parameters and fish catch in PFZ area: In order to find out the relationship between oceanographic parameters and fish catch in PFZ area along Mangaluru and Malpe region the data were analyzed. The average value of fish catch per hour from each month was considered and the correlation was done between fish catch (Kg), Salinity (psu), Temperature ($^{\circ}\text{C}$), Chl-a (mg/m^3) and Phytoplankton (dry wt) and a positive correlation was observed ($p < 0.05$). Further, the correlation between *Sardinella longiceps* & *Rastrelliger kanagurta* with Chl-a and Phytoplankton (dry wt) was done. It was observed that an inverse relationship exists between *Sardinella longiceps* & *Rastrelliger kanagurta*, i.e. when sardine catch increased, the mackerel catch decreased and vice versa.

Food and feeding habits and population characteristics of commercially important pelagic fishes: Biological studies were carried out for selected species collected in the experimental fishing. The fish samples were analyzed for length and weight, gut weight and gut content composition to ascertain the feeding habit of fishes. Gonado-Somatic Index, maturity stage, fecundity were recorded to assess the spawning periodicity of fishes. Comparative analyses of gut contents within and outside PFZ were analyzed. Gut content analysis revealed variation between the PFZ and Non-PFZ area

Awareness campaign organized at Mangaluru and Malpe: Awareness programmes were conducted on "Uses of Potential Fishing Zone (PFZ) Advisory" to the stakeholders of Mangaluru and Malpe to create awareness and to educate the fishermen on the latest technologies and use of PFZ advisories to increase their catch, save searching time and reduce the fuel consumption. During the interaction with stakeholders, issues related to timely availability of PFZ advisory and access of EDB to fisherfolk were of major concern.

Title: Treated effluent analysis and monitoring of seawater quality off Chitrapur near the marine outfall of effluent from MRPL-ONGC, Mangaluru.

The water quality in the study area is well within the ambient levels of coastal environment. The physical and chemical parameters of coastal waters were ranged as temperature- $26.20 - 34.40$ $^{\circ}\text{C}$, pH- $7.42 - 8.89$, salinity- $27.65-34.33$ psu, DO- $3.40- 7.80$ mg/l, BOD- $0.70 - 2.80$ mg/l, transparency- $1.81- 6.30$ m, TSS- $60 - 180$ mg/l, ammonia- $0.92 - 11.95$ μg at /l, nitrite-N- $0.30 - 2.20$ μg at /l, nitrate-N - $1.90 - 10.20$ μg at /l, phosphate-P - $0.1 - 2.90$ μg at /l, silicate-SiO₃ - $5.00- 23.90$ μg at /l. A total of 30 species of Phytoplankton namely, *Chaetoceros*- *C. lorenzianus*, *C. decipiens*, *C. compressus*, *Biddulphia* - *Biddulphia regia*, *B. sinensis*, *Biddulphia mobilienis*, *Coscinodiscus* - *C. oculus iridis*, *C. lineatus*, *C. excentricus*, *Rhizosolenia*-*R. stolterfothii*, *R. shrubsolei*, *R. stliformis*, *Ceratium*, - *C. macroceros*, *C. fusus*, *Trichodesmium*- *T. reticulata* and 20 species of Zooplankton namely, Copepods - *Calanus finmarchicus*, *Tamora longicornis*, Tintinids - *Tintinopsis*, *Rabdonella*, Polychaetes, Cheatognaths - *Sagitta enflata*, *Pterosagitta draco*, *Krohnitta subtilis*, and urochordates- *salpa sp* and *Oikopleura sp*. Among Macrobenthic community polychaetes were the dominant group followed by bivalves- *Arca sp*, *Cardium sp*, *Donax sp*. Gastropods- *Babylonia sp*, *Oliva sp*, *Umbonium sp*, *Dentalium*. The bioassay studies showed no mortality of mussels exposed to seawater collected from the vicinity of effluent fallow. No mortality of fingerlings of *Cyprinus carpio* exposed to the water collected from the cooling pond of the industry (before discharging into the sea) was observed.

Title: Ecological monitoring of Arabian Sea receiving effluents from MCF Ltd. Mangaluru.

The water quality in the study area is well within the ambient levels of coastal environment. A total of 36 species of phytoplankton namely, diatoms *C. lorenzianus*, *C. decipiens*, *C. compressus*, *Biddulphia regia*, *B. sinensis*, *Biddulphia mobiliensis*, *C. oculus iridis*, *C. lineatus*, *C. excentricus*, *R. stolterfothii*, *R. shrubsolei*, *R. stliformis*, dinoflagellates such as *C. macroceros*, *C. fusus*, and blue green algae *Trichodesmium reticulata* and 23 species of Zooplankton namely, Copepods- *Calanus finmarchicus*, *Tamora longicornis*; Tintinids- *Tintinopsis*, *Rabdonella*; Polychaetes, Cheatognaths,- *Sagitta enflata*, *Pterosagitta draco*, *Krohnitta subtilis*, and *urocardiates*, Oikopleura sp were identified. Among macrobenthic community polychaetes were the dominant group followed by bivalves- *Arca* sp, *Cardium* sp, *Donax* sp and Gastropods- *Babylonia* sp, *Oliva* sp, *Umbonium* sp, *Dentalium* in the receiving water off Thannirbhavi Mangaluru.

Title: Monitoring of pollution impact by discharge of treated effluents from BASF, Mangaluru.

The water quality is within the ambient levels of coastal environment. A total of 18 genera of Phytoplankton; 20 genera of Zooplankton were recorded during the study. The major phytoplankton genera were Diatoms - *Chaetoceros*, *Biddulphia*, *Coscinodiscus*, *Ditylum*; Dinoflagellates - *Ceratium*, *Peridinium* and Blue green algae - *Tricodesmium erythraeum*. Among zooplankton, copepods, copepodites, tintinids, *Oikopleura* and Cladocerans were dominant. Benthos includes Molluscs (Bivalve spats, *Meritrix*, *Donax*, *Dentalium* and *Umbonium*) and Polychaetes (*Neries*, *Nephtys*, *Polydora*).

Title: Coastal water quality monitoring near M/s. UPCL seawater intake and effluent discharge point off Padubidri.

The water quality is within the ambient levels of coastal environment. A total of 22 genera of Phytoplankton were recorded. Diatoms were dominant phytoplankton, followed by dinoflagellates and blue green algae. Among zooplankton, copepods, tintinids, oikopleura, polychaetes and decapod larvae were most commonly observed. Among benthos molluscs and polychaetes were dominant. The bioassay studies showed no mortality of mussels exposed to seawater collected from the vicinity of effluent fallout.

Title: Influence of Oceanographic Parameters on Plankton Assemblage and Pelagic Fisheries using Satellite data along the Coast of Dakshina Kannada and Udupi Districts of Karnataka

Experimental trawling was carried out at Mangaluru and Malpe at depth contour of 30 and 40 meters. A time series data was recorded on fish catch and oceanographic parameters. Besides this, the experimental trawling in notified (PFZ) area indicated that the comparatively better catches than non notified fishing zone. Validation was done based on secondary data collected from Puzos Seines. An increased fish catch was observed in the PFZ's area as compared to Non-PFZ's area. Further, the validation experiments also revealed that PFZ forecast is useful for pelagic fisheries.

Results indicated a positive correlation between the fish catch and oceanographic parameters in PFZ's area along Mangaluru and Malpe region. Salinity (psu), Temperature ($^{\circ}\text{C}$), Chl-a (mg/m^3) and phytoplankton showed a positive correlation with fish catches ($p < 0.05$). Further, the correlation between *Sardinella longiceps* & *Rastrelliger kanagurta* with Chl-a and phytoplankton was significant. Also, it was observed that an inverse relationship exists between *Sardinella longiceps* & *Rastrelliger kanagurta*, i.e. when sardine catch increased, the mackerel catch decreased and vice versa.

Title: Determination of the Conservative Value of the Mangroves of Karnataka.

In Karnataka coast, about 150 contiguous mangrove patches were identified along Netravathi-Gurupura, Mulki-Pavanje, Udyavara, Swarna-Sita, Chakra-Haladi, Baintoor, Shiroor, Venkatapur, Aghanashini, Sharavathi, Gangavalli and Kali estuaries. Total extent of mangroves was found to be 815 ha. Most of the mangroves in the study area were fringing type. Distribution patterns of mangroves were studied by quadrat analysis. There are about thirteen true mangrove species recorded in Karnataka viz., *Acanthus ilicifolius*, *Aegiceras corniculatum*, *Avicennia alba*, *A. officinalis*, *A. marina*, *Bruguiera gymnorhiza*, *Excocaria agallocha*, *Kandelia candel*, *Rhizophora apiculata*, *R. mucronata*, *Sonneratia alba*, *S. caseolaris* and *Lumnitzera racemosa*. Species diversity of each patch was assessed with focus to analyze the ecosystem health. The structural analysis revealed that *Avicennia officinalis* and *Rhizophora mucronata* were most frequently observed eumangroves, whereas *Derris trifoliata* was most commonly found mangrove associate.

The associated fauna reported in the mangrove patches were *Telescopium telescopium*, *Cerithidea* sp., fiddler crabs, mud crabs, clams, worms and oysters. Fish species such as *Sillago sihama* and *Strongylura leiura* were most common. The major bird species observed were Great egrets (*Ardea alba*), Indian House Crow (*Corvus splendens*), Pond heron (*Ardeola grayii*), Red-wattled lapwing (*Vanellus indicus*), Little cormorant (*Phalacrocorax niger*) and Cattle egret (*Bubulcus ibis*).

Title: Improving food security by reducing post-harvest losses in the fisheries sector

Browning intensity of whole head hydrolysate was higher. It indicates that during hydrolysis process and drying, they undergo changes. Whole head hydrolysate had better antioxidant activity than the hydrolysate of protein isolate prepared from the same fish. As the peptide size decreased the antioxidant potential decreased. Simple and rapid process for extraction of gelatin was developed from croaker head and pink perch head waste.

Title: All India Coordinated Research project on Post-Harvest Technology

The extraction of polyphenolic compounds from grape and papaya seeds were carried out using ethanol. Among the extraction of two different seeds, the percentage yield of extraction in cold extracted grape seed extract (GSE) and papaya seed extract (PSE) were 6% and 2.75% , respectively. In vitro antioxidant properties of GSE and PSE were subjected to 2,2- Diphenyl-1 picrylhydrazyl radical scavenging activity (DPPH), 2,2- azo-bis (3-ethylbenzothiazoline-6-sulfonic acid) radical scavenging activity (ABTS.+), Ferric reducing antioxidant power assay (FRAP), Metal chelating activity (MCA) and lipid peroxidation inhibition (LPI) in linoleic acid model system.

The antimicrobial activity of GSE and PSE were seen at 10 mg/ml. It was observed that ethanolic extract of GSE was potentially more active against gram positive bacteria viz., *Staphylococcus aureus* and *Bacillus subtilis* whereas it shows fewer zones of inhibition against gram negative bacteria. For papaya seed, the ethanol extract was active only against gram positive bacteria whereas it was least effective against gram negative bacteria. Indian mackerel was used as raw material because of their abundance and comparatively low price. The physical, chemical, microbiological and sensory characteristics of the fresh fish were analyzed to assess its composition for freshness.

Organoleptic, biochemical and microbiological quality of whole mackerel and steaks treated with BHT, GSE and PSE were better as compared to those of whole mackerel and steaks without any treatment, during chilled as well as frozen storage studies. During chilled storage, shelf life of whole mackerel and steaks without any treatment was 9 days whereas, in whole mackerel treated with GSE and PSE have increased shelf life to 15 days and 12 days respectively. In case of steaks treated with GSE and PSE showed shelf life of 15 days. During six months of frozen storage study the organoleptic scores showed decreasing trend. Extent of decrease in organoleptic quality was higher in control samples compared to GSE and PSE treated samples.

Standardization of recipe for ready-to-fry dried fish: Standardization of recipe by using different ingredients was carried out. Five different recipe were standardized for the preparation of ready-to-fry dried fish. Then these different recipe were mixed with fresh fish and dried in solar biomass hybrid drier for 15, 16, 17, 18 and 19 hrs and then all 5 samples fried in sunflower oil at 0.5, 1, 1.5, 2 and 3 min in low flame and served to sensory panellists to evaluate the quality characteristic organoleptically based on 9 point hedonic scale.

Based on highest sensory scores of the panellists, 5th recipe, 17 hrs of drying and 1 min of oil frying time were selected for final product preparation.

Title: Application of irradiation for preventing post harvest losses in fish and fishery products]

Quantification of spoilage and pathogenic bacteria associated with fish and shell fishes:

Spoilage and pathogenic bacteria associated with fish and shell fish were isolated and identified using microbiological and biochemical analysis.

Combined effect of gamma irradiation and frozen storage on the quality and shelf life of Shrimp (*P. monodon*): The studies on the effect of low dose gamma irradiation (1kGy, 3 kGy and 5 kGy) of farm raised fresh shrimp (*Penaeus monodon*) and its effect on extending the shelf life in frozen storage (-18°C) and refrigeration (4°C) conditions in combinations were examined. The microbial and biochemical quality of shrimp after irradiation were monitored periodically with non- irradiated samples.

Studies on the effect of low dose gamma irradiation on the microbial, chemical quality & Shelf life of Squid: Investigation was carried out to study the effect of gamma irradiation (1, 3 and 5 kGy) and storage at refrigeration (+4 C) and frozen (-18°C) temperatures on the shelf life extension of fresh Squid. The study was based on microbiological and physico-chemical changes occurring in the squid samples.

Influence of salting and drying, and gamma irradiation on the quality and shelf life of salted and dried Silver belly (*Leiognathus spp.*): A fresh Silver belly (*Leiognathus spp.*) were procured from the fish landing centre and washed with potable water. Salting was done using food grade salt in the ratio of 1:3 (Fish to salt) in perforated steel pans by keeping the salt and fish in layer by layer fashion for 24hrs. Drying of salted fishes was done in solar biomass hybrid drier, the final moisture content in the dried fish was 20.03%. The quality of both fresh, salted and dried fishes were analysed for chemical (Protein, fat, moisture, ash, TVE-N, TMA-N, TBARS, FFA, PV, pH) and microbial quality (TPC, halophilic count and moulds). A batch of salted and dried silver bellies were packed in high density polyethylene bags aseptically and exposed to low dose gamma irradiation (1 and 3 kGy), the non-irradiated samples were kept as control and stored at room temperature. The irradiated and control samples were analysed periodically (upto 90 days) for chemical and microbial quality.

Decimal reduction value (D₁₀), Irradiation dose required to reduce 90% of original population of bacteria was determined for different bacterial pathogens viz. *Staphylococcus aureus*, *Salmonella*, *Escherichia coli* (0157: H7), *Vibrio parahaemolyticus*, *Aeromonas hydrophila*.

Title: Development of artificial reefs in inshore waters to enhance the fish stock

Designed the artificial reef structures (Square, rectangular, Triangular and sphere shapes) and fabricated the reef modules of different shapes of 40-50mm thickness with plastering on 6mm dia steel frame welded. Artificial reefs of 960 square meter surface area was installed at a depth of 15 meter off Uppunda, Kundapur Taluk.

To assess the availability of fishery resources, experimental gillnetting and long line fishing was carried out in the reef installed area. The gillnetting was carried during night with help of gill net canoe fitted with out-board engine and long line fishing was carried out during day time with same type of canoe. Immediately after fishing, data pertaining to catch composition, total weight and species/ group weight were recorded for further analysis. Most important catch composition includes Mackerel, seer, ribbon fish, lactents, croakers and other miscellaneous varieties of fishes are more commonly obtained in the reef installed area.

These artificial reefs in the sea on covering a vast area will increase the fish production significantly by creating a fertile ecosystem. The structure used for the construction of artificial reef primarily function as base for the growth of algae, zooplankton and sea weeds ultimately leads formation of a good fishing ground. Further aggregation of fish takes place. Further work is in progress.

**INSTITUTE OF ANIMAL HEALTH & VETERINARY BIOLOGICALS,
BENGALURU**

Title: All India Co-ordinated Research Project on Animal Disease Monitoring and Surveillance

Progress made so far:

Details of the Outbreaks, Attacks and deaths due to Notifiable diseases in the state during 2014-15

Sl. No.	Disease	OB's	Attacks	Deaths
1	Anthrax	18	75	75(100)
2	Blackquarter	61	222	112(50.45)
3	Haemorrhagic Septicemia	37	413	110(26.63)
4	Enterotoxaemia	21	449	92(20.50)
5	Foot and Mouth Disease	10	47	0
6	Peste des Petits Ruminants	16	402	39(9.70)
7	Sheep and Goat Pox	31	1112	250(22.48)
8	Bluetongue	13	1020	175(17.15)
9	Rabies	1	2	2(100)
10	Mycoplasmosis	1	65	9(13.84)
11	Mycotoxycosis	1	4	2(50)
12	Contagious ecthyma (Orf) and Mycoplasmosis	1	196	3(1.53)
13	Scabies in Sheep	1	30	10(33.33)
14	Swine Brucellosis	1	-	180
15	Mixed infection	1	150	150(100)
16	Necrotic hepatitis due to clostridial infection (fascioliasis)	1	60	20(33.33)
17	Others	3	85	64(75.29)
Total		218	4332	1113(25.66)

Title: All India Co-ordinated Research Project for Epidemiological Studies on Foot and Mouth disease

Progress made so far:

**PROGRESS REPORT OF FOOT AND MOUTH DISEASE BENGALURU
REGIONAL CENTRE DURING THE PERIOD APRIL 2014-MARCH 2015**

	No of out - breaks	Virus identified during outbreaks	No. of clinical samples processed	Virus type identified				No. of pre/post & Diva vaccinal sera samples processed	Total no of samples processed
				O	A	Asia I	VNR		
Apr-14	No disease occurrence							-	-
May-14								6525	6525
June-14								2200	2200
July-14								2755	2755
Aug-14								6698	6698
Sept-14								3272	3272
Oct-14								3634	3634
Nov-14								3772	3772
Dec-14	04	O	12	04	-	-	08	-	12
Jan-15	02	O	04	02	-	-	02	3135	3139
Feb-15	03	O	08	03	-	-	05	427	435
Mar-15	03	O & A	09	01	02	-	06	2200	2209
Grand Total	12	-	33	10	02	-	21	34618	34651

Title: Southern Regional Disease Diagnostic Laboratory

Progress made so far :

During the year under report April 2014 to March 2015

- 2868 samples were analyzed at Diagnostic Pathology.
- 1528 samples were analyzed at Diagnostic Parasitology.
- 4128 samples were analyzed at Diagnostic Bacteriology and Mycology
- 13661 samples were analyzed at Diagnostic Virology.
- 15230 samples were analyzed at Sero epidemiology
- 1250 samples were analyzed at Biochemistry and Toxicology

A total of 38,665 samples were analyzed at SRDDL in different sections.

Title: All India Network Project on Blue Tongue Disease

Progress made so far :

- a) During the year 2014-15, totally 418 blood samples were tested for the presence of BTV by RT-PCR for NS1 and VP7 gene. Out of these 72 samples were found to be positive.
- b) Positive samples are processed for virus isolation in embryonated chicken eggs and BHK₂₁ cell lines.
- c) 182 sera samples are collected from different districts.
- d) Two set of NS3 primers for Real time PCR have been designed and standardized for blood and tissue samples.
- e) Previous years four new isolates has been sent to Hissar for identification and serotyping results are awaited.

Title: Strengthening of Biological production division of IAH&VP for increased production of vaccines for total health coverage of livestock and poultry rural farmers

Progress made so far:

- a) The infrastructure creation part for augmenting the vaccine production has been completed. Equipments required for automation and scaling of production have been installed and most them are under use.
- b) Only a few of them are not being commissioned for want of lab modification. The production with respect to both viral and bacterial has been enhanced to meet the demand.

Project outcome:

- a) The infrastructure required for the augmenting vaccine production has been created and it is an asset to the Institute to plan for the production of vaccines as per the needs of the farming community.
 - b) Already the 100% vaccination programmes for ET and PPR has resulted in almost minimal outbreaks due to increased supply and vaccinations.
- a) Achievement of objectives: Achieved.

Title: Up gradation of vaccine production laboratories as per GMP for consistent supply of vaccines to livestock and poultry of farming community

Progress made so far:

Project outcome:

- a) Upgradation of laboratories as per the GMP (Schedule M) suitable for vaccine production.
- b) Procurement of required equipment.
- c) Maintenance of the AHUS, chillers, Biosafety cabinets, their validation, certification required as per Schedule-M.

Achievement of objectives:

- a) Work orders have been given for modification of five laboratories as per GMP. The tender process is going on for the sixth laboratory.
- b) The designing part for up gradation is completed and work is under progress. The modification of three labs will be completed in 6 months time.
- c) Some of the equipments have been purchased.

Title: Centre for development of vaccines and diagnostics with a special reference to emerging diseases affecting livestock and poultry of farming community

Progress made so far:

a) *Project outcome:*

1. Building infrastructure as per GMP and GLP norms.
2. Equipment for GMP and GLP labs.
3. Supporting facilities.
4. Engaging the contract scientists and technicians for R&D work.
5. Purchase of required consumables for R&D work.

b) *Achievement of objectives:*

1. The building work is under progress.
2. Tenders have been invited for some of the equipment.

Title: Establishment of Disease Diagnostic Laboratories at Bagalkot (Bagalokot Dist), Kolar (Kolar Dist), Sira (Tumkuru Dist) Sirsi (Uttara Kannada Dist)

Progress made so far:

1. Tenders have been floated for purchase of equipments.
2. Each lab has been allocated Rs. 47.50 lakhs each, for purchase of equipment and infrastructure development.
3. The building renovation work to start the laboratory activities is being undertaken by Department of animal husbandry and veterinary services. The modification work has been suggested by the IAH & VB after visiting the above places, inspecting the existing building and suggested the required modification work with available budget. The work is in progress in the above said places.

Title: Development of vaccine and Diagnostic antigen for Mycoplasma infection in small Ruminants

Progress made so far:

1. Project Outcome:
 - a) Modification of lab
 - b) Procurement of equipments

- c) Isolation and standardization of diagnostic antigen and development of vaccine for small ruminants
- d) Contractual labor for the research work, field trials, sample collection etc

2. Achievement of objectives:

- a) Modification of lab work is under progress.
- b) Equipments have been procured.
- c) Ten isolates of *M.arginini* type were obtained from sheep.
- d) Diagnostic antigen has been developed and is being validated by different laboratories

Title: Development of Mycoplasma vaccine and diagnostic antigen for small ruminants - Institute funded

Progress made so far:

- 1. 11 isolates of Mycoplasma (*Mycoplasma arginini*) have been made.
- 2. Mycoplasma antigen (*Mycoplasma arginini* color antigen) has been standardized
- 3. Test batch of diagnostic Mycoplasma antigen (*Mycoplasma arginini* color antigen) has been prepared
- 4. Preparation and standardization of the Mycoplasma inactivated vaccine using local isolates is under progress

Title: Development of combined Sheep pox and PPR vaccine for small ruminants

Progress made so far:

- 1. Passaging of sheep pox virus in vero cells.

Title: Standardization of Black Quarter Vaccine Using Montanide Adjuvant

Progress made so far:

- 1. Prepared and standardized Black Quarter vaccine using Montanide TM ISA 50 V2 as Adjuvant.
- 2. Sterility and safety test was done in Guinea pigs.

INSTITUTE OF WILDLIFE VETERINARY RESEARCH, KODAGU

Title: Study of the various measures adopted by people in selected areas of Kodagu district to prevent entry of wild animals in human habitats

Progress made Identification of conflict areas: Discussions were carried out with Veterinary Officers, Deputy Director of AH and VS, Madikeri, members of Agricultural Scientist Forum of Kodagu, and Journalists regarding incidence of human animal conflicts in Kodagu district. Further, news clippings collected over a period of one year during 2012 to 2013 were also studied to find out conflict areas. From these works, important human-wild animal conflict zones of Kodagu were identified, namely Somavajpet, Banavara,

Shanivarsanthe, Madapura, Shuntikoppa, Virajapet, Siddapura, Harangi, Tithimathi, Chettali. A detailed questionnaire was designed to collect data on multiple aspects of conflicts and preventive strategies. This questionnaire was constructed and reviewed with the help of expert extension education person. Human-Wildlife conflict was found to be more common in Somavarpet and VirajpetTq and was relatively lower in MadikeriTq. Farmers from Somavarpet and VirajapetTq were interviewed and data was collected based on the questionnaire prepared. Total of 79 farmers have been interviewed so far. The common measures adopted by farmers were found to be vigilance during night, use of fire crackers, burning fire during night, solar fencing, use of air guns, making noise and using traps. Presently, the survey work is being conducted in MadikeriTq.

Title: Studies on foot problems in Asian Elephants

Progress made: A total of 25 elephants have been examined for foot problems. Samples were collected so far from Bandipur Reserve Forest as well as elephants maintained at different places ABST is conducted on the samples collected and mainly Staphylococcus, E.coli and Proteus organisms are isolated from the foot wounds of elephants. Isolated organisms are found to be sensitive to Chloramphenicol, Ciprofloxacin, Enrofloxacin and Gentamicin.

Title: Retrospective Study of Mortality Pattern of Animals and Birds at Sri Chamarajendra Zoological Garden

Progress made: The case sheets and post-mortem report sheets were collected for all the mortalities recorded during 2005 to 2014 at the Zoo. The data was extracted into a detailed information table in excel sheets.

Till now detailed information was tabulated for 335 deaths during the study period. This digitalised data will be subjected to detailed and statistical evaluation. The analysis is done for 5 years period. The mortality pattern observed is as follows:

- Infighting and traumatic injuries in herbivores.
- Infections in birds
- Senility in all animals
- Fracture due to fall from trees in primates
- Pneumonia due to cold temperatures in numerous species
- Hepatitis, enteritis, arthritis due to unknown factors

**LIVESTOCK RESEARCH & INFORMATION CENTER (SHEEP),
NAGAMANGALA**

Title: Mega Sheep Seed Project (Mandya Sheep)

- Identified the elite Mandya sheep flocks under the project operational area and registered 536 farmers under six working centres.

- Distributed elite breeding Rams to the identified 198 farmers to cover their 5200 breedable ewes 177 for propagation and genetic improvement of Mandya sheep.
- Growth performance of the progenies of the distributed Rams in all the working centres.
- Introduced Artificial Insemination in the ewes maintained at farm.

Title: Genetic Improvement of Mandya Sheep for Important Economic Traits through Artificial Breeding Technologies

- Oestrus synchronization of selected ewes in group.
- Semen collection from elite breeding Rams and AI has been done using fresh diluted semen from elite breeding Rams.

Title: Karnataka Water Shed Development Project Sujala III, Chamarajanagar District

- Survey of the watershed areas.
- Baseline data survey and sensitization programme is under progress.

LIVESTOCK RESEARCH & INFORMATION CENTER (A), KONEHALLY, TIPTUR

Title: Establishment of Amrithmahal cattle breeding station at Livestock Research and Information Centre, Konehally, Tiptur

- 1) An Amrithmahal cattle Breeding Station was established during the year 2012-13 by procurement of 25 females and 02 male Amrithmahal calves from the Dept. of AH & VS during the month of March-2013.
- 2) The Behavior changes of these animals after confinement have been recorded to know the behavioral changes in semi wild nature to docile nature.
- 3) Data on body measurements such as height at wither; Body length, chest girth and paunch girth are being recorded at regular interval to study the growth pattern and gain in body weight at different ages.
- 4) Data pertaining to the reproductive traits such as age at sexual maturity and oestrus cycle length are being recorded regularly.
- 5) Faecal samples and skin scrapings were examined for the prevalence of endo and ecto parasitic infestations.
- 6) 30 acres of uncultivable land is developed for cultivation of fodder crops.
- 7) 20 Acres of grazing land is developed for grazing of Amrithmahal cattle.
- 8) Blood Samples were collected and sent for Biochemical Analysis.
- 9) Blood samples of FMD vaccinated Amrithmahal animals will be collected and send for FMD serological titre at 30days, 60days, 90days and 120days. The research studies is under progress.

CANINE RESEARCH & INFORMATION CENTER, TIMMAPUR, BAGALKOT

Title: Livelihood Security through mudhol hound rearing

- a) The distributed pups to **119 beneficiaries** (238 puppies) along with Puppy food and calcium and vitamins supplements.
- b) 100 dogs have been micro-chipped and registered with Kennel Club of India in Collaboration Mysore Kennel Club Bengaluru and Society for Indian Breeds of Dogs, Bengaluru.
- c) The beneficiaries are being educated regarding the Care and Management of puppies, Pregnant animals and whelped animals, etc

Title: Study of normal behavioural, cellular and hormonal changes of Estrous cycle in mudhol hound bitches

- a) Studied about proestrous clinical symptoms like Bleeding for about 4 to 7 days, oedema of the vulval lips, Restlessness, Anorexia of Female Mudhol hound dogs and Roaming of the male dogs behind female during proestrous.
- b) The vaginal smears are collected and stained with Geimsa stain and observed for the various types of cells and are correlated with time of breeding.
- c) For the Progesterone estimation: blood serum collected and need to be analysed.

FISHERIES RESEARCH AND INFORMATION CENTER, HEBBAL, BENGALURU

Title: Establishment of fish seed, production cum demonstration farms for extension activities

A total area of 20 acre fish ponds have been constructed at LRIC, Deoni; BRIC-Dornalli and the work on rearing of fish seeds will be initiated from June-July onwards

Title: Monitoring water quality of few selected lakes (15 lakes) in Bengaluru city

15 selected lakes in Bengaluru city are being monitored for water quality. Already 3 quarterly reports have been submitted to the Lake Development Authority during 2014-15. Impressed with quality of work carried out by this center, the LDA is continuing its contract to us.

Title: Survey on status of fish production, supply and demand, processing industries and management strategies in Karnataka state

Software has been developed to document various fisheries activities in Karnataka State. The data pertaining to ownership, location of the pond, area and depth of the pond, pond preparation, different fish species stocked and ratio, different feeds used and method, growth and survival, fish harvesting and marketing etc. have been documented for Inland fisheries. In the marine sector, the ownership of the boat and licensing, boat length and HP, type of craft and gears used, fish hold box, type of fish caught and quantity, method of sale etc., are documented. Till date Dakshina Kannada, Udupi, Shivamogga, Chamarajnagar, Mandya, Davanagere, Chikkaballapur, Raichur and Ballari districts have been covered.

Fish culture demonstrations in Short duration watersheds in Chamarajnar district

The base line survey for all the water bodies in different taluks of Chamarajnar district has been completed. After the survey, a few selected water bodies in Gundlupet and Chamarajnar Taluks have been selected for taking up fish culture demonstration during June-July when rain season starts.

FISHERIES RESEARCH AND INFORMATION CENTER, HESARAGHATTA

Title: Development of Brood Bank of Common carp

- A total of 80 individual pair matings were conducted in a single batch during March, 2014 of which spawning was successful in 68 pairs.
- The equal number of spawn obtained from all the successful breeding pairs was collected and reared at FRIC, Hesaraghatta.
- Breeder seed was supplied to hatcheries and also for demonstrations.
- One demonstration was conducted to evaluate the performance of Amur with Catla and Grass carp i.e. on station and farmers pond at FRIC, Hesaraghatta respectively.
- The growth performances of Amur carp, Catla and Grass carp under polyculture were $356.15 \pm 2.38g$, 218.85 ± 2.07 & $223.63 \pm 2.13g$ at FRIC, Hesaraghatta respectively (5 months).
- The performance of Amur was found superior over the other carp in both the demonstrations indicating the better suitability this breed for low input aquaculture systems.
- The breeder seed of Amur common carp was also supplied to
 1. CIFE – Haryana
 2. KVK – Belagum
 3. KVK – Bramhavar
 4. LRIC – Konehally
 5. Dept. of Fisheries - Tamilnadu.

Total seed supplied to farmers 85000 No.s & 85 Farmers in the state

Title: Intensive Aquaculture Through Recirculatory system

Fish seed collected from FRIC(I), Hesaraghatta, Bengaluru. After four days of acclimatization, fry/fingerlings of catla average weight 1.21 g and 2.3 cm in length, Rohu average weight 2.21g and 2.5 cm in length and Amur carp average weight 4.45 g and 4.0 cm in length were stocked in cement cistern (2.0 X 2.0X 1.2 m). Fry/fingerlings stocked @5nos./m² in the sand filter tank (T₁) and sand cum UV filtered tank (T₂). In control cement cistern (C) fry/fingerlings stocked @ 1 no/ m². During the culture period. the fish were fed twice in a daily on fish meal based pellet diet (30% protein) at 10 % of body weight during

first 50 days. After they were fed 5% of their body weight upto 100 days and after that fed at 2.5% of their body weight till the end of the experiment. The duration of experiment period was 180 days.

Details on survival and growth of fish fed on commercial pellet feed in cement cistern tank. The highest survival (100%) was recorded on both the sand filtered tank (T1) and sand cum UV filtered tank (T2) and control have observed (80%) of survival. The growth of fish during culture period was monitored through periodic sampling. At the end of the culture period, fish growth was ascertained and the weight under culture pond and control pond (c) showed Catla: 100.12 g, Rohu:105.24 g, Amur carp: 115.68 g, in T1 (sand filtered pond). Catla: 115.97g, Rohu:125.46g, Amur carp: 125.25 g and T2 (sand cum UV filtered) Catla: 130.90 g, Rohu:140.50g, Amur carp: 145.40 g. Water quality parameter analysis and maintained upto end of the experiment period.

FISHERIES RESEARCH & INFORMATION CENTER, ANKOLA

Title: All India Network Project on Mariculture

- Brood stock development of sand whiting, *Sillago spp.*
- Collection and conditioning of milk fish, *Chanos chanos*
- Survey and development of fish seed banks for all prioritized species in U.K and D.K Districts.
- Participatory demonstration of cage farming of milk fish *Chanos chanos*.

Title: Dial feeding periodicity of Pearl Spot, *Etroplus suratensis* (Bloch) in Ankola (Bela) waters

Effective feed utilization which helps in the culture of pearl spot in order to encourage the individual fish farmers to take up this species culture.

Title: To strengthen the infrastructure of farm to enhance the efficiency in the research outcome, production and development of human resource of Ankola under NREAGA

Infrastructure development of farm to enhance the efficiency in the research outcome, Production and development of human resources.

Title: To take up as an attempt to culture of Brackish water fishes (Mullet) alternative to shrimp farming

Demonstration of brackish water fish culture as a alternative to shrimp culture.

Title: Development and adoption of best management practices (BMP) of shrimp farming to maximize benefits to small stake holders for improved livelihood

Adoption of best management practices (BMP) of shrimp farming to maximize benefits to Small stake holders for improved livelihood.

3. Research Collaborations / MoUs : Nil

4. Patents: Nil

5. Technology Developed: Nil

6) (a) Awards/Recognitions

#	Name of the Scientist	Award	Year	Agency
VETERINARY COLLEGE, BENGALURU				
1	Dr. R. Jayashree	Best oral presentation	2014	XIII National convention of IAWV and National seminar at College of Veterinary Science and Animal Husbandry Anand Agricultural University, Anand , Gujarat
	Dr. R. Jayashree	Best paper (Jointly shared)	2014	
2	Dr. R. Jayashree	Best oral presentation	2015	XII Annual convention of SOCDAB and International Symposium, Madras Veterinary College, Chennai
3	Dr. Zakir Hussain, Dr. Placid E. D'Souza, Dr. G.C. Puttalakshamma, Dr. P.M.Thimma Reddy and Dr. G.S.Mamatha	Best Poster Award	2015	National Meet on New/safer molecules and Biocontrol technologies for integrated pest management in crops. Society for Biocontrol Agents in collaboration with NBAIR, Hebbai, Bengaluru.

#	Name of the Scientist	Award	Year	Agency
4	Dr. B.M.Chandranaik & Dr. D.Rathnamma	AWARD for Ph.D. Thesis 'Jawaharlal Nehru Award for P.G. Outstanding Doctoral Thesis Research in Agricultural and Allied Sciences -2013 (Animal Sciences)' by ICAR,	2014	ICAR, New Delhi (on the occasion of celebration of 86 th Foundation Day of ICAR at NASC Complex, ICAR,(New Delhi)
5	Dr. Deepak J.N, PhD Scholar	IFSTP Award	2014	International federation of societies of toxicologic pathologists.
6	Dr. Manjunath K.P, PhD student	Young Scientist Award - 2014	2014	SKM Animal Feeds and Foods (India) Ltd. At IAVP Annual Conference
7	Dr. Vetrivel	IFSTP Award	2014	International federation of societies of toxicologic pathologists
8	Dr. Kaveri, M.V.Sc	Charles Capen Award	2014	International Academy of toxicologic pathology
9	Dr. Suma,N., Dr. B.S.V.Reddy Dr. R.G.Gloridoss Dr. B.N.Suresh Dr. T.M.Prabhu	Poster Award (First Place)	2014	Global Animal Nutrition Conference (Glance 2014), ANSI, held at Bengaluru, India.

#	Name of the Scientist	Award	Year	Agency
10	Dr. Anand Devarnavadagi , Dr. Y B Rajeshwari, Dr. U.Krishnamoorthy, Dr. K.Sathyanarayana, Dr. S.Bhajanth Anupkumar, Dr. Rohith K J	Rayavarapu Jayalakshmi Narasinga Rao Award	2015	ISAPM
11	Dr. Vivek M Patil, Dr. Rajeshwari Y B, Dr. Jadhav N V, Dr. Anand S.D Dr.Balaji K.H. and Dr. Anup Kumar.	Vanbandhu college of Vet.Sci and AH, Navsari-ISAPM Silver Jubilee National Seminar Award	2015	ISAPM
VETERINARY COLLEGE, BIDAR				
1	Chandrashekhar Y B, Dilipkumar, B.V. Shivaprakash, S. M. Usturge, V.R. Kasaraliker, Tandle M K, Srikanth K and Ravindra B G.	Appreciation award for anesthesia session for the presentation titled Comparative Evaluation of Induction Combinations Midazolam-Ketamine and Acepromazine- Guaifenesin Ketamine Under Isoflurane Anesthesia in Cattle.	2014	Indian Society for Veterinary Surgery
2	Hiralal S Janagi, Amar Dhurve and R G Bijurkar	First rank of Clinical case presented for wild life practice	2014	6 th International Clinical Case Conference at Chennai.
3	Dr. Khaja Mohteshamuddin	Certificate of Excellence in reviewing	2015	International Journal of Livestock Research
4	Dr. Khaja Mohteshamuddin	Award of Fellowship	2014	International Young Veterinarian Association

#	Name of the Scientist	Award	Year	Agency
5	Dr. Vivek M. Patil	Vanbandhu Award for Best Research Paper in Indigenous Livestock	2015	Indian Society for Animal Production & Management
6	Dr. Prakashkumar Rathod	Best Poster Presentatation at XII Agricultural Science Congress	2015	National Academy of Agricultural Science, New Delhi
7	Dr.T.Thirumalesh	Certificate of Excellance in Reviewing	2015	International Journal of Livestock Research
VETERINARY COLLEGE, SHIVAMOGGA				
1	Dr. Nagappa S K	Mahendra Pal best zoonosis paper award	2015	IAVPHS
2	Dr. Shambulingappa Y. Baddi	IAVA Young scientisit award and gold plated silver medal	2015	Indian Association of Veterinary Anatomists
3	Dr. Shambulingappa Y. Baddi	Late Shri L O Dhande Memorial Award for forensic anatomy including archaeological study- Best paper award	2015	Indian Association of Veterinary Anatomists
VETERINARY COLLEGE, HASSAN				
1	Dr. Suma, N.	Best poster award	2014	Animal Nutrition Society of India and National Institute of Animal Nutrition and Physiology
2	Dr. Sushant Handage	Best participant award	2014	Winter School, BCKV, Kalyani

#	Name of the Scientist	Award	Year	Agency
3	Dr. Girish, B.C.	Best presenter award	2014	Science Congress,10th Kannada Vignana Sammeleana, Mysuru
4	Dr. Girish, B.C.	Selected as Associate Editor for a term of three years by SAGE international publications. (Journal: Toxicology and Industrial health)	2014	SAGE international publications
5	Dr. Manjunatha, K.P.	Young scientist award	2014	31st Annual conference of IAVP
6	Dr. Placid E.D'Souza	Life time Achievement Award 2014 for significant contribution in poultry, animal husbandry research and practices	2014	Central Poultry Development Organization (Northern Region) Chandigarh
7	Dr. Placid E.D'Souza	Best poster presentation award at National meeting on 'New/safer molecules and biocontrol technologies for integrated pest management in crops'	2015	National Bureau of Agricultural Insect Resources, Hebbal, Bengaluru
DAIRY SCIENCE COLLEGE, HEBBAL, BENGALURU				
1	Dr. Narasimha Murthy, Dean (DS)	Fellow of National Academy of Dairy Sciences	2014	National Dairy Research Institute (NDRI), Karnal Haryana.

#	Name of the Scientist	Award	Year	Agency
COLLEGE OF FISHERIES, MANGALURU				
1	Dr. K M Shankar	Reviewer	2014-15	Aquaculture (Elsevier)/ Aquaculture Research / Fish and Shellfish Immunology (Elsevier)
2	Dr. K M Shankar	Expert for reviewing DBT-BIRAC projects		DBT, Govt of India
3	Dr. M N Venugopal	Reviewer	2014-15	J. Mar Biol Assoc India. / Brazilian J. of Microbiology/ Tamil Nadu Journal of Veterinary and Animal Sciences
4	Dr. H Shivananda Murthy	Nomination as Board Member	2013	Karnataka Biodiversity Board, Government of Karnataka
5	Dr. M N Venugopal	Member, Board of Examination (MSc, Biotechnology)	2014-15	Mangaluru University
6	Dr. S. Benakappa	Best Poster Presentation Award	2014	National conference on "Strategies for Bridging the Yield Gap in Fisheries and Aquaculture"
7	Dr. S. Benakappa	Reviewer	2014	Journal of Applied Aquaculture, Tamil Nadu Journal of Veterinary and Animal Sciences

#	Name of the Scientist	Award	Year	Agency
INSTITUTE OF ANIMAL HEALTH & VETERINARY BIOLOGICALS, BENGALURU				
1	Dr. B.M. Chandranaik Scientist-2, IAH & VB	Jawaharlal Nehru award (Animal Science)-2014	2014	ICAR
FISHERIES RESEARCH AND INFORMATION CENTER, HEBBAL, BENGALURU				
1	Dr. K.N. Prabhudeva	Member, QRT, CMFRI, Kochi	2014	ICAR, New Delhi
2	Dr. K.N. Prabhudeva	Falicitation in recognition for the service rendered for fisheries development in the state	2015	Davangere Taluk Kannada Sahithya Sammelana

(b) Research Incentives

#	Name & Designation of the P.I	Title of the Project	Funding Agency & Status	Date of Sanction	Duration	Cost of Project (Rs. in Lakhs)
<i>I) Project(s) worth of Rs. 100.00 lakhs & above (Rs. 15000 + Certificate of Merit to PI)</i>						
1	-	-	-	-	-	-
<i>II) Project(s) worth of Rs. 50.00 lakhs & up to Rs. 100.00 lakhs (Rs. 10000 + Certificate of Merit to PI)</i>						
1	Dr. S. Benakappa & Dr. Gangadhar Gowda, Fisheries College, Mangaluru	Influence of oceanographic parameters on plankton assemblage and pelagic fisheries	INCOIS, Hyderabad	April, 2013	4 years	60.17

#	Name & Designation of the P.I	Title of the Project	Funding Agency & Status	Date of Sanction	Duration	Cost of Project (Rs. in Lakhs)
		using satellite data along the coast of Dakshina Kannda and Udupi districts of Karnataka				
III) Project(s) worth of Rs. 25.00 lakhs and up to Rs. 50.00 lakhs (for PIs only) (Rs. 5000 + Certificate of Merit to PI)						
1	-	-	-	-	-	-
IV) Project(s) worth of Rs. 5.00 lakhs & up to Rs. 25.00 lakhs (Certificate of Merit to PI)						
1	Dr. B. Manjanaik, Associate Professor, College of Fisheries, Mangaluru	Application of irradiation for preventing post harvest losses in fish and fishery products	BRNS, New Delhi	April, 2013	3 years	24.51
2	Dr. M. S. Vasanth, OSD, Veterinary College, Puttur	Efficacy of indigenous feed supplements for protection against bacterial infections in broilers at farmers fields	DST GOI	April, 2013	18 Months	5.89

6) Important decisions taken during Research Council Meeting

A. Research Highlights and research programme (Extramural Funding)

The Heads of the Division presented the Research Highlights of respective divisions and the Technical programme for the year 2014-15.

The Division wise extramural funded projects during 2014-15.

Division	Amounts (Lakhs)
1. Animal and Poultry Science	----- 688.00
2. Pre & Para Clinical Science	----- 277.00
2. Clinical Science	----- 485.00
3. Dairy Science	----- 23.00
4. Fisheries Science	----- 689.00
	<hr/>
	Total ---2162.00

B. University Funded Projects :-

A. Animal Sciences and Poultry Sciences.

During 2014-15 13 Staff Research projects to the tune of Rs. 3.80 lakhs were approved.

B. Pre and Para Clinical Sciences.

18 projects worth of 6.67 Lakhs were approved.

C. Clinical Sciences

15 projects to the tune of Rs. 4.40 Lakhs were approved.

D. Dairy Science

02 projects of Rs. 1.25 lakh were approved.

E. Fishery Science

Only one project 2014-15 worth of Rs. 2.50 lakhs was approved

F. IAH & VB

21 projects were approved from institute funds.

C. Presentation of New Technology

Dr. B. A Shamsundar presented the technology developed for drying fish using solar-biomass

Hybrid drier. The same has been approved for field trials and third party evaluation.

IV. EXTENSION

The University is striving hard to improve the socio-economic conditions of the farming community through its extension education activities. In order to achieve this, the university is organizing training programmes, demonstrations, farmer-scientist interaction sessions, field visits, farm melas etc., through its constituent colleges and research stations spread across the state.

1. Extension Collaboration MoUs

DIRECTORATE OF EXTENSION, KVAFSU, BIDAR

#	Institutions involved in MOU	Date of MOU	Details Regarding MOU	Remarks
1	Hyderabad Karnataka Centre for Advance Learning, Kalburgi, Bidar Branch	2015	To impart technical knowledge for the farmers / unemployed youth / beneficiaries of HKCAL, Kalburgi through lectures, demonstrations, field and farm visits and hands on experience at Nandinagar Campus and LRIC, Hallikhed, Bidar.	2 years

2. Conferences/Trainings/Workshops/Seminars organized

i) International Level

a) Conference

#	Date	Place	Title	Organized by
VETERINARY COLLEGE, BENGALURU (VCH)				
1	04.04.2014 to 08.04.2014	VCH	Hands on practice on Gynaecological and Obstetrical cases in companion animals	Mars India Ltd.
2	08.10.2014 to 10.10.2014	VCH	Theory and practice in companion animal reproduction	Mars India Ltd.

b) Seminars

#	Date	Place	Title	Organized by
VETERINARY COLLEGE, BENGALURU (VCH)				
1	24.04.2014	VCH	One Day International Seminar on "Anaerobic Digester (AD) Technology for the Efficient Utilization of Livestock Waste"	Dept. of Livestock Products Technology, Veterinary College, Hebbal, Bengaluru
2	01.01.2015	VCH	Strategies to overcome infertility in cattle	Department of Veterinary Gynaecology and Obstetrics Veterinary College, Hebbal, Bengaluru.

c) Workshops

#	Date	Place	Title	Organized by
INSTITUTE OF ANIMAL HEALTH AND VETERINARY BIOLOGICALS, BENGALURU (IAH&VB)				
1	20 th & 21 st May, 2014	Bengaluru	International Programme on Stake Holders Meeting of "Blue Tongue Disease Risk Assessment" at KVC, Bengaluru.	IAH&VB, Bengaluru

ii) National Level

a) Conference

#	Date	Place	Title	Organized by
VETERINARY COLLEGE, BENGALURU (VCH)				
1	10.02.2015 to 12.02.2015	KVC, Hebbal, Bengaluru	Safety of animal origin foods for domestic and export markets – legal perspectives	XII Annual Conference of IAVPES and National symposium
2	18.10.20014	KVC, Bengaluru	One day Intersectoral meet for control of Rabies	Dept. of Veterinary Microbiology, Veterinary College, Bengaluru

b) Workshops

#	Date	Place	Title	Organized by
VETERINARY COLLEGE, BENGALURU (VCH)				
1	10.02.2015 to 12.02.2015	VCH	Rabies Diagnosis in Animals	Dept. of Veterinary Microbiology, VCH
2	12.4.2014	Dept. of Pathology	Toxicopathology workshop	Veterinary College, Bengaluru and STPI
VETERINARY COLLEGE, SHIVAMOGGA (VCS)				
1	04.07.2014	VCS	Intellectual Property Rights'	VPE & Visvesvaraya Trade Promotion Centre
COLLEGE OF FISHERIES, MANGALURU (FCM)				
1	05.06.2014	FCM	World Environment Day	Dept. of AEM, FCM
2	27.10.2014 to 01.11.2014	FCM	Orientation programme for newly recruited teachers of KVAFSU, Bidar	Dept. of Fishery Microbiology, FCM
3	13-14, Nov., 2014	FCM	Integrated Coastal Zone Management sponsored by Karnataka Science and Technology Academy, GoK	Dept. of AEM, College of Fisheries, Mangaluru
4	28.01.2015	Mangaluru	Uses of Potential Fishing Zone (PFZ) Advisory	Dept. of FRM & AEM, FCM and Dept. of Fisheries
5	02.02.2015	FCM	World Wetland Day	Dept. of AEM, FCM
6	28.01.2015	Mangaluru	Uses of Potential Fishing Zone (PFZ) Advisory	Dept. of FRM & AEM, FCM and Dept. of Fisheries (GoK)
7	06.03.2015	Malpe	Uses of Potential Fishing Zone (PFZ) Advisory	Dept. of FRM & AEM, FCM and Dept. of Fisheries (GoK)

#	Date	Place	Title	Organized by
INSTITUTE OF ANIMAL HEALTH AND VETERINARY BIOLOGICALS, BENGALURU (IAH&VB)				
1	09.10.2014	Mattupatty, Kerala KVC, Hebbal, Bengaluru	Workshop on Implementation of revised MSP in Semen Stations of Southern States	IAH&VB, Bengaluru
2	16.10.2014	Chennai, Tamilnadu	Workshop on Anthrax control programme in Southern states	IAH & VB, Bengaluru
INSTITUTE OF WILDLIFE VETERINARY RESEARCH, KODAGU (IWVR)				
1	15.10.2014	IWVR	Role of Veterinarian in Wildlife Conservation	IWVR, Doddaluvara
KRISHI VIGYAN KENDRA, DAKSHINA KANNADA (KVK-DK)				
1	26.07.2014	KVK-DK, Mangaluru	BIO-FILTER waste water treatment technology	KVK-DK, Mangaluru
FISHERIES RESEARCH & INFORMATION CENTER (I), HEBBAL, BENGALURU				
1	13.10.2014	FRIC, Hebbal	Brainstorming Session on Fisheries development in Karnataka-A way forward	Directorate of Extension, KVAFSU, Bidar
ANIMAL HUSBANDRY POLYTECHNIC, SHIGGAON (AHP, SHIGGAON)				
1	01.11.2014	AHP, Shiggaon	Popular Article Writing on Veterinary Science subjects in Kannada	AHP, Shiggaon; KPSP; DAH&VS, Haveri and KMF, Dharwad
2	13.02.2015	Vet. Hospital, Gadag	District Level launch workshop of Sujala - III, Livestock Support & Extension Activities	AHP, Shiggaon

c) Seminars

#	Date	Place	Title	Organized by
VETERINARY COLLEGE, BENGALURU (VCH)				
1	7.10.2014.	VCH	College level Veterinary Physiology Quiz and Seminar: 2014	VCH
2	26.04.2014	VCH	World Veterinary Day (Animal Birth Control Programme)	VCH
3	15.06.2014	Chancery Pavilion, Richmond Circle, Bengaluru	Examination of Eye and management of Cataract in dogs	Private Practitioners Association of Karnataka, Bengaluru
4	14.12.2014	Hotel Chalukya, Bengaluru	Principles of Orthopedic Surgery in Dogs & Cats	Private Practitioners Association of Karnataka, Bengaluru
5	08.02.2015	KPDO, Whitefield, Bengaluru	Panel discussion on Pain Management in Dogs	India International Pet Trade Fair
6	11.03.2015	Chancery Pavilion, Richmond Circle, Bengaluru	The Multimodal Management of Osteoarthritis, A Practical Approach to Gastrointestinal Disease, the Management of Canine & Feline Cystitis	Vet Plus Company
7	25.07.2014	VCH	Technical Seminar on "Role of Alumni Association in Veterinary Profession"	
ANIMAL HUSBANDRY POLYTECHNIC, SHIGGAON (AHP)				
1	26.04.2014	AHP, Shiggaon	Technical seminar on "Animal Welfare"	AHP, Shiggaon; AH & VS, Haveri; KVC, Bengaluru; KVA, Haveri and Dharwad Milk Union, Dharwad

d) Trainings

#	Date	Place	Title	Organized by
DIRECTORATE OF EXTENSION, KVAFSU, BIDAR				
1	26.03.2015 to 28.03.2015	KVAFSU, Bidar	Livelihood and nutritional security of farmers through integration of Animal Husbandry and Fisheries with Agriculture and Horticulture	Directorate of Extension, KVAFSU, Bidar
VETERINARY COLLEGE, BENGALURU (VCH)				
1	02.06.2014	CMC, Chitradurga	Training program on "Hygienic Meat Processing and Solid Waste Management"	KVAFSU, Bidar and NMPPB, MoFPI, GoI
2	02.02.2015 to 04.02.2015	Technology Transfer Centre, VCH	Project Formulation for Financial Assistance in Livestock Farming (KVC sponsored program for field veterinarians)	Dept of Veterinary Animal Husbandry Extension & Education
3	06.03.2015	Chikkakurugodu village, Gowribidanur Taluk	Kshetrotsava - Fodder production (Lucerne training and farmers interaction)	Dept of Veterinary Animal Husbandry Extension & Education
4	10.11. 2014 to 30.11. 2014	VCH	Advanced Techniques in Detection and Control of Parasitic diseases"	CAFT, Dept. of Parasitology,
5	29.01.2015 to 31.01.2015	Dept of LPM, VCH	"Sheep production - NARI SUVARNA, a boon for small scale farmers + Goat production-sustainable livelihood for small scale farmers" under continuing veterinary education programme.	KVC, Bengaluru and VCH

#	Date	Place	Title	Organized by
VETERINARY COLLEGE, BIDAR (VCB)				
1	Feb 2-4, 2015	VCB	Recent Advances in Laboratory Diagnosis of Livestock and Poultry Diseases	Dept of VMC (sponsored by KVC, Bengaluru)
2	09.06.2014	VCB	User awareness programme on CeRA Consortium	Veterinary College Library, Bidar.
3	Jan-March, 2015	VCB	Academic and other administrative to the SC/ST teachers under SCP-TSP grants	VCB under SCP-TSP grants
4	March, 2015	VCB	Writing research projects to SC/ST Assistant Professors under SCP-TSP grants	VCB under SCP-TSP grants
5	5 th to 7 th Feb, 2015	VCB	An Orientation to Livestock Entrepreneurship and Business Management	Dept of VAHEEP (sponsored by KVC, Bengaluru)
6	18-27 Feb, 2015	VCB	Special Coaching to students appearing for competitive Examinations	SCP/TSP Committee, Veterinary College, Bidar
7	27.08.2014	Gotyal, Tq: Basava Kalyan	Awareness training on Goat production	Dept of VAHEE (Sponsored by RKVY)
8	20.12.2014	Yeranalli Tq: Bidar	Awareness training on Goat production	Dept of VAHEE (Sponsored by RKVY)
9	03.01.2015	Morkhandi Tq. B.Kalyan	Awareness training on Goat production	Dept of VAHEE (Sponsored by RKVY)
10	10-16 th March, 2015	Hokrana, Bidar	NSS Annual Special Camp for 2014-15	NSS Units of Veterinary College, Bidar
11	30.03.2015	Rajola Tq: Basava Kalyan	Awareness training on Goat production	Dept of VAHEE (Sponsored by RKVY)

#	Date	Place	Title	Organized by
12	18 th -27 th Feb, 2015	VCB	Special coaching to SC/ST students on different competitive exams (Reasoning, personality development, soft skills, communication skills, group discussions and general attitudes)	VCB under SCP/TSP grant
13	9-11 th Feb, 2015	VCB	Laparoscopic, Endoscopic, Ultrasonographic and Radiographic Diagnosis in Animals	Dept. of VSR, VCB (sponsored by KVC, Bengaluru)
VETERINARY COLLEGE, SHIVAMOGGA (VCS)				
1	02-04 th Feb., 2015	VCS	Clinical Pharmacology & Forensic Toxicology	Dept. of Veterinary Pharmacology & Toxicology
2	5 th to 7 th Feb., 2015	VCS	"Parasitic Diseases of Domestic Animals with special emphasis on Diagnosis Treatment and Control"	Department of Veterinary Parasitology (Sponsored by KVC, Bengaluru)
3	11.10.2014	Shri-Ranga Poultry Farm, Gejjenahalli Shivamogga	Demonstration programme on bio-security to rural poultry farmers/entrepreneurs	Dept. VPE, VCS
4	11.03.2014	VCS	Bio-security in poultry farming and Entrepreneurship.	VPE & EEC-VCS
5	19.02.2015 to 11.03.2015	Tajyavalli, Shivamogga	Field Experience Training Programme for FOCARS, ARS NAARM, Hyderabad as coordinator (Chidanandaiah)	VCS
6	26.03.2015 to 01.04.2015	Ragihosahalli	NSS annual camp -2015 as coordinator (Dr. Desai B.A.)	VCS

#	Date	Place	Title	Organized by
7	09.02.2015 to 11.02.2015	Dept of VPP- VCS	Post mortem Techniques, Collection, Preservation & despatch of morbid materials for laboratory diagnosis	Dept of Veterinary Pathology (Sponsored by KVC, Bengaluru)
8	29.01.2015 to 31.01.2015	VCS	"Extension Approaches for Promotion of Livestock based Livelihoods".	Dept. of VAHEE
9	22.02.2015	VCS	Field Experience Training (21 days) for the FOCARS, ARS	Dept. of VAHEE
VETERINARY COLLEGE, HASSAN (HVC)				
1	19.02.2014	HVC	Demonstration cum training on Ultrasonography, endoscopy, ECG and Veterinary patient monitor for field veterinarians.	TVCC-HVC
2	11.07.2014	HVC	Management of mastitis for improving the milk quality	Dept. of VPE-HVC
3	30.07.2014 to 31.07.2014	HVC	Writing project proposals	SCP-TSP and Dept. of Extension, HVC
4	07.08.2014 to 08.08.2014	HVC	Administrative training	SCP-TSP and Dept. of Extension, HVC
5	14.08.2014	HVC	Diagnosis and management of mastitis and simple techniques to detect milk adulteration	Dept. of VPE-HVC
6	30.09.2014	HVC	Management of mastitis for improving the milk quality	Dept. of VPE-HVC
7	22.01.2015 to 24.01.2015	HVC	Sample collection and laboratory disease diagnosis	VMC-HVC and KVC, Bengaluru

#	Date	Place	Title	Organized by
8	09.02.2015 to 11.02.2015	HVC	Role of veterinarian in ensuring feed security & food safety under changing climatic scenario	ANN and VPE, Veterinary College, Hassan
9	19.02.2015 to 25.02.2015	HVC	Modern Poultry	LPM-HVC and CPDO&TI, Hesaraghatta
10	09.03.2015 to 14.03.2015	HVC	Improvised Poultry	LPM-HVC and CPDO&TI, Hesaraghatta
DAIRY SCIENCE COLLEGE, BENGALURU (DSCH)				
1	12-14 th Aug., 2014	DT-DSCH	House wives training programme on preparation of value added dairy products	Dept. of Dairy Technology
2	10-12 March 2015	DT-DSCH	3-days training programme on ice cream and frozen dairy products preparation	Dept. of Dairy Technology
3	30-June to 5 th July 2014	DC-DSCH	Chemical Analysis of Milk	Dept. of Dairy Chemistry
4	18.02.2015 to 23.02.2015	DEBM-DSCH	Data Analytics & Big Data - Hadoop EcoSystem, Scripting	Dept. of DEBM
5	08.03.2015	DEBM-DSCH	Good teacher to a better teacher - Faculty training programme	Dept. of DEBM
6	09.03.2015	DEBM-DSCH	Enriching faculty skill for research competency - Faculty training programme	Dept. of DEBM
DAIRY SCIENCE COLLEGE, KALABURAGI (DSCK)				
1	30-31 st March, 2015	DSCK	Writing Research Projects" in College Campus under SCP/TSP Grants 2014-15	DSCK
COLLEGE OF FISHERIES, MANGALURU (FCM)				
1	7-12 th July, 2014	FCM	Microbiological analysis of food and water	Dept of Fisheries Microbiology

#	Date	Place	Title	Organized by
2	14-19 July, 2014	FCM	Microbiological analysis of food and water	Dept of Fisheries Microbiology
3	17-19 Sept, 2014	FCM	Ornamental fish production & Trade" sponsored by MPEDA	Dept of Aquaculture
4	22.01.2015	Kumata, UK District	Awareness programme on shrimp diseases for shrimp farmers of Kumta region, Uttara Kannada district	Dept of Fisheries Microbiology
5	13.03.2015	Kundapur, Udupi Dist	Awareness programme on shrimp diseases for shrimp farmers of Kundapur region, Udupi District'	Dept of Fisheries Microbiology
6	24-26 July, 2014	Mangaluru	Responsible fishing for effective management of fisheries resources.	Dept. of Fisheries Engineering and Technology
7	10-19 Nov, 2014	Mangaluru	Recent Developments in Engineering Techniques for Aquafarm	Dept. of Fisheries Engineering and Technology
8	16-25 th March, 2015	FCM	Coaching Classes for Competitive Examinations	SCP/TSP Coordinator, College of Fisheries, Mangaluru
INSTITUTE OF ANIMAL HEALTH & VETERINARY BIOLOGICALS, BENGALURU (IAH&VB)				
1	18.12.2014 to 19.12.2014	Pudhucherry	Training programme on Detection of Anthelmintic resistance in small ruminants	IAH&VB, Bengaluru
2	23.01.2015	SRDDL, Bengaluru	Training programme on Sample collection for Diagnosis of BSE	IAH&VB, Bengaluru
INSTITUTE OF WILDLIFE VETERINARY RESEARCH, KODAGU (IWVR)				
1	16-17 th Oct., 2014	IWVR	Diagnostic Approaches in Wild animal Diseases	IWVR, Kodagu
2	29-31 st Jan., 2015	KVC, Bengaluru	Health and Management of Captive Asian Elephants	IWVR, Kodagu

#	Date	Place	Title	Organized by
3	5-7 th Feb., 2015	VCH	Health and Management of Captive Asian Elephants	IWVR, Kodagu
KRISHI VIGYAN KENDRA, DAKSHINA KANNADA (KVK-DK)				
1	21.04.2014	KVK-DK	Value addition to Cashew apple	KVK-DK
2	05.06.2014	Mangaluru	World Environmental Day Celebration	KVK-DK
3	12.06.2014	Mangaluru	Scientific Fish Culture	KVK-DK
4	26.09.2014	Mangaluru	Scientific Poultry Farming	KVK-DK
5	29.09.2014 to 30.09.2014	Mangaluru	Importance of soil test and water conservation in agriculture	KVK-DK
6	16.10.2014	Mangaluru	Value addition to fruits on the occasion of world food day	KVK-DK
7	16.10.2014	Mangaluru	Responsible capture fisheries and fish culture	KVK-DK
8	02.12.2014	Mangaluru	Preparation of Bakery products	KVK-DK
9	03.12.2014	Mangaluru	Fish culture, Poultry farming and pig farming	KVK-DK
10	12.02.2015	Mangaluru	Propagation of technologies in horticultural crops	KVK-DK
11	28.02.2015	Mangaluru	Cashew apple utilization	KVK-DK
12	17.03.2015	Mangaluru	Cashew apple Utilization	KVK-DK
13	19.04.2014	Kadabettu, Vogga, Bantwal Tq.	Demonstration on soil sample collection in agriculture and horticulture crops	KVK-DK
14	06.05.2014	Saletturu, Bantwal Tq.	Demonstration on Soil sample collection in agriculture crops	KVK-DK
15	07.05.2014	Sanjeepamuda, Mangaluru	Demonstration on soil sample collection in agriculture crops	KVK-DK

#	Date	Place	Title	Organized by
16	08.05.2014	Vittal, Bantwal	Demonstration of soil sample collection in agriculture crops	KVK-DK
17	05.06.2014	Nirumarga, Mangaluru	Management of Koleroga in Arecanut	KVK-DK
18	05.06.2014	Bondethela, Mangaluru	Management of Koleroga in Arecanut	KVK-DK
19	05.06.2014	Permanke, Mangaluru	Management of Koleroga in Arecanut	KVK-DK
20	06.06.2014	Bantwal	Management of Koleroga in Arecanut	KVK-DK
21	16.06.2014	Kukkipai	Mechanised Paddy Cultivation	KVK-DK
22	19.06.2014	Brahmarakotlu	Profitable Paddy Cultivation	KVK-DK
23	19.06.2014	Parende, Mangaluru	Management of Koleroga in Arecanut	KVK-DK
24	19.06.2014	Pavuru, Mangaluru	Management of Koleroga in Arecanut	KVK-DK
25	19.06.2014	Boliyor Mangaluru	Management of Koleroga in Arecanut	KVK-DK
26	25.06.2014	Amtoor	Profitable Paddy Cultivation	KVK-DK
27	09.08.2014	Balila, Sullia	Integrated fish farming & Backyard rearing of Swarnadhara Poultry Birds	KVK-DK
28	13.08.2014	Battampadi, Puttur	Fish Culture	KVK-DK
29	07.09.2014	Panjikallu, Bantwal	SRI method of Paddy Cultivation	KVK-DK
30	10.09.2014	Punacha, Bantwal Tq.	Integrated Crop Management in Pepper	KVK-DK
31	16.09.2014	Shirlalu, Belthangady	Profitable Paddy Cultivation	KVK-DK
32	19.09.2014	Agrar, Bantwal	Integrated Crop Management in Paddy	KVK-DK

#	Date	Place	Title	Organized by
33	22.09.2014	Chandapady, Vittla, Bantwal Tq.	Potash Management in Arecanut	KVK-DK
34	22.09.2014	Mudambailu, Bantwal Tq.	Integrated Crop Management in Pepper	KVK-DK
35	23.09.2014	Puttur	Inland fish culture	KVK-DK
36	16.10.2014	Pilathabettu	Mechanisation in Paddy	KVK-DK
37	16.10.2014	Pilathabettu	Mat Nursery Preparation in Paddy	KVK-DK
38	02.11.2014	Pilathabettu	Mechanical Transplanting in paddy method demonstration	KVK-DK
39	03.11.2014	Pilathabettu	Mechanical Transplanting in paddy method demonstration	KVK-DK
40	05.11.2014	Bettampady, Puttur	Cultivation of high yielding variety of cowpea	KVK-DK
41	14.11.2014	Agraar, Bantwal	Backyard rearing of Swarnadhara poultry birds	KVK-DK
42	22.11.2014	Koltige, Puttur	Fish culture and Swarnadhara poultry birds farming	KVK-DK
43	25.11.2014	Murullia	Inland fish culture	KVK-DK
44	12.12.2014	Thenkamijar & Beluvai	Integrated Nutrient Management in Bhendi	KVK-DK
45	20.12.2014	Netanege Mudnoor, Puttur Tq.	Enhancement of Bunch size in Banana	KVK-DK
46	04.01.2015	Kuppepadavu Mangaluru Tq.	Mechanical Paddy transplanting	KVK-DK
47	14.01.2015	Punacha Bantwal Tq.	Drying of pepper by solarization Technique	KVK-DK
48	10.02.2015	Shirlalu	Production Technology in Blackgram	KVK-DK
49	12.02.2015	Naravi	Production Technology in Greengram	KVK-DK

#	Date	Place	Title	Organized by
50	18.09.2014	KVK-DK	Value addition to fruits for extension personnel	KVK-DK
51	25.11.2014	KVK-DK	Recent advances in Agricultural sciences	KVK-DK
52	10.02.2015	KVK-DK	Recent Advances in Horticulture Technologies	KVK-DK
53	13.02.2015	KVK-DK	Foot & mouth disease control in dairy animals	KVK-DK
54	24.11.2014 to 29.11.2014	KVK-DK	Friends of Coconut Tree Vocational Training Programme	CDB, Bengaluru
55	19.12.2014	Belthangady	Protection of Plant Varieties and Farmers Right act 2001- Training cum Awareness Programme	PPV&FRA, New Delhi
56	17.01.2015	Moodabidri	Protection of Plant Varieties and Farmers Right act 2001 -Training cum Awareness Programme	PPV&FRA, New Delhi
LIVESTOCK RESEARCH AND INFORMATION CENTER (SHEEP), NAGAMANGALA (LRIC-Nagamangala)				
1	25.06.2014	LRIC, Nagamangala	Sheep Husbandry and Management	MSSP(MS), Project
2	29.07.2014	LRIC, Nagamangala	Sheep husbandry and management	LRIC(S), Nagamangala
3	09.08.2014	LRIC, Nagamangala	Sheep husbandry and management	LRIC(S), Nagamangala
4	13.11.2014	LRIC, Nagamangala	Sheep Husbandry Practices	VATI, Mallavalli
5	15.02.2015	LRIC, Nagamangala	Sheep husbandry and management	MSSP(MS), Project
6	31.03.2015	LRIC, Nagamangala	Sheep Husbandry Practices and importance of Mandya Sheep	MSSP(MS), Project

#	Date	Place	Title	Organized by
LIVESTOCK RESEARCH AND INFORMATION CENTER (DEON), HALLIKHED				
1	24.09.2014	LRIC, Hallikhed	Goat Production & Management	LRIC, Hallikhed
2	12.10.2014	LRIC, Hallikhed	Goat Farming	SWDB, Bidar and LRIC, Hallikhed
3	23.11.2014	LRIC, Hallikhed	Goat Farming	LRIC, Hallikhed & SWDB, Gulbarga
4	25.11.2014	LRIC, Hallikhed	Integrated Farming	LRIC, Hallikhed
5	27.11.2014	LRIC, Hallikhed	Dairy Farming	LRIC, Hallikhed
6	15.02.2015	LRIC, Hallikhed	Dairy Farming	KMF and LRIC, Hallikhed
FISHERIES RESEARCH & INFORMATION CENTER, HEBBAL				
1	04.08.2014 to 24.08.2014	FRIC, Hebbal	Winter school on Empowerment of fish farmers and entrepreneurship development.	Ministry of Agriculture, GOI, New Delhi
FISHERIES RESEARCH & INFORMATION CENTER, HESARAGHATTA				
1	10.07.2014	FRIC(I), Hesarghatta	Fish farmer day	FRIC(I), Hesarghatta & KVAFSU, Bidar
2	10.07.2014	FRIC(I), Hesarghatta	Fish culture in ponds and tanks	FRIC(I), Hesarghatta & KVAFSU, Bidar
3	13.02.2015	FRIC(I), Hesarghatta	"Ornamental fish culture"	FRIC(I), Hesarghatta & KVAFSU, Bidar
FISHERIES RESEARCH AND INFORMATION CENTER, ANKOLA (FRIC)				
1	16.08.2014	Alvikudi, Bhatkal	Fresh fish handling and hygiene at fish market for fisher folks	FRIC, Ankola
2	19.12.2014	MFRIC, Ankola	Farmers Training: Importance of soil and water testing in Fish culture practices	FRIC, Ankola

#	Date	Place	Title	Organized by
ANIMAL HUSBANDRY POLYTECHNIC, KONEHALLY, TIPTUR (AHP)				
1	14.08.2014	APMC Yard Konehally	Dairy Farming	AHP-Konehally & SKDRDP- Honnavalli
2	29.09.2014 to 01.10.2014	KVK Bidaregudi	Soil Testing and Water Management	AHP-Konehally & KVK, Bidaregudi
3	05.11.2014 To 07.11.2014	KVK Bidaregudi	Soil Testing and Water Management	AHP-Konehally & KVK, Bidaregudi
4	26.02.2015	Mattihalli	Livestock Show and Infertility Camp	AHP, Konehally & Veterinary Dept, Tiptur
ANIMAL HUSBANDRY POLYTECHNIC, SHIGGAON, HAVERI (AHP)				
1	23.06.2014	AHP, Shiggaon	Improved animal husbandry practices	AHP, Shiggaon; Dept. of AHVS, Shiggaon
2	12.01.2015	SRJV College, Shiggaon	Opportunities for youth in animal husbandry sector	AHP, Shiggaon; and SJR Education Foundation
3	20.01.2015	First Grade College, Shiggaon	Opportunities for youth in animal husbandry sector	AHP, Shiggaon; and First grade College, Shiggaon
4	05.02.2015	AHP, Shiggaon	Newer technologies for profitable & sustainable animal husbandry	Animal Husbandry Polytechnic, Shiggaon
5	07.03.2015	KBCS, Bankapur	Profitable Dairy Farming	AHP, Shiggaon; Dept. of AHVS, Shiggaon
EXTENSION EDUCATION CENTER (EEC), BENGALURU				
1	18.06.2014	Yeliyuru, Bengaluru	Seed distribution & fodder training in Agase	EEC, Bengaluru
2	09.07.2014	Hessarghatta	Integrated fish farming	EEC, Bengaluru and FRIC, Hessarghatta
3	23.07.2014	VCH	Training in sheep and goat rearing	EEC, Bengaluru

#	Date	Place	Title	Organized by
4	12.08.2014	VCH	Sheep and goat training for farmers	EEC, Bengaluru
5	12.09.2014	VCH	Sheep and Goat training	EEC, Bengaluru
6	30.10.2014	VCH	Sheep and goat training	EEC, Bengaluru
7	13.11.2014	VCH	Sheep and goat Training	EEC, Bengaluru
8	11.12.2014	VCH	Sheep and Goat training	EEC, Bengaluru
9	18.12.2014	VCH	Sheep and Goat Training	EEC, Bengaluru
10	08.01.2015	VCH	Sheep and Goat Training	EEC, Bengaluru
11	23.01.2015	VCH	Sheep and Goat Training	EEC, Bengaluru
12	19.02.2015	VCH	Piggery training	EEC, Bengaluru
EXTENSION EDUCATION CENTER (EEC), SHIVAMOGGA				
1	09.09.2014	VCS	Scientific Pig Production	EEC, Shivamogga
2	12.09.2014	VCS	Sheep and Goat rearing for Rural Empowerment	EEC, Shivamogga
3	13.09.2014	VCS	Sheep and Goat rearing for Rural Empowerment	EEC, Shivamogga
4	16.09.2014	VCS	Profitable Dairying	EEC, Shivamogga
5	30.09.2014	VCS	Scientific Fish farming	EEC, Shivamogga
EXTENSION EDUCATION CENTER (EEC), HASSAN				
1	27.11.2014	HVC	Scientific Rabbit Rearing	EEC, Hassan
2	28.01.2015	HVC	Scientific Sheep Production	EEC, Hassan
3	12.02.2015 to 13.02.2015	HVC	Scientific Dairy Production	EEC, Hassan

**3. Participation as Resource Scientist in Conference / Training Programmes
Workshops / Seminars / Symposia / Winter School, etc.**

#	Institution	Conferences	Training Programmes	Workshops	Seminars	Symposia	Winter/ Summer Schools	Total
1	Directorate of Extension, KVAFSU, Bidar	-	1	-	-	-	-	1
2	Veterinary College, Bengaluru	7	73	10	10	1	3	104
3	Veterinary College, Bidar	7	48	1	3	-	1	60
4	Veterinary College, Shivamogga	5	85	3	7	14	1	115
5	Veterinary College, Hassan	2	94	3	-	-	-	99
7	College of Fisheries, Mangaluru	3	22	5	1	-	2	33
8	IAH&VB, Bengaluru	4	54	6	-	-	-	64
9	Institute of Wildlife Veterinary Research, Kodagu	2	10	-	3	-	-	15
10	Krishi Vigyan Kendra, Dakshina Kannada	-	87	3	1	-	-	91
11	FRIC, Hebbal, Bengaluru	-	10	-	-	-	-	10
12	FRIC, Hesaraghatta, Bengaluru	-	4	-	-	-	-	4
13	FRIC, Ankola, Uttar Kannada	-	8	3	-	-	-	11
14	LRIC, Nagamangala	-	6	-	-	-	-	6
15	LRIC, Hallikhed	-	6	-	-	-	-	6
16	EEC, Bengaluru	-	12	-	-	-	-	12
17	EEC, Bidar	-	6	-	-	-	-	6
18	EEC, Shivamogga	-	16	1	1	-	-	18
19	EEC, Hassan	-	11	-	-	-	-	11
20	AHP, Shiggaon, Haveri	-	23	2	2	-	-	27
Total		30	576	37	28	15	7	693

4. Participation as Trainee Scientists in Conference / Training Programmes / Workshops / Seminars / Symposia / Winter School, etc.

#	Institution	Conferences	Training Programmes	Workshops	Seminars	Symposia	Winter/ Summer Schools	Total
1	Veterinary College, Bengaluru	6	5	5	15	6	4	41
2	Veterinary College, Bidar	4	51	12	2	2	12	83
3	Veterinary College, Shivamogga	14	20	16	4	4	11	69
4	Veterinary College, Hassan	7	9	4	1	-	7	28
5	College of Fisheries, Mangaluru	11	8	10	3	2	1	35
6	IAH&VB, Bengaluru	2	10	2	-	-	-	14
7	IWVE, Kodagu	-	-	-	-	-	-	-
8	Krishi Vigyan Kendra, Dakshina Kannada	-	4	7	3	-	-	14
9	FRIC, Hebbal, Bengaluru	-	2	1	-	-	-	3
10	FRIC, Hesaraghatta	-	1	-	-	-	-	1
11	FRIC, Ankola, Uttar Kannada	-	4	-	-	-	-	4
12	LRIC, Nagamangala, Mandya	2	2	-	-	-	-	4
13	LRIC, Konehally	-	-	-	-	-	1	1
14	AHP, Konehally, Tiptur, Tumkur	-	2	-	-	-	-	2
15	AHP, Shoggaon, Haveri	-	-	1	-	-	-	1
16	EEC, Bidar	-	2	-	-	-	-	2
17	EEC, Shivamogga	-	2	-	-	-	-	2
18	EEC, Hassan	-	1	-	-	-	1	2
Total		46	123	58	28	14	37	306

5. Radio Talk/TV programmes

a) Radio Talks

#	Date	AIR Station	Scientist	Topic
VETERINARY COLLEGE, BENGALURU				
1	15.09.2014	Mysuru	M.R. Jayashankar	Breeding of Bannur sheep
2	03.09.2014	Bengaluru	Nadeem Fairoze	Meat Quality of Bannur Sheep
3	11.09.2014	Bengaluru	Jayanaik	Management of Poultry in Winter Season
4	18.09.2014	Bengaluru	K. Satyanarayan	Pashusamgopanae – Raitharagae Labadayaka
5	30.05.2014	Bengaluru	D. Rathnamma	Control of Foot and Mouth Disease in Animals
6	17.11.2014	Bengaluru	Leena, G.	Women's Participation in the maintenance of Public Health and Hygiene in rural area”
7	17.08.2014	Bengaluru	N.B.Shridhar	Common plant toxicities in animals and the first aid
8	21.06.2014	Bengaluru	M. Narayana Swamy	Jaanuvarugala Bede Chinhegala Parichaya
9	02.10.2014	Bengaluru	M. Narayana Swamy	Jaanuvaarugalige Iavanagala pooraike
10	13.03.2015	Bengaluru	V.Chandrashekara Murthy	Kurigallalli . Santhanothpathi
11	13.03.2015	Bengaluru	V. Chandrashekara Murthy	Bhroona Vargavane
VETERINARY COLLEGE, BIDAR				
1	26.05.2014	Kalburgi	Siddalingswamy Hiremath	Mahishapuradalli ondu dina
2	April, 2014	Kalburgi	Channappagouda Biradar	Feeding of dairy animals during summer
VETERINARY COLLEGE, SHIVAMOGGA				
1	09.04.2014	Bhadravathi	Umashankar, B.C.	Hainu raasugalalli samatolna aahara

#	Date	AIR Station	Scientist	Topic
2	12.04.2014	Bhadravathi	V. Nagabhushana	Undu santasadindiru
3	19.04.2014	Bhadravathi	Suresh Patel, R.	Milk fever in cattle & Prevention
4	14.05	hadravathi	B.P. Ravikumar	Gynaecological problems in Domestic Animals & Remedies
5	May, 2014	Bhadravathi	Ananda, K.J.	Haemoprotzoan diseases of domestic animals and their control
6	12.06.2014	Bhadravathi	K.C.Veeranna	Backyard Poultry Farming
7	20.06.2014	Bhadravathi	V. Nagabhushana	Importance of green fodder
8	25.02.2015	Bhadravathi	Vijayakumar, S.	Profitable fish farming
9	07.03.2015	Bhadravathi	Satheesha, G.M.	Scientific pig production
10	11.03.2015	Bhadravathi	Umesh, B.U.	Scientific broiler production
11	11.03.2015	Bhadravathi	Veerannagowda, B.G.	Commercial layer farming
12	16.03.2015	Bhadravathi	V.B. Shettar	Conservation of indigenous breeds
13	17.03.2015	Bhadravathi	K.S. Giridhar	Nutritional management during summer
14	20.03.2015	Bhadravathi	K.C. Veeranna	Ill effects of Diclofenac medicinal use on vultures and ways & means to conserve the vultures
15	26.03.2015	Bhadravathi	Venkatesh, M.M.	Fodder crops
VETERINARY COLLEGE, HASSAN				
1	24.09.2014	Hassan	Suma, N.	Recycling of animal wastes
2	15.10.2014	Hassan	Suma, N.	Control of animal diseases using medicinal plants
3	25.04.2014	Hassan	Ravikumar, P.	Importance of zoonotic diseases in public health
4	16.06.2014	Hassan	Ravikumar, P.	Indigenous methods for treatment of Livestock diseases

#	Date	AIR Station	Scientist	Topic
5	14.04.2014	Hassan	H.S. Madhusudhan	Rearing of goats and importance of goat milk
6	04.08.2014	Hassan	H.S. Madhusudhan	Control of mastitis in cows
7	13.02.2015	Hassan	N. Nagaraju	Affections of udder, teats and hernia in cows
DAIRY SCIENCE COLLEGE, BENGALURU				
1	18.12.2014	Bengaluru	Harini Venugopal	Milk and milk products preparation
2	06.03.2015	Bengaluru	Manjunatha, H.	Role of Microorganisms in Clean Milk Production
3	12.03.2015	Bengaluru	Narsimha Murthy	Detecting Adultrants in milk
COLLEGE OF FISHERIES, MANGALURU				
1	10.05.2014	Mangaluru	H. Shivananda Murthy	Production of fish through aquaculture to meet food and nutritional security.
INSTITUTE OF ANIMAL HEALTH & VETERINARY BIOLOGICALS, BENGALURU				
1	27.10.2014	Mysuru	B.M. Chandranaik	Disease management in Bandur Sheep
INSTITUTE OF WILDLIFE VETERINARY RESEARCH, KODAGU				
1	During the year 2014-15	Madikeri	H.A. Upendra	World Veterinary day.
2		Bengaluru	H.A. Upendra	Management of animal diseases in Rainy Season (In Kannada)
3		Bengaluru	H.A. Upendra	Animal Welfare
4		Bengaluru	H.A. Upendra	Interview on Rabies
5		Madikeri	H.A. Upendra	Interview on Pet Assisted Therapy
6		Madikeri	H.A. Upendra	Information Capsule on Pet Animal.
7		Madikeri	H.A. Upendra & Madhukar	Social Significance of Wild Animals
8		Madikeri	H.A. Upendra & Madhukar	Wildlife Conservation

#	Date	AIR Station	Scientist	Topic
KRISHI VIGYAN KENDRA, DAKSHINA KANNADA				
1	30.07.2014	Mangaluru	Vijetha	Cultivation of Medicinal and Aromatic crops
2	07.08.2014	Mangaluru	Harish Shenoy	Integrated Nutrient Management Practices
3	22.08.2014	Mangaluru	Harish Shenoy	Bio Diesel Crops
4	17.09.2014	Mangaluru	Harish Shenoy	Scientific Bordaueux Mixture Preparation
5	16.10.2014	Mangaluru	H. Hanumanthappa	Role of KVK in transfer of technology in respect of Inland Fish Culture
6	12.01.2015	Mangaluru	T.S. Annappaswamy	Fish Seed Production Technology
FISHERIES RESEARCH AND INFORMATION CENTER, BHUTNAL, BIJAPUR				
1	29.09.2014	Dharwad	Siddappaji, S.	Kshetra parichaya mattu uddeshagalu
2	29.09.2014	Dharwad	Siddappaji, S.	Aarogya vardhaka aaharavagi meenu
3	29.09.2014	Dharwad	Siddappaji, S.	Krishi yogya meenugalu mattu meenu krishiyinda aaguva laabha
FISHERIES RESEARCH AND INFORMATION CENTER, ANKOLA				
1	27.08.2014	Karwar	Mansing Naik	Pen Culture
FISHERIES RESEARCH AND INFORMATION CENTER, HESARAGHATTA				
1	10.07.2014	Bengaluru	Y. Basavaraju	Fish farmer day
2	19.01.2015	Bengaluru	Y. Basavaraju	Poultry cum fish culture
3	29.01.2015	Bengaluru	Y. Basavaraju	Amur carp breeding
4	08.02.2015	Bengaluru	Y. Basavaraju	Amur carp rearing
5	22.02.2015	Bengaluru	Y. Basavaraju	Amur carp culture
LIVESTOCK RESEARCH AND INFORMATION CENTER, NAGAMANGALA (LRIC)				
1	28.11.2014	AIR, Mysuru	Manju, G.U.	Importance of Bandur Sheep conservation.

b) TV Programmes

#	Date	Station	Scientist	Topic
DIRECTORATE OF EXTENSION, KVAFSU, BIDAR				
1	10.03.2015	DDK, Bengaluru	S.M. Shivaprakash	Responsible fisheries
2	10.03.2015	DDK, Bengaluru	S.M. Shivaprakash	Fish as a source of health food
VETERINARY COLLEGE, BENGALURU				
1	22.12.2014	TV-9, Bengaluru	M.R. Jayashankar	Birth defects in Goats
2	30.03.2015	Samaya News	P.T. Ramesh	Management of dogs during summer
3	13.08.2014	Doordarshan	P.T. Ramesh	Mastitis control
4	04.01.2014	Dooradarshan Kendra	K. Venkata Reddy	Rearing of Giriraja and Swarnadhara
5	10.07.2014	Doordarshan, Bengaluru	K.Satyanarayan	Integrated Livestock Farming
6	15.09.2014	Doordarshan, Bengaluru	K.Satyanarayan	Samagra Pashupalane
7	25.12.2014	Doordarshan, Bengaluru	K.Satyanarayan	Jaanuvaru, Krishi, Totagarike & Matsya Mela-2014
8	06.03.2015	Doordarshan, Bengaluru	K.Satyanarayan	Kshetrotsava – Lucerne Fodder
9	30.03.2015	Doordarshan, Bengaluru	K.Satyanarayan	Integrated Livestock Farming
10	18.06.2014	Doordarshan Kendra	Sharada, R.	Control of Black Quarter in Livestock
11	18.06.2014.	Doordarshan Kendra	Shrikrishna Isloor	Control of Haemorrhagic Septicemia in Livestock
12	03.12.2014	Krishidarshana Programme.	G.S. Mamatha	Management of parasites in livestock
13	23.10.2014	DD, Chandana	N.B. Shridhar	Common poisonings in livestock
14	25.04.2015	Janashree Channel	L. Ranganath	Interview regarding World Veterinary Day

#	Date	Station	Scientist	Topic
15	08.05.2014	News 9	L. Ranganath	Panel Discussion about Animal behavior
16	26.05.2014	Janashree Channel and Samaya News	L. Ranganath	Interview regarding Shortage of Veterinarians
17	17.06.2014	Samaya News	L. Ranganath	Interview regarding Cancer in Animals
18	27.11.2014	Kasturi New Channel	L. Ranganath	Interview regarding Plastic Menace in Animals
19	06.01.2015	TV 9, News 9 Channel	L. Ranganath	Bite on Mammary Tumour
20	Re-telecast Aug., 2014	DD-Chandana	T.M. Prabhu	Nutrition and Feeding of High Yielding Dairy Cows.
21	13.03.2015	Krishi Darshan	Anil Kumar, C.K.	Nutritive Value of Lucerne
22	14.02.2015	Chandana T.V.	V. Chandrashekara Murthy	Gorasugala Nirvahane Mathu Samasyegalu
23	-	Live phone in programme	V. Chandrashekara Murthy	Besige Kaladalli Hynurasugala Nirvahane
24	14.02.2015	DD Chandana	V. Chandrashekara Murthy	Hynurasugallalli Lasikegala Mahatva
25	18.02.2015	DD Chandana	V. Chandrashekara Murthy	Hynurasugallalli Kalu Bayi Roga
VETERINARY COLLEGE, BIDAR				
1	23.02.2015	DD Chandana, Banglore	B.V. Shivaprakash	Jaanavarugallali Shashtra Chikatse Yinda Aaguva Laabhagalu (Live-Phone-in Programme)
VETERINARY COLLEGE, SHIVAMOGGA				
1	13.08.2014	Bengaluru	K.C. Veeranna	Sheep and Goat rearing
2	12.09.2014	Bengaluru	K.C. Veeranna	Broiler farming
DAIRY SCIENCE COLLEGE, BENGALURU				
1	10.3.2015	Suvarna Channel	Narasimha Murthy	Importance of ice cream Preparation for starting self business to improve income generation

#	Date	Station	Scientist	Topic
2	10.3.2015	Kasturi Channel	H.G. Ramachandra Rao	Preparation of ice cream and frozen Dairy Products
COLLEGE OF FISHERIES, MANGALURU				
1	16.06.2014	DD, Bengaluru	H. Shivananda Murthy	Culture of pangus catfish in polyculture with Indian major carps
2	24.07.2014	V ₄ Channel	B. Hanumanthappa & Jaya Naik	Code of conduct for responsible fishing: Applications of Simulator in Fishing Navigation
INSTITUTE OF WILDLIFE VETERINARY RESEARCH, KODAGU				
1	11.04.2014	Kodagu Channel, Madikeri.	Madhukar	Radiation safety
2	26.04.2014	Kodagu Channel, Madikeri	H.A. Upendra	World Veterinary Day
3	26.04.2014	TVI Channel, Madikeri.	Madhukar	World Veterinary day
4	19.05.2015	Kodagu Channel, Madikeri	H.A. Upendra	An Introduction to Veterinary Education
5	22.12.2014	Kodagu Channel, Madikeri	H.A. Upendra	Interview on Pet Assisted Therapy.
6	25.12.2015	Public TV	H.A. Upendra	Human Wildlife Conflict
KRISHI VIGYAN KENDRA, DAKSHINA KANNADA				
1	26.06.2014	Dooradarshan (Krishi Ranga)	H. Hanumanthappa	Composite Fish Culture
2	26.06.2014	Dooradarshan (Krishi Ranga)	T.S. Annappaswamy	Composite Fish Culture
3	26.06.2014	ETV Kannada	Harish Shenoy	Deficit rainfall and its effect on paddy
4	10.07.2014	Dooradarshan (Krishi Ranga)	H. Hanumanthappa	Integration of pig with fish farming

#	Date	Station	Scientist	Topic
5	10.07.2014	Dooradarshan (Krishi Ranga)	T.S. Annappaswamy	Integration of pig with fish farming
FISHERIES RESEARCH AND INFORMATION CENTER, BHUTNAL, BIJAPUR				
1	24.01.2015	DD, Bengaluru	Vijay, S. Atnur	Integrated Fish Farming
FISHERIES RESEARCH AND INFORMATION CENTER, HEBBAL				
1	07.04.2014	ETV Kannada	K.N. Prabhudeva	Objectives and Activities of FRIC, Hebbal
2	27.08.2014	DDK, Bengaluru	K.N. Prabhudeva	Utilization of artificial substrate in fish culture
3	03.10.2014	ETV Kannada	K.N. Prabhudeva	Fish health investigation facilities at FRIC, Hebbal
4	03.02.2015	DDK, Bengaluru	K.N. Prabhudeva	Utilization of native feed ingredients in fish culture
5	16.09.2014	ETV Kannada	K.B. Rajanna	Ornamental fish production
6	16.09.2014	ETV Kannada	N. Chethan	Fish seed selection criteria
7	18/09/2014	ETV Kannada	N. Chethan	Cultivable varieties of fishes in Karnataka
FISHERIES RESEARCH AND INFORMATION CENTER, ANKOLA				
1	10.07.2014	Chandan TV	Mansing Naik	Fish as protein source
CANINE RESEARCH AND INFORMATION CENTER, TIMMAPUR (CRIC)				
1	22.08.2014	TV - IBN Lokmata, Maharashtra	Mahesh, S. Dodamani	Information on CRIC Timmapur, Mudhol

ABSTRACT OF RADIO TALKS AND TV PROGRAMMES DURING 2014-15

#	College/Institute	Radio Talks	TV Programmes	Total
1	Directorate of Extension, KVAFSU, Bidar	-	02	02
2	Veterinary College, Bengaluru	11	25	36
3	Veterinary College, Bidar	2	1	3
4	Veterinary College, Shivamogga	15	2	17
5	Veterinary College, Hassan	7	-	7
6	Dairy Science College, Bengaluru	3	2	5
7	College of Fisheries, Mangaluru	1	2	3
8	IAH&VB, Bengaluru	1	-	1
9	IWVR, Kodagu	8	6	14
10	KVK, Dakshina Kannada	6	5	11
11	FRIC, Hebbal, Bengaluru	-	7	7
12	FRIC, Hesaraghatta, Bengaluru	4	-	4
13	FRIC, Ankola, Uttara Kannada	1	1	2
14	FRIC, Bhutnal, Bijapur	3	1	4
15	LRIC, Nagamangala	1	-	1
16	CRIC, Timmapur. Mudhol	-	1	1
17	Extension Education Center, Hassan	-	-	-
Total		63	55	118

6. Animal Health Camps

	Name of the College/Institute	No. of Animal Health Camps	No. of cases treated/advised
1	Veterinary College, Bengaluru	8	676
2	Veterinary College, Bidar	10	555
3	Veterinary College, Shivamogga	10	1251
4	Veterinary College, Hassan	1	194
5	IAH&VB, Bengaluru	1	55
6	LRIC, Nagamangala, Mandya	5	658
8	CRIC, Timmapur, Bagalkot	7	352
9	EEC, Bengaluru	2	63
10	EEC, Shivamogga	2	610
11	Extension Education Center, Hassan	1	194
12	Animal Husbandry Polytechnic, Konehally, Tiptur, Tumkur	3	145
	Total	50	4753

7. Demonstrations / Exhibitions / Field Days / Pashu / Matsya Mela

#	Name of the College/Institute	No. of Demonstrations	Pashu/ Matsya Mela
1	Directorate of Extension, KVAFSU, Bidar	-	4
2	Veterinary College, Bengaluru	5	5
3	Veterinary College, Bidar	12	16
4	Veterinary College, Shivamogga	8	14
5	Veterinary College, Hassan	3	3
6	Dairy Science College, Bengaluru	5	5
7	College of Fisheries, Mangaluru	5	2
8	IAH&VB, Bengaluru	-	2
9	KVK, Dakshina Kannada	5	10
10	FRIC, Hebbal, Bengaluru	2	3
11	FRIC, Hesaraghatta, Bengaluru	1	2
12	FRIC, Ankola	1	2
13	FRIC, Bhutnal, Bijapur	-	3
14	LRIC, Konehally, Tiptur, Tumkur	6	1
15	LRIC, Nagamangala, Mandya	31	1
16	LRIC, Hallikhed	-	2
17	CRIC, Timmapur, Bagalkot	3	3
18	Extension Education Center, Bengaluru	3	3
19	Extension Education Center, Bidar	3	4
20	Extension Education Center, Shivamogga	3	2
21	Extension Education Center, Hassan	2	1
22	Animal Husbandry Polytechnic, Konehally	2	1
23	Animal Husbandry Polytechnic, Shiggaon	3	2
	Total	103	86

8. Animal Health Care Services to Farmers

College / Institute	Service Provided	Total Nos.
Veterinary College, Bengaluru	Health coverage, Treatment of small and large animal, Treatment of gynaecological case, Monitoring of FMD, vaccination under FMD-CP,	54016
Veterinary College, Bidar	Services from the Department of Veterinary Surgery and Radiology, VGO, TVCC and Medicine including vaccination	16232
Veterinary College, Shivamogga	Services from the Department of Veterinary Surgery and Radiology, VGO, TVCC and Medicine including vaccination	11361
Veterinary College, Hassan	Surgical affections of cattle, buffaloes, horse, sheep, goat, rabbit and others, treatment to ailing animals and educating farmers regarding diseases, prevention and control.	6340
College of Fisheries, Mangaluru	Fish health care services given to fish farmers in person/over phone.	14
FRIC, Hebbal, Bengaluru	Fish diseases	03
LRIC, Konehally, Tiptur, Tumkur	Vaccination, deworming and treatment	432
LRIC, Nagamangala, Mandya	-	-
CRIC, Mudhol, Bagalkot	-	-
Animal Husbandry Polytechnic, Konehally	Treatment, Vaccination, Deworming, castrations, AI	14097
	Total	1,02,495

9. Diagnostic Services Provided

#	Institution	Diagnostic Services provided	Total No.
1	Veterinary College, Bengaluru	Radiographs/ Ultrasonography/ Ophthalmoscopy/ Endoscopy/ Post-mortem/ ECG/ Animal Blood sample analysis/ Serum sample analysis/ Animal Faecal sample/ skin scrapings/ Microbial & Anti microbial assays/ Blood Zoonotic diseases/ ABST/ Histopathology/ Cytology/ Urine analysis Ruminal fluid/Water Samples/ Milk / meat samples/ Pus Sample/ worms for identification/ filter paper quality testing/ Pregnancy Diagnosis	35890
2	Veterinary College, Bidar	Radiographs/ Ultrasonography/ Ophthalmoscopy/ Endoscopy/ Post-mortem/ ECG/ Animal Blood sample analysis/ Serum sample analysis/ Animal Faecal sample/ skin scrapings/ Microbial & Anti microbial assays/ Blood Zoonotic diseases/ ABST/ Histopathology/ Cytology/ Urine analysis Ruminal fluid/Water Samples/ Milk / meat samples/ Pus Sample/ worms for identification/ filter paper quality testing/ Pregnancy Diagnosis	4465
3	Veterinary College, Shivamogga	Laboratory examination/tests of clinical samples comprising, Faeces, blood, serum, rumen fluid, urine, milk, skin scraping, vaginal mucus, pus, nasal discharge / Isolation and ABST / Identification of Forensic specimens / Diagnosis of pregnancy, Heat in bitches(VEC), Ultrasonography / Faecal, blood, Skin Scrappings and nasal discharges samples receiving from Teaching Veterinary Clinical Complex and Dept. of AH&VS for diagnosis of Parasitic Diseases of livestock.	3242
4	Veterinary College, Hassan	Faecal examination / Blood/Blood smear examination / Skin scrapings / Intestinal scrapings / Nasal washings / Uterine washing / External parasites identification / Urine sample / Impression Smear / Tumor Cytology / Lymphnode cytology / Histopathology / Milk Sample / Water Sample / Organophorous Poisoning / Nitrate poisoning / Post-mortem examination of various animals and birds	3891

#	Institution	Diagnostic Services provided	Total No.
5	IAH&VB, Bengaluru	Disease investigation, screening	134
6	College of Fisheries, Mangaluru	Bioassy studies of treated effluent to Sequent Scientific LTD - Monthly / Drinking Water quality analysis of NMPT- Mangaluru - Monthly	
7	KVK, Dakshina Kannada, Mangaluru	Field Visit to pest and disease affected paddy fields	06
8	FRIC, Hebbal, Bengaluru	Soil, water and fish health investigation services, feed analysis and plankton analysis, beef, meat	1312
9	FRIC, Ankola, Uttar Kannada	Water testing for Salinity,PH and Temperature	14
10	LRIC, Konehally	Identification and treatment advice to farmers based on ailing symptoms	48
11	AHP, Tiptur	Screening Dung Samples of Amrithmahal Cattle, Sheep, Goat, Pig and Cross breed Animals of LRIC (A), Konehally, Blood examination for hemoglobin estimation in Amrithmahal cattle and cross breed cows, Blood samples for FMD Serological Titres, Examination of Skin Scrapings, Milk Adulteration Test	256
12	AHP, Shiggaon	Clinical Pathology: Blood/urine/ skin scraping examination / post mortem	15
13	CRIC, Timmapur	USG of abdomen, Hematology and Biochemistry, X-ray, Vaginal cytology	85
Total			49,358

10. Supply of chicks/animals/fish/fodder seeds/root slips/other farm produce to farmers

#	Department/Farm	Supplied item and Quantity	Remarks (Amount Collected-Rs)
1	Veterinary College, Bengaluru	Cattle-12, Sheep-44, Departmental Piglets-135, RKVY unit Piglets-257, Root slips-12,225, Day old chicks-139426, Day old parent chicks-11168, Hatching eggs-60517, Table eggs-24674, Broken eggs-2565, Feed-125061 kgs, Manure-28 tons, Birds -18013.48 kgs) 7830, Paddy husk-217, 2 nd week day old chicks-2671, 3 rd week day old chicks-2440, 4 th week day old chicks-8687, 5 th week day old chicks-33844, 1 st week day old chicks-690, Root slips and fodder seeds, Broiler Rabbits- 77 (Rs.13050), Laboratory Animals-353 (Rs10525)	15,625,977/-
2	Veterinary College, Bidar	Milk-12038 litres, Sheep & Goats-11, Egg-19404, Giriraja breeder cocks & Spent hens-178 Others	4,42,380.50/-
3	Veterinary College, Shivamogga	700 four week old Giriraja birds- Rs.56000; Piglets and Pigs; Sale of paddy- Rs.1,04,886; Paddy dry fodder-8.0 ton;Maize-72.0 Quintal; Milk- Rs.456423;Sheep & Goat- Rs.57510; Feed sale- Rs.110000	
4	Veterinary College, Hassan	Pigs-241, Sheep-10,Rabbit -52,Poultry-179,Fodder-1855, Milk-10560 ltrs.	
5	College of Fisheries, Mangaluru	Catla: Rs. 29,250/-, Rohu: Rs. 12,570/-, Common carp:Rs 16,140/-, Guppies: Rs. 5000/-, Koi: Rs. /-2000/-, Gold fish: Rs. 750/-, Mollies:Rs. 325/-, Platies:Rs.250/-	
6	KVK, Dakshina Kannada	Swamadhara Poultry Birds-3039 No.,Milk-15419 ltr.,Pigs-6 No.,Piglets-61 No.,MO4 Paddy Seeds-1547 Kg.,CO4 Fodder slips-100 Cuttings,Earth Worms-3.50 Kg.,FYM-110 CFT,Trichoderma-46 Kg.,Vermicompost-51 Kg.,Ornamental fish-Guppy -95 No.,Ornamental fish- Molly-110 No.,Bhendi Seeds-1.750 Kg.,Coconut-3952 No., Bhendi-390 Kg.,	

#	Department/Farm	Supplied item and Quantity	Remarks (Amount Collected-Rs)
		Cowpea-131Kg., Ridgegourd-44Kg., Cucumber-92Kg., Bottle Gourd-30Kg., Greengram-20Kg., Binden Amaranthus green vegetable-84Nos., Pappaya-214Kg.	
7	FRIC, Hebbal	Fish seeds - 2, 50,650 Nos. Ornamental fish - 7,055 Nos.	
8	FRIC, Hesaraghatta	Cultivable fishes (Catla, Rohu, SC,GC,CC)- 4,00,060 nos; Ornamental fishes -34,397; Auction of tender coconuts & green grass etc.	Rs 6,32,013/-
9	FRIC, Bhutnal	Catla- 140680; Common Carp -97026; Ornamental Fish- 318;	Rs 205762/-
10	LRIC, Konehally	Large white Yorkshire Piglets - 115,Calves-08, Root slips, goats-12,cows-09,Sheep-14,Sick sow -04	
11	LRIC, Nagamangala	Root slips- 1006 Nos.; 56 Mandya breeding rams	
12	CRIC, Mudhol	Mudhol hound pups-238 under SCP-TSP grants	
13	AHP, Shiggaon	Susbenia Fodder Seeds and Hybrid Napier Root Slips	32 farmers benefitted

11. Consultancy / Advisory Services

#	College / Institute	Total Number	Remarks
1	Veterinary College, Bengaluru	1644	Areas covered - Dairy, Sheep & goat husbandry, Piggery, Rabbit production, Laboratory animal facility establishment & Fodder production, Feeding/ Management/ Breeding/ Treatment/ Ext/ economics/ others/ Disease investigations
2	Veterinary College, Bidar	9465	Feeding/ Management/ Breeding/ Treatment/ Ext/ economics/ others/ Disease investigations
3	Veterinary College, Shivamogga	672	In-person, Mail, Telephone / Consultancy by field visits / by phone / by mail / in person / Consultancy by field visits / by phone / by mail / in person / Regular advise for the animal & poultry owners in Dairy, Sheep & goat husbandry, Piggery, Rabbit production, Laboratory animal facility establishment & Fodder production through Feeding/ Management/ Breeding/ Treatment/ Ext/ economics/ others/ Disease investigations.
4	Veterinary College, Hassan	363	Dairy/sheep/goat/rabbit/ piggery farming/fodder production/silage making and backyard poultry, etc.
5	Dairy Science College, Bengaluru	8	Production of market milk and preparation of indigenous dairy products and other products like ice cream
6	College of Fisheries, Mangaluru	597	<p>Consultancy services provided on the following:</p> <ul style="list-style-type: none"> • All aspects connected with fish culture. • Screening of shrimp post larvae and adult cultured shrimp for bacterial and viral pathogens. • Testing water for portability, microbiological and chemical analysis of water, sewage treatment effluent, milk samples etc. • Aquatic environment management. • Identification of fin fishes and shellfishes to local fishermen and students of various institutes. • Conservation and sustainable utilization of marine fisheries resources
7	IWVR, Kodagu	6	Advised on diseases and treatment of wild animals, meat speciation, postmortem examination and pregnancy diagnosis.

#	College / Institute	Total Number	Remarks
8	KVK, Dakshina Kannada	1286	Consultancy provided to farmers through Telephone on Technical aspects of Agriculture and allied enterprises
9	FRIC, Hebbal	139	Fish culture, disease, fish mortality in tanks, ornamental fishes
10	FRIC, Hesaraghatta	112	Fish culture, disease, fish mortality in tanks / Pond construction, fish culture in ponds and tanks, disease, etc.
11	FRIC, Ankola	13	Ornamental fish farming, shrimp & fish farming including water quality management
12	FRIC, Bhutnal	492	Method of Fish culture and aquarium fish maintenance
13	LRIC, Konehally	28	Advisory Service was given to the farmers on Fisheries, Dairy Farming, Sheep and Goat Farming, Piggery Farming and Integrated Farming System.
14	LRIC, Nagamangala	182	Information on sheep feeding, breeding, management etc.
15	LRIC, Hallikhed	72	Goat/ Sheep / Buffalo / Dairy Farming
16	EEC, Bengaluru	791	Dairy, sheep, goat, piggery, fish management issues and practices
17	EEC, Bidar	260	Dairy, sheep, goat, piggery and poultry rearing
18	EEC, Shivamogga	325	Intensive and semi intensive sheep and goat rearing, Profitable Dairy farming, Fish farming, Commercial Broiler farming, project reports for Sheep and Goat rearing(Stall feeding), and backyard poultry farming
19	EEC, Hassan	36	Information to farmers and other entrepreneurs about livestock farming
20	AHP, Konehally	42	Advisory Service was given to the farmers on Dairy Farming, Poultry Farming, Sheep and Goat Farming, Piggery Farming and Integrated Farming System.
21	AHP, Shiggaon	41	Various aspects of animal husbandry like establishment of farms, animal nutrition, fodder enrichment, availability of extension services Control FMD.
22	CRIC, Timmapur	168	Consultancy Service to local Mudhol hound dogs.
Total		16742	

12. Activities on Village/Farm Adoption

VETERINARY COLLEGE, BENGALURU

1. A total of 176 infertility cases were handled and hormonal and non hormonal interventions were carried out in all the infertility conditions. An overall conception rate of 78.65 % (140 out of 177 cows/heifers conceived) was obtained because of the intervention.
2. Training was given on fodder production and seeds of Sesbania have been distributed to the farmers.
3. Demonstration on Value addition of Milk, Meat, Egg and fish have been conducted.

VETERINARY COLLEGE, BIDAR

1. Weekly visits to the adopted village (Kangankot) and regular visits of Clinical Departments and ILFC farms to provide the necessary technical, diagnostic and treatment related services (193 cases treated)
2. The ambulatory clinical service has been continued in the adopted village during the year 2014-15.

VETERINARY COLLEGE, SHIVAMOGGA

#	Date	Name of the famer	Name of the Farm	Purpose
1	12.04.2014	Mr. Raja babu	Manikanta dairy farm Near kudli	12 crossbred repeat breeder were examined and 2samples collected for diagnosis
2	09.01.2015	Mr. Manohara Masky	Panchamaveda dairy farm, near Tarikere	10 crossbred cows were examined and sample collected for diagnosis

- Two villages (Tyajuvalli and Devakathi Koppa) adopted for Animal health services and infertility treatment

EEC, Shivamogga organized (21 days) Field Experience Training for the FOCARS, Six ARS Scientists participated in adopted Village Thayajavalli. Scientists undergone following activities like

- Participatory Rural Appraisal
- Base line data on livestock production parameters
- Ambulatory Clinical Services – Twice a Week
- Farm and home visit
- Ideal low cost Shed construction
- On Farm Demonstration

Tyajuvalli village of Shivamogga Taluk has been adopted by Veterinary College, Shivamogga and clinical services are on every Friday and Saturday from 26-08-11 through ambulatory visits by the TVCC and the staff of clinical departments. Treatment of sick animals, deworming, ectoparasitic control, pregnancy diagnosis, examination and treatment for gynaecological problems such as repeat breeding, anoestrus, metritis and minor surgical treatment are being made. Similar health services are also provided to the Devakathikoppa village, Shivamogga dt., from 16-03-2015 through ambulatory visits by the TVCC and the staff of clinical departments.

VETERINARY COLLEGE, HASSAN

Halekoppalu village, Hassan taluka is the adopted village of Veterinary College, Hassan. In the financial year 2014-15 household survey on animal husbandry practices was carried out. Ambulatory clinical services are provided twice in a week. All the animal owning households have been given Livestock Record Book for entering the treatment and other advisory services. Calf health camp and rally was organized on 10th November 2014 in collaboration with Godrej Vet. A total of 194 animals were treated in the camp. Owners of best reared calves were given prizes and certificates.

DAIRY SCIENCE COLLEGE, BENGALURU

Dairy Technology	<ul style="list-style-type: none"> • Given two lectures and demonstration on indigenous dairy products preparation to the farmers of Melakote during RAWE Programme • Conducted NSS Special camp for 7 days at Melakote village, Doddaballapur
Dairy Microbiology	<ul style="list-style-type: none"> • Collected demographic data of Somathnahalli, adopted village of Dairy Science College, KVAFSU, Hebbal, Bengaluru in collaboration with Dept. of DEBM. • Collected demographic data and consumption pattern of milk & milk products of villagers of Melekotae, Doddaballapura in collaboration with Dept. of DEBM.
Dairy Economics and Business Management	<ul style="list-style-type: none"> • Collected demographic data of Somathnahalli, adopted village of Dairy Science College, KVAFSU, Hebbal, Bengaluru in collaboration with Dept. of Dairy Microbiology. • Collected demographic data and consumption pattern of milk & milk products of villagers of Melekotae, Doddaballapura in collaboration with Dept. of Dairy Microbiology.

**INSTITUTE OF ANIMAL HEALTH AND VETERINARY BIOLOGICALS,
BENGALURU**

#	<i>Name of the Centre</i>	<i>Name of the villages adopted</i>
1	ADDL & IC, Mysuru	Mellahalli Village of Mysuru Taluq, Mysuru District
2	ADDL & IC, Ballari	Halakundi Village of Ballari Taluq, Ballari District
3	ADDL & IC, Mangaluru	Moodusidde Village of Mangaluru Taluq, Mangaluru District
4	ADDL & IC, Shivamogga	Hosahalli Village of Shivamogga Taluq, Shivamogga District
5	ADDL & IC, Kalburgi	Srinivasa Saradagi of Kalburgi District
6	ADDL & IC, Bidar	Asattagi Village of Bidar Taluq, Bidar District
7	ADDL & IC, Belgaum	Shinadoli Village of Belgaum Taluq, Belgaum District
8	ADDL & IC, Davangere	Naganuru Village of Davangere Taluq, Davangere District

In the villages adopted by ADDL&IC, Regional Research Officers were involved in

1. Vaccination programme.
2. Conducting awareness programme about diseases and vaccination
3. Conducting animal health camps.

KRISHI VIGYAN KENDRA, DAKSHINA KANNADA

1. On Farm Testing (OFTs) Implemented:

#	<i>Title of OFT</i>	<i>No. of trials</i>	<i>Area (ha.)</i>	<i>Villages</i>	<i>Taluk</i>
1	Assessment of Red Rice Variety for rabi season	10	1.0	Shirlalu	Bantwal
2	Potash Management in Arecanut	10	4.0	Chandapady, Vittla	Bantwal
3	Integrated Nutrient Management in Bhendi	10	1.0	Thenkamijar & Beluvai	Mangaluru

2. Front Line Demonstrations (FLDs) Implemented:

#	<i>Title of FLD</i>	<i>No. of Demo</i>	<i>Area (ha.)</i>	<i>Villages</i>	<i>Taluk</i>
1	Mechanical transplanting in Paddy	10	4 ha.	Pilathabettu, Allipade Parenki, Nayanadu Navoor	Bantwal
2	Integrated Crop Management in Paddy	10	4 ha.	Agrar	Bantwal
3	Production Technology in Blackgram	10	2 ha.	Shirlalu	Belthangady
4	Production Technology in Greengram	10	2 ha.	Naravi	Belthangady
5	Integrated Crop Management in Jasmine	10	0.5	Beluvai & Tenkamijar	Mangaluru
6	Enhancement of bunch size in Banana	10	2 ha.	Netanige Mudunoor	Puttur
7	Cultivation of high yielding variety of cowpea	10	2 ha.	Bettampady	Puttur

#	Title of FLD	No. of Demo	Area (ha.)	Villages	Taluk
8	Integrated crop management in pepper	10	2000 Vines	Mundambailu-Punacha	Bantwal
9	Drying of pepper by solarization technique	10	-	Punacha	Bantwal
10	Utilisation of farm ponds for composite fish culture	04	0.4	Badaganoor, Balila, Bellare, Mudabidre	Puttur, Sullya, Mangaluru,
11	Polyculture of desirable fish species (80:20 pond fish farming)	04	0.4	Indubettu, Padumarnadu, Venoor	Belthangady, Mangaluru
12	Integration of poultry with fish farming	03	0.3	Bellare, Kombaragrama, Kuppepadavu	Sullia, Puttur, Mangaluru
13	Integration of pig with fish farming	03	0.3	Ilantila, Karingana, Murullia	Puttur, Bantwal, Sullia

3. Integrated Farming System Demonstration (IFSD) implemented

#	Name and Address	Area (Acre)	Missing Components provided	Supervision
1	Shri Vittal Naik, Uli Village, Bantwal Taluk	4.0 Acres	Saplings of Cashew, Pepper, grafted Pepper Mango, Jasmine, Papaya, Curryleaf, Trichoderma, Rambuttan, Mangostein, Water feeder, brooder and 100 Swarnadhara Poultry chicks.	SMS (Agronomy)
2	Shri Peter mauris D'souza, Baddur, Chaldaguri, Bantwal taluk	4.3 Acres	Water feeder, brooder and 100 kg feed with 100 Swarnadhara Poultry chicks.	SMS (Home Science)
3	Shri Ramesh Kulala, Alampoori mane Vagga post, Bantwla taluk	2.5 Acre	Saplings of Pappaya, Cashew seedlings & Vegetable seeds Water	SMS (Plant)

#	Name and Address	Area (Acre)	Missing Components provided	Supervision
			feeder, brooder, Drinker with 100 Swarnadhara Poultry chicks.	Pathology)
4	Shri Jaya poojari, Perinje post, Hosangadi Village, Belthangady taluk	2.0 Acre	Feeder, brooder, Drinker and 100 swarnadhara Poultry chicks	SMS (Horticulture)
5	Shri. Hariyappagowda, S/o. Thyampagowda, Puttila House, Kombaragrama, Puttur Tq.	3.0 Acre.	One Cow (HF Crossed), Feeder, brooder, Drinker 100 swarnadhara Poultry chicks day old chicks	SMS (Fisheries)

ANIMAL HUSBANDRY POLYTECHNIC, KONEHALLY, TIPTUR

- Livestock Survey conducted by Animal Husbandry Diploma students in Hale Konehally village.
- Treated ailing animals of the surrounding villages of the Institution.
- Advisory services were given on clean milk production to the farmers of the surrounding villages

LIVESTOCK RESEARCH & INFORMATION CENTER, KONEHALLY, TIPTUR

Advisory services were been given to the farmers of Surrounding villages on Various Animal Husbandry activities and also Treating Ailing Animals of surrounding villages.

FISHERIES RESEARCH & INFORMATION CENTER, HEBBAL, BENGALURU

Dr. K.N. Prabhudeva, has been visiting RH Camp, Sindanur in Raichur district for the past 15 years and has adopted the fish farmers, guiding them to avail bank loan from DCC bank, Sindhanur take up fish farming.

CANINE RESEARCH AND INFORMATION CENTRE, TIMMAPUR, MUDHOL

- Timmapur village was adopted in current year to encourage the farmers to rear the Mudhol hounds.
- Under SCP-TSP scheme 6 beneficiaries were provided with Pups (6 M + 6F) along with Food and Other supplements for one year.
- Among the 6 females all have reached puberty and successfully mated and concieved.

- All female have given birth twice, litter and litter size was 06 to 09, which is showing income of Rs. 42000 -63000 thousands.

EXTENSION EDUCATION CENTRE, HASSAN

Halekoppalu village, Hassan taluka is the adopted village of Veterinary College, Hassan. In the financial year 2014-15 household survey on animal husbandry practices was carried out. Ambulatory clinical services are provided twice a week. All the animal owning households have been given Livestock Record Book for entering the treatment and other advisory services. Calf health camp and rally was organized on 10th November 2014 in collaboration with Godrej Vet. A total of 194 animals participated in the camp. Owners of best reared calves were given prizes and certificates.

13. Distinguished Visitors to the Institutes

#	Name, Designation & Institute	Date	Purpose
VETERINARY COLLEGE, BENGALURU			
1	Dr.Gebregziabher Gebreyohannes, State Minister, Livestock Resources Development Sector, Ministry of Agriculture, Ethiopia	21.10.2014	Study tour
2	Dr.Bewket Siraw, Director, Animal Health Directorate, Ministry of Agriculture, Ethiopia		
3	Mr.Tadesse Sori, Director, Animal Production & Feed Directorate, Ministry of Agriculture, Ethiopia		
4	Mr. Gifawosen Tessema, Director, Pastoral Areas Livelihood Directorate, Ministry of Agriculture, Ethiopia		
5	Dr. Barry I Shapiro, Senior Program Development Specialist, International Livestock Research Institute, Ethiopia		
6	Dr.Getachew Gebru, President, Ethiopian Society of Animal Production, Ethiopia.		
7	Dr. P.S. Banerjee, ICAR Expert, Head, Division of Parasitology, Indian Veterinary Research Institute Izatnagar- 243 122, U.P.	10.11. 2014 to 30.11. 2014	Resource Scientists and experts for the XVIII National Training Programme on Advanced techniques in detection and control of parasitic diseases" of CAFT in Veterinary Parasitology
8	Dr.Basavaraj Madhusudhan, Professor, Director and Dean Department of Biochemistry and Food Technology, Davangere University, Shivagangotri, Davangere		
9	Dr. O. K. Raina, Principal Scientist, Division of Parasitology, IVRI, Izatnagar U.P		
10	Dr. S.K.Jalali, Head, Division of Molecular Entomology, ICAR-National Bureau of Agricultural Insect Resources Hebbal, Bengaluru.		

#	Name, Designation & Institute	Date	Purpose
11	Dr. Utpal S. Tatu, Professor of Biochemistry, Indian Institute of Science, Bengaluru		
12	Dr. Selvaraj, Senior Scientist, Division of Physiology, NIANP, Adugodi, Bengaluru		
13	Dr. N. Earanna, Professor, Dept. of Agricultural Microbiology, UAS, GKVK Campus, Bengaluru		
14	Dr. A.R.Phani, Managing Director, Nano-Research for Advanced Materials Technologies, Bengaluru.		
15	Dr. M. Raman, Programme Director (Vaccines) & Professor, Madras Veterinary College, TANUVAS, Chennai		
16	Dr. I.J. Reddy, Principal Scientist (Animal Physiology) NIANP, Adugodi, Bengaluru		
17	Dr. Shylesha, A.N., Principal Scientist (Agricultural Entomology) Dept. of Biosystematics NBAIR, Hebbal, Bengaluru		
18	Dr. T. Venkatesan, Principal Scientist, NBAIR, Hebbal, Bengaluru		
19	Dr. G.R. Reddy, Principal Scientist, IVRI, Hebbal, Bengaluru		
20	Dr. P. P. Sengupta, Principal Scientist, NIVEDI, Hebbal, Bengaluru		
21	Scientists of National Bureau of Agricultural Insect Resources, Bengaluru	11.03.2015	To see the facilities and to have collaboration
VETERINARY COLLEGE, BIDAR			
1	Mr. T. B Jayachandra, Hon'ble Minister for Animal Husbandry	27.12.2014	Inauguration of Mela-2014
2	Shri. Harsh Gupta, Secretary, DAH&F, GoK	27.12.2014	
3	Dr. Vivek Kulkarni, Director, National Research Center on Meat, Hyderabad	14.11.2014	Guest speaker for College Foundation Day

#	Name, Designation & Institute	Date	Purpose
VETERINARY COLLEGE, HASSAN			
1	Shri. C.N. Balakrishna, MLA, GoK	11.10.2014	To address the students on various problems and review the progress of college
2	Shri. H.K. Kumarswamy, MLA, GoK	12.10.2014	
3	Shri. Patel Shivram, MLC, GoK	13.10.2014	
4	Shri. H.D. Devegowda, MP & Hon'ble Former Prime Minister, GoI	17.10.2014	
5	Shri. H.D. Revanna, MLA, GoK	18.10.2014	
6	Shri. Kodihalli Chandrashekhar, President, Raitha Sangha	18.10.2014	
7	Dr. C.B. Vedamurthy, SP, Lokayukta, GoK	19.10.2014	
8	Shri. Manju, A., MLA, GoK	20.10.2014	
9	Dr. R.N. Sreenivas Gowda, Hon'ble Former Vice Chancellor, KVAFSU	09.02.2015	
DAIRY SCIENCE COLLEGE, BENGALURU			
1	Ethiopian delegates of Animal husbandary department visited Students experimental dairy plant	21.10.2014	Visited SEDP to get details regarding Pilot Milk Processing which can be suitably adapted in Small Scale Dairy Processing Units. Dr. Narasimha Murthy, Dean (Dairy Science) explained the diversified activities of students Experimental Dairy Plant (SEDP) to the Visiting Dignitaries and cleared the queries raised by the delegates of Ethiopian Team.
2	Mr. Vijay Bhaskar Reddy, Director of Ybrant Digital	12.02.2015	Guest lecture on "How to achieve success in digital marketing" and "How to use digital marketing to grow your business".

#	Name, Designation & Institute	Date	Purpose
COLLEGE OF FISHERIES, MANGALURU			
1	Dr. T. Madhan mohan, Advisor, Department of Biotechnology, New Delhi	09.08.2014	Discussion on the activities of bioinformatics centre established at the College under the DBT funding support.
2	Dr. J K. Jena, Director, National Bureau of Fish Genetic Resources, ICAR, New Delhi	01.09.2014	Review of two on-going NBFGR coordinated projects on 'surveillance of aquatic animal diseases in Karnataka'
3	Dr. V. Ranga Rao, Group Head, Ecosystem Modelling, ICMAM-PP, Chennai	23.04. 2014	Ecosystem modeling data collection
4	Sri. Dinosh V. Nigam, Director, Green Zone SEZ, Mangaluru	05.06.2014	Chief guest during World Environment Day
5	Sanu Jose, Mangaluru Engineer and Consultant, Mangaluru	25.04.2014	To know about CRZ notification and rules
6	Dr. T.J. Ramesha, Programme Coordinator, Krishi Vijnan Kendra, Arunachal Pradesh	09.06.2014	Interaction on research activities
7	Mr. Chandrashekar, Regional Director, Department of Environment and Ecology	13.11.2014	Chief guest, ICZM workshop inauguration
8	Dr. Arkal, V.Hegde, Professor, NITK, Surathkal	02.02.2015	Chief guest during World Wetland Day celebration
9	Dr. Rajshekar Puranik, Senior Environment Officer, KSPCB, Mangaluru	02.02.2015	Guest of honor during World Wetland Day celebration
INSTITUTE OF ANIMAL HEALTH AND VETERINARY BIOLOGICALS, BENGALURU			
1	Dr. Aprinna Suprasent, Faculty of Veterinary Medicine, Kagetsant University, Bangkok, Thailand	26.08.2014	To observe different activities in the institute
2	Dr. Surapat Chandaeng, OP-Animal Health Business Development and Administration	29.08.2014	and to know about infrastructure facilities

#	Name, Designation & Institute	Date	Purpose
3	Tharout Thaivattanorr, SPV-HR-Overseas-CPF, Thailand	27.08.2014	
4	Scott Sartre, AHIS Atlantic U.S. Embassy, New Delhi, India	03.09.2014	
5	Deepa Dhankar, Deputy Area Director, USDA/APHIS, New Delhi	03.09.2014	
6	Dr. Suresh S Honnappagol, Commissioner, Dept of Animal Husbandry, GOI	25.10.2014	
7	Shri. Harsh Gupta, Principal Secretary Dept of AH & VS, Govt of Karnataka	24.11.2014	
KRISHI VIGYAN KENDRA, DAKSHINA KANNADA			
1	Sri. Aboobakkar N.B., Ex-Chairman, Karnataka State minority Development Corporation, Bengaluru	15.04.2014	Visit to KVK
2	Sri. T.I. Mathewkutty, Director, CDB, Bengaluru	11.06.2014	Follow-up of the farmers who attended the Friends of Coconut programme
3	Dr. Sreenath Dixit, Zonal Project Director, ZONE VIII, Bengaluru	28.06.2014	Visited to KVK and review the progress
4	Sri. Mahesh Raj Malpe, Member of Research Council, KVAFSU Bidar	21.07.2014	Discussion regarding arrangement of seminar on Biofilter at KVK
5	Dr. B.T. Rayudu, Principal Scientists, ZPD, ICAR, Zone-VIII, Bengaluru	26.07.2014	9 th Scientific Advisory Committee Meeting
6	Sri. Manjunath Gowda, President (Admn), Karnataka State Krishika Samaj, Bengaluru	11.02.2015	
7	Sri. Sampath Samarajya, President, Dakshina Kannada Krishika Samaj, Mangaluru	11.02.2015	
8	Sri. K. Padmanabha Rai, State Representative, Dakshina Kannada Zilla Krishika Samaj, Mangaluru	11.02.2015	
9	Sri. N. Mahaveer Jain, President, Belthangady Talkuk Krishika Samaj, Belthangady	11.02.2015	
			To review the activities of District level Krishik Samaj and development departmental activities

#	Name, Designation & Institute	Date	Purpose
10	Sri. M.S. Mahendranath, President, District Krishika Samaj, Shivamogga	11.02.2015	
11	Sri. Murugendrappa H. Patil, President, Haveri District Krishik Samaj, Haveri Dist.	11.02.2015	
12	Dr. V.S. Konkanthimath, Ex. Director, ICAR Research Complex, Goa #33, Opp to Bandemera Temple, Gandhinagar, Dharwad-580004	12.02.2015	To interact with the Scientists
FISHERIES RESEARCH AND INFORMATION CENTER, HEBBAL			
1	Dr. C. Vasudevappa, Hon'ble Vice-Chancellor, Agricultural & Horticultural University, Shivamogga	04.08.2014	Winter school inauguration
2	Dr. Srinath Dixith, Zonal Project Director, Zone-VIII, Hebbal, Bengaluru	04.08.2014	Winter school inauguration
3	Dr. S.A. Patil, Former VC, UAS, Dharwad, Former Director, IARI, New Delhi and Former Chairman, Krishi Mission, GOK	24.08.2014	Winter school plenary session
4	Dr. (Mrs) Krishna Srinath, Former Director of Research on Women in Agriculture	12.08.2014	Resource person for Winter school
5	Dr. L. Krishnan, Scientist, M.S.S.R.F, Tamil Nadu	18.08.2014	Resource person for Winter school
6	Dr. B. Mohan, PC, KVK, Namakkal	14.08.2014	Resource person for Winter school
7	Dr. M. Natarajan, Principal Scientist and CIBA, Chennai	08.08.2014	Resource person for Winter school
8	Dr. L. Narasimhamurthy, Senior Scientist, CIFT Research Center	19.08.2014	Resource person for Winter school
9	Dr. N. Ravishankar, Director, CIFT, Cochin	18.11.2014	Visit to FRIC, Hebbal
10	Dr. Srinivas Gopal, Former Director, CIFT, Cochin	18.11.2014	Visit to FRIC, Hebbal
11	Dr. R.K. Singh, Member Secretary, Karnataka Bio-Diversity Board	14.02.2015	Bio-diversity Board meeting
12	Dr. D. Venkatesh, Conservator of Forest, LDA, Bengaluru	20.02.2015	To see lab facilities

#	Name, Designation & Institute	Date	Purpose
FISHERIES RESEARCH AND INFORMATION CENTER, HESARAGHATTA			
1	Prof. Shobhavathi, Professor, BMSCW College, Banneraghatta, Bengaluru	25.09.2014	Visited with B.Sc students to observe ongoing activities in the institute
FISHERIES RESEARCH AND INFORMATION CENTER, ANKOLA			
1	Dr. R. Pai, Professor & Research Officer, Marine Biological Research Station(MBRS), Peth-Killa, Ratngiri	18.05.2014	To see the activities of brackish water farm.
2	Mr. Honnappa G Gouda, Joint Director, Dept. of Agriculture, Karwar	02.07.2014	To see the activities of the centre.
3	Mr. R.A.Gupta, Deputy Director (Aqua), MPEDA, Karwar	07.07.2014	HHTS demo purchase.
4	Dr. K.V.Basavakumar, Professor of Fisheries, UAS, Dharwad	17.10.2014	Field visit of B.Sc.(Ag) students of Agriculture College, Dharwad
5	Mr. R.T. Merashi, President of Aquaculture Society, Ankola	19.12.2014	Chief guest for training programme and to update developments in the farm
6	Mr. Uday, D. Naik, Zilla Panchyat Member, Ankola	04.02.2015	Guest for training programme
7	Mr. Vinod R Gaonkar, Taluk Panchayat President, Ankola	04.02.2015	Chief Guest for training programme
FISHERIES RESEARCH AND INFORMATION CENTER, BHUTNAL, BIJAPUR			
1	Dr.Veena Ammanna, Professor Woman's University, Vijayapura	22.01.2015	Discuss about fish farming at their farm
2	Dr. Harshavardhan and Shreedhar Hosmani, Professors, Government Arts College, Bagalkot	26.08.2014	Discuss about fish farming at their farm
3	Shreepatigouda Biradar, Progressive Farmer, Indi Tq.	22.09.2014	Discuss about fish farming at their farm
4	Dr. A.A. Nasir, Professor, Anjuman College, Vijayapura	23.12.2014 07.11.2014	Discuss about fish farming at their farm
LIVESTOCK RESEARCH AND INFORMATION CENTER, NAGAMANGALA			
1	Dr. Leslio Prince, Senior Scientist, CSWRI, Avikanagar	09.12.2014	To review the MSSP-MS project activity

#	Name, Designation & Institute	Date	Purpose
LIVESTOCK RESEARCH AND INFORMATION CENTER, KONEHALLY			
1	Dr. C.T. Jayram, Assistant Director, Channarayapatana	10.11.2014	To visit the fodder plots
2	Dr. Manjunath, Assistant Director, Arsikere.		
CANINE RESEARCH AND INFORMATION CENTRE, TIMMAPUR, MUDHOL			
1	Prof. Suresh, S. Honnappagol, Commissioner, Dept. of Animal Husbandry, Dairying & Fisheries, Govt. of India, New Delhi.	17.11.2014	Visited & monitored the activities of CRIC, Timmapur, Mudhol

14. Activities of Directorate of Extension, KVAFSU, Bidar & Important decisions taken during Extension Education Council Meeting

Extension activities carried out by the Directorate of Extension during 2014-15

- Put-up University stall at Krishimela of UAS, Dharwad during September 27-30, 2014.
- Installed University stall at Krishimela during November 14-16, 2014 at UAS, Raichur.
- Erected University stall at 'Bruhat Udyana Mela-2014' during December 12-15, 2014 at UHS, Bagalkot.
- Januvaru, Krishi, Totagarika & Matsya Mela - 2014 was successfully organized at KVAFSU, Bidar during 27-29th December, 2014 in collaboration with UAS, Raichur and UHS, Bagalkot.
- The Directorate of Extension has initiated mass training programmes on Dairy farming to the small scale farmers in collaboration with Hyderabad-Karnataka Training Center. A total of 75 batches will be given training at the Headquarters during the year 2015-16. An MoU is being signed with the sponsoring agency.
- Establishment of 'Food Processing Training Center' at University Headquarters sponsored by NMFP, GoK is in progress with an outlay of Rs. 9.00 lakhs.
- Upgrading the facilities in the area of Meat Processing including establishment of mini abattoir of Livestock Products Technology, under NMFP is in progress at University Headquarters.

Publications brought out by the Directorate during 2014-15

- Annual Report-2013-14, both English and Kannada
- News Letters Vol-X, Issue-I and Issue-II
- University Calendar-2015
- Monthly Planner-2015

Training programme for Subject Matter Specialists of KVK

The Directorate of Extension organized ZPD, Bengaluru, ICAR sponsored "Livelihood and Nutritional Security of Farmers through Integration of Animal Husbandry and Fisheries with Agriculture and Horticulture" at Veterinary College, Bidar during 26-03-2015 to 28-03-2015 for Subject Matter Specialists of KVK Course Director was Dr. D. Dilip Kumar, ADE, KVAFSU, Bidar

Projects operated and funds mobilized by the Directorate of Extension during 2014-15

#	<i>Funding Agency</i>	<i>Project title</i>	<i>Grants Received (Rs. In lakhs)</i>
1	National Mission on Food Processing, Directorate of Agriculture, Govt. of Karnataka, Bengaluru	Establishment "Food Processing Training Center (FPTC)" at KVAFSU, Bidar	9.00
2	National Mission on Food Processing, Directorate of Agriculture, Govt. of Karnataka, Bengaluru	Upgrading the facilities in the area of Meat Processing including establishment of mini abattoir at KVAFSU, Bidar under HRD Scheme of NMFP	75.00

Important decisions taken during 10th Extension Education Council Meeting

held on 25-03-2015 at Board Room, KVAFSU, Bidar

1. The council has unanimously decided to create the Extension Education Centers at College of Fisheries, Mangaluru, Animal Husbandry Polytechnic, Shiggaon, Haveri and Konehally, Tiptur to take up more intensive extension activities.
2. The council has agreed to start 04 certificate courses in fisheries sciences of 05 days duration each.
3. The council has decided to give emphasis for conducting demonstrations on IFS and dry land agriculture with special attention to goat and sheep rearing, fodder production and small dairy units at Extension Education Centers.
4. The Council has approved to follow the ICAR guidelines for transfer of technology by KVAFSU, Bidar and indicated to include the Comptroller, if the MoU involves any financial matter.
5. Development of calendar of extension programmes at University level to take up the publicity of the event in earlier dates.
6. Integrated approach in farming system to secure the livelihood of farmers in better way.

V. PUBLICATIONS

1. Research Papers

i) International Publications

a) In Journals

#	<i>Authors, Year of publication, Title of the paper and Journal</i>
DIRECTORATE OF EXTENSION, KVAFSU, BIDAR	
1	Mohan, H.V., Rathore, R.S., Dhama, K., Ramees, T.P., Patyal, A., Prashanth, S.B., Md. Yaqoob Wani, Bhilegaonkar, K.N. and Ashok Kumar, 2014. Prevalence of <i>Arcobacter</i> spp. In humans, animals and foods of animal origin in India based on cultural isolation, antibiogram, PCR and multiplex PCR detection. <i>Asian J.Ani.Vet.Adv.</i> , 9(8):452-466.
2	Prashanth, S.B., Rathore, R.S., Ramees T.P., Mohan, H.V., Suman Kumar, M., Agarwal, R.K., Ashok Kumar and Dhama, K. 2014. Molecular characterization of <i>Arcobacter</i> isolates using randomly amplified polymorphic DNA-Polymerase Chain Reaction (RAPD-PCR). <i>Asian J.Ani.Vet.Adv.</i> , 9(9):543-555.
3	Ramees, T.P., Rathore, R.S., Prashanth, S.B., Mohan, H.V., Ashok Kumar and Dhama, K. 2014. Detection of <i>Arcobacter butzleri</i> and <i>Arcobacter cryaerophilus</i> in clinical samples of Humans and Foods of Animal origin by cultural and multiplex PCR based methods. <i>Asian J.Ani.Vet.Adv.</i> , 9(4): 243-252.
4	Vysakh Mohan, Shriya Rawat, Lokesh, K.M., Mohan, H.V., Avinash Reddy, D., Ashok Kumar and Bhilegaonkar, K.N. 2014. Prevalence of Rotavirus in shellfish from Southern Kerala. <i>Veterinary World</i> , EISSN: 2231-0916.
5	Ramees, T.P., Rathore, R.S., Prashanth, S.B., Blessa Sailo, Mohan, H.V., Ashok Kumar, Dhama, K. and Raj Kumar, S. 2014. Genotyping and genetic diversity of <i>Arcobacter butzleri</i> and <i>Arcobacter cryaerophilus</i> isolated from different sources by using ERIC-PCR from India. <i>Veterinary Quarterly</i> , 34(4):211-217.
VETERINARY COLLEGE, HEBBAL, BENGALURU	
1	Neeraja, D., Veeregowda, B.M., Shobarani, M., Rathnamma, D., Bhaskaran. R., Leena, G., Somshekhiara. S.H., Saminathan, S., Dhama, K. and Chakraborty, S. 2014. Comparison of Single Intradermal Test, Gamma Interferon Assay and Indirect ELISA for the diagnosis of Tuberculosis in a Dairy Farm. <i>Asian J. Ani. and Vet. Adv.s.</i> 9(9):593-598.

#	<i>Authors, Year of publication, Title of the paper and Journal</i>
2	Divya, V., Girish Kumar, V., Nandi, S. and Ramchandra, S.G. 2014. Dynamics of Spermatogenesis. <i>Annual Res. Rev. Bio.</i> , 4(1):38-50.
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6	Krishnaveni, N., Isloor, S.R., Hegde, K., Satyanarayanan, V.V.S., Rathamma, D., Veeregowda, B.M., Nagaraja, C.S. and Sundareshan. S.. 2014. Rapid detection of virulence associated genes in Streptococcal isolates from bovine mastitis. <i>African Journal of Microbiology Research</i> , 8(22):2245-2254.
7	Naveena, B.M. and Kiran, M. 2014. Buffalo meat quality, composition and processing characteristics: Contribution to the global economy and nutritional security. <i>Animal Frontier</i> , 4(4):18-24.
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10	Seema, S. Tungal, Narayana Swamy, M., Honnappa, T.G. and Bhaskaran, R. 2014. Ovarian Antral Follicular Dynamics and Follicular Fluid Composition in Non-descript Goats of Karnataka. <i>Theriogenology Insight</i> , 4(2):49-56.
11	Shambhulingappa, Y.B., Prasad, R.V., Jamuna, K.V., Narayanaswamy, H.D., Bhat, M.N. and Ramkrishna, V. 2014. Histological characteristics of hair follicle pattern in Indian bison (<i>Bos gaurus</i>), Blackbuck (<i>Antelope cervicapra</i>) and Nilgai (<i>Boselaphus tragocamelus</i>). <i>Vet. World.</i> , 7(3):189-193.

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12	Somshekhar, S.H., Veeregowda, B.M., Suryanarayana, V.V.S. and Chakraborty, S., 2014. Outer membrane protein (OMP) profiles of <i>Pasteurella multocida</i> isolates associated with <i>Haemorrhagic septecemia</i> by SDS-PAGE and western blot analysis. <i>Asian J. Ani. Vet. Adv.</i> , 9(8):513-518.
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19	Nithin Prabhu, K., Isloor, S., Veeresh, B.H., Rathnamma, D., Yathiraj, S., Satyanarayana, M.L., Placid, D'Souza, Neelufer, M.S., Sharada, R. and Abdul Rahman, S. 2014. Application of N-Protein Monoclonal Antibody based Direct Fluorescent Antibody Assay (DFA) and Direct Rapid Immunohistochemistry Test (dRIT) for Detection of Rabies Virus of Brain Samples of Animals in India. <i>Commonwealth Vet. J.</i> , 30(2):11-16.
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1	Satheesha, S.P., Udupa, K.G., Appannavar, M.M. and Labuschagne, K. 2014. A study on <i>Culicoides</i> midges associated with Buffaloes. <i>Buf. Bul.</i> , 33(4): 400-406
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6	Ravindra Bhoyar, Pradeep, B.S., Kulkarni Shrikanth, Kasaraliker, V.R. and Patil, N.A. 2014. Schistosomiasis in an asian elephant (<i>Elephus maximus</i>), <i>Gajah</i> , 40: 35-38.
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2	Prashantkumar Waghe, Thengumpallil Sasindran, S., Priyanka Gupta, Harikumar Sankaran Kutty, Kannan Kandasamy, Santosh Kumar Mishra, Souvendra Nath Sarkar, 2014. Subchronic arsenic exposure through drinking water alters vascular redox homeostasis and affects physical health in rats. <i>Biolog. Trace Element Res.</i> , 162: 234-241.
3	Karabasanavar, N.S., Madhavaprasad, C.B., Kotresh, A.M. and Prasad, R.V. 2015. <i>Axis axis</i> 12S ribosomal RNA gene, partial sequence; mitochondrial. 419 bp linear DNA sequence GenBank Accession No. KP318118. Avialbale at NCBI website.
4	Deepak Kumar, Singh, S.P., Nagappa, S.K., Rashmi Singh and Umapathi, V. 2014. Authentication of beef, carabeef, chevon, mutton and pork by a PCR-RFLP assay of mitochondrial cytb gene <i>Journal of Food Science and Technology</i> . 51(11): 3458-3463.
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7	Suresh, B.N., Reddy, B.S.V., Gloridoss, R.G., Umashankar, B.C. and Basavanth, K. 2014. Effect of low nutrient density diets and certain Feed Additives on performance of Laying Hens. <i>ANFT</i> 2014 14: 399-404
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10	Venkatesha, M.M., Krishnamurthy, N., Tuppad, G.B. and Venkatesh, K.T. 2014. Effect of INM Practices on Yield, Dry Matter Production and Nutrient Uptake In Aerobic Rice Cultivars. <i>Trends in Biosci.</i> , 7(18):2806-2812.
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1	Kotrappa, Y.M., Suguna, R., Girish, B.C., Byregowda, S.M. and Manjunatha, K. 2014. Cytological and histopathological studies of mesenchymal and melanotic neoplasms in dogs. <i>J.Cell. Tissue res.</i> , 14(3):4477-4483.
2	Rao, S., Manjunatha, K.P., Satyanarayana, M.L., Byregowda, S.M., Ramachandra, G., Sudharani, R., Shettar, M., Mundas, S and Kalge, R. 2014. The evaluation of the antidiabetic effect of <i>Coccinia indica</i> leaves extract in streptozotocin induced diabetes in rats. <i>J.Cell. Tissue res.</i> ,14(2):4259-4265.
3	Ravikumar, P., Rao, S., Byregowda, S.M., Satyanarayana, M.L., Isloor, S., Rajeshwari, Y.B. and Jayaramum, G.M. 2014. Evaluation of induced mastitis in rabbits based on clinical parameters, direct microscopic somatic cell count and viable counts of <i>E.Coli</i> in milk. <i>J. Cell.Tissue res.</i> , 14(2):4367-4372.
4	Suma, N., Reddy, B.S.V., Gloridoss, R.G., Prabhu, T.M., Kumar, C.B., Suresh, B.N. and Shilpa, V.T. 2015. Egg shell and yolk quality characteristics of layers fed with sugarcane press residue in soya and fish based diets. <i>Vet. World</i> , 8(2):232-238.
5	Suma, N., Venkatarami Reddy, B.S., Gloridoss, R.G., Prabhu, T.M., Suresh, B.N., Shilpa, V.T. and Manju, G.U. 2014. Blood mineral profile of layers fed with nonconventional mineral Source of sugarcane press residue. <i>Electronic J. Environ. Sci.</i> , 7: 57-61.
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COLLEGE OF FISHERIES, MANGALURU	
1	Meshram, S.J., Shivananda Murthy, H., Swain, H., Ali, T.D., Jagadeesh and Dhamgaye, H.B. 2014. Effects of dietary beta-glucan on growth and body composition of <i>Macrobrachium rosenbergii</i> . <i>Bioscan</i> , 9(2):543-546.
2	Meshram, S.J., Shivananda Murthy, H., Swain, H., Ali and Abhiman, B. 2014. Effect of dietary b-glucan on immune response and disease resistance against <i>Aeromonas hydrophila</i> in giant freshwater prawn, <i>M. rosenbergii</i> . <i>Aqua. Inter.</i> , DOI 10.1007/s10499-14-9824-0.
3	Tejpal, C.S., Sumitha, E.B., Pal, A.K. and Shivananda Murthy, H. 2014. Effect of dietary supplementation of L-tryptophan on thermal tolerance and oxygen consumption rate in <i>Cirrhinus mrigala</i> fingerlings under varied stocking density. <i>J. Therm. Biol.</i> , 41:59-64.
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5	Basavaraja, N., Biswal, N.N. and Pau Biak Lun, K. 2014. Captive brood-stock development, induced breeding, histology and nursery rearing of olive barb, <i>Puntius sarana sarana</i> (Hamilton). <i>J. Aquac. Trop.Sci.</i> , 29 (3-4): 145-159.
6	Adesiji, Y.O., Deekshit, V.K. and Karunasagar, I. 2014. Antimicrobial resistant genes associated with <i>Salmonella</i> spp. isolated from human, poultry, and seafood sources. <i>Food. Sci. Nutr.</i> , 2:436-42.
7	Akhila, S.D., Rai, P., Mani, M.K., Ballamoole, K.K., Karunasagar, I. and Karunasagar, I. 2014. Protection of <i>Litopenaeus vannamei</i> against white spot syndrome virus (WSSV) using bacterially expressed recombinant envelope proteins VP39 and VP28. <i>The Israeli J. Aquaculture - Bamidgeh</i> , 67:1116.
8	Banerjee, D., Hamod, M.A., Suresh, T. and Karunasagar, I. 2014. Isolation and characterization of a nodavirus associated with mass mortality in Asian seabass (<i>Lates calcarifer</i>) from the west coast of India. <i>Virus Dis.</i> , 25: 425-429.

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11	Hamod, M.A., Bhowmick, P.P., Shakur, Y. N., Karunasagar, I. and Karunasagar, I. 2014. Iron shortage and bile salts play a major role in the expression of <i>ompK</i> gene in <i>Vibrio anguillarum</i> . <i>Polish J. Microbiol.</i> , 63: 27-31.
12	Kumar, B.K., Deekshit, V.K., Rai, P., Shekar, M., Karunasagar, I. and Karunasagar, I. 2014. Presence of T3SS2 β genes in trh+ <i>Vibrio parahaemolyticus</i> isolated from seafood harvested along Mangaluru coast, India. <i>Lett. Appl. Microbiol.</i> , 58: 440-446.
13	Kumar, B.K., Deekshit, V.K., Rai, P., Raj J.R.M., Shivanagowda, B.M., Karunasagar, I. and Karunasagar, I. 2014. Diversity of <i>Vibrio parahaemolyticus</i> associated with disease outbreak among cultured <i>Litopenaeus vannamei</i> (Pacific white shrimp) in India. <i>Aquaculture</i> , 433:247-251.
14	Rao, A.S., Shekar, M., Raghuvver, C.V., Karunasagar, I. and Karunasagar, I. 2014. RAPD-PCR typing of <i>Pseudomonas aeruginosa</i> strains isolated from peripheral venous catheters. <i>Curr. Res. Microbiol. Biotech.</i> , 2:462-465.
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16	Owens, L, Kelly, C., Rai, P. and Karunasagar, I. 2015. Diet-delivery of therapeutic RNA interference in live <i>Escherichia coli</i> against pre-existing <i>Penaeus merguensis</i> hependensovirus in <i>Penaeus mergutensis</i> . <i>Aquaculture</i> , 437: 360-365.
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18	Bhat, M.G., Bhatta, R. and Shumais, M. 2014. User-based Financing of Environmental Conservation of the Maldivian Atolls: An Application of the Travel Cost Model. <i>Environ. Econo. Policy Studies.</i> , DOI 10.1007/s10018-013-0010-1

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19	Chandra, M.V. and Shamasundar, B.A. 2015. Rheological properties of gelatin prepared from the swim bladders of freshwater fish <i>Catla catla</i> . <i>Food Hydrocolloids</i> , 48: 47-54.
20	Chandra, M.V. and Shamasundar, B.A. 2014. Rheological and physico-chemical properties of gelatin extracted from the skin of a few species of freshwater carp. <i>Int.J.Food Sci. and Technol.</i> , 49(7):1758-1764.
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22	Elavarasan, K. and Shamasundar, B.A. 2014. Angiotensin I-converting enzyme inhibitory activity of protein hydrolysates prepared from three freshwater carps (<i>Catla catla</i> , <i>Labeo rohita</i> and <i>Cirrhinus mrigala</i>) using Flavorzyme. <i>Int.J.Food.Sci. Technol.</i> , 49(15):1344-1350.
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24	Prakash, C.N., Raju. C.V., Lakshmisha, I.P., Singh, R.R. and Sofi, F.R. 2014. Influence of Button mushroom (<i>Agaricus bisporus</i>) on quality and refrigerated storage stability of patties prepared from sutchi catfish (<i>Pangasius hypophthalmus</i>). <i>J. Food Sci. Tech.</i> , DOI10.1007/s13197-014-1415-6.
FISHERIES RESEARCH AND INFORMATION CENTER, HESARAGHATTA	
1	Mamatha, S.K., Raghuv eer, K., Sudhakumari, C.C., Rajkumar, A., Basavaraju, Y. and Senthilkumar, B. 2014. Cloning and expression analysis of tyrosine hydroxylase and changes in catecholamine levels in brains during antogony and after sex steroid analogs exposure in <i>Clarias batrachus</i> . <i>General and Comp. Technol.</i> , 197:18-25.

b) In Conferences / Seminars / Symposia / Workshops etc.,

#	Year / Authors / Title of Paper/ Conference
VETERINARY COLLEGE, BENGALURU	
1	Farman, M., Pavanashree, U.S., Girish Kumar, V., Nandi, S., Tripathi, S. K., Gupta, P.S.P. 2014. Follicular fluid concentrations of metabolic stressors in over-fed (obese), normal, metabolic stressed and malnourished sheep and goat. Global Animal Nutrition Conference 2014 on "Climate Resilient Livestock Feeding Systems for Global Food Security" NIANP, Adugodi, Bengaluru-30, pp.211.
2	Jayashankar, M.R., Naveen Kumar, S. and Jayashree, R. 2015. Status of farm animal genetic resources, conservation and improvement in Karnataka. Invited lecture delivered at the XII Annual convention of SOCDAB and International Symposium organised by TANUVAS and SOCDAB, Madras Veterinary College, Chennai, Feb., 13-14, 2015, pp.244-246.
3	Jayashree, R., Jayashankar, M.R., Jayashri Hiremath, B.P., Pushpa and Manmatha Raj, A. 2015. Report on the milk production performance of indigenous goat breeds under intensive farming system in Karnataka. XII Annual convention of SOCDAB and International Symposium organised by TANUVAS and SOCDAB, Madras Veterinary College, Chennai, Feb., 13-14, 2015, pp.66-67.
4	Jayashree, R., Jayashankar, M.R., Nagaraja, C.S., Satyanarayana, K. and Shrikrishna Isloor, 2015. Studies on reproductive traits of local goats of Karnataka. XII Annual convention of SOCDAB and International Symposium organised by TANUVAS and SOCDAB, Madras Veterinary College, Chennai, Feb.,13-14, 2015, pp.66.
5	Jayashree, R., Jayashankar, M.R., Nagaraja, C.S., Satyanarayana, K. and Shrikrishna Isloor., 2015. Genetic diversity studies on local goats of Karnataka based on microsatellite marker analysis. XII Annual convention of SOCDAB and International Symposium organised by TANUVAS and SOCDAB, Madras Veterinary College, Chennai, Feb., 13-14, 2015, pp.149-150.
6	Naveen Kumar, S., Jayashankar, M.R., Nagaraja, R., Nagaraja, C.S., Nadeem Fairoze and Satyanarayana, K. 2015. Association of Genetic Polymorphism of Calpastatin gene with growth traits of Bandur Sheep. XII Annual convention of SOCDAB and International Symposium organised by TANUVAS and SOCDAB, Madras Veterinary College, Chennai, Feb.,13-14, 2015, pp.144.
7	Naveen Kumar, S., Nagaraja Ramakrishnappa and Sreesujatha, R.M. 2015. A study on Physical characteristics of Mandya sheep under field conditions. XII Annual convention of SOCDAB and International Symposium organised by TANUVAS and SOCDAB, Madras Veterinary College, Chennai, Feb.,13-14, 2015, pp.63.

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8	Yathiraj, S. and Kshama, M.A. 2014. Occurrence of Methicillin Resistant <i>Staphylococcus intermedius</i> infection in dogs in India- A report. WSAVA conference, South Africa.
9	Yathiraj, S. 2014. Enhancing Rabies Surveillance in Dogs. Intersectoral Meeting for Control of Rabies in India - A World Rabies Day 2014 Initiative. Organized by Global Alliance for Rabies Control (GARC)-India; Association for Prevention and Control of Rabies in India(APCRI), Rabies in Asia Foundation(RIA), Veterinary College, KVAFSU, Bengaluru , Commonwealth Veterinary Association (CVA) and Karnataka Veterinary Council (KVC) at Bengaluru (18.10.2014)
10	Yathiraj, S. 2014. Veterinary Education: A Developing Country Perspective. 6 th Pan Commonwealth Veterinary Conference of CVA and 27 th Congress of Veterinary Association (PCVC6 & 27VAM) held at Kuala Lumpur, Malaysia (25.03.2015)
11	Yathiraj, S. 2014. "Control of Rabies - A Veterinary Perspective". 6 th Pan Commonwealth Veterinary Conference of CVA and 27 th Congress of Veterinary Association (PCVC6 & 27VAM) held at Kuala Lumpur, Malaysia (26.03.2015)
VETERINARY COLLEGE, BIDAR	
1	Shreedhar, J.N., Manjunath Patil and Pradeep Kumar, 2015. Effect of probiotics supplementation on milk yield and its composition in lactating Holstein Friesian and Deoni cross bred cows. 6 th International conference on food engineering and biotechnology (ICFEB)-2015 at Seoul, South Korea during March, 10-11, 2015.
2	Uddhav Jadhav, 2014. Emergence of ICT in Veterinary Education: with special reference to the Karnataka Veterinary, Animal And Fisheries Sciences University" In International Conference on Emerging Technologies and Future of Libraries: Issues and Challenges, Organized by Karnataka State SC/ST Library Professionals Association (R) in Collaboration with Institute of Dr. B.R. Ambedkar Studies and Research , Kalburgi University, Kalburgi, and RAK Medical and Health Sciences University, Ras Al Khaimah, United Arab Emirates, (UAE) at Gulbarga University, Kalburgi from 30-31.01.2015. (E-ISBN:978-93-5130-657-3).
3	Basavaraj, H., Amar Dhurve, Prathibha Kaimal, Suma Rathod, Rajshekhar, M. B., Hiralal Janagi and Bijurkar, R. G. 2014. A rare case of fetal mummification in Osmanabadi goat. 6 th International conference for clinical cases, TANUVAS, Chennai, 3-4 July, 2014.
4	Hiralal, S. Janagi, Amar Dhurve, Prathibha Kaimal, Suma Rathod, Rajshekhar, M.B., Basavaraj, H. and Bijurkar, R.G. 2014. A rare case of cloacal organ prolapse in a turtle. 6 th International conference for clinical cases, TANUVAS, Chennai, 3-4 July, 2014.

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5	Prathibha Kaimal R., Hiralal S. Janagi, Basavaraj, H., Rajshekhar, M.B., Suma Rathod, Amar Dhurve and Bijurkar, R.G. 2014. Uterine eversion in a female osmanabadi goat – a rare case report. 6 th International conference for clinical cases, TANUVAS, Chennai, 3-4 July, 2014.
VETERINARY COLLEGE, SHIVAMOGGA	
1	Dhoolappa, M., Nagappa, K., Lakshmishree, Vinuthan, Madavaprasad, Prasad, R.V. 2014. Biodegradation of Chicken Feathers by Pseudomonas species, International Conference on Polymer Composites (ICPC), Dec 19-20, 2014. NITK Suratkal.
2	Ravi Raidurg, 2014. Guest lecture on “Anesthetic Protocol for emergency and critically ill patient in Veterinary practice”. 4 th VPAN (Veterinary Practitioners association of Nepal) conference, Kathmandu, Nepal, 08 Nov., 2014.
3	Ravi Raidurg, 2014. Guest lecture on “Evolution of internal fixation in fracture repair with special reference to minimally invasive plate osteosynthesis”. 4 th VPAN (Veterinary Practitioners association of Nepal) conference, Kathmandu, Nepal, 08 Nov., 2014.
4	Ravi Raidurg, 2014. Guest lecture on “Lameness in bovines –biomechanics, risk factors, lesions, claw trimming, prevention and treatment”; 4 th VPAN (Veterinary Practitioners Association of Nepal) Conference, Kathmandu, Nepal, 08 Nov., 2014.
VETERINARY COLLEGE, HASSAN	
1	Shivakumar, M.C., Narasimha Murthy, H.N., Swamy, H.V.L.N., Suresh, B.N. and Indresh, H.C. 2014. Effect of feeding yeast extracted nucleotides on gut microflora of broilers. <i>Proc. of Global Animal Nutrition Conference</i> , April 20-22, 2014, Bengaluru, India, pp.78
2	Manjunath Patil, B.N. Suresh, V., Kantaraju, B.C., Umashankar, C., Basavantha Kumar and Indresh, H.C. 2014. Effect of dietary supplementation of some herbal powders on performance of coloured broilers. <i>Proc. of Global Animal Nutrition Conference</i> , April 20-22, 2014, Bengaluru, India, pp.124.
3	Manjunath Patil, B.N., Suresh, Nagaraj Naik, N., Jaishankar, Suma, N. and Shivakumar, M.C. 2014. Effect of methionine producing probiotic microorganisms on the performance of coloured broilers. <i>Proc. of Global Animal Nutrition Conference</i> , April, 20-22, 2014, Bengaluru, India, pp.125.
4	Naveen Kumar, G.S., Basavraj Inamdar, Nagaraja, C.S., Jayashankar, M.R. and Srikant Dodamani, 2015. Sequencing error in polyadenine repeat chromatogram readings of rxfp2 fragment, SOCDAB <i>International Conference</i> , Chennai, Tamil Nadu, 13-14 th Feb., 2015.

#	Year / Authors / Title of Paper/ Conference
5	Naveen Kumar, G.S., Nagaraja, R., Shreesujatha, Basavraj Inamdar and Srikanth Dodamani, 2014. Body weight and growth performance of cryptorchids in Mandya sheep. National seminar on 'Prospects and challenges in small ruminant production in India'. Ooty, Tamil Nadu, 11-12 th Dec., 2014, pp.211.
6	Naveen Kumar, G.S., Nararaja, C.S., Jayashankar, M.R. and Nagaraja, R. 2014. Exon8 of Ovine RXFP2 not associated with cryptorchidism in sheep. <i>National seminar on prospects and challenges in small ruminant production in India</i> . Ooty, TN, 11-12 th Dec., 2014: 193.
7	Suresh, B.N., Wali, S.Y., Thirumalesh, T., Kulkarni, V.S., Biradar, B.D. and Gowri, M. Sajjanar, 2014. Nutritional evaluation of stovers of different sorghum varieties. <i>Proc. of Global Animal Nutrition Conference</i> , April, 20-22, 2014, Bengaluru, India, pp.24.
DAIRY SCIENCE COLLEGE, HEBBAL, BENGALURU	
1	Jayashree, R., Jayashankar, M.R., Jayashri Hirmath, Pushpa and Manmatha Raj, 2015. 'A report on the milk production performance of indigenous goat breeds under intensive farming system in Karnataka' in the Proceedings of International Symposium held at Veterinary college, Chennai on Feb., 13-14 th , 2015, pp.67-68.
COLLEGE OF FISHERIES, MANGALURU	
1	Saurabh Dubey, Sangeetha, M.S., Venugopal, M.N., Indrani Karunasagar, 2014. Immune response in carps to nanoparticle based delivery of recombinant outer membrane protein of <i>Aeromonas hydrophila</i> '. Ninth Symposium on Diseases in Asian Aquaculture,' Ho Chi Minh city, Vietnam. 24-28 Nov., 2014, pp.143.
2	Ramachandra Bhatta, 2014. Response of coastal communities to new claims in Karnataka. workshop on "Geographies of fisher response to new claims on coastal space and resources in India" at Mumabi. 16-18 th April, 2014.

ii) National Publications

a) Publications in Journals

#	Year/ Authors / Title of Paper / Journal
DIRECTORATE OF EXTENSION, KVAFSU, BIDAR	
1	Ramees, T.P., Rathore, R.S., Prashanth, S.B., Ravi Kumar, G.V.P.P.S., Mohan, H.V., Anoopraj, R., Ashok Kumar and Dhama, K. 2014. Real-Time PCR detection of <i>Arcobacter butzleri</i> and <i>Arcobacter cryaerophilus</i> in chicken meat samples. <i>J.Pure.Applied. Microbiol.</i> , 8(4):3165-3169.
2	Ramees, T.P., Rathore, R.S., Prashanth, S.B., Mohan, H.V., Ashok Kumar and Dhama, K. 2014. Multiplex PCR Detection of <i>Arcobacter butzleri</i> and <i>Arcobacter cryaerophilus</i> in Skin of Poultry. <i>J.Pure.Applied. Microbiol.</i> , 8(2):1755-1758.
VETERINARY COLLEGE, BENGALURU	
1	Anirudh, A., Srinivasa Murthy, K.M. and Ranganath. L. 2014. Surgical Management of Osteosarcoma in a dog. <i>Indian J. Canine Practice.</i> , 6(1): 47.
2	Patil, A.S., Nagaraja, B.N., Vasanth, M.S., Ranganath, L., Prasad, R.V. and Suguna Rao. 2014. Retrospective studies on patterns of occurrence and treatment outcomes of Traumatic Posterior paralysis in dogs. <i>Intas Polivet</i> , 15(1):146-154.
3	Anandaraj, S., Prabhu, T.M., Shashidhara, M.P., Chandrapal Singh, K., Gloridoss, R.G., Rajeshwari, Y.B. and Suresh, B.N. 2015. Effect of long term feeding of salt treated castor bean meal based concentrate mixtures on the performance of lambs. <i>Anim. Nutri.and Feed Technol.</i> , 15(1):155-160.
4	Ravindranath, B.M. 2014. Birth weight and Neonatal Mortality of Lambs Born to Ewes Maintained Under Two Different Systems of Feeding Strategies. FJVAS.
5	Ravindranath, B.M. 2014. Conception Rate and Frequency of Single and Multiple Births in Estrus Synchronized Nari Suvarna Ewes Maintained Under Two Different Systems of Feeding Strategies. IJLR.
6	Ravindranath, B.M. 2014. Effect of Ram exposure on Estrus Synchronization and conception under two systems of feeding strategies in Nari Suvarna Ewes. IJAR
7	Chandranaik, B.M., Rathnamma, D., Earanna, N., Shivashankar, B.P., Kalge, R.S., Srinivasababu, T., Kanaka, S., Gangadharaiyah, Muniyellapa, H.K., Raveendrahegde, Giridhar, P. and Venkatesha, M.D. 2014. Abortion storms in cattle due to <i>Aspergillus fumigatus</i> contaminated feed in draught hit southern Karnataka. <i>Ind. Vet. Journal. Nov. 2014.</i> 91(11): 82-84.

#	Year/ Authors / Title of Paper / Journal
8	Ravindranath, B.M. 2014. Influence of GnRH on conception and frequency of multiple births in NARI Suwarna ewes under two different systems of feeding strategies. <i>FJVAS</i> .
9	Ravindranath, B.M. 2014. Studies on blood serum mineral profile in NARI Suwarna ewes maintained under two different systems of feeding. <i>FJVAS</i> .
10	Basavantha Kumar, C., Reddy, B.S.V., Gloridoss, R.G., Prabhu, T.M. and Suresh, B.N. 2014. Effect of MOS based toxin binder on low level citrinin toxicity in commercial broilers., <i>The Mysore J. Agri.Sci.</i> , 48(1):75-82.
11	Basavantha kumar, C., Gloridoss, R.G., Chandrapal Singh, K., Prabhu, T.M., Sidharamanna, Suresh, B.N. and Manager, G.A. 2015. Impact of second line limiting aminoacids deficiency in broilers fed low protein diets with rapeseed meal and deoiled rice bran. <i>Vet. World</i> , 8(3): 350-357.
12	Neeraja, D., Veeregoda, B.M., Shobarani, M., Rathnamma, D., Narayanaswamy, H.D., Venkatesh, M.D., Leena, G., Afsana, R., Somashekar, S.H., Saminathan, M., Dhama, K. and Chakrabarthy, S. 2014. Identification of <i>Mycobacterium tuberculosis</i> complex by culture and duplex polymerase chain reaction in bovines. <i>Asian J.Anim. Vet. Adv.</i> , 9(8):506-512.
13	Shivaraj, D.B., Patil, S.S., Rathnamma, D., Hemadri, D., Isloor, S., Geetha, S., Manjunatha Reddy, G.B., Sharada, R. and Rahman, H. 2014. Phylogenetic analysis of recent classical swine fever virus isolates (CSFV) from Karnataka, India. <i>Ind. J. Ani. Sci.</i> , 84(3):236-239.
14	Dhanush Krishna, Suguna rao, Satyanarayana, M.L. and Byregowda, S.M. 2015. Effects of <i>Eugenia jambolana</i> extract in streptozotocin induced hepatic damage in rats. <i>Indian J.Anim.Res.</i> , 49(1):81-85.
15	Sreenivasamurthy, G., Placid E D'Souza and Srikrishna Isloor, K. 2014. Serodiagnosis of visceral schistosomosis by using <i>Schistosoma spindale</i> whole worm antigen in bovines by enzyme linked μ ietar-sorbent assay in Bengaluru, Karnataka. <i>Indian J. Ani.Sci.</i> , 84 (2):127-129.
16	Rudramurthy, G.R., Sengupta, P.P., Lakkundi, J.N., Ligi, M., Placid E D'Souza, Rahman, H. 2014. Sequencing and analysis of invariant surface glycoprotein (ISG) gene from <i>Trypanosoma evansi</i> dog isolate. <i>Res. Biotechnol.</i> , 6(1):01-09.
17	Giregowdanahalli Puttalakshamma, Umed Ramani, Krishan Singh, Amruth Patel, Abdul Patel, Chaitanya Joshi, 2014. Genetic Characterization of Paramphistomes of buffalo by HAT-RAPD analysis. <i>Turkish J.Vet.Anim.Sci.</i> ,38:7-13.

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18	Gururaj, P.M., Veena, T., Narayana Swamy, M., Jayashankar, M.R., Ramesh, P.T. and Shridhar, N. B. 2014. Studies on Certain Serum Metabolites in non Pregnant and Pregnant Bannur Ewes. <i>Theriogenology Insight</i> , 4(1):1-7.
19	Harisha, M., Anant Rao Desai, Mahesh Savanaur, Satyanarayan, K. and Jagadeeswary, V. 2014. Organic Dairy Farming for Sustainable Livestock Production. <i>Trends in Vet.Ani.Sci.</i> , 1:5-8.
20	Jayashree, R., Jayashankar, M.R., Nagaraja, C.S., Cauveri, D., Satyanarayan, K. and Shrikrishna Isloor, 2014. Karyological Studies in Goats of Karnataka. <i>Front.J.Vet.Ani.Sci.</i> , 3(2):141-144.
21	Manjunatha, K., Prasad, R.V., Jamuna, K.V., Placid E. D'souza, Suguna Rao and Ramkrishna, V. 2014. Comparison of Histological Architecture of Paraffin Embedded and Indigenously Plastinated Tissues. <i>Indian J.Vet.Anatomy</i> , 26 (2): 132-133.
22	Kavya, K., Prabhu, T.M., Gloridoss, R.G., Chandrapal Singh, K. and ShivaKumar Gowda, N.K. 2015. Evaluation of azolla (<i>Azolla pinnata</i>) and its supplementary effect on <i>in-vitro</i> digestibility and metabolizability of crop residues. <i>Indian J. Anim. Nutr.</i> , 32(1):52-56.
23	Kavya, K., Prabhu, T.M., Gloridoss, R.G., Chandrapal Singh, K. and Rajeshwari, Y.B. 2014. Nutritional Evaluation of Azolla (<i>Azolla pinnata</i>) and its supplementary effect on <i>in-vitro</i> digestibility of total mixed ration. <i>The Mysore J. Agri. Sci.</i> , 48(3):413-419.
24	Kshama, M.A. 2014. Cutaneous punch biopsy: A diagnostic tool in dermatologic disorders Cutaneous punch biopsy: A diagnostic tool in dermatologic disorders. <i>Indian J.Vet.Med.</i> , 34:81-84.
25	Kshama, M.A. 2014. Therapeutic trials of pyoderma in dogs with clindamycin and in combination with a topical antibacterial combination of chlorhexidine gluconate and silver sulphadiazene. <i>IJCP.</i> , 6(2):108-113.
26	Kshama, M.A. 2014. Cutaneous cytology for diagnosis of dermatological disorders in dogs. <i>Indian J.Vet.Med.</i> , 34(1):52-54.
27	Archana, M., Placid E. D'Souza, Renukaprasad, C., Byregowda, S.M. 2014. Seasonal prevalence of different species of Culicoides in Bengaluru rural and urban districts of South India, <i>J. Vet. World.</i> , 71(7):517-521.

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28	Archana, M., Placid E. D'Souza, Renukaprasad, C. and Byregowda, S.M. 2014. Prevalence of different species of Culicoides in Bengaluru rural and urban districts of South India. <i>J.Parasitic Dis.</i> , DOI 10.1007/s12639-014-0544-1.
29	Archana, M., Placid E. D'Souza, Jalali, S.K., Renukaprasad, C. and Rakshith ojha, 2015. DNA barcoding of commonly prevalent culicoides midges in South India. <i>Ind.J.Anim.Sci</i> 85(1):37-39.
30	Mallikarjun, G., Upendra, H.A., Deepti, B.R., Girish Kumar, V., Murthy, V.C., Suryanarayan, T. 2014. Haematological changes in canine parvo-viral gastro-entritis affected dogs. <i>Front.J.Vet.Ani.Sci.</i> , 3(2): 132.
31	Mallikarjun, G., Upendra, H.A., Deepti, B.R., Girish Kumar, V., Murthy, V.C. and Suryanarayan, T. 2014. Hematological changes in canine parvo-viral gastro-enteritis affected dogs. <i>Frontier J.Vet.Anim. Sci.</i> , 3(2):133-134.
32	Maltesh and Ramesh, P.T. 2014. Retrospective studies in resp diseases in chicken in Bengaluru. <i>Frontier J.Vet.Anim. Sci.</i> , 3(2):204.
33	Mamatha, G.S., Guruprasad, R., Shilpa, V.T., Thimmareddy, P.M. and Placid E. D'Souza, 2014. Morphological identification and control of Eimeria infection in intensive Rabbitries. <i>Frontier J.Vet.Anim. Sci.</i> , 3(2):111-113.
34	Mamatha, G.S., Sudheesh S. Nair, Guruprasad, R. and Thimmareddy, P.M. 2014. Clinical Demodicosis in an immunosuppressed Dog – A case Report. <i>Frontier J.Vet.Anim. Sci.</i> , 3(2):194-195.
35	Mohammad Dawood Bawer, Placid. E.D' Souza and Pradeep, B.S. 2014. Biocontrol of <i>Haematobia irritans</i> horn flies with entomopathogenic fungi (<i>Beauveria bassiana</i> and <i>Metarhizium anisopliae</i>). <i>J.Biolog.cont.</i> , 28(2):112-114.
36	Mundas, S., Rao, S., Byregowda, S.M., Sathyanarayana, M.L., Patil, S.S. and Yathiraj, S. 2014. Rabies – A pathomorphological and immunohistochemical evaluation in animals. <i>J.Cell.Tissue res.</i> , 14(1):4027-4031.
37	Nagaraju, N., Nagaraja, B.N., Vasanth, M.S. and Ranganath, L. 2014. Comparison of stainless steel versus acrylic connecting bar for type Ib external skeletal fixation for tibial fracture repair in dogs. <i>Ind. J. Vet. Surg.</i> , 35(1):43-46.
38	Nandi, S., Pavanashree, U. S., Gupta, P.S.P., Farman, M. and Girish Kumar, V. 2014. Biochemical composition of caprine follicular fluid and oocytes. <i>Life Sci. Int. Res.J.</i> , 1(1):56-61.

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39	Nandini and Ramesh, P.T. 2014. Comparison of different diagnostic test for Leptospirosis. <i>Ind.Vet.J.</i> ,
40	Nandini and Ramesh, P.T. 2014. Epidemiological aspects of canine Leptospirosis. <i>Ind.J.Vet.Med.</i> ,
41	Nandini and Ramesh, P.T. 2014. Haematological and Biochemical changes in Canine Leptospirosis. <i>Ind.J.Vet.Med.</i> ,
42	Nandini and Ramesh, P.T. 2014. Seroprevalance of Canine Leptospirosis in and around Bengaluru. <i>Front. J. Vet. Anim. Sci.</i> , 3(2):204.
43	Naveen Kumar, G.S., Nagaraja, C.S., Jayashankar, M.R., Nagaraja, R. and Sreesujatha, R.M. 2014. Effect of Horn Pattern and Some Non Genetic Factors on Prevalence of Cryptorchidism in Mandya Sheep. <i>Ind.Vet.J.</i> , 91(10):70 – 71.
44	Naveen Kumar, S. and Basavanta Kumar, C. 2014. Estimation of Floor Space and Prediction of Body Weight Based on Body Measurements of Local HF Cross-breed Cattle of Karnataka. <i>Mysore J.Agric.Sci.</i> , 48(2):83-88.
45	Gururaj, P.M., Veena, T., Narayana Swamy, M., Jayashankar, M.R., Ramesh, P.T. 2014. Certain serum metabolites in non pregnant and pregnant Bannur Ewes. <i>Theriogenology insight</i> , 4(1):1-7.
46	Placid E. D'Souza and Sanweer Khatoon, 2014. Zoonotic ocular infestations in humans- A report of 3 cases. <i>Intas Polivet</i> , 15(1):39-40.
47	Prakash, S.S., Patil, Rathnamma, D., Sharada, R., Chandranaik, B.M., Isloor, S., Geetha, S. and Rahman, H. 2014. Marker vaccines against Classical Swine fever-A review. <i>Ind. J. Comp. Microbio. Immuno. Infect. Dis.</i> , 35(1):1-8.
48	Praveena, Veeranna, K.C., Satyanarayan, K., Ramachandra, B., Suranagi, M.D., and Harisha, M. 2014. Socio-Economic Profile of Goat Rearers in Bidar District of Karnataka. <i>Front.J.Vet.Ani.Sci.</i> , 3(2):150-164.
49	Prem Kumar, G., Jagadeesh, S. Sanganal, Manohara, C., Swamy, K.B., Aparna, V., Shridhar, N.B., Narayana Swamy, H.D., Ramachandra, S.G., and Phani, A.R. 2014. Preparation, Characterization and <i>In-Vitro</i> Drug Release Studies of 6-mercaptapurine thin film. <i>Sci.Technol.Arts Res. J.</i> , 3(2):1-5.
50	Prem Kumar, G., Phani, A.R., Prasad, R.G.S.V., Jagadeesh, S. Sanganal, Manali, N., Gupta, Rashmi, N. and Prabhakara, G.S. 2014. Polyvinylpyrrolidone oral films of enrofloxacin: Film characterization and drug release. <i>Int J. Pharmaceutics.</i> , 471:146-152.

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51	Mutturaj, R.P., Prasad, R.V., Jamuna, K.V., Murty, C.V. and Ramkrishna, V. 2014. Indigenous Method of Acetone Recycling. <i>Ind.J.Vet.Anatomy</i> , 26(2):128-129.
52	Mutturaj, R.P., Prasad, R.V., Jamuna, K.V., Murty, C.V., and Ramkrishna, V. 2014. Plastination of Specimens by Recycling Environmental Pollutants. <i>Ind.J.Vet.Anatomy</i> , 26 (2):130-131.
53	Sudha Rani, R., Chandranaik, B.M., Giridhar, P., Mamatha, G.S., Placid E. D'Souza, Nagaraj, K., Shesha Rao, Kalge, R.S. and Venkatesha, M.D. 2015. A case report on flea infestation in organized sheep and goat farms in Karnataka. <i>Indian Vet. J.</i> , 92(2):59-60.
54	Sudha Rani, R., Renukaprasad, C. and Placid E. D'Souza. 2014. In vitro detection of anthelmintic resistance in strongyles of cattle in Karnataka. <i>Ind.Vet.J.</i> , 91,4:55-57.
55	Ramesh Rathod, Patil, A.S., Ranganath, L. and Nagaraja, B.N. 2014. Surgical Management of double Dietary adoptions in a pup. <i>Indian J. Vet. Surg.</i> , 35(1):75.
56	Ramesh Rathod, Patil, A.S., Ranganath, L. and Sangeetha Jadhav, 2014. Surgical Management of Recto-Vaginal Fistula in a Sheep - A Case Report. <i>Indian Vet. J.</i> , 91 (12): 65-66.
57	Ramesh Rathod, Patil, A.S., Ranganath, L., Nagaraja, B.N., Anirudh, A. and Ravikumar, 2014. Surgical Management of Soft Tissue Sarcoma in a dog. <i>Ind.J. Canine Practice.</i> , 6(1):45.
58	Ramesh Rathod, A.S., Patil, Ranganath, L., SrinivasaMurthy, K.M: and Manjunath, D.R. 2014. Surgical Management of Mandibular Fracture in Sloth Bear (<i>Melurses Ursinus</i>). <i>Ind.Vet. J.</i> , 91(7):98-99.
59	Ramesh Rathod, Sangeeta Jadhav, Patil, A.S. and Ranganath, L. 2014. Surgical Management of Intestinal Obstruction in a Donkey - A case report. <i>Ind.Vet. J.</i> , 91(08): 6-8.
60	Ramesh, B.K., Narayanaswamy, H.D., Sathyanarayana, M.L., Suguna Rao and Shrikrishna Isloor, Toxicological evaluation of T-2 toxin and its Amelioration with arginine and Vitamin E supplements in Broiler Chicken. <i>Int.J.Livestock Res.</i> ,
61	Ravikumar, S. and Ranganath, L. 2014. Surgical Management of Inguinal Hernia in a Male dog. <i>Ind.J.Canine Pract.</i> , 6(1):53.

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62	Ravikumar, S., Mahesh, V. and Ranganath, L. 2014. Cuneiform Ulnar Osteotomy for Valgus Deformity of Radius and Ulna in a Great Dane Pup. <i>Ind.J.Canine Pract.</i> , 6(1):60.
63	Kumar, S.C., Renukaprasad, C., Placid E.D'Souza and Pradeep, B.S. 2014. Evaluation of albendazole against sheep strongyles in farms of Karnataka state by different in vitro tests. <i>Ind.J. Vet.Ani.Sci.Res.</i> , 43(5): 330-339.
64	Kumar, S.C., Renukaprasad, C., Placid E. D'Souza and Pradeep, B.S. 2014. Efficacy of albendazole of strongylosis of sheep by faecal egg count reduction rest in some farms of Karnataka. <i>The Ind.J. Small Ruminants.</i> , 20(2):152-154.
65	Santhosh Kumar, C.N., Shridhar, N.B., Jagadeesh, S.Sanganal, Suguna Rao and Ansar Kamran, C. 2014. Antioxidant activity of asteracantha longifolia in DMBA induced mammary cancer in Sprague Dawley rats. <i>J.Cell.Tissue Res.</i> ,14(1):4137-4141.
66	Shambhulingappa, Y.B., Prasad, RV., Jamuna, KV., Bhat, M.N., Nagaraj, C.S., Jagadeesh S. Sanganal and Ramkrishna, V. 2014. Study of skin histology in Sloth Bear (<i>Ursus ursinus</i>) and Wild boar (<i>Sus scrofa affinis</i>). <i>Ind.J.Vet. Anatomy.</i> , 26 (2): 101-102.
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20	Placid E.D'Souza and Dhanalakshmi, H. 2014. Anthelmintic Resistance in small ruminants and cattle. <i>Raksha Technical Review</i> , IV, 3:21-27.
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6	Jagadeesh, T.D., Shivananda Murthy, H., Himanshu Swain, S., Chethan, N., Manjunatha, A.R. and Varuna Baglodi, 2014. Effect of marigold oleoresin on growth, survival and pigmentation in orange chromide, <i>Etroplus maculatus</i> (Bloch, 1795). <i>Fishery Technol.</i> , 51:25-30.
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INSTITUTE OF ANIMAL HEALTH AND VETERINARY BIOLOGICALS, BENGALURU	
1	Chandranaik, B.M., Shivashankar, B.P., Kalge, R.S., Srinivasababu, T., Kanaka, S., Muniyellappa, H.K., Raveendra Hegde, P., Giridhar and Venkatesha, M.D. 2014. Abortion storm in Cattle due to <i>Aspergillus fumigates</i> contaminated feed in drought hit southern Karnataka. <i>Ind.Vet.J.</i> , 91(11):82-84.
2	Chandranaik, B.M., Rani, M.S., Roopadevi, Y.S., Manju, G.U., Kalge, R.S., Mamatha, G.S., Kanaka, S., Rao, S., Giridhar, P., Venkatesha, M.D. 2014. Indirect ELISA based diagnosis of Ovine Paratuberculosis. <i>Ind.J.Comp.Microbiol. Immunol.Infect.Dis.</i> , 35(1):39-40.
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5	Chandranaik, B.M., Choori, P., Patil, S.S., Rathnamma, D., Sharada, R., Isloor, S. 2014. Marker vaccines against Classica Swine Fever- A Review. <i>Ind.J.Comp.Microbiol.Immunol.Infectious Dis.</i> , 35(1):1-8.
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7	Manjunatha, V., Sujay, C.S. and Giridhar, 2014. Multiple helminthic infection and intestinal abstruction due to <i>Ascaridia</i> spp. and <i>Raillietina</i> sp. in young pea fowl. <i>Ind.Wildlife Year Book</i> , 2012-13.

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9	Chandranaik, B.M., Rathnamma, D., Patil, S.S., Isloor, S., Renukprasad, C. 2014. Cloning of partial gB gene of Bovine herpes virus-1 isolates and their Molecular epidemiology. <i>Ind.J.Anim.Sci.</i> , 84(2):103-107.
10	Chandranaik, B.M., Rathnamma, D., Patil, S.S., Isloor, S., Renukprasad, C. 2014. Studies on epidemiology of Bovine herpes virus-1 under different housing practices in cattle breeding stations. <i>Ind.J.Anim.Sci.</i> , 84(2):108-114.
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INSTITUTE OF WILDLIFE VETERINARY RESEARCH, KODAGU	
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2	Madhukar, 2014. Systematic variation of offspring sex ratio in Indian livestock. <i>Front.J.Vet.Anim.Sci.</i> ,3(1):43-49.
LIVESTOCK RESEARCH AND INFORMATION CENTER (SHEEP), NAGAMANGALA	
1	Nagaraja Ramakrishnappa, R. M., Sreesujatha, Manju, G.U. and Roopa Devi, Y. S. 2014. Performance of Mandya sheep reared under semi-intensive system. <i>Front.J.Vet.Anim.Sci.</i> , 3(1): 50-57.
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2	Rudraswamy, M.S., Sukanya, T.S., Siddalinga Swamy Hiremath and Chaithanya, 2014. Impact of improved methods of management on the performance of pigs. <i>Front.J.Vet.Sci.</i> ,
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b) In Conferences / Seminars / Symposia / Workshops etc.

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1	Rawat, S, Mohan, H.V., Lokesh, K.M., Bhilegaonkar, K.N., Yogesharadhya, R. and Kumar Ashok, 2015. Preparation of JE virus antigen on vero cell line. National Symposium & XIII Annual Conference of IAVPHS on "Safety of Foods of Animal Origin for Domestic & Export Markets: Legal Perspectives" 10-12 th Feb., 2015, Bengaluru, Karnataka.
2	Rawat, S, Lokesh, K.M., Mohan, H.V., Bhilegaonkar, K.N., Yogesharadhya, R., Sivachandra, S.B. and Kumar Ashok, 2015. Comparison of Whole Virus and Recombinant Protein Based Elisa for Detection of Antibodies to Japanese Encephalitis Virus in Pigs. National Symposium & XIII Annual Conference of IAVPHS on "Safety of Foods of Animal Origin for Domestic & Export Markets: Legal Perspectives" 10-12 th Feb., 2015, Bengaluru, Karnataka.
3	Bagalkot, P.S., Rathore, R.S., Ramees, T.P., Mohan, H.V., Dhama, K. and Kumar, A. 2014. Antibiotic sensitivity pattern of <i>Arcobacter</i> isolates from human, animal and foods of animal origin. XXVIII Annual Convention of IAVMI and International Conference on Challenges and Opportunities in Animal Health at the face of Globalization and Climate change. 30 th Oct., to 1 st Nov., 2014, College of Veterinary Sciences and Animal Husbandry, Mathura.
4	Ramees, T.P., Rathore, R.S., Bagalkot, P.S., Mohan, H.V., Dudhe, N.C., Kumar, A. and Dhama, K. 2014. Prevalence and molecular characterization of <i>Arcobacter</i> spp. Isolated from human, animals and foods of animal origin from India by using ERIC-PCR and RAPD-PCR. XXVIII Annual Convention of IAVMI and International Conference on Challenges and Opportunities in Animal Health at the face of Globalization and Climate change. 30 th Oct., to 1 st Nov., 2014, College of Veterinary Sciences and Animal Husbandry, Mathura.
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1	Patil, A.S., Nagaraja, B.N., Vasanth, M.S., Ranganath, L., Prasad, R.V. and Suguna Rao, 2014. Retrospective studies on Patterns of occurrence and treatment outcomes of traumatic posterior paralysis in dogs. XXXVIII Annual Congress of ISVS and National Symposium on New Horizons of Camel Surgery and Large Ruminant Surgery, 15-17 th October 2014, Bikaner, Rajasthan, pp.153.
2	Patil, A.S., Ramesh Rathod, Ravikumar, S., Nagaraja, B.N. and Ranganath, L. 2014. Surgical management of esophageal obstruction in large ruminants. XXXVIII Annual Congress of ISVS and National Symposium on New Horizons of Camel Surgery and Large Ruminant Surgery, 15-17 th October, 2014, Bikaner, Rajasthan, pp.131.
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90	Vivek M. Patil, Rajeshwari, Y.B., Jadhav, N.V., Anand, S.D., Balaji, K.H. and Anup Kumar, 2015. Analysis of the management practices followed and constraints faced by Deoni cattle farmers in Karnataka. Livestock Production Practices for Small Farms of Marginalized Groups and Communities in India, organized by ISAPM.
91	Vranda, Jagadeeswary, V. and Satyanarayan, K. 2014. Feeding and housing practices of buffaloes in Bidar district of Karnataka. X Kannada Vijnana Sammelana, Karnataka Science Congress, 15-17 th Sept., 2014, Mysore, pp.183.
92	Vranda, Jagadeeswary, V. and Satyanarayan, K. 2014. Milking and health care management practices of buffalo farmers in Bidar district of Karnataka. 10 th Kannada Vijnana Sammelana, Karnataka Science Congress, 15-17 th Sept., 2014, Mysuru, pp.184.

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93	Rajeshwari, Y.B., Prasanna, S.B., Mahadevappa D. Gouri and Anup Kumar, P.K. 2014. Gender Issues in Livestock Production Systems. Revisiting Management Policies and Practices for Indigenous Livestock & Poultry Breeds as Eco-Friendly Economic Producers, organized by ISAPM.
94	Rajeshwari, Y.B., Prasanna, S.B., Mahadevappa D. Gouri, Anupkumar, P.K., Anand, S.D. and Anitha, K.C. 2015. Role of women in sustainability of livelihood through animal husbandry practices. Livestock Production Practices for Small Farms of Marginalized Groups and Communities in India, organized by ISAPM.
95	Rajeshwari, Y.B. 2014. Annual World Animal Protection ACAW Key Drivers Workshop in Taiwan.
96	Yathiraj, S., Deepti, B.R., Isloor, S., Satyanarayana, M.L. and Abdul Rahman, S. Strategies for control of Rabies in dogs.
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101	Yathiraj, S. 2014. Canine Dermatology and Renal diseases of dogs with special reference to chronic renal disease. Organized by Odisha Veterinary Council at Bhivaneshwar on 8 th Jan., 2015.
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1	Shivaprakash, B.V., Yallappa Athani, Dilipkumar, D. and Usturge, S.M. 2014. Lead Paper on long term study on incidence, comparison of diagnostic and treatment methods for cervical and thoracic oesophageal obstruction in cattle and buffaloes. In: ISVS Congress on New horizons of camel and large ruminant surgery held at Bikaner during 15-17, October, 2014, pp.105.
2	Shivaprakash, B.V., Bhagavantappa, Manjunath and Jahangir, D. 2014. Lead paper on Application of new fiber glass technique for large animal bone fractures severe tendon ruptures horn fracture and for small animal fractures. In: ISVS Congress on New horizons of camel and large ruminant surgery held at Bikaner during 15-17 October, 2014, pp.151.
3	Reshma Liza, C., Shivaprakash, B. V., Dilipkumar and Usturge, S. M. 2014. Incidence, Classification and management and outcome of six risk groups of dog bites in ruminants: A first and a large scale study. In: ISVS Congress on New horizons of camel and large ruminant surgery held at Bikaner during 15-17 October, 2014, pp.109.
4	Chandrashekhar, Y. B., Dilipkumar, Shivaprakash, B.V., Usturge, S. M., Kasaralika, V.R., Tandle, M. K., Srikanth, K. and Ravindra, B. G. 2014. Comparative evaluation of induction combinations Midazolam-Ketamine and Acepromazine-Guaifenesin Ketamine under isoflurane anesthesia in cattle. In: ISVS Congress on New horizons of camel and large ruminant surgery held at Bikaner during 15-17, October, 2014, pp. 28.
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6	Bhagavantappa, Manjunath, D. R., Jahangir, D., Sashidhar Bellari, Girish, M. H., Dilipkumar, D. and Shivaprakash, B. V. 2014. Pericardial hepatocele in dog. In: ISVS Congress on New horizons of camel and large ruminant surgery held at Bikaner during 15-17, October, 2014, pp.208.
7	Bhagavantappa, Manjunath, D. R., Jahangir, D., Dilipkumar, D. and Shivaprakash, B. V. 2014. Surgical management of tracheal injury in dogs. In: ISVS Congress on New horizons of camel and large ruminant surgery held at Bikaner during 15-17, October, 2014, pp. 209.

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8	Satheesha, S.P, Udupa, K.G., Thimma Reddy, P. M., Patil, N.A. and Labuschagne, K. 2015. A study on dominant <i>Culicoides</i> (diptera: ceratopogonidae) species possible implication on bluetongue transmission in Bidar, Karnataka. In: 35 th Annual ISVM Conference, Veterinary College, Pookot, Kerala, 22 nd to 24 th Jan 2015.
9	Satheesha, S. P., Udupa, K.G., Thimma Reddy, P.M. and Patil, N. A. 2015. The prevalence and seasonal abundance of dominant <i>Culicoides</i> (Diptera: ceratopogonidae) species near sheep. In: 35 th Annual ISVM Conference, Veterinary College, Pookot, Kerala, 22 nd to 24 th Jan 2015.
10	Satheesha, S.P., Udupa, K.G., Thimma Reddy, P.M., Patil, N. A. and Labuschagn, K. 2015. The effect of climatological factors on the seasonal abundance of dominant <i>Culicoides</i> (diptera: ceratopogonidae) species with special reference to bluetongue in bidar, Karnataka. In: 35 th Annual ISVM Conference, Veterinary College, Pookot, Kerala, 22 nd to 24 th Jan 2015.
11	Satheesha, S.P., Halamandge, S.C., Sharanagouda, B.M. and Kasaralikal, V.R. 2015. A successful clinical management of downer cow syndrome in a jersey cow. In: 35 th Annual ISVM Conference, Veterinary College, Pookot, Kerala, 22 nd to 24 th Jan 2015.
12	Sateesha, S.P, Halmandge, S.C., Vivek Kasaralikal and Roopali, B. 2015. Successful therapeutic management of mange (<i>notoedres spp.</i>) in Russian grey gaint rabbits. In: 35 th Annual ISVM Conference, Veterinary College, Pookot, Kerala, 22 nd to 24 th Jan 2015.
13	Ajay, S. S., Vivek Kasaralikal, Halmandge, S.C., Satheesha, S.P. and Bhoyar, R. 2015. A rare case of <i>nyctotherus spp.</i> infection in turtles. In: 35 th Annual ISVM Conference, Veterinary College, Pookot, Kerala, 22 nd to 24 th Jan 2015.
14	Vijay Kumar. M., Surjit kumar, Vivek Kasaralikal, Bhoyar, R. and Roopali, B. 2015. Evaluation of flunixin meglumine on tissue antioxidant status in experimentally induced noninfectious models of gastroenteritis in rats. In: 35 th Annual ISVM Conference, Veterinary College, Pookot, Kerala, 22 nd to 24 th Jan 2015.
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17	Bhoyar, R., Harish Kulkarni, Shivanand Magadum and Kasaralika, V. 2015. Acute pancreatitis in German Shepherd dog: a case report. In: 35 th Annual ISVM Conference, Veterinary College, Pookot, Kerala, 22 nd to 24 th Jan 2015.
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19	Mahipalsingh Thakur, Vivek Kasaralika, Bhoyar, R., Patil, N.A. and Usturge, S.M. 2015. Comparative efficacy of chemical repellants against <i>culicoides midges</i> (deptera: ceratopogonidae) - a potential vector of bluetongue. In: 35 th Annual ISVM Conference, Veterinary College, Pookot, Kerala, 22 nd to 24 th Jan 2015.
20	Samudra and Kasaralika, V. 2015. Successful management of accidental paresis in a buffalo with methyl prednisolone. In: 35 th Annual ISVM Conference, Veterinary College, Pookot, Kerala, 22 nd to 24 th Jan 2015.
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25	Manjunatha, D.R., Mohamad Arif Basha, K., Nagappa Banuvalli and Kulkarni, H. 2014. Surgical management of intussusceptions in HF cross breed cow under field condition. In: ISVS Congress on New horizons of camel and large ruminant surgery held at Bikaner during 15-17 October, 2014.
26	Manjunatha, D.R., Mohamad Arif Basha, K., Naveen, B. R. and Banuvalli, N. 2014. Successful surgical correction of bilateral carpal flexion. In: ISVS Congress on New horizons of camel and large ruminant surgery held at Bikaner during 15-17 October, 2014.
27	Manjunatha, D.R., Mohamad Arif Basha, K. and Banuvalli, N. 2014. Successful surgical correction of large ventral hernia in Amruthmahal cow under field condition. In: ISVS Congress on New horizons of camel and large ruminant surgery held at Bikaner during 15-17, October, 2014.
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29	Manjunatha, D.R., Mohamad Arif Basha, K., Kulkarni, H. and Banuvalli, N. 2014. Surgical excision of hyper-trooped clitoris in Amruthmahal heifer to enhance the value of an animal. In: ISVS Congress on New horizons of camel and large ruminant surgery held at Bikaner during 15-17 October, 2014.
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31	Bhagavantappa, B., Manjunatha, D. R., Jahangir, D., Shashidar Ballari, Dilipkumar, D. and Shivaprakash, B.V. 2014. Pericardial hepatocoel in dog. In: ISVS Congress on New horizons of camel and large ruminant surgery held at Bikaner during 15-17 October, 2014.
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34	Harish Kulkarni, Shivanand Magadam and Manjunatha, D. R. 2014. Surgical management of urate calculi in a Dalmatian In: ISVS Congress on New horizons of camel and large ruminant surgery held at Bikaner during 15-17 October, 2014.
35	Mohamad Arif Basha, K., Manjunatha, D. R., Diwaker Nadiger, Baddi, S. Y. and Huballi 2014. Reconstructive surgery of incomplete lip and partly fused premaxilla and mandible in a non-descript calf. In: ISVS Congress on New horizons of camel and large ruminant surgery held at Bikaner during 15-17 October, 2014.
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37	Shivaprakash, B. V., Bhagavanthappa, Manjunatha, D. R. and Jahangir, D. 2014. Application of new fibre glass technique for large animal bone fractures, severe tendon rupture, horn fracture and for small animal fracture. In: ISVS Congress on New horizons of camel and large ruminant surgery held at Bikaner during 15-17 October, 2014.
38	Jadhav, U.S. 2014. Integrating ICT in Academic Libraries: Making Difference in Knowledge Age. In: National conference on "A Boon of Online Resources for Veterinarians, Teachers, Research Scholars and Pet Owners. Organized at Central University of Karnataka, Kalaburgi, 12 th -13 th August, 2014.
39	Jadhav, N. V., Patil, V., Kartikesh, S. M., Shivi Maini and Ravikant, K. 2014. Assessing effects of supplementation of herbal and synthetic choline on weight gain, performance, economics and serum estimates in broiler chickens. In: XXXI Annual Conference of <i>Indian Poultry Science Association.</i> , 18-20, Dec., 2014, Namakkal, pp. 5
40	Patil, V., Rajeshwari, Y. B., Jadhav, N.V., Anand, S.D., Balaji, K. H. and Anup Kumar. 2015. Analysis of the management practices followed and constraints faced by Deoni cattle farmers in Karnataka. In: XXII Annual Convention of <i>Indian Society of Animal Production and Management</i> , 28-30 January, 2015, Aizwal, Mizoram.
41	Jagannatha Rao, B., Vijaykumar, M., Sudarshan, S. and Shivi Miani. 2014. Comparative evaluation of ascorbic acid and AV/LAP/19 ^R Supplementation on Meat characteristic parameters in broiler chicks reared under summer conditions. In: VI th Conference of IMSA and National Symposium. 28-30 November, 2014, Mathura, pp. 188.

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42	Jagannatha Rao, B., Pradeep Kumar and Vivek M. Patil. 2014. Processing and quality evaluation of sun dried blood meal. In: VI th Conference of IMSA and National Symposium. 28-30 November, 2014, Mathura, pp. 212.
43	Rathod, P. and Chander, M. 2015. Generation and Transfer of Livestock Technologies: A Multi-stakeholder Analysis. In: XII Agricultural Science Congress on "Sustainable Livelihood Security for Smallholder Farmers", 3-6 February, 2015, ICAR-National Dairy Research Institute, Karnal, pp-271.
44	Thirumalesh. T., Suresh, B. N., Ramachandra, B. and Ramesh, B. K. 2014. Nutritive evaluation of sorghum stover (<i>Sorghum bicolor</i>) cultivars in Khillari cows. In: GLANCE 2014 in Global Animal Nutrition Conference on Climate Resilient Livestock Feeding Systems for Global Food Security, 20-22 April., 2014, Bengaluru, India.
45	Rudraswamy, M. S., Sukanya, T. S., Ramachandra, B. and Santosh, C. R. 2014. Supplementation of urea molasses mineral block to grass fed local cattle of Malnad region. In: GLANCE 2014 in Global Animal Nutrition Conference on Climate Resilient Livestock Feeding Systems for Global Food Security, 20-22 April., 2014, Bengaluru, India.
46	Thirumalesh, T., Patil, M. B., Ramesh, B. K. and Ramachandra, B. 2014. Nutritional evaluation of common weeds of northern dry zone. In: Global Animal Nutrition conference on Climate Resilient Livestock Feeding Systems for Global Food Security, 20-22 April., 2014, Bengaluru, India.
47	Shantkumar, S., Ramachandra, B., Thirumalesh, T., Appannavar, M. M., Jadhav, N.V. and Siddalingayyaswamy, H. 2014. Effect of fibrolytic enzymes on intake, digestibility and nutrient utilization in Kenguri sheep fed with sugarcane bagasse. In: Global Animal Nutrition conference on Climate Resilient Livestock Feeding Systems for Global Food Security, 20-22 April, 2014, Bengaluru, India.
48	Fakeerappa, D. M., Ramachandra, B., Thirumalesh, T., Patil, N. A., Shantkumar, S. and Naveenkumar, G. S. 2014. Nutritional evaluation of urea treated sugarcane bagasse on performance of Kenguri sheep. In: Global Animal Nutrition conference on Climate Resilient Livestock Feeding Systems for Global Food Security, 20-22 April., 2014, Bengaluru, India.
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50	Anusha, V., Ramachandra, B., Thirumalesh, T. and Shantkumar, S. 2015. Effect of feeding banana pseudostem (<i>Musa sapientum</i>) silage supplemented with slow release nitrogen compound (SRNP) on the performance of Osmanabadi kids. In: 9 th biennial ANA conference on "Eco-Responsive feeding and Nutrition: linking livestock and livelihood", 22-24 Jan., 2015, Guwahati, India.
51	Anjaneya, S. N., Ramachandra, B., Thirumalesh, T. and Shantkumar, S. 2015. Comparison of energy values of some tropical feedstuffs by summative equation and <i>in vitro</i> gas production technique. In: 9 th biennial ANA conference on "Eco-Responsive feeding and Nutrition: linking livestock and livelihood", 22-24 Jan., 2015, Guwahati, India.
52	Sharon Sangeeta, Shrikant Kulkarni, Arangasamy, A., Selvaraju, S., Manjunath, M.G., Kartikesh, S.M. and Hari Babu, Y. 2014. Inclusion of l-proline as additive in the semen extender improves freezability of ram semen. In: XIII Annual conference of SAPI, 27-28 Nov., 2014, CIRB, Hisar.
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56	Pradeep Kumar, Krishnaiah, N., Sujatha Singh, Jagannatha Rao and Manjunath Patil 2015. Study on physico-chemical, microbiological and sensory quality of Kunda. In: XIII annual conference of IAVPHS on safety of foods of animal origin for domestic & export markets: legal perspectives, 10-12, Feb., 2015, Bengaluru.
57	Naik, D.T., Rajendra Talavar, Shashidhar Ballari, Sathish, S.P., Priyanka, Chandrashekkhar, R. and Madhu, R. 2014. A rare case of traumatic reticulopericarditis in Goat. In: XXXI Annual Conference of Indian Association of Veterinary pathologists, 13-15 th , Nov., 2014, AAU, Anand, Gujarat.

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58	Naik, D.T., Rajendra Talavar, Shashidhar Ballari.2014.Combined occurrence of articular and visceral gout in broiler chicks: A necropsy report. In: XXXI Annual Conference of Indian Association of Veterinary pathologists, 13th-15 th , Nov., 2014, AAU, Anand, Gujarat.
59	Vijay Kumar, M., Shivi Miani, Tikare, V. and Sunilchandra, U. 2014. Micrographic evaluation of polyherbal mucolytic formulation (Respzz™) in ameliorating CRD lesions in commercial broilers. In: Second Annual National Conference of Association of Avian Health Professionals, 7- 8 th November, 2014, Pune, India.
60	Vijay Kumar, M., Shivi Miani, Tikare, V. and Jagannath Rao. 2014. Comparative Evaluation of Ascorbic Acid and AVLAP/19® Supplementation on Stress and Immune characters in Broiler Chicks Reared under Summer Condition. In: Second Annual National Conference of Association of Avian Health Professionals, 7- 8 th November, 2014, Pune, India.
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VETERINARY COLLEGE, SHIVAMOGGA	
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2	Lakshmishree, K.T., Prasad, R.V., Jamuna, K.V., Ravindra, J.P., Nagaraj, C.S., Chandrashekarmurthy, V., Ramakrishna, V. and Dhoolappa, M. 2015. Gross morphology of forestomach of spotted deer, IAVA National Symposium – 2015, Durg.
3	Dharanasha, N.K., Ananda, K.J., Muniyellapp, H.K. and Giridhar, P. 2014. Acute Fasciolosis in goats – A patho-morphological study, In: 31 st Annual Conference of Indian Association of Veterinary Pathologists and National symposium on Impact of climate change on patho-biology of diseases of animals, poultry and fish, 13 – 15 Nov., 2014 Anand Agricultural University, Anand, Gujarat.
4	Suresh Patel, R., Malatesh, D.S., Ananda, K.J., Nagaraj, L., Ganesh Udupa, K. and Choudhury, S. 2015. Mite Infestation in dogs and its successful treatment. In: XXXIII Annual Convention and National symposium of Indian Society for Veterinary Medicine on New Dimensions in Veterinary Medicine: Technological advances, one health concept and animal welfare concerns, 22 -24 th Jan., 2015, Veterinary College, Pookode, Kerala.
5	Nagaraj, L., Malatesh, D.S., Suresh Patel, R., Ananda, K.J., Ganesh Udupa, K. and Raidurg, R. 2015. Flea bite allergy dermatitis in dogs and its successful treatment. In: XXXIII Annual Convention and National symposium of Indian Society for Veterinary Medicine on New Dimensions in Veterinary Medicine: Technological advances, one health concept and animal welfare concerns, 22 -24 th Jan., 2015, Veterinary College, Pookode, Kerala.
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10	Suresh Patel, R., Ananda, K.J., Malatesh, D.S. and Nagaraj, L. 2015. Babesiosis in a Labrador Retriever dogs and its successful treatment. In: XXXIII Annual Convention and National symposium of Indian Society for Veterinary Medicine on New Dimensions in Veterinary Medicine: Technological advances, one health concept and animal welfare concerns, 22 -24 th Jan., 2015, Veterinary College, Pookode, Kerala.
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13	Raidurg, R., Mahesh, V., Santhosh, K. M., Naveen, M., Veeranna Gowda, B. G. and Prasad, R.V. 2014. Surgical management of transected superficial digital flexor tendon (SDFT) of left hind limb in a thoroughbred. In: 38 th Annual Congress of Indian Society of Veterinary Surgery, Veterinary College, Bikaner, 15 – 17, Oct. 2014.
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20	Ganesh Udupa, K., Suresh Patel, R., Ananda, K.J., Nagaraj, L., Malatesh, D.S. and Choudhury, S. 2015. Studies on Helminthic infection in dogs and cats of shivamogga region of Karnataka and its control. In: XXXIII Annual Convention and National symposium of Indian Society for Veterinary Medicine, 22 -24 th , Jan., 2015, Pookode, Kerala, pp.44.
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25	Satheesha, S., Udupa, K. G., Thimmareddy, P.M., Patil, N.A. and Labuschagne, K. 2015. A study on dominant Culicoides (Diptera: ceratopogonidae) species – possible implication on blue tongue transmission in Bidar, Karnataka. In: XXXIII Annual Convention and National symposium of Indian Society for Veterinary Medicine, 22 -24 th , Jan., 2015, Pookode, Kerala, pp. 247.
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31	Nagaraj, L., Suresh Patel, R., Malatesh, D.S., Ananda, K. J., Ganesh Udupa, K. and Dhanalakshmi, S. 2015. Skin disorders in cats belongs to Shivamogga region of Karnataka and its successful treatment. In: XXXIII Annual Convention and National symposium of Indian Society for Veterinary Medicine, 22 -24 th , Jan., 2015, Pookode, Kerala, pp.45.
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36	Malatesh, D. S., Ananda, K. J., Suresh Patel, R. and Nagaraj, L. 2015. Diagnosis and treatment of haemoprotozoan infection in cattle of Shivamogga region. In: XXXIII Annual Convention and National symposium of Indian Society for Veterinary Medicine, 22 -24 th , Jan., 2015, Pookode, Kerala, pp 231-232.

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59	Manjunatha, K. P., Satyanarayana, M. L., Suguna Rao, Vasanth, M. S., Narayanaswamy, M., Placid E. D'souza, Shridhar, N. B. and Pawan kumar, K. N. 2014. Evaluation of antidiabetic efficacy of Swertia chirayita extract in Streptozocin induced diabetes. In: Compendium of 31 st Annual conference of the Indian Association of Veterinary Pathologists at College of Veterinary Science and Animal Husbandry, Anand, Gujarat, Nov 13-15, 2014, pp.160.
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2	Suresh, B.N., Vaali, S.Y., Girish, B.C. and Balvanth Kumar, C. 2014. Goat farming: Role of field trials and results. 10 th Kannada Vignana Sammelena, 15 th to 17 th Sept., 2014, Mysore, Karnataka, pp.188-189.
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5	Mamatha, G.S. and Placid E.D'Souza 2014. Biological control of gastrointestinal nematodes in sheep. 10 th Kannada Vijnana Sammelana, 15-17 Sept. 2014, Bengaluru, pp.150.
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19	Prakash, M.P., Munegowda, T. and Indresh, H.C. 2014. Comparative efficiency of commercial herbal preparations ABANA and garlic paste on carcass and organoleptic characteristics in broilers. Conference of Association of Meat Scientists and Technologist, 15-16, Dec., 2014, Chennai, pp.189.
20	Prakash, M.P., Munegowda, T. and Indresh, H.C. 2014. Growth performance, meat cholesterol and serum cholesterol levels in broilers fed herbal preparations Abana and garlic paste. Conference of Association of Meat Scientist and Technologist, 15-16, Dec., 2014, Chennai, pp.185.
21	Mahadevappa Gouri, D., Prasanna, S.B., Rajeshwari, Y.B., Anup Kumar, P.K. and Anand, S.D. 2014. Sustainable rabbit farming under Indian perspective. Lead Paper on Managerial modifications to reduce production stress in farm animals. In: National Seminar on "Revisiting Management Policies and Practices for Indigenous Livestock & Poultry Breeds as Eco-Friendly Economic Producers" & Silver Jubilee Convention of Indian Society of Animal Production and Management, 9 -11 Oct., 2014, pp. 602-612.
22	Manjunatha, K.P., Sathyanarayana, M.L., Suguna Rao, Vasanth, M.S., Narayanaswamy, M., Placid, E. D' Souza., Shridhar, N.B. and Pavankumar, K. N. 2014. Evaluation of antidiabetic efficacy of Pterocarpus marsupium in streptozotocin induced diabetes. 31 st Annual Conference of Indian Association of Veterinary Pathologists on "Impact of climate change on pathobiology of diseases of animals, poultry and fish" Nov., 2014, Anand, Gujarat.
23	Manjunatha, K.P., Sathyanarayana, M.L., Suguna Rao., Vasanth, M.S., Narayanaswamy, M., Placid, E. D' Souza., Shridhar, N.B. and Pavankumar, K.N. 2014. Evaluation of antidiabetic efficacy of Swertia chirayita in streptozotocin induced diabetes. 31 st Annual Conference of Indian Association of Veterinary Pathologists on "Impact of climate change on pathobiology of diseases of animals, poultry and fish" Nov., 2014, Anand, Gujarat.
24	Manjunatha, K. P., Sathyanarayana, M.L., Suguna Rao., Vasanth, M.S., Narayanaswamy, M., Placid, E. D' Souza and Shridhar, N.B. 2014. Pathomorphological studies on induced diabetes in rats and evaluation of antidiabetic efficacy of Pterocarpus marsupium and Swertia chirayita extracts. 31 st Annual Conference of Indian Association of Veterinary Pathologists on "Impact of climate change on pathobiology of diseases of animals, poultry and fish" Nov., 2014, Anand, Gujarat.
25	Nagaraju, N. 2014. Butrophanol, Xylazine and Ketamine combination for standing surgeries in cattle: A review of 25 cases. XXXVIII Annual congress of Indian Society of Veterinary Surgery Symposium, 15 th -17 th Oct., 2014, Bikaner, pp. 37.

#	<i>Year / Authors / Title of Paper / Conference</i>
26	Nagaraju, N. 2014. Colo Rectal carcinoma in Bullock and its surgical management. XXXVIII Annual congress of Indian Society of Veterinary Surgery symposium. 15 th -17 th Oct., 2014, Bikaner, pp.95.
27	Nagaraju, N. 2014. Studies on Bovine hoof lesions in Malnad area. XXXVIII Annual congress of Indian Society of Veterinary Surgery symposium. 15 th -17 th Oct., 2014, Bikaner, pp. 364.
28	Nagaraju, N. 2014. Surgical management of ear abscess in an Indian box turtle. XXXVIII Annual Congress of Indian Society of Veterinary Surgery Symposium.15 th -17 th Oct., 2014, Bikaner, pp.323.
29	Nagaraju, N., Sudheesh Nair, S., Udayasree, V.J. and Ravikumar, P. 2014. Surgical management of ear abscess in Indian box turtle. XXXVIII annual congress of ISVS, 15-17, Oct., 2014, at Bikaner, Rajasthan, pp. 323
30	Padalkar, R.D., Girish, B.C., Suresh, B.N., and Ambujakshi, T.P. 2014. Control of Zoonotic diseases, Public health and animal management. 10 th Kannad Vigyan Samelana 2014, 15 th to 17 th Sept., 2014, Mysore University, Mysore
31	Placid E.D'Souza 2015. National Priorities And Control Strategies For Parasitic Zoonoses, Lead paper at XII Annual Conference of Indian Association of Veterinary Public Health specialists & National Symposium on 'Safety of foods of Animal origin for domestic & export markets: legal perspectives' at Veterinary College, Hebbal, Bengaluru, Feb. 10-12, 2015, pp. 132-140.
32	Placid E.D'Souza, Zakir Hussain, Puttalakshamma, G.C., Thimma Reddy, P.M. and Mamatha, G.S. 2015. Biological control of brown dog tick <i>Rhipicephalus sanguineus</i> with entomopathogenic nematodes. In: National meeting on 'New/safer molecules and biocontrol technologies for integrated pest management in crops'. 23 Feb 2015 at NBAIR, Hebbal, Bengaluru.
33	Placid E.D'Souza and Dhanalakshmi, H. 2014. Anthelmintic resistance in small ruminants and cattle. In: Raksha Knowledge Summit-IV on 'Control of ecto and endo parasitic diseases in animals'. 23 rd -24 th Aug., 2014 at Indian Immunologicals Limited, Hyderabad, pp. 11-15.
34	Placid E.D'Souza 2014. An overview on mites and ticks of medical and veterinary importance. Brainstorming session on "Insects related to Veterinary and Fisheries Sciences" at NBAII, Bengaluru on 2.8.2014.

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35	Placid E.D'Souza. 2014. An appraisal on ethics in research and research publications. SCP/TSP sponsored training programme on "Writing project proposals", 30 th -31 st July, 2014 at Veterinary College, Hassan, pp. 69-76.
36	Placid E.D'Souza. 2014. Ectoparasites in Poultry farming and its control. Annual Oration- 2014 at CPDO, Chandigarh, 11.12.2014.
37	Placid E.D'Souza. 2014. Methodologies for research publication in Veterinary Science. Guest lecture at College of Veterinary Science, Tirupati on 27.1.2015.
38	Placid E.D'Souza. 2014. Purpose of training. SCP/TSP sponsored training programme on 'Writing project proposals'. 30 th -31 st July, 2014, Veterinary College, Hassan, pp. 1-3.
39	Placid E.D'Souza, Archana, M. and Mamatha, G.S. 2014. An overview on parasitic diseases in wild animals in India. Training programme on 'Diagnostic approaches in wild animal diseases'. 16-17 th Oct., 2014, IWVR, Doddaluvara, Kodagu, pp. 6-25.
40	Pradeep, M.C., Sukanya, T.S. and Prasanna, S.B. 2014. Integrated Horti-Agro-Livestock Production for sustainable livelihood in Malnad Region. GLANCE-Global Animal Nutrition Conference on Climate resilient livestock feeding systems for global food security. 20 th 22 nd April, 2014, Yeshwantpur, Bengaluru, India, Abstract No SLP-24.
41	Prasanna, S.B., Shivakumar, M.C., Mahadevappa, G., Suresh, B.N., Indresh H.C., Pradeep, M.C., Roopa, T.K. and Sunil. M.A. 2015. Influence of feeding azolla on the performance of large white yorkshire pigs. XXII National Seminar of ISAPM, January 28-30, 2015, Aizawl, pp. 177.
42	Prasanna, S.B., Gouri, M.D., Rajeshwari, Y.B., Shivakumar, M.C., Anup Kumar and Guruprasad, R. 2014. Lead Paper on Managerial modifications to reduce production stress in farm animals. In: National Seminar on 'Revisiting Management Policies and Practices for Indigenous Livestock & Poultry Breeds as Eco-Friendly Economic Producers' and Silver Jubilee Convention of Indian Society of Animal Production and Management, 9 - 11 October, 2014, pp. 583-593.
43	Padalkar, S.D., Girish, B.C., Suresh, B.N. and Ambujakshi, T.P. 2014. Control of Zoonotic diseases: Public health and Animal husbandry. 10 th Kannada vignana sammelena, 15 th to 17 th Sept., 2014, Mysore, Karnataka, pp.187.

#	<i>Year / Authors / Title of Paper / Conference</i>
44	Shilpa, V.T., Jayaramu, G.M., Ravikumar, P., Manjunatha, K.P., Ambujakshi, T.P. and Girish, B.C. 2014. A study on the mortality pattern, gross and histopathological changes in sheep in and around Hassan. XXXI annual conference of IAVP, 13 th -15 th Nov., 2014, Anand, Gujarat, pp.111-112.
45	Shilpa, V.T., Nirupama Jaisingh and Sujay, C.S. 2014. Lipoma in a caiman crocodile. XIII National conference of IAWV-2014 and National seminar on Livestock breeding strategies for productivity enhancement towards rural prosperity. 26 th -28 th Aug. 2014, Anand, Gujarat, pp.227.
46	Sudheesh Nair, S. 2014. Surgical Management of a complete compound metacarpal fracture using type II ESF in a crossbred cow: A case report. XXXVIII Annual congress of Indian Society of Veterinary Surgery symposium.15 th -17 th Oct., 2014, Bikaner, pp.180.
47	Sudheesh, S. N. 2014. Atresia ani with extensive traumatic proctitis in a Calf: A case report. XXXVIII Annual congress of Indian Society of Veterinary Surgery symposium.15 th -17 th Oct., 2014, Bikaner, pp.114.
48	Sudheesh, S. N. 2014. Ileo colic intussusception with concurrent rectal prolapse in a puppy, XXXVIII Annual congress of Indian Society of Veterinary Surgery Symposium. 15 th -17 th Oct., 2014, Bikaner, pp.95.
49	Sudheesh, S. N. 2014. Studies on bovine papilloma and its surgical management in malnard area: A review of 30 cases. XXXVIII Annual congress of Indian Society of Veterinary Surgery Symposium.15 th -17 th Oct., 2014, Bikaner, pp.361.
50	Rajeshwari, Y.B., Prasanna, S.B., Mahadevappa Gouri and Anup Kumar, 2014. Gender issues in livestock production systems. Lead Paper on Managerial modifications to reduce production stress in farm animals. In: National Seminar on 'Revisiting Management Policies and Practices for Indigenous Livestock & Poultry Breeds as Eco-Friendly Economic Producers' & Silver Jubilee Convention of Indian Society of Animal Production and Management, 9 th - 11 th Oct., 2014, pp. 616-629.
51	Rajeshwari, Y.B. Prasanna, S.B., Mahadevappa Gouri, Anup Kumar, P.K., Anand, S.D. and Anitha, K.C. 2015. Lead paper on 'Role of women in sustainability of livelihood through animal husbandry practices. In: XXII National Seminar of ISAPM, 28-30 th Jan., 2015, Aizwal, pp: 423-433.

#	Year / Authors / Title of Paper / Conference
DAIRY SCIENCE COLLEGE, BENGALURU	
1	Reshma, M., Basavaraj, G., Manjunath Chikkmath, Lalith, A. 2015. Growth drivers of crop productivity in Karnataka (1966-2010): The role of rainfall and water. In: National Seminar on - Climate Change and Agrarian Economy: An Indian Perspective at UAS Dharward on 22 and 23 rd January 2015.
2	Nagaraj, C.R., Arun Kumar, K.S., Srinivasa, G. and Lalith, A. 2014. Spatial and Temporal integration of cocoon and raw silk prices in Karnataka. In: Bulletin of Indian Academy of Sericulture, 18: (1&2), 27 – 33.
DAIRY SCIENCE COLLEGE, KALABURGI	
1	Shrangouda, B. and Priyatham Reddy, K. 2014. Anti Microbial Packaging- A Packaging Techniques of Future. National Conference on Recent Trends in Processing, Quality and Safety of Ethnic and Organic food. pp.171.
COLLEGE OF FISHERIES, MANGALURU	
1	Santhosh, K.S., Deekshit, V. K., Venugopal, M.N. and Karunasagar. I. 2014. Transfer of resistant gene <i>tetA</i> by genetic recombination in the marine environment. 55 th National conference of Association of Microbiologists of India, Coimbatore, Nov, 12-14, 2014, Abstract No. MM 57.
2	Rajesh, M., Dechamma, M.M., Biswajith Maiti Madhu, Mani, K., Venugopal. M. N. and Karunasagar, I. 2014. Molecular based and quantitative expression studies of a novel defense gene, akirin, in black tiger shrimp (<i>Penaeus monodon</i>) in response to white spot syndrome virus infection. 55 th National conference of Association of Microbiologists of India, Coimbatore, Nov 12-14, 2014. Abstract No. VM 4.
3	Sangeetha, M.S., Krishna, K., Ballamoole, Saurabh Dubey and Venugopal. M.N. 2014. Phenotypic and genotypic characterization of <i>Vibrio parahaemolyticus</i> from molluscan shellfishes along the Mangaluru coast. 55 th National conference of Association of Microbiologists of India, Coimbatore, Nov 12-14, 2014. Abstract No. FM 37.
4	Vilasini, U., Pavithra, H. and Venugopal, M.N. 2014. Bacterial flora associated with molluscan shellfish along Karnataka coast. 55 th National conference of Association of Microbiologists of India, Coimbatore, Nov 12-14 2014, Abstract No.FM 38.

#	Year / Authors / Title of Paper / Conference
5	Sangeetha, M.S., Malathi Shekar and Venugopal, M. N. 2014. Phenotypic and genotypic characterization of <i>Vibrio parahaemolyticus</i> from molluscan shellfishes along the Mangaluru coast. National seminar on "New Vistas in Biological Sciences, Mangaluru, Jan 15 – 16, 2015. Abstract No. 25, PP.45.
6	Debashis Banerjee, M.N., Venugopal, Girisha, S.K, and Karunasagar, I. 2014. Study of antibacterial activity of antimicrobial peptides isolated from <i>penaeus monodon</i> . '10 th Indian Fisheries and Aquaculture Forum' Lucknow, Nov. 12-15, 2014, pp 347.
7	Nagendra Babu, R. S., Reddy, H. R. V., Basavaraju, Y., Prabhudeva, K. N., Mridula Rajesh, N., Chethan, K. B., Rajanna., Muttappa, K. and Padmanabha, A. 2014. PFGF National Conference. pp. 81
8	Jitendra Kumar, Benakappa, S., Anjanayappa, H.N., Somashekara, S.R., Naik, A.S. K., Mahesh, V. and Vijaykumar, M.E. 2014. Marine ichthyofaunal biodiversity in the trawling grounds off Mangaluru coast. '10 th Indian Fisheries and Aquaculture Forum' Lucknow, Nov. 12-15, 2014, pp. 92.
9	Elavarasan, K. and Shamasundar, B.A. 2014. Anti-oxidant and angiotensin-I converting enzyme inhibitory properties of hydrolysate of salted and dried anchovy prepared using <i>in vitro</i> gastrointestinal digestion model after cooking. The 10 th Indian Fisheries and Aquaculture Forum. Lucknow. Nov. 12-15, 2014, pp. 515.
10	Supreetha, B.U., Chandra, M.V. and Shamasundar, B.A. 2014. Effect of setting temperature and duration on the gel forming ability of mince from pink perch fish (<i>Nemipterus japonicas</i>). The 10 th Indian Fisheries and Aquaculture Forum. Lucknow, Nov. 12-15, 2014, pp. 532.
11	Elavarasan, K., Manjunatha Reddy, Dara, P.K., Chandra, M.V. and Shamasundar, B.A. 2014. Mathematical Modeling of kinetics of salting of Anchovy. The 10 th Indian Fisheries and Aquaculture Forum. Lucknow, 12-15, Nov., 2014, pp. 537.
12	Manjanaik Bojayanaik, Kavya Naroth, Veena Shetty, Somashekarappa Hiriyur, Rajashekar Patil. 2015. Combined Effect of Gamma Irradiation and Frozen Storage on the Microbial, Bio- chemical Quality and Shelf life of Shrimp. NAARRI, International Conference, Radiation processing in industries, 4-6 th March, 2015, Mumbai, pp. 129-131.
13	Manjanaik Bojayanaik, Kavya Naroth, Veena Shetty, Hiriyur, S. 2014. Studies on the effect of low dose gamma irradiation on the chemical, microbial quality and shelf life of squid. International Conference on Radiation Biology, 11-13 th Nov., 2014, New Delhi, pp. 199.

#	Year / Authors / Title of Paper / Conference
INSTITUTE OF WILDLIFE VETERINARY RESEARCH, KODAGU	
1	Madhukar and Upendra, H. A. 2014. Important Wildlife Zoonoses. State level technical Symposium of Karnataka State Government Veterinarians Association, 25 th May 2014, Bengaluru.
LIVESTOCK RESEARCH AND INFORMATION CENTER (SHEEP), NAGAMANGALA	
1	Naveen Kumar, S., Nagaraja Ramakrishnappa and Sreesujatha, R. M. 2015. A study on physical characteristic of Mandya sheep under field conditions. International Symposium on Sustainable Management of Animal Genetic Resources for Livelihood Security in Developing Countries & XII Annual Convention of SOCDAB, Chennai, 13-14 Feb., 2015.
LIVESTOCK RESEARCH AND INFORMATION CENTER, KONEHALLY	
1	Rudraswamy, M.S., Sukanya, T.S. and Hiremath, S. 2014. Supplementation of urea molasses mineral block to grass fed local cattle of Malnad region. Abstract No-FQS-9.
2	Rudraswamy, M.S., Sukanya, T.S., Hiremath, S. and Arun, M.S. 2014. Evaluation of least cost feed formulations with replacement of groundnut cake by safflower cake and Acacia nilotica pods in goats at Global Animal Nutrition Conference), conference, Bengaluru, Abstract No- DLF-15.
FISHERIES RESEARCH AND INFORMATION CENTER, HESARGHATTA	
1	Manjappa, N., Basavaraja, N., Anjaneyappa, H. N., Shivaprakasha, S. M., Ramachandra Naik, A.T., Lakshmipathi, M.T. and Jitendra Kumar. 2014. Reproductive biology of <i>Sillago vincenti</i> , McKay 1980. National conference on Strategies for Bridging the yield gap in Fisheries and Aquaculture, FFB-01.

Abstract of Research Publications

Division	Journal		Conference/ Symposium/ Seminar/ Workshops	
	Int.	National	Int.	National
Veterinary and Animal Sciences	54	207	27	292
Dairy Science	01	07	01	03
Fisheries Science	25	24	02	14
Total	80	238	30	309

2. Extension Publications (Books, training manuals, popular articles, leaflets etc)

DIRECTORATE OF EXTENSIN, KVAFSU, BIDAR

Chapters in Training Manual

1	Dilipkumar, D. 2015. Integrated Farming System: Principles and Practices. In: ICAR, Sponsored training programme on "Livelihood and Nutritional Security of Farmers through Integration of Animal Husbandry and Fisheries with Agriculture and Horticulture". Published by Directorate of Extension, KVAFSU, Bidar.
2	Dilipkumar, D. 2015. Recent Advances in Health Management of Dairy Animals. In: ICAR, Sponsored training programme on "Livelihood and Nutritional Security of Farmers through Integration of Animal Husbandry and Fisheries with Agriculture and Horticulture". Published by Directorate of Extension, KVAFSU, Bidar.
3	Dilipkumar, D. 2015. Effective Time Management. In: ICAR, Sponsored training programme on "Livelihood and Nutritional Security of Farmers through Integration of Animal Husbandry and Fisheries with Agriculture and Horticulture". Published by Directorate of Extension, KVAFSU, Bidar.
4	Mohan, H.V. 2015. Zoonoses as Occupational Diseases. In: ICAR, Sponsored training programme on "Livelihood and Nutritional Security of Farmers through Integration of Animal Husbandry and Fisheries with Agriculture and Horticulture". Published by Directorate of Extension, KVAFSU, Bidar.

Training manuals prepared and edited

ICAR, Sponsored training programme on "Livelihood and Nutritional Security of Farmers through Integration of Animal Husbandry and Fisheries with Agriculture and Horticulture" for Subject Matter Specialists of KVK's during 26-28th March, 2015, edited and published by Directorate of Extension, KVAFSU, Bidar.

VETERINARY COLLEGE, BENGALURU

Books

1	Two compendiums of Pashubandha (<i>E-Bulletin</i>) (12 issues) for the year 2013-14 & 2014-15 were published by Veterinary College, Bengaluru.
2	Package of Practices on Animal Husbandry, Siriculture and Fisheries - Satyanaraya, K., Technical Editor.
3	Vinay Tikare, Shridhar, N.B. and Jagadeesh S. Sanganal, 2014. Characterization and toxicity study of fungi isolates from ground nut Hay. LAP Lambert Academic Publishers, Germany.

4	Rashmi, R., Jagadeesh Sanganal and Shridhar, N.B. 2014. Toxicity study of norfloxacin, a fluoroquinolone in rats. LAP Lambert Academic Publishers, Germany.
5	Jagadeesh S. Sanganal and Shridhar, N.B. 2014. Pharmacological and toxicological activities of cattle urine. Lap Lambert Academic Publishers, Germany.

E-Bulletin

1	Isloor, S., Sharada, R. 2014. In Pashubandha "Haemorrhagic Septicemia" June, 2014.
2	Girish Kumar, V., Nandi, S., Mohammad Farman and Shiv Kumar Tripathi, 2014. Imbalance in feeding and reproductive problems in ruminants. <i>Pashubandha</i> , 3(7):1-3.
3	Jayashree, R. 2014. Propagation of tree fodders for feeding of goats. Pashubandha E-bulletin, June, 2014.
4	Jayashree, R. 2014. Selection of sheep and goats. Pashubandha E-bulletin, December, 2014.
5	Sharada, R., Isloor, S. 2014. "Black Quarter". Pashubandha E-bulletin, June, 2014.
6	Kantha raju, M. K., Jagadeeswary, V., Satyanarayan, K., Mohankumar, S. and Sakshi, S. 2014. Water resources and animal husbandry. Pashubandha E-bulletin, (3):10.
7	Pramila, Satyanarayan, K. and Jagadeeswary, V. 2015. Intensive fodder Cultivation. Pashubandha, (4):03.

Popular articles

1	Narayana Swamy, M. 2014. Raajyada Heggallike: Bengalurina Pashuvaidyakiya Mahavidyalaya, Janapada, 57(6): 13-15.
2	Narayana Swamy, M. 2014. Naavelliddeve Ennavudu Namage Hege Gottaaguttade. Vartha Bharathi, 24 th Oct., 2014.
3	Narayana Swamy, M. 2014. Janapara Vignani Raagi Lakshmanaiah, Vartha Bharathi, 4.01.2015
4	Shridhar, N.B. 2014. Januvarugalalli Kantaka:Nene. Prajavani, 19-08-2014.
5	Shridhar, N.B. 2014. Karugalalli hokkalu bavu. Prajavani, 02-09-2014.
6	Shridhar, N.B. 2014. Ethina komballi adagide cancer. Prajavani, 19-08-2014.
7	Shridhar, N.B. 2014. Januvarugalalli havu kaditha mathu chikisthe. Kshirasaagara, Nov., 2014.

8	Shridhar, N.B. 2014. Garbastha rasuvina lalane – palane. Prajavani, 27-01-2015.
9	Shridhar, N.B. 2014. Kuri kaduva janthu. Prajavani, 10-02-2015.
10	Shridhar, N.B. 2014. Karugalalli janthu nashakada suktha balake. Prajavani, 17-02-2015.
11	Rashmi, R., Jagadeesh S. Sanganal and Shridhar, N.B. 2014. Sathu phosphide eeli pashanada visha badhe. Pashusiri, 19-11-2014.

Articles Published in Training Manuals and Compendia

1	Jayashree, R. 2014. Goat milk In: Compendium of State level Technical symposium of KVA held on 25.05.2014.
2	Yathiraj, S. and Satyanarayan, K. 2014. An Overview of Veterinary Profession in India. In Compendium: Januvaru, Krishi, Totagarika & Matsya Mela, Bidar 27-29 th Dec, 2014.
3	Rajeshwari, Y.B., Jagadeeswary, V., Pramilla and Satyanarayan, K. 2014. Role of women in Livestock farming. In Compendium: Januvaru, Krishi, Totagarika & Matsya Mela, Bidar 27-29 th , Dec., 2014.
4	Upendra, H. A., Dodalavara, V.R., and Satyanarayan, K. 2014. Human - Elephant Conflict - Reasons and Solutions. In Compendium: Januvaru, Krishi, Totagarika & Matsya Mela, Bidar 27-29 th , Dec., 2014.

Training Manuals and Compendia

1	Jayashree, R. and Naveen Kumar, S. 2014. Sheep and Goat breeds. Organized by Department of Veterinary Animal Husbandry Extension during 2014-15.
2	Naveen Kumar, S. and Jayashankar, M.R. 2015. Sheep and Goat breeds of economic importance. Training on Sheep production – NARI Suvarna during 29-31 st Jan., 2015.
3	Jayashankar, M.R. and Naveen Kumar, S. 2015. Project Appraisal and Evaluation Techniques. Organized by Department of Veterinary Animal Husbandry Extension, Veterinary College, Bengaluru, 2.02.2015.
4	Jayashree, R. 2015. Formulation and appraisal of Goat project. 2.02. 2015 to 4. 02.2015. Organized by Department of Veterinary Animal Husbandry Extension, Veterinary College, Bengaluru.
5	Ramesh, P.T., Deepti, B.R., Santosh P. Sarangmath, Diagnostic and therapeutic approach to rectify bovine ruminal disorders.

6	Ramesh, P.T., Ansar Kamran, C., Deepti, B.R. Collection, Preservation and dispatch of materials for diagnosis of diseases in laboratory.
7	Satyanarayan, K., Jagadeeswary, V. and Pavan Belakeri, 2015. Strategies for sustainbale Livestock production and livelihood security". Training Manual: Project Formulation for Financial Assistance in Livestock Farming. Page No.6-15.
8	Tipshetti, M.S. and Mohankumar, S. 2015. Formulation and Appraisal of Dairy Projects. Training Manual: Project Formulation for Financial Assistance in Livestock Farming, Page No.30-37.
9	Jagadeeswary, V., Jayashree, R. and Kantha Raju, M.K. 2015. Formulation and Appraisal of sheep project". Training Manual: Project Formulation for Financial Assistance in Livestock Farming, Page No.38-42.
10	Jayashree, R., Jagadeeswary, V. and Satyanarayan, K. 2015. Formulation and Appraisal of Goat project. Training Manual: Project Formulation for Financial Assistance in Livestock Farming. Page No. 43-54.
11	Satyanarayan, K., Mahesh Savanur, Jagadeeswary, V. and Sakshi, S. 2015. Formulation and appraisal of piggery project. Training Manual: Project Formulation for Financial Assistance in Livestock Farming. Page No.55-74.
12	Training Manual on "Sheep production - NARI SUVARNA, a boon for small scale farmers + Goat production-sustainable livelihood for small scale farmers" by Dr.Y.B.Rajeshwari, Dr. J.Shilpa Shree & Dr. Anil Kumar, G.K
13	Nadeem Fairoze, 2015. Compendium of Lead papers and abstracts on "Safety of Foods of Animal Origin for Domestic & Export Markets: Legal Perspectives" during 10-12 th Feb., 2015, at Veterinary College, Bengaluru.
14	Yathiraj, S., Ranganath, L., Santosh P. Sarangmath, 2014. Internship training manual.

Leaflets/brochures

1	Giriraja- Salient features of Giriraja
2	Swarnadhara - Salient features of Swarnadhara

VETERINARY COLLEGE, BIDAR

Books

1	Khaja Mohteshamuddin, Bijurakar, R.G. and Tandle, M.K. 2014. A Practical manual of Veterinary Gynecology. Satish Serial Publishers, New Delhi.
2	Khaja Mohteshamuddin, Bijurakar, R.G. and Tandle, M.K. 2014. A Practical manual of Veterinary Obstetrics, Satish Serial Publishers, New Delhi.

3	Khaja Mohteshamuddin, Bijurakar, R.G. and Tandle, M.K. 2014. A Practical manual of Veterinary Andrology & Reproductive Techniques, Satish Serial Publishers, New Delhi.
4	Jadhav, U.S. 2014. Academic Libraries: A Boon of Consortia in India, edited by Stanley Madan Kumar, and K. Veeranjanyulu published by Intellectual Foundation (India), Rohtak, New Delhi, pp.255-265.
5	Jadhav, N.V. 2014. Livestock and poultry farm practices. Jaya Publishing House, Delhi.
6	Vinaya, P. Tikare, Shridhar, N.B. and Jagadeesh Sanganal, 2014. Characterization and toxicity studies of fungi isolates from groundnut hay. LAP Lambert Academic Publishing, Germany. April 2014. ISBN No:978-3-659-52681-7.
7	Jadhav, U.S. 2014. ICT among State Agricultural University and ICAR Institutes Libraries in India: An Overview of e-Granth. published in information access in digital libraries, edited by Stanley Madan Kumar, Rabindra K. Mahapatra, and K. Veeranjanyulu published by New India Publishing Agency, New Delhi, pp.255-265 (ISBN: 978-93-83305-38-4).

Book Chapters

1	Jadhav, U.S. 2014. Academic Libraries: A Boon of Consortia in India, edited by Stanley Madan Kumar, and K. Veeranjanyulu published by Intellectual Foundation (India), Rohtak, New Delhi, pp.255-265.
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Training Manuals and Chapters

1	Dilipkumar, D., Shivaprakash, B.V., Usturge, S.M., Bhagavantappa, B. and Doddamani, J. 2014. Laparoscopic, Endoscopic, Ultrasonographic and Radiographic Diagnosis in Animals.
2	Jadhav, N.V. and Jaishankar, N. 2015. Poultry farming as an entrepreneurship avenue to rural farmers. Training Programme on 'An orientation to livestock entrepreneurship and business management', 5-7 th Feb., 2015, Bidar, pp. 48-52.
3	Vivek, M. Patil. 2015. Issues in sustainable livestock production and its implications to livestock entrepreneurship. Training Programme on 'An orientation to livestock entrepreneurship and business management', 5-7 th February, 2015, Bidar, pp.14-21.
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15	Vijay Kumar, M., Sunilchandra, U. and Priyanka, 2014. Antibiotic therapy for practitioners. The Blue Cross Book, Vol.30, August 2014, pp.9-20.
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Other Activities:

- **University Publications:** Frontier Journal of Veterinary and Animal Sciences: Vol 3 (2014) Issues 1 & 2 have been published with Dr. M.M. Appannavar as Chief Editor and Dr. Ramchandra, B. as Editor.
- **Dr. Yathish, H.M.** is working as Reviewer in Indian Journal of Animal Science, Indian Journal of Dairy Science (National Journal) and Current Trends in Biotechnology and Pharmacy (International Journal).
- **Dr. Prakashkumar Rathod** is working as Reviewer in Indian Journal of Animal Science, Indian Journal of Dairy Science and Indian Journal of Field Veterinarian.

VETERINARY COLLEGE, SHIVAMOGGA

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2	Madhavaprasad, C.B., Nagappa Karabasavanavara, Prashanth, S.B., Satheesh, G.M. 2015. Hygenic pork production.
3	Ganesh Udupa, Satheesh, G.M. 2014-15. Swine Diseases and their prevention and control measures. Dean, Vety. College, Shimoga.
4	Satheesh, G.M., Vijayakumar B. Shettar, Veerannagowda, B.G. and Krishnamurthy, T.N. 2014-15. Selection of pig breeds and breeding.
5	Ganesh Udupa, K., Satisha, G.M., Manjunath, S.S. and Suresh Patel, 2014. Extension folder in kannada entitled 'Diseases of pigs and their control'.
6	Venkatesha, M.M., Krishnamurthy, N. and Babou, C. IPNM and intercropping in aerobic rice.
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10	Veeranna, K.C., Harish, M. and Ravindra, B.D. 2014. Enrichment of Dry Fodder. Sponosred by Directrate of Extension, KVAFSU, Bidar.
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2	Prakash, N., Lokesh, L.V., Waghe Prashantkumar, 2014. Shilindra janya vishaparinamada prasthutha mattu susthira jaanuvaaru uthpadeneyalli avugalannu thadegattuva kramagalu. Pp. 28-30.
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8	Prasad, R.V., Jamuna, K.V., Shambhulingappa, Y.B., Suguna Rao, Byregowda, S.M., Purushotham, K.M. and Ramkrishna, V. 2014. Examination of Wild animal hairs using different types of microscopes. Vanyajeevi., 1(1):3-4.

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2	Madhavaprasad, C.B. and Nagappa, K. 2015. Judicious usage of antiseptics and disinfectants in veterinary practice for control of infection. In: Training Manual on Clinical pharmacology and forensic toxicology, 2-4 th Feb., 2015 Veterinary college, Shivamogga.
3	Madhavaprasad, C.B., Santosh Sajjan, Nagappa, K. and Prashant, S.B. 2015. Biomedical waste: Animal, Human and Environmental implications and regulatory aspects. In: Training Manual on Extension approaches for promotion of livestock based livelihoods. 29-31 st Jan., 2015, Veterinary college, Shivamogga.

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8	Madhavaprasad, C.B., Nagappa Karabasanavar, Santosh A. Sajjan, Prashant S. Bagalkote, 2014. Demonstration programme on biosecurity to rural poultry farmers/entrepreneurs. Published under auspices Directorate of Extension, KVAFSU, Bidar.
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15	Prakash, N. 2015. Clinical pharmacology of anthelmintics and their rationale usage in sustainable livestock health care system. Compendium of 'Parasitic Diseases of Domestic Animals with Special Emphasis on Diagnosis, Treatment and Control'. 5-7 th Feb., pp.55-73.
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23	Ananda, K.J., Krishnamurthy, C.M. and Adeppa, J. 2015. Collection, processing and detection of common protozoan infection in domestic animals. Compendium of "Parasitic Diseases of Domestic Animals with special emphasis on Diagnosis Treatment and Control" from 5-7 th Feb., 2015, Dept. Veterinary Parasitology, Veterinary College, Shivamogga.

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25	Adeppa, J., Krishnamuthy, C.M. and Ananda, K.J. 2015. Diagnosis of common helminth infections in Domestic animals, Compendium of "Parasitic Diseases of Domestic Animals with special emphasis on Diagnosis Treatment and Control" from 5-7 th Feb., 2015, Dept. Veterinary Parasitology, Veterinary College, Shivamogga.
26	Ananda, K.J. 2015. An Overview of protozoan diseases of Livestock and pet animals. Compendium of "Clinical Pharmacology and Forensic Toxicology" from 1-3 rd Feb., 2015, Dept. Veterinary Pharmacology & Toxicology, Veterinary College, Shivamogga.
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28	Sheela, P. and Sundareshan, S. 2015. Collection, preservation & dispatch of specimens for microbiological analysis", In: Training Manual on 'Post Mortem Techniques, Collection, Preservation and Dispatch of specimens for Laboratory Diagnosis' for the Officers of Dept. of AH & VS under CVE programme sponsored by KVC. pp: 44-51.
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32	Krishnamurthy, T. N., Veerannagowda, B.G. and Nagappa Banuvalli, Extension approaches for promotion of livestock based livelihoods, Augmenting livelihood security of backyard Poultry rearers in rural areas, Dept.of VAE, Veterinary College, Shivamogga
33	Krishnamurthy, T.N., Satheesha, G.M., Umashankar, B.C. and Umesh, B.U., Parasitic diseases of domestic animals with special emphasis on diagnosis, treatment and control, Managemental practices to control parasitic diseases in Livestock & Poultry, Dept.of VPA, Veterinary College, Shivamogga.

34	Umashankar, B.C., Nagabhushana, V., Giridhar, K.S., Ravindra, B.D. 2015. Strategies in grazing and supplementary feeding of small ruminants. Organized by VAE, Veterinary College, Shivamogga from 29-31 st Jan., 2015.
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37	Krishnamurthy, T.N., Satheesha, G.M., Umashankar, B.C. and Umesh, B.U. 2015. Managemental practices to control parasitic diseases in Livestock & Poultry. Dept.of VPA, Veterinary College, Shivamogga, from 29-31 Jan., 2015.
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39	Venkatesha,M.M., Harisha, M., Satheesha, G.M., Umesh, B.U. and Vijayakumar,S. 2015. Livestock based livelihoods for the rural poor. Fodder production and its management, Dept. of V&A HE, EEC, Veterinary College, Shivamogga.
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Leaflet

1	Chlorination of public and farm water supplies: A leaflet in Kannada
2	Biosecurity in Scientific Poultry Farm: A leaflet in Kannada
3	Clean pork production practices: A leaflet in Kannada
4	Consumption of A2 milk & its health significance: A leaflet in Kannada

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7	Nagaraju, N. 2015. Pseudo Luxation of patella and its surgical correction. <i>Vijayavani daily news paper</i> , 16-2-2015.
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<i>Training Manuals and Chapters</i>	
1	Suresh, B.N., Suma, N., Indresh, H.C. 2015. Importance of nutrients in poultry feed and balanced ration formulation. Chapter in training compendium on 'Sustained Poultry Production' published on 09.03.15, pp.29-31.
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1	Puranik, D.B. and Jayashri Hiremath, 2014. Caseinophosphopeptide as a bone mineralizing and anticariogenic agent. <i>Indian Food Industry</i> , Bimonthly, Nov-Dec., 2014 pp.24-26.
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Brochure	
1	Vaccine produced in IAH&VB.
2	Enterotoxaemia disease.
3	Black quarter disease.
4	Haemorrhagic Septicaemic disease.
5	Anthrax disease.
Popular Articles	
1	'Avian Influenza' by Dr. Ganesh Hegde, RRO Sirasi on 22.12.2014 in Prajavani news paper.
2	Urea is not a poison for Livestock - Vijaya vani Daily (09.02.2015) by Dr. Ganesh Hegde, RRO Sirsi.
3	Pot belly in calves - Prajavani Daily (24.03.2015)
4	Ethno - Veterinary use of Ginger by Dr. Ganesh Hegde, RRO Sirsi.
5	Kecchalu bhavu - Januvarugala novu - souvenir book of a dairy co-op society, Siddapur Uttara kannada Daily, by Dr. Ganesh Hegde, RRO Sirsi.

INSTITUTE OF WILDLIFE VETERINARY RESEARCH, KODAGU

A. eBulletin

1	<i>Vanyajeevi</i> - a quarterly eBulletin of IWVR was started on 15 th October 2014. Second issue was released on 29 th December 2014.
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B. Compendiums Prepared

1	Upendra, H. A. and Madhukar. 2015. Compendium of the training programme on "Diagnostic approaches in wild animal diseases".
2	Upendra, H. A. and Madhukar. 2015. Compendium on "Health and management of captive Asian elephants"
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1	Madhukar.2014. Veterinarian for vulture. FALCO newsletter of the Middle East Falcon Research Group. Issue 43.
2	Madhukar and Upendra, H.A., 2014. Wild animal tranquilization - part 2. Pashubandha, Vol 3, Issue 4, April 2014
3	Upendra, H.A. and Madhukar.2014: Contribution of veterinary services in the growth of nation. Pashubandha, Vol 3, Issue 4 April 2014
4	Madhukar and Upendra, H.A., 2014. Wild animal tranquilization - part 3, Pashubandha, Vol 3, Issue 4, May 2014
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6	Madhukar and Bhat, M.N., 2014. Molecular Pedigrees;- an indispensable aid in the conservation of endangered wild animals. Indian Wildlife Yearbook , volume 11, 2012-13, July 2014; page 22-28.
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8	Madhukar and Upendra, H.A.2015. Ebola hemorrhagic fever, Pashubandha, 2014; 3(08).August-2014
9	Madhukar and Upendra HA, Basics of tiger behaviour, Pashubandha, 3 (10) 2014
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13	Upendra, H.A., 2015. My experiences as a Veterinarian (in Kannada), Pashubandha Vol 4, Issue 2, February 2015.
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6	Upendra, H. A., 2015. Common Diseases of Elephants. Compenium of the training programme on 'Health and management of captive Asian elephants', 29-31 st January 2015.
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ANIMAL HUSBANDRY POLYTECHNIC, SHIGGAON, HAVERI

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1.	Shivakumar, K. R., Chethan, K.P., Shambhulingappa, B.G. 2014. Poultry farming (Kannada). AHP, Shiggaon.
Leaflet	
1	Shivakumar, K. R., Chethan, K.P., Shambhulingappa, B.G. and Venkanna B. 2015. Sujala - III, "Livestock Support & Extension Activities" project of Gadag district. AHP, Shiggaon.

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a) Training Manuals:

#	Authors & Year	Title of the Training Manual
1	Dr. Lathamani V.S (2014-15)	Pranigalalli Prathama Chikitse.
2	Dr. Lathamani V.S (2014-15)	Hynugarike / Pashupalane.

b) Chapters in Compendium

1	Lathamani, V.S, Indresh, H.C. and Sushanth Handage, 2014. Dietary strategies to control milk Fever. KVA Tech meet Compendium (139-140).
2	Indresh, H.C., Sushanth Handage and Lathamani, V.S., 2014. Organic poultry farming - Health concern. KVA Tech meet Compendium (161-162).

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1.	Prabhudeva, K.N., Rajanna, K.B. Chethan, N. and Sivaraj, D. 2014. Winter school training manual on "empowerment of fish farmers and entrepreneurship development. Published by FRIC, Hebbal.
2.	Prabhudeva, K.N., Rajanna, K.B. Chethan, N. and Sivaraj, D. 2014. Winter school Laboratory manual on empowerment of fish farmers and entrepreneurship development. Published by FRIC, Hebbal.
3.	Sathyanarayana, M. L., Suguna Rao, Chethan, N. and Rajanna, K. B. 2015. Practical Manual on Aquatic animal diseases, health care and management. VPP 322 (1+1).

FISHERIES RESEARCH AND INFORMATION CENTER, HESARAGHATTA

<i>Popular Article</i>
Basavaraju, Y. and Manjappa, N. 2014. Fish culture in natural tank. Prajavani daily news paper.

LIVESTOCK RESEARCH AND INFORMATION CENTER, KONEHALLY, TIPTUR

Chapter in Training Manual

1	Rudraswamy, M.S.2014. Nutrition of small ruminants for profitable and sustainable livestock farming. In: Model training course on "livestock Management Practices for sustainable development" held at Department of Animal Nutrition, KVAFSU, Bidar. 18-25 Feb., 2014.
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1	Rudraswamy, M.S.2014-15. Kukkuta/koli sakanike (Practical manual) ASc-112 .
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1	Siddalinga Murthy, H. K., Roopa Devi, Y. S. and Manju, G. U. 2015. A brief introduction on Livestock Research & Information Centre (Sheep) – English Version.
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a. Training Manuals:

1	Harish Shenoy and Hanumanthappa , H. 2014. Protection of Plant Varieties and Farmers Right act 2001 (Kannada version).
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b. Popular Articles:

1	Harish, S. and Bhagyasri, C. (June-2014). Sterility in Coconuts and their prevention and control measures. Krishi Kamadhenu Kanada Monthly, 6(6):32-36.
2	Harish, S. and Hanumanthappa, (August, 2014). Wilfred Naron - A Successful progressive farmer in Agriculture. Krishi Munnade-August-2014, 27(8):35-37.
3	Harish, S., Bhagysri, C. and Hanumanthappa, H. (August, 2014). Iron toxicity in paddy fields and its control measures. Krishi Bimba August-2014,13(9):7-8.
4	Narayanappa, E., Swetha, K. and Hanumanthappa, H. (August, 2014). Dairy industry in India: opportunities and challenges. Krish Kamadhenu-August-2014, 6:32-36.

c. Leaflets/ Bulletins/Folders:

#	Type of publication and Year	Authors	Title of the Publication
1	Quarterly News letter (2014)	Hanumanthappa, H., Harish Shenoy, Sweta,K., Annappaswamy, T.S., Vijetha, Kumaraswamy M.C.and Bhgyashree,C.	Krishi Sanjeevini July-2013 to September-2013, October 2013 to December 2013
2	Quarterly News letter (2014)		Krishi Sanjeevini January-2014 to March-2014 April 2014 to June 2014
3	Folders (2014)	Harish Shenoy, Hanumanthappa, H. and Bagyashree ,C.	Mechanization in paddy Transplanting
4	Folders (2014)	Vijetha, Sweta, K., Hanumanthappa, H.and Bhgyashree, C.	Nutrition Garden

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5	Folders (2014)	Kumaraswamy, M.C., Hanumanthappa, V. and Harish Shenoy,	Quickwilt in Pepper
6	Folders (2014)	Annappaswamy, T.S. and Hanumanthappa, H.	Ornamental fish production, rearing, Aquarium fabrication and maintenance

EXTENSION EDUCATION CENTER, BENGALURU

Sl. No	Name of the Scientist	Title	Year & date of publication
1	Satyanarayan, K., Rajeshwari and Yashaswini,	Manual prepared on Sheep and Goat Rearing	2014.
2	Satyanarayan, K., Rajeshwari and Yashaswini,	Manual prepared on Piggery Rearing	2014.
3	Satyanarayan, K., Jagadeeswary, V., Mohan, Sakshi and Kantharaju,	Monthly E Bulletin (Pashubanda).	2014-2015.
4	Satyanarayan, K. and Rajeshwari,	Leaflets and Pamphlets on Zoonotic diseases.	2014.
5	Satyanarayan, K. and Jagadeeswary, V.	Training Compendium on Project Formulation for Financial Assistance in Livestock Farming	2015.

EXTENSION EDUCATION CENTER, SHIVAMOGGA

1	Veeranna, K.C., Gopal G.T. and Chandrashaker, E.	Scientific Sheep and Goat Farming. Published by Directorate of Extension, Bidar.	2014.
2	Veeranna, K.C., Madavaprasad and Harish, M.	Clean Milk Production. Published by Directorate of Extension, Bidar.	2014.
3	Veeranna, K.C., Nagabhushan and Harish, M.	Balanced Feed. Published by Directorate of Extension, Bidar.	2014.

4	Veeranna, K.C., Harish.M. and Ravindra, B.D.2014. Enrichment of Dry Fodder. Published by Directorate of Extension, Bidar.
5	Vijayakumar, S., Ganesh Prasad, L.and Srinivas, H. H.2014. Profitable Fish farming. Published by Directorate of Extension, Bidar.
6	Vijayakumar, S., Rajanna, K.B. and Manjappa, N.2014. Common Fish Diseases and their control. Published by Directrate of Extension, Bidar.
7	Vijayakumar.S, Srinivas, H.H. and Kumar Naik .S.S. 2014. Profitable Pollyculture of Fresh Water Prawn and Fish culture. Published by Directorate of Extension, Bidar.
8	Veeranna, K.C. 2015. Training manual on “Extension Approaches for Promotion of Livestock based Livelihoods”. Published by Department of Vety. & A.H Extension Education, Veterinary College, Shivamogga.

EXTENSION EDUCATION CENTER, HASSAN

Training Manual and Chapters

1	Murthy, H.N.N., Manjunatha, L., Naveen Kumar, G.S., M.D. Gouri and Srikanth Doddmani, R. 2014. Training Manual on Scientific Sheep Production published by Extension Education Center, Veterinary College, Hassan.
2	Murthy, H.N.N., Manjunatha, L., Sushant Handage, Guruprasad, R. 2014. Training Manual on Scientific Rabbit Rearing published by Extension Education Center, Veterinary College, Hassan.
3	Murthy, H.N.N., Narayan Bhat, Manjunatha, L., Sushant Handage, Chetankumar, G.K. 2014. Training Manual on Scientific Dairy Production published by Extension Education Center, Veterinary College, Hassan.

VI. FINANCE AND BUDGET

RECEIPTS AND PAYMENTS FOR THE YEAR 2014-15 (ACCOUNTS)							
RECEIPTS				EXPENDITURE			
Sl. No	Particulars	Plan	Non-Plan	Sl. No	Particulars	Plan	Non-Plan
A	GENERAL FUNDS			A I	GENERAL FUNDS		
I	Salary & Recurring Charges			1	Salaries & Recurring Charges		
a)	Non-Plan Grants		5246.00	a)	General Administration	697.33	972.66
b)	Plan Grants	1809.24		b)	Teaching	1560.50	4572.28
	Total I (a+b)	1809.24	5246.00	c)	Research	209.16	426.06
2	Capital Grants	7017.03		d)	Extension	60.74	0.00
3	SCP/TSP Grants (Revenue)	856.89			Total 1 (a+b+c+d)	2527.73	5971.00
4	SCP/TSP Grants (Capital)	126.84		2	Capital Expenditure	7492.03	
5	State Adhoc Grants	0.00		3	Expenditure under SCP/TSP Grants (Revenue)	856.89	
	TOTAL 1 to 5	9810.00	5246.00	4	Expenditure under SCP/TSP Grants (Capital)	126.84	
II	GRANTS FROM OTHER AGENCIES	0.00		5	State Adhoc Projects	0.00	
III	Government of India Grants	0.00			TOTAL 1 to 5	11003.49	5971.00

RECEIPTS AND PAYMENTS FOR THE YEAR 2014-15 (ACCOUNTS)							
RECEIPTS				EXPENDITURE			
Sl. No	Particulars	Plan	Non-Plan	Sl. No	Particulars	Plan	Non-Plan
IV	ICAR, New Delhi			II	Schemes Sponsored by other Agencies	0.00	
a)	Development Grants	0.00		III	Government of India Schemes	0.00	
b)	Co-ordinated Projects	27.10		IV	ICAR, New Delhi		
c)	MCM / RAWE / RGN / Fellowship/ Internship Allowance	0.00		a)	Development	0.00	
d)	Library Strengthening	0.00		b)	ICAR Co-ordinated Projects (75%)	0.00	
e)	NAIP Projects	0.00		c)	ICAR Co-ordinated Projects (100%)	27.10	
f)	Krishi Vigyan Kendra	0.00		d)	NAIP Projects	0.00	
	TOTAL IV (a to d)	27.10	0.00	e)	Krishi Vigyan Kendra	0.00	
V	INTERNAL RESOURCES				TOTAL IV (a to d)	27.10	0.00
a)	Income from Fees		250.00				
b)	Income from University Property		93.05				
c)	Other Misc. Income		381.95				

RECEIPTS AND PAYMENTS FOR THE YEAR 2014-15 (ACCOUNTS)							
RECEIPTS				EXPENDITURE			
<i>Sl. No</i>	<i>Particulars</i>	<i>Plan</i>	<i>Non-Plan</i>	<i>Sl. No</i>	<i>Particulars</i>	<i>Plan</i>	<i>Non-Plan</i>
	TOTAL (V)	0.00	725.00				
	TOTAL (A)	9837.10	5971.00		TOTAL A:	11030.59	5971.00
B	FOUNDATION FUNDS			B	FOUNDATION FUND		
C	DEPT & SUSPENCE A/C.		4304.59	C	DEBT & SUSPENCE A/C.		4331.10
	TOTAL (A+B+C)	9837.10	10275.59		TOTAL (A+B+C)	11030.59	10302.10
	Add : Opening Balance	232.35	26.51		Add : Closing Balance	-961.14	0.00
	GRAND TOTAL	10069.45	10302.10		GRAND TOTAL	10069.45	10302.10

VII. GENERAL ADMINISTRATION

1) Promotions to Local Cadre People (371-J)

Promotion of Service Personnel as per Article 371 (j), Karnataka Government Notification-					
No: DPAR 06 PLX 2012 Bengaluru Dated 29-01-2014 Bengaluru (As on 01.09.2014)					
#	#	Name & Qualification	Working Place	Promoted post of Working place	Reporting officer for the promoted post
1	2	3	4	5	6
Assistant Comptroller to Deputy Comptroller 36300-900-39000-1050-45300-1200-52500-1350-53850					
1	1	Mr. Mallikarjuna Ligade <i>M.Com. Accts Higher, Gen Law I & II, SAS</i>	Comptroller, KVAFSU, Bidar	Comptroller's Office KVAFSU, Bidar	Comptroller, KVAFSU, Bidar
Personal Secretary/Superintendent (Gen. Admin) to Assistant Administrative Officer/ Assistant Registrar 28100-700-28800-800-33600-900-39000-1050-45300-1200-50100					
2	1	Mr. Tukaram, C. <i>BA.Sr.TW& SH Eng & Kan Accts Higher, Gen Law I .II</i>	Veterinary College, Bidar	Veterinary College, Bidar	Dean, Veterinary College, Bidar
3	2	Mr.Nagabhushan V.Hugge <i>B.Sc.Sr.T.W (E&K), SH(E&K) Accts Higher, Gen I & II</i>	Vice- Chancellor KVAFSU, Bidar	Vice-Chancellor's Office, KVAFSU, Bidar	Vice- Chancellor, KVAFSU, Bidar
4	3	Mr. S.Nagendra <i>M.A, B.Ed Sr.TW & Sr. SH (Eng & Kan). Accts Higher,Gen Law I &II</i>	Registrar's office, KVAFSU, Bidar	Registrar's Office, KVAFSU, Bidar	Registrar KVAFSU, Bidar

Field Assistant to Senior Field Assistant 20000-500-21000-600-24600-700-28800-800-33600-900-36300					
5	1	Mr. H. Adayya Swamy SSLC. Hort Trg. Accts Higher, Gen Law I & II	Veterinary College, Bidar	13.01.1956	08.03.1989
Driver (HV) to Sr. Driver (HV) 16000-400-17200-450-19000-500-21000-600-24600-700-28800-800-29600					
6	1	Mr. Lokanath. SSLC. Fail	Veterinary College, Bidar	Veterinary College, Bidar	Veterinary College, Bidar
7	2	Mr. M. Aziz Khan 7 th .HV Licence	Veterinary College, Bidar	Veterinary College, Bidar	Veterinary College, Bidar
Cook- Cum - Caretaker to Sr. Cook- Cum - Caretaker 11600-200-12000-250-13000-300-14200-350-15600-400-17200-450-19000-500-21000					
8	1	Mr. Vaijanath. L. Kadde SSLC Fail	Veterinary College, Bidar	Veterinary College, Bidar	Veterinary College, Bidar

2) Residual Parent Cadre

Promotion of Service Personnel as per Article 371(j), Karnataka Government Notification- No: DPAR 06 PLX 2012 Bengaluru Date: 29.12.2014					
#	#	Name & Qualification	Working Place	Promoted post for Working place	Reporting officer for the promoted post
1	2	3	4	5	6
Assistant Registrar to Deputy Registrar 36300-900-39000-1050-45300-1200-52500-1350-53850					
1	1	Mr.M.Muralidhara <i>B.com, Accts Higher, Gen Law-I & II, SAS</i>	VC Bengaluru	Registrar's Office KVAFSU, Bidar	Registrar KVAFSU, Bidar
Assistant Engineer (Electrical) to Assistant Executive Engineer (Electrical) up gradation 28100-700-28800-800-33600-900-39000-1050-45300-1200-50100					
2	1	Mr. Seva Naik. B <i>BE(Ele) P.W.D Higher Part-I & II, Gen Law I & II</i>	VC, Shivamogga	VC, Shivamogga	Dean, VC, Shivamogga
Senior Assistant to Superintendent (General) 22800-600-24600-700-28800-800-33600-900-39000-1050-43200					
3	1	Mr. S. G. Hegde <i>B.A. Accts Higher, Gen. Law I & II</i>	VC, Shivamogga	FC, Mangaluru	Dean, FC, Mangaluru
Assistant to Senior Assistant 20000-500-21000-600-24600-700-28800-800-33600-900-36300					
4	1	Mr.N. Sreerama <i>M.Sc. (Seri) Accts Higher, Gen Law-I & II</i>	VC, Hassan	FC, Mangaluru	Dean, FC, Mangaluru
Laboratory Assistant to Senior Laboratory Assistant 20000-500-21000-600-24600-700-28800-800-33600-900-36300					
5	1	Mrs. Sylvia Sheela Vegas <i>SSLC</i>	FC, Mangaluru	FC, Mangaluru	Dean, FC, Mangaluru

6	2	Mrs.Naima Khanum <i>SSLC</i>	VC Bengaluru	VC, Hebbal, Bengaluru	Dean, VC, Hebbal, Bengaluru
7	3	Smt. K.Rukminiyamma <i>SSLC</i>	VC, Bengaluru	VC, Hebbal, Bengaluru	Dean, VC, Hebbal, Bengaluru
8	4	Smt.Chhaya devi <i>SSLC</i>	Dairy Science College, Bengaluru	Dairy Science College, Bengaluru	Dean, Dairy Science College, Bengaluru
9	5	Mr.T.P. Venkatalakshmi <i>SSLC</i>	VC B.lore	VC, Hebbal, Bengaluru	Dean, VC, Hebbal, Bengaluru
10	6	Mr.Rajashekhar <i>SSLC</i>	Dairy Science College, Bengaluru	Dairy Science College, Bengaluru	Dean, Dairy Science College, Bengaluru
Field Assistant to Senior Field Assistant (Up Gradation) 20000-500-21000-600-24600-700-28800-800-33600-900-36300					
11	1	Mr. F. M. Hunsikatti	Polytechnic Haveri	Polytechnic Haveri	Principal, Polytechnic Haveri
Attender to Laboratory Assistant 16000-400-17200-450-19000-500-21000-600-24600-700-28800-800-29600					
12	1	Mr. Y. Srinivas <i>10th Pass</i>	VC Bengaluru	VC, Bengaluru	Dean, VC, Hebbal, Bengaluru

13	2	Mr. A. Muniswamy <i>SSLC</i>	VC Bengaluru	VC, Bengaluru	Dean, VC, Hebbal, Bengaluru
Mechanic to Senior Mechanic 22800-600-24600-700-28800-800-33600-900-39000-1050-43200					
14	1	Mr.G.N. Mahadevaiah <i>SSLC, Diploma in Dairy</i>	Dairy Science College, Bengaluru	Dairy Science College, Bengaluru	Dean, Dairy Science College, Bengaluru
Tractor Driver to Senior Tractor Driver 16000-400-17200-450-19000-500-21000-600-24600-700-28800-800-29600					
15	1	Mr. Rajaiah <i>7th</i>	VC Bengaluru	VC, Bengaluru	Dean, VC, Hebbal, Bengaluru
Driver (HV) to Senior Driver (HV) 16000-400-17200-450-19000-500-21000-600-24600-700-28800-800-29600					
16	1	Mr. N. Mohan Kumar <i>8th</i>	VC, Bengaluru	VC, Bengaluru	Dean, VC, Hebbal, Bengaluru
17	2	Mr. Govind Rao. S <i>7th</i>	VC, Bengaluru	VC, Bengaluru	Dean, VC, Hebbal, Bengaluru
Driver (Light Vehicle) to Driver (Heavy Vehicle) 14550-350-15600-400-17200-450-19000-500-21000-600-24600-700-26700					
18	1	Mr.Dhanesh kumar K <i>8th. L.V. Driving Licence</i>	FC, Mangaluru	FC, Mangaluru	Dean, FC Mangaluru
Plumber to Senior Plumber 12500-250-13000-300-14200-350-15600-400-17200-450-19000-500-21000-600-24000					
19	1	Mr. Rangaswamy <i>SSLC .ITI</i>	Dairy Science College, Bengaluru	Dairy Science College, Bengaluru	Dean, Dairy Science College, Bengaluru

Farm Labourer to Senior Farm Labourer 11600-200-12000-250-13000-300-14200-350-15600-400-17200-450-19000-500-21000					
20	1	Mr. Basava	Dairy Science College, Bengaluru	Dairy Science College, Bengaluru	Dean, Dairy Science College, Bengaluru
21	2	Mr. Saibanna Nadaf	VC Bidar	VC Bidar	Dean, VC, Bidar
22	3	Mr. Thammaiah	VC Bengaluru	VC, Hebbal, Bengaluru	Dean, VC, Hebbal, Bengaluru
Messenger to Attender 11600-200-12000-250-13000-300-14200-350-15600-400-17200-450-19000-500-21000					
23	1	Mr. Nagesh. A Kurbetta <i>9th</i>	FRIC Bhuthnal	FRIC Bhuthnal	Head, FRIC Bhuthnal
24	2	Mr. C. P. Guruprasad <i>SSLC</i>	VC, Bengaluru	VC, Bengaluru	Dean, VC, Hebbal, Bengaluru
25	3	Mr. L. Kempanna SSLC, General Law Part-I & II	VC, Shivamogga	VC, Shivamogga	Dean, VC Shivamogga
26	4	Mr. S. N. Anjanappa	VC, Bengaluru	VC, Bengaluru	Dean, VC, Hebbal, Bengaluru
Senior Watchman (11600-21000) to Senior Watchman Grade-I (14550-26700) (Up Gradation)					
27	1	K. Chikka	FC Mangaluru	FC Mangaluru	Dean, FC, Mangaluru
Watchman to Senior Watchman 11600-200-12000-250-13000-300-14200-350-15600-400-17200-450-19000-500-21000					
28	1	Mr. H. Ganesh <i>PUC</i>	FC Mangaluru	FC Mangaluru	Dean, FC Mangaluru

Gardener to Senior Gardener 11600-200-12000-250-13000-300-14200-350-15600-400-17200-450-19000-500-21000					
29	1	Smt.U.Geeta 7 th	FC Mangaluru	FC Mangaluru	Dean, FC, Mangaluru
Janitor to Senior Janitor 11600-200-12000-250-13000-300-14200-350-15600-400-17200-450-19000-500-21000					
30	1	Smt. Shakuntala	VC Bengaluru	VC, Hebbal, Bengaluru	Dean, VC, Bengaluru

3) Superannuation

List of Superannuated Employees of KVAFSU, Bidar between 01-04-2014 to 31-03-2015
(Order :No.R/PS/2013-14 Dated :02-01-2014 and No.R/PS/2014-15 Dated :17-12-2014)

<i>SL.No</i>	<i>Name of the Employees</i>	<i>Designation</i>	<i>College/ Institution</i>	<i>Retirement Date</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
1	Dr.R.Munireddy	Professor	Fisheries College Mangaluru	30-04-2014
2	Dr.Y.Haribabu	DI(PGs)	KVAFSU, BIDAR	30-06-2014
3	Dr.Indrani Karunasaga	Professor	Fisheries College Mangaluru	30-06-2014
4	Dr.C.Renukprasad	Director	Veterinary Hospital , Yalahanka,Bengaluru.	31-07-2014
5	Dr.G.Y.Keshavappa	Professor	Fisheries College Mangaluru	31-08-2014
6	Dr.Smt.M.Bharati	Professor	Dairy Science college Hebbal,Bengaluru	31-10-2014
7	Sri.Chikkahanumai	Field Assistant	L.R.I.C.Hesarughatta, Bengaluru	30-04-2014
8	Sri.S.B.Puttaswami	Senior field Assistant	Veterinary college Hebbal,Bengaluru	30-04-2014
9	Sri.N.Eshwarappa	AAO	Dairy Science College Hebbal,Bengaluru	30-04-2014
10	Sri.A.Mohan	Assistant Registrar	Fisheries College Mangaluru	31-07-2014
11	Sri.N.Ashwatappa	Senior Technical	Dairy Science college Hebbal, Bengaluru	13-08-2014

<i>SL.No</i>	<i>Name of the Employees</i>	<i>Designation</i>	<i>College/ Institution</i>	<i>Retirement Date</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
12	Sri.M.G.Bhairegouda	Senior Lab Assistant	Veterinary college, Hebbal, Bengaluru	31-08-2014
13	Sri.Ishappa	Senior Janitor G-I	Fisheries College	30-09-2014
14	Sri.T.J.Shashidhar	AAO	Veterinary college Hebbal, Bengaluru	30-09-2014
15	Sri.Ganganna Hendi	Senior Lab Assistant	LRIC, Deoni, Hallikhed, Bidar	30-11-2014
16	Sri.P.R.Shankar	Senior Janitor	Dairy Science College, Hebbal, Bengaluru	30-11-2014
17	Sri.Sannamari	Senior Field Labour	LRIC, Nagamangal	31-12-2014
18	Dr.R.Bhaskar	Professor&H.O.D	Veterinary College, Hebbal, Bengaluru	31-03-2015
19	Dr.M.M.Maragal	Associate.Professor	Fisheries College, Mangaluru	31-03-2015
20	Sri.Sadappa	Senior Field Labour	Veterinary College Hebbal, Bengaluru	31-01-2015
21	Sri.Venkatesh Uchchil	Assistant	Fisheries College Mangaluru	31-01-2015

VIII. INFRASTRUCTURE DEVELOPMENT

Details of progress of works under taken by KVAFSU during the year 2014-15

#	<i>Name of Work</i>	<i>Estimated Tender Amount (in lakhs)</i>
1	The work of construction of first floor over Veterinary College, Nandinagar, Bidar was taken during this year at an estimated cost of Rs.400.00 Lakhs. The work is progressing well and is likely to be completed by the end of Sep-2015.	400.00
2	The work of construction of Poultry Hatchery Unit at Veterinary College, Nandinagar Bidar was taken during this year at an estimated cost of Rs.80.00 Lakhs. The work is progressing well and is likely to be completed by the end of Sep-2015.	80.00
3	The work of construction of Mini Slaughter House at Veterinary College, Nandinagar, Bidar was taken during this year at an estimated cost of Rs.40.00 Lakhs. The work is completed	40.00
4	The work of construction of Metabolic Stalls at Veterinary College, Nandinagar, Bidar was taken during this year at an estimated cost of Rs.10.00 Lakhs. The work is completed	10.00
5	The work of construction of Postmortem Hall at Veterinary College, Nandinagar, Bidar was taken during this year at an estimated cost of Rs.14.90 Lakhs. The work is completed	14.90
6	The work of construction of Store Room at Veterinary College, Nandinagar, Bidar was taken during this year at an estimated cost of Rs.14.90 Lakhs. The work is completed	14.90
7	The work of Upgradation of Instructional Livestock Farm Complex (ILFC) at Veterinary College, Bidar was taken during this year at an estimated cost of Rs.80.00 Lakhs. The work is progressing well and is likely to be	80.00

#	Name of Work	Estimated Tender Amount (in lakhs)
	completed by the end of Nov-2015.	
8	The work of Construction of Examination Hall at Veterinary College, Nandinagar, Bidar was taken during this year at an estimated cost of Rs.80.00 Lakhs. The work is progressing well and is likely to be completed by the end of Oct-2015.	80.00
9	The work of construction of TVCC Building at Veterinary College, Nandinagar, Bidar was taken during this year at an estimated cost of Rs.80.00 Lakhs. The work is progressing well and is likely to be completed by the end of Nov-2016.	80.00
10	The work of construction of Breeder House at Veterinary College, Bidar was taken during this year at an estimated cost of Rs.15.00 Lakhs. The work is completed.	15.00
Total (A)		814.80
DAIRY SCIENCE COLLEGE, KALBURGI		
1	The work of Construction of Compound Wall to 88.17 acres of land at Dairy Science College, Mahagaon Cross, Kalburgi was taken during this year at an estimated cost of Rs.100.00 Lakhs. The work is completed.	100.00
2	The work of Construction of Main College Building at Dairy Science College, Mahagaon Cross, Kalburgi was taken during this year at an estimated cost of Rs.450.00 Lakhs. The work is completed.	450.00
3	The work of construction of Boys Hostel (1 st Floor) at Dairy Science College, Mahagaon Cross, Kalburgi was taken during this year at an estimated cost of Rs.125.00 Lakhs. The work is completed.	125.00
4	The work of Construction of Girls hostel at Dairy Science College, Mahagaon Cross, Kalburgi was taken during this year at an estimated cost	177.00

#	Name of Work	Estimated Tender Amount (in lakhs)
	of Rs.177.00 Lakhs. The work is completed.	
5	The work of construction of New Basketball court at Dairy Science College, Mahagaon Cross, Kalburgi was taken during this year at an estimated cost of Rs.13.20 Lakhs. The work is completed.	13.20
6	The work of Leveling of existing ground and construction of Embankment with approved gravel to create sports ground at Dairy Science College, Kalburgi was taken during this year at an estimated cost of Rs.14.90 Lakhs. The work is completed.	14.90
7	The work of construction of RCC Septic Tank at Dairy Science College, Mahagaon Cross, Kalburgi was taken during this year at an estimated cost of Rs.6.20 Lakhs. The work is under progress	6.20
8	The work of construction of Second Floor over Main College at Dairy Science College Mahagaon Cross, Kalburgi was taken during this year at an estimated cost of Rs.274.00 Lakhs. The work is progressing well and is likely to be completed by the end of Sep-2015.	274.00
9	The work of Asphaltting to existing WBM roads at Dairy Science College Mahagaon Cross, Kalburgi was taken during this year at an estimated cost of Rs.65.00 Lakhs. The work is completed.	65.00
Total (B)		1225.30
LIVESTOCK RESEARCH & INFORMATION CENTER (DEONI), HALLIKHED		
1	The work of construction of fish ponds at LRIC (Deoni), Hallikhed Bidar was taken during this year at an estimated cost of Rs.10.80 Lakhs. The work is completed.	10.80

#	<i>Name of Work</i>	<i>Estimated Tender Amount (in lakhs)</i>
Total (C)		10.80
BUFFALO RESEARCH & INFORMATION CENTER, DORNALLI		
1	The work of Construction of Fish ponds at BRIC, Dornalli, Shahapur Kalburgi was taken during this year at an estimated cost of Rs.10.80 Lakhs. The work is completed.	10.80
2	The work of construction of Main office building at BRIC, Dornalli, Shahapur Kalburgi was taken during this year at an estimated cost of Rs.35.00 Lakhs. The work is progressing well and is likely to be completed by the end of Sep-2015.	35.00
Total (D)		45.80
Grand Total (A+B+C+D)		2076.70

VIII. PHOTOGRAPHY

DIRECTORATE OF EXTENSION, KVAFSU, BIDAR

**Glimps of 'Januvaru, Krishi, Totagarike and Matsya Mela-2014'
held at KVAFSU, Bidar**

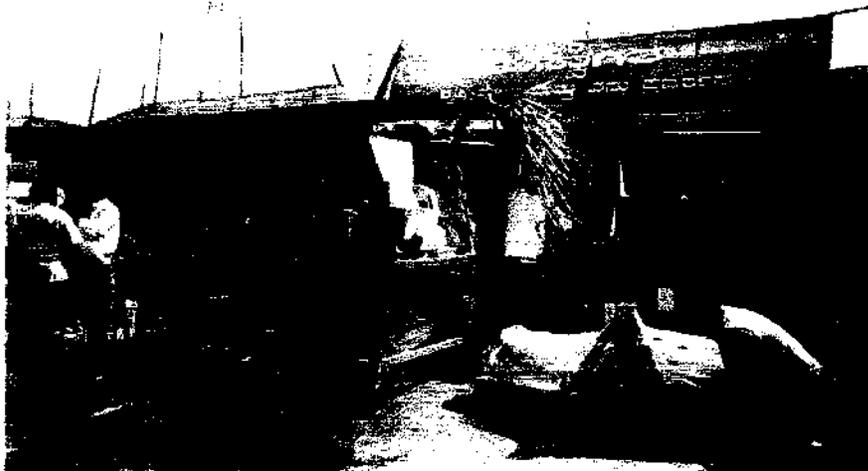


**Sri. T.B. Jayachandra, Hon'ble Minister for Animal Husbandry, GoK
inaugurating the 'Januvaru, Krishi, Totagarike & Matsya Mela-2014' at Bidar**



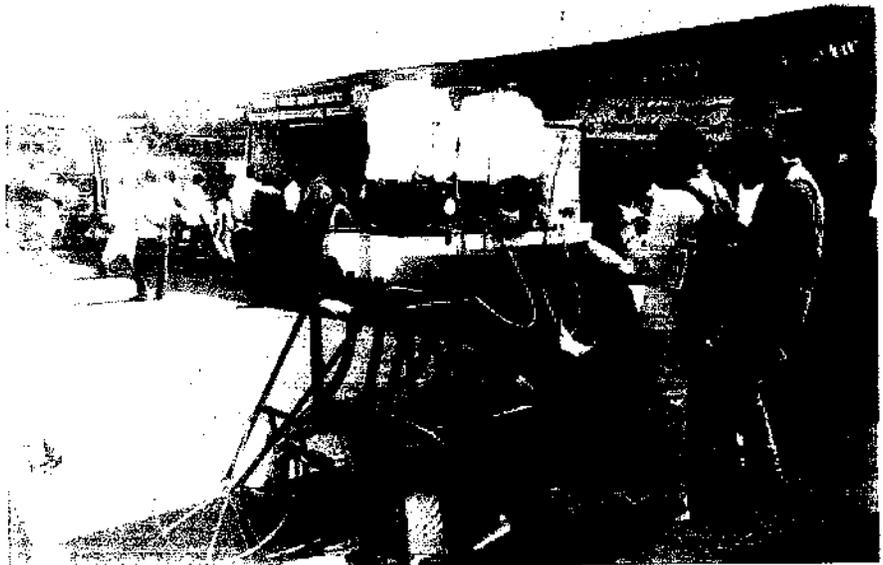
Performing Lord Ganesha's Pooja during the Mela-2014 Lighting the Lamp to mark the formal

Inauguration of Mela-2014 by the Hon'ble Minister



Agricultural Department Stall put up in the Mela-2014

Agriculture
Implements on
Display



Cultural Activities
during Mela-2014

Cultural Teams





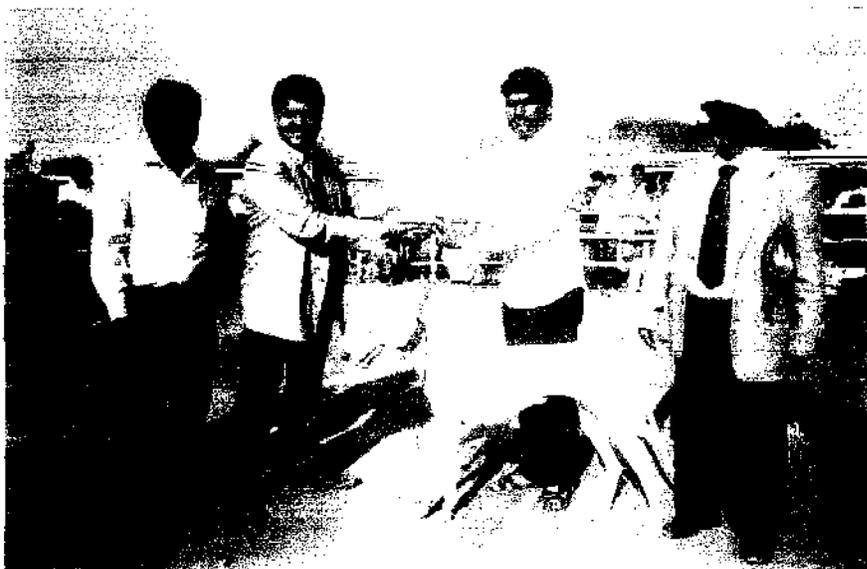
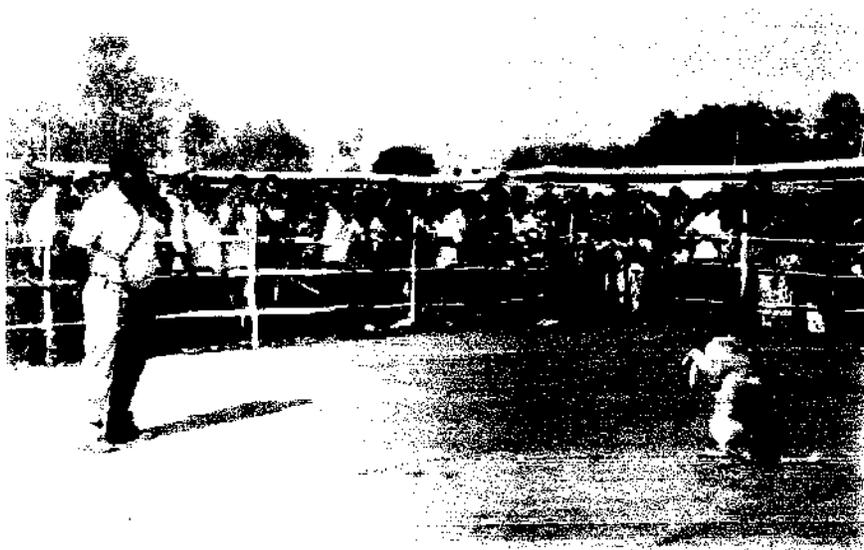
Dignitaries paying visit to the Demonstration Fish Pond during the Mela-2014

Dignitaries visiting the Acqarium Stall during Mela-2014



Dog Show

Dog Show in the
Mela-2014



Dog Show

Dog Show





Dr. R.N. Srinivas Gowda, Founder Vice-Chancellor, KVAFSU being felicitated

Farmers being honoured



Farmers-Scientists Interaction Session

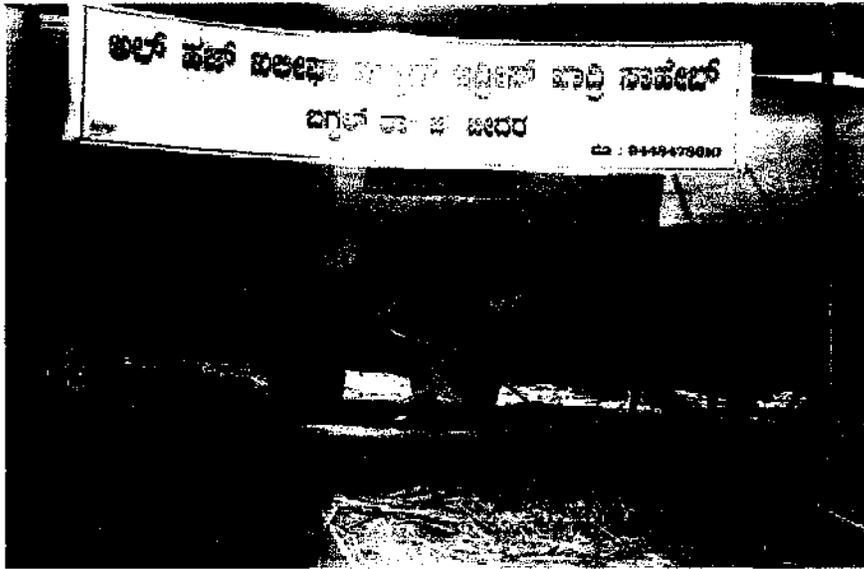
Fodder Cutting demonstration



Hon'ble Minister with the Ongol breed of Bull during the Mela-2014

Horse Show during the Mela-2014





Jafferbadi Breed of Buffalo

Lighting the Lamp to mark the formal Inaguration of Mela-2014 by the Hon'ble Minister



Nandi Pooja during the Mela-2014

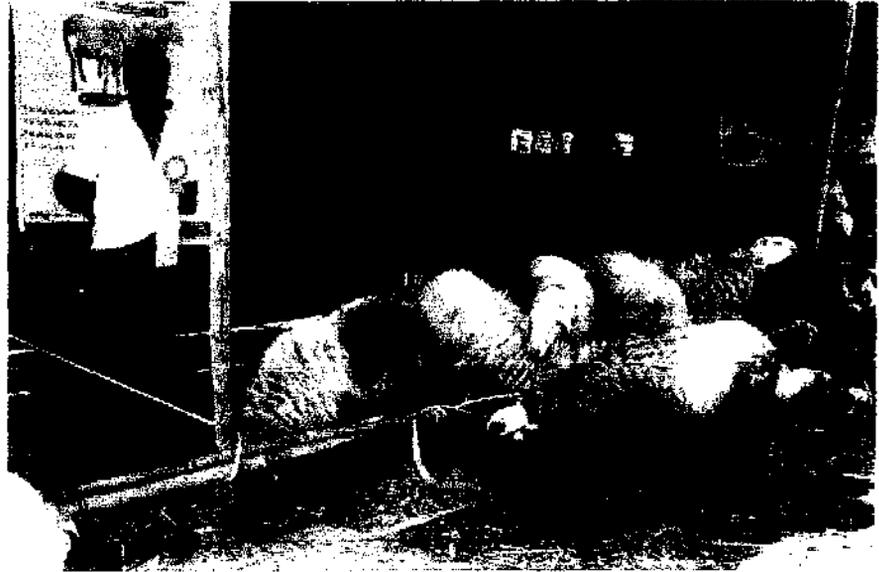
Performing Lord
Ganesha's Pooja
during the Mela-2014



Release of Souvenir
during the Mela-2014

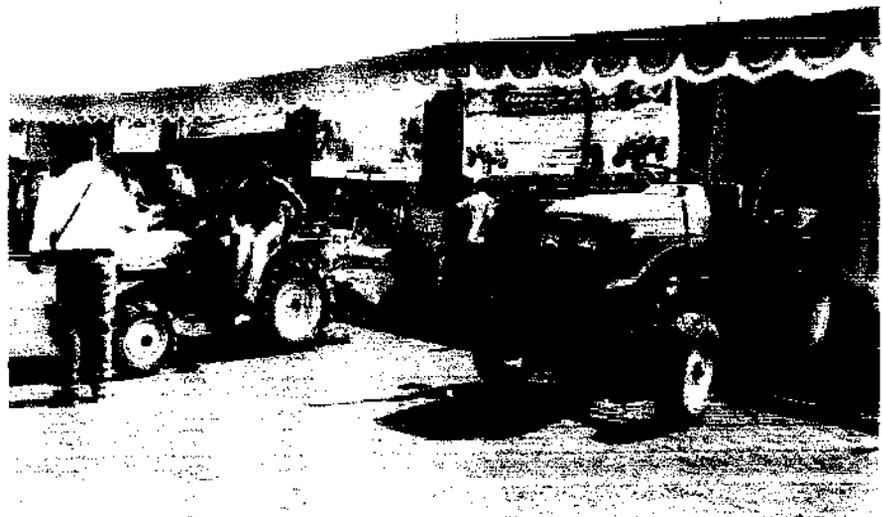


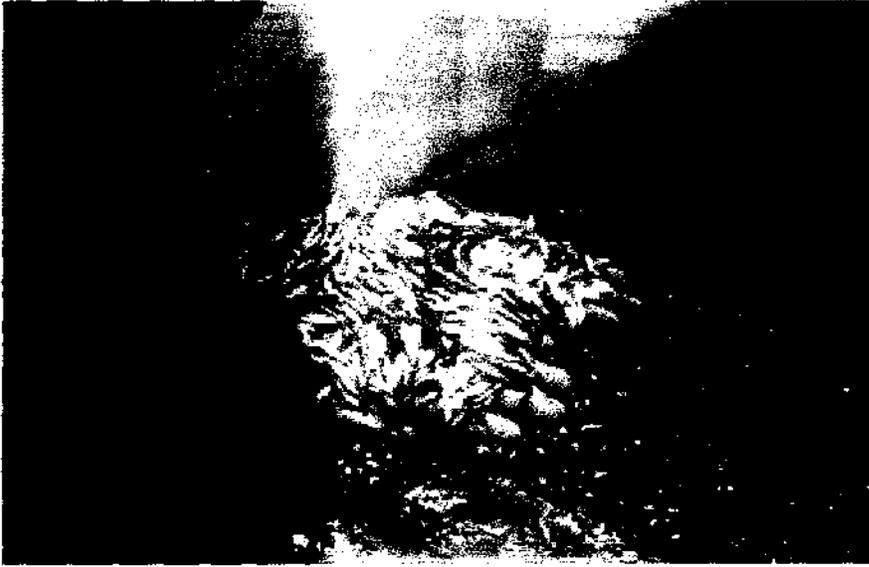
Sheep Stall during the
Mela-2014



Special Felicitation to
the National Awardee
Farmer, Sri. Khadri,
Bidar District during
the Mela-2014

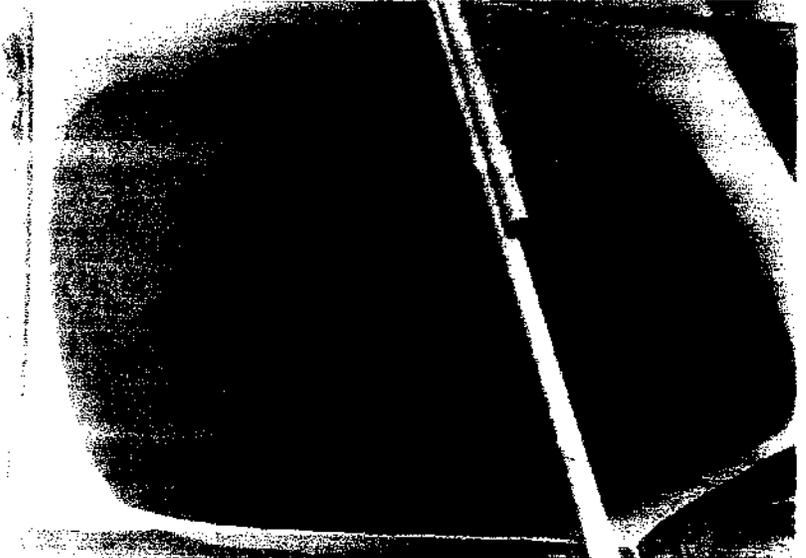
Tractors on Display





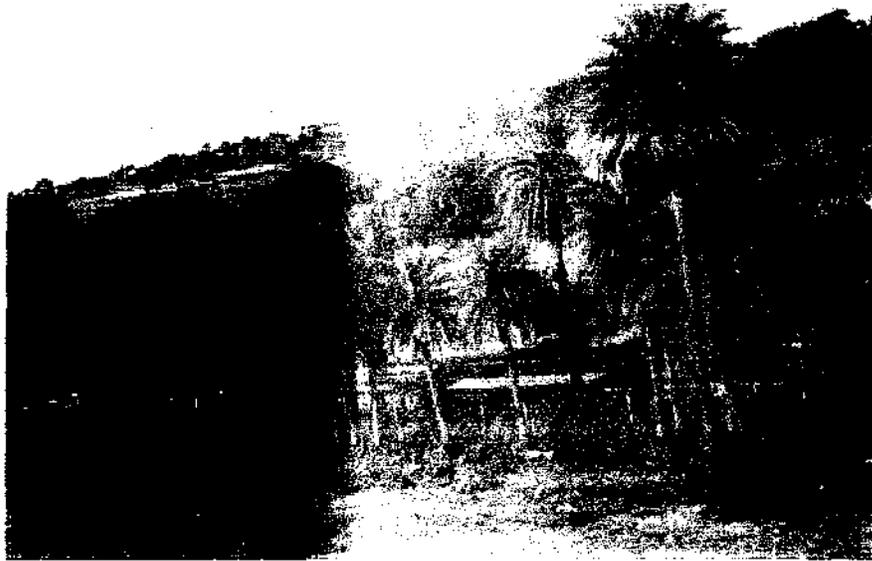
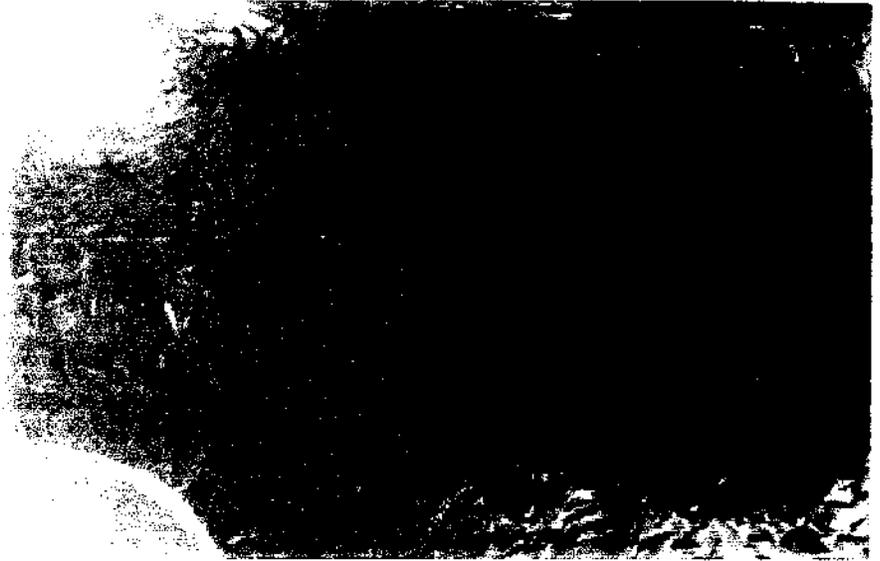
Fish Seeds

Fish Seeds



FRIC Bhutnal Stall at
Krishimela-2014

Fish Seed



FRIC Bhutnal at
Vijayapura

FRIC Bhutnal at
Vijayapura





Calf Health Camp at
Halekoppalu
Jatha by students of 3rd
B.V.Sc. and A.H.

Calf Health Camp at
Halekoppalu- Health
Checkup and treatment



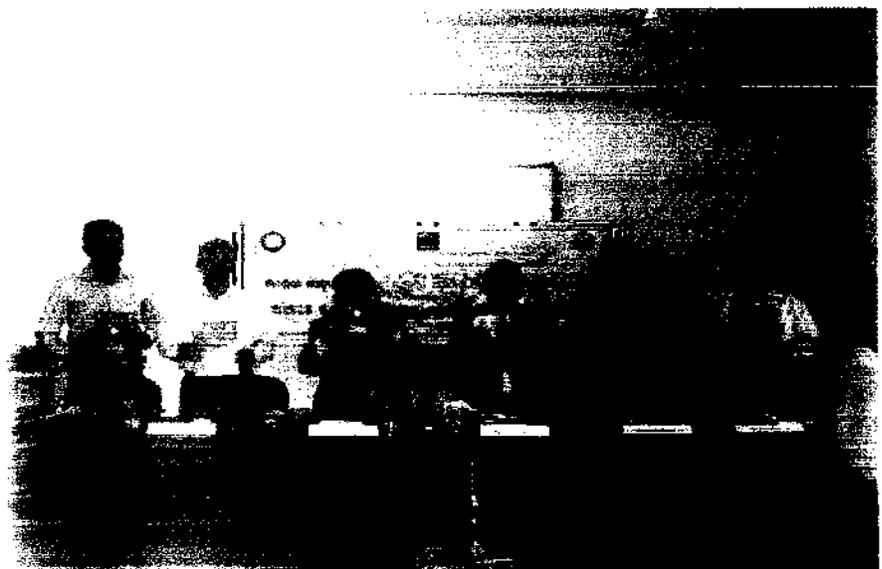
Rabbit Rearing
Training
Programme at
Veterinary College
Hassan - Inauguration

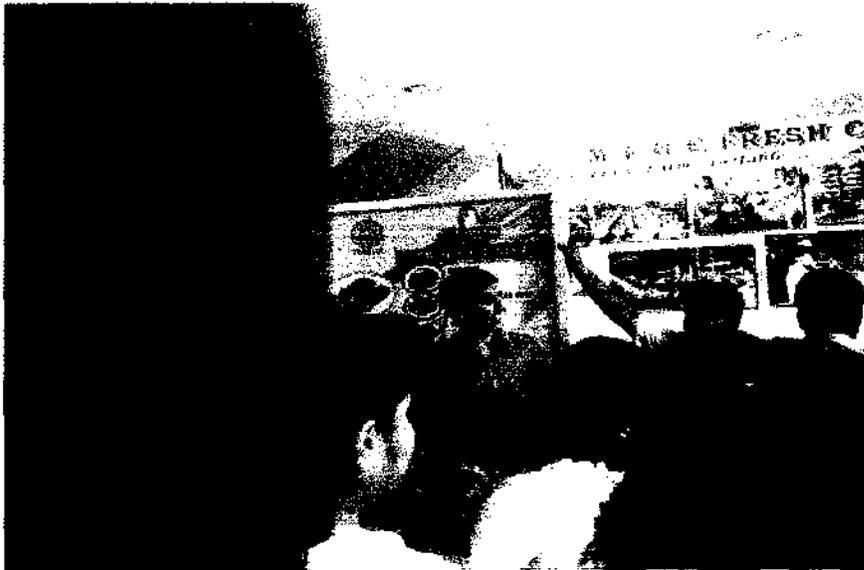
Rabbit Rearing
Training Programme at
Veterinary College
Hassan



Sheep Rearing Training
Programme at Veterinary
College Hassan-
Inauguration

Sheep Rearing Training
Programme at Veterinary
College Hassan





Participation of Veterinary
College Hassan in
Pashumela at KVAFSU,
Bidar

Exposure visit to
Students



IWR Kodige
Doddaalavara,
Koorg District

Role of Veterinarian in
Wildlife conservation
workshop

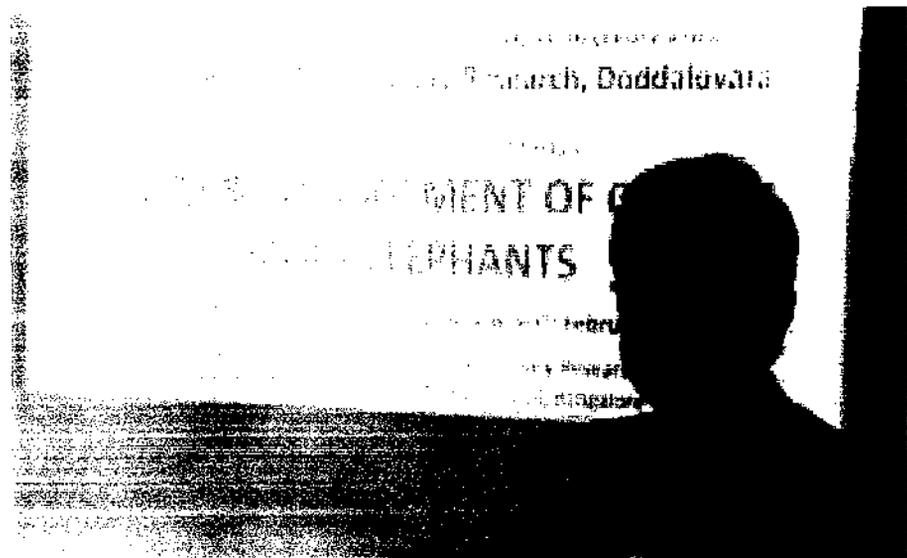


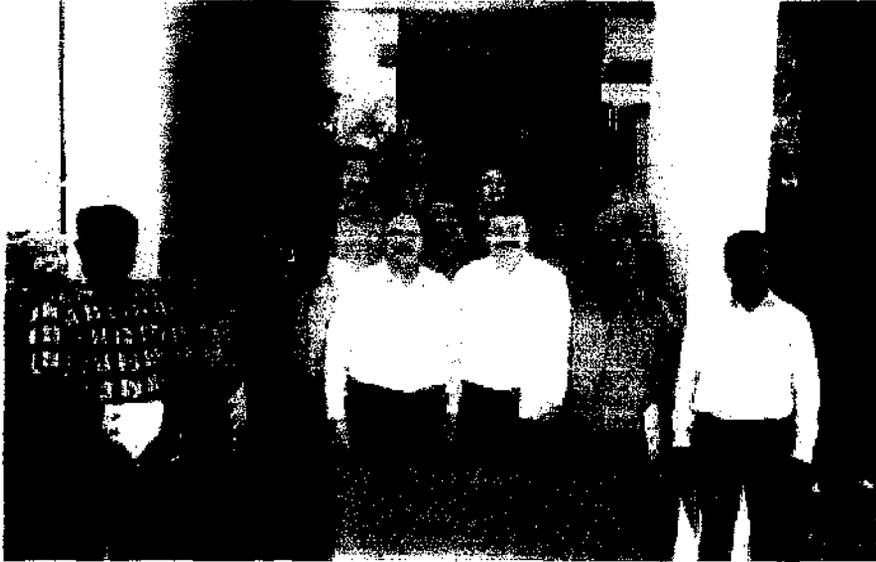
Wildlife Week 2014 - Workshop for Veterinarians on Wildlife Conservation
Role of Veterinarian in Wildlife Conservation



Hands on training of
darting to a trainee at
Mysuru Zoo

Hon'ble Vice
Chancellor
Dr. C. Renukprasad
addressing the
trainees





Group Photograph of
Trainees and
Scientists

Scientists interview
with media person



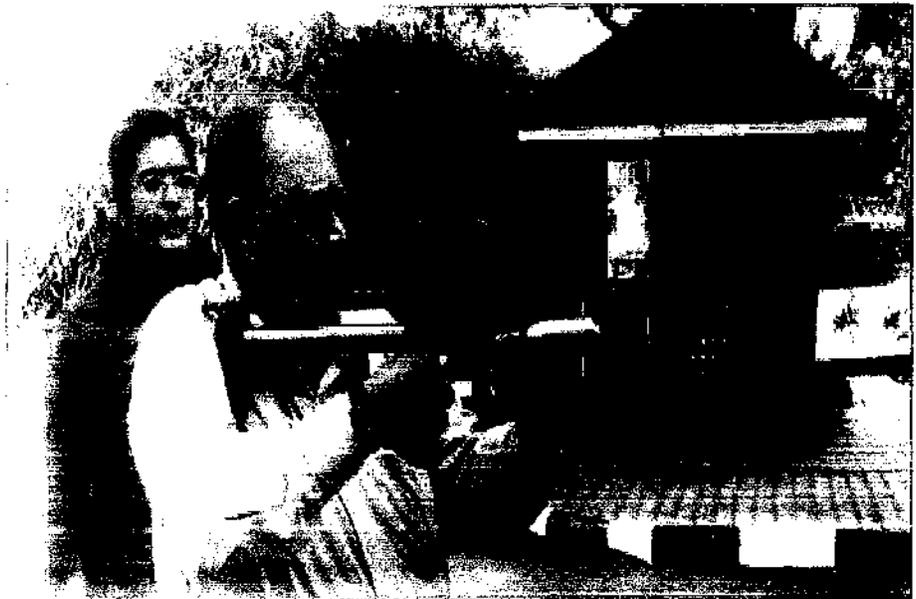
Release of Vanyajeevi
e-bulletin at IWVR,
Kudige

Release of
News Letter



Field Demonstration

Hands on Demo



Integrated Soil &
Water
Management in
Bhendi-Thenkanin
& Beluvai Villages in
Mangalore Taluk



Mechanical
transplanting in
Paddy- Pilathabettu
Village in Bantwal Taluk

Integrated Soil &
Water
Management in
Paddy- Agral village
Bantwal Taluk





Practice of Darting

Assessment of Red
Variety for rabi
season- Shirlalu Vill
in Bantwal Taluk



Potash Management in
Arecanut- Chandapady,
Vittla Village in Bantwal
Taluk



Production Technology in
Blackgram- Shirlalu
Village in Belthangady
Taluk

Production Technology in
Greengram- Naravi Village
in Belthangady Taluk



Integrated Crop
Management in Jasmine -
Beluvai & Tenkamijar
Village in Mangalore
Taluk

Enhancement of bunch size in Banana- Netanige
Mudunoor Village in
Puttur Taluk



Cultivation of high yielding variety of cowpea- Bettampady
Village in Puttur Taluk

Integrated crop management in pepper- Mundambailu-Punacha
Village in Bantwal Taluk





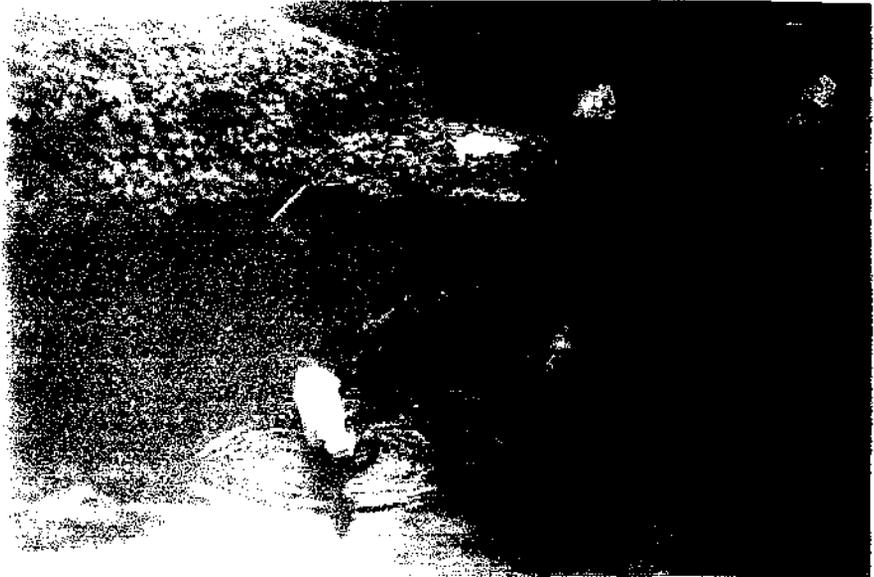
Drying of pepper by
solarization technique-
Punacha Village in
Bantwal taluk

Utilizations of farm ponds
for composite fish
culture- Badaganoor,
Village in Puttur Taluk



Polyculture of desirable
fish species (80:20 pond
fish farming)- Indubettu
Village in Belthangady
Taluk

Integration of pig with
fish farming- Bellur
Village in Subrahmanyapur



Integration of pig with fish
farming- Ilantila village in
Puttur Taluk

Field day on
integration of
with fish farming
Andhra Pradesh





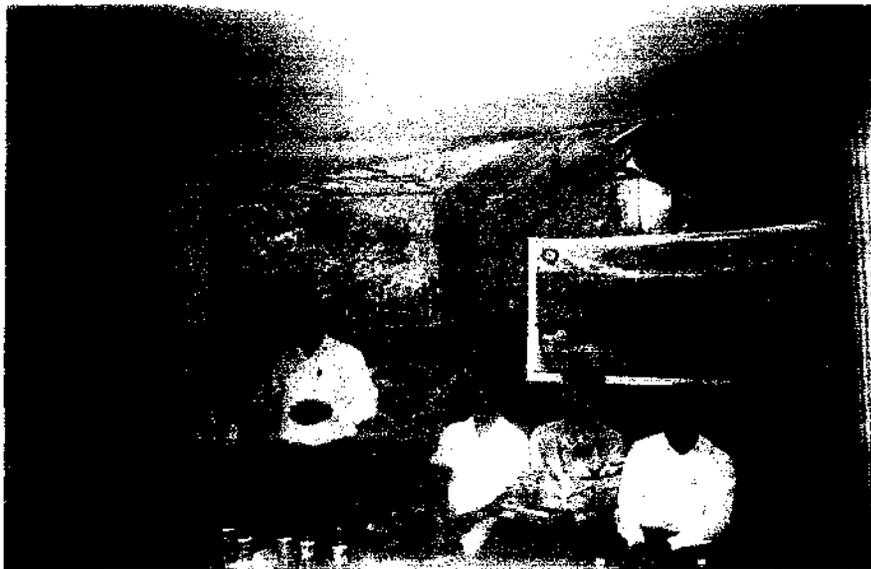
Field day of FLD on
Composite fish
culture-Kombaragrama,
Puttur Taluk

Field day of FFS on
popularization of
swarnadhara poultry birds
through scientific
farming-Agraar village in
Bantwal Taluk



View of traditional fishing
net designed by IFSD
farmer Shri. Hariyappa
gowda, Puttur

Celebration of
Environment Day at
Campus On 07.07.15



Celebration of 'National
Fish Farmers Day' at
Amtur, Bantwala
on 10.07.2015

Meeting of
Amtur, Bantwala
on 10.07.15





Exposure to Dairy Unit
during KVK Training-2014

Exposure to fodder plot
during KVK Training-2014



Exposure to Goat Unit
during KVK Training-2014

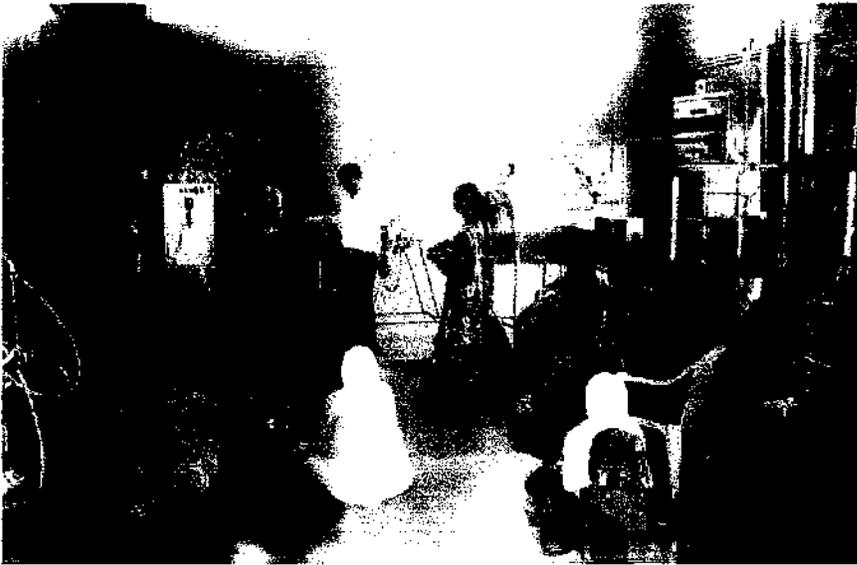
KVC Training-2014
Veterinary Officer
GOK



KVK Trainees along with
trainers organizers-2014

A Group Photo
Training-2014
Veterinary College





Deomnstration on Dairy
Products Preparation for
SHG Members

Dr. Prakashkumar Rathod
receiving Best Poster
Award at XII Agriculture
Science Congress-2015
held at NDRI, Karnal

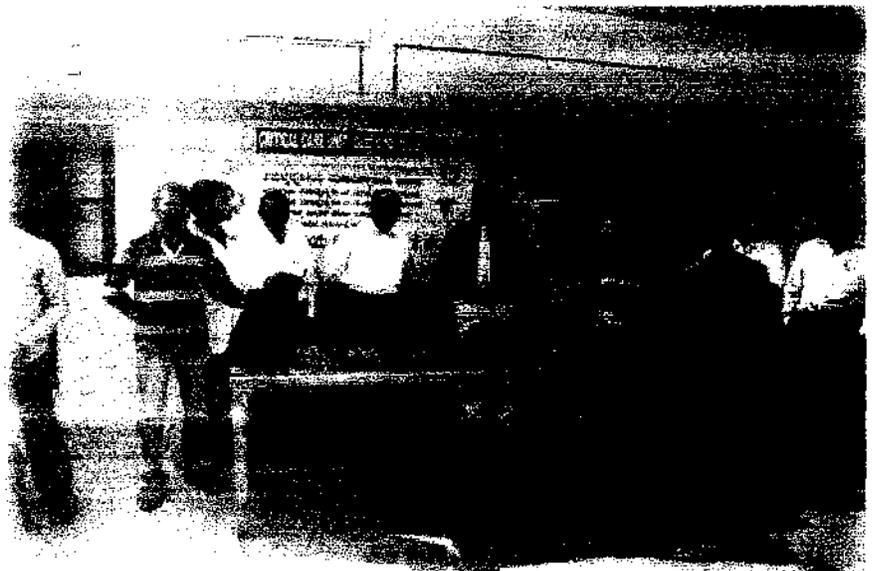


Dr. S.M. Shivaprakash,
Director of Extension
Addressing the Goat
Farmers

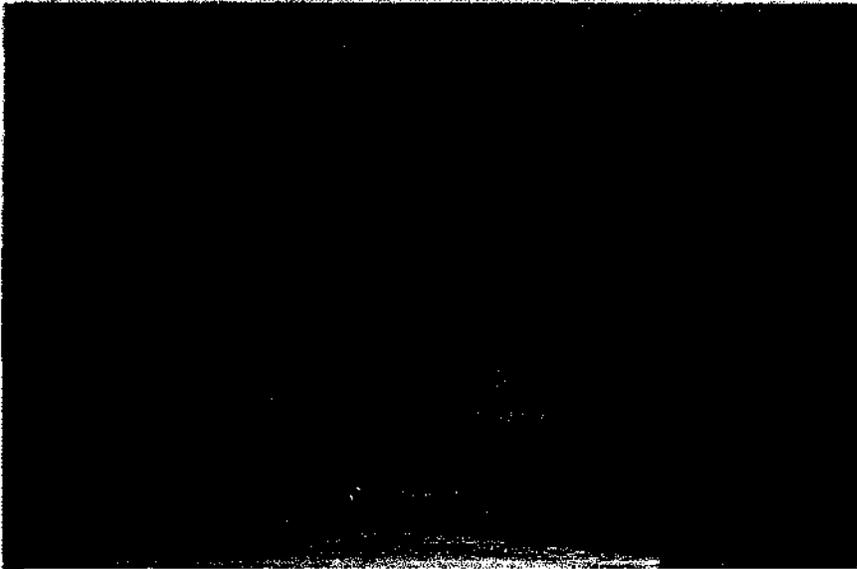


Exposure visti Dairy Farm
at Chidri

Free Anti Rabies
Vaccination at APMC
Hospital, Bidar on the
ocassion of "World
Veterinary Day-2014"

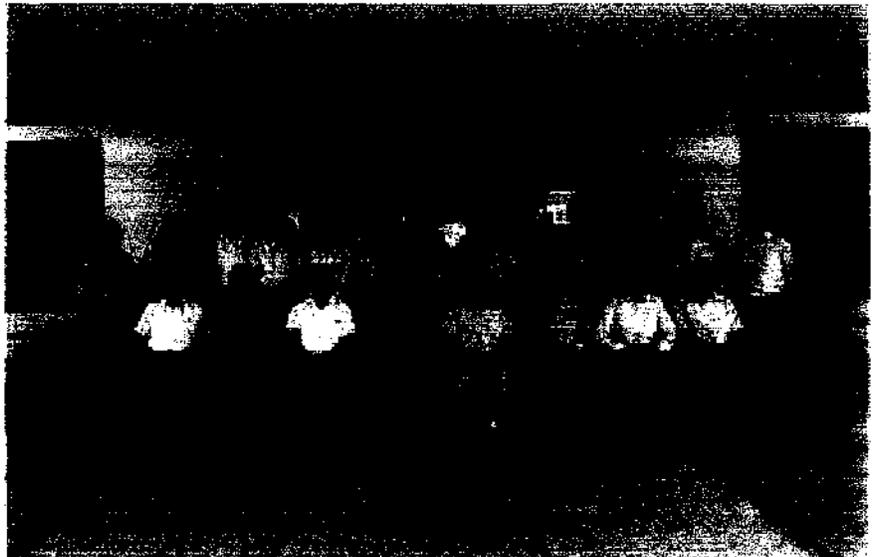


Hon'ble Vice-Chancellor
planting trees on the
ocassion of
Vanamahotsava



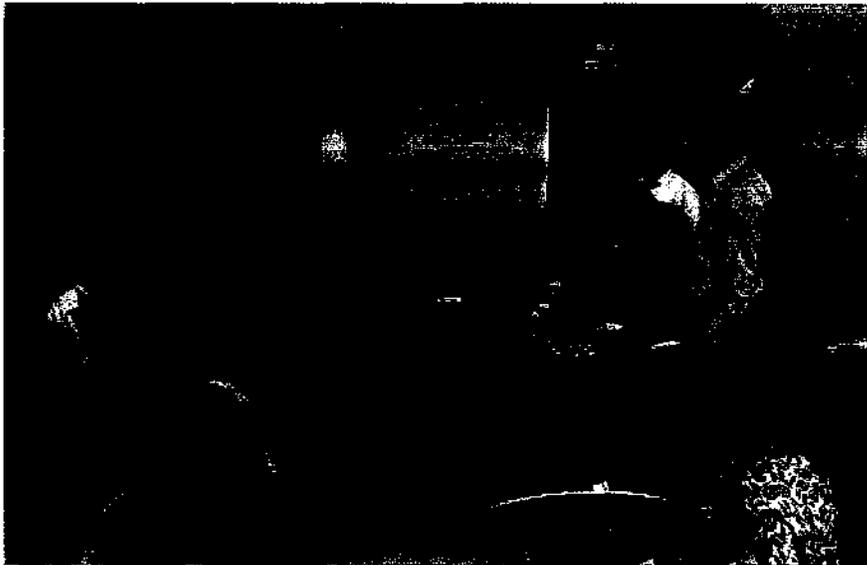
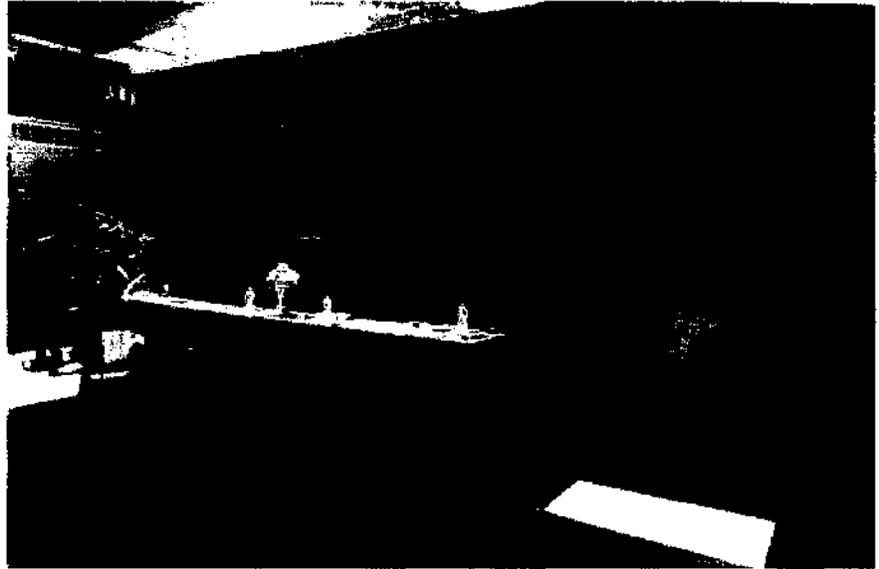
KVC Continued Training Programme – 2014 held at Veterinary College, Bidar

Group Photo - KVC Continued Training Programme – 2014 held at Veterinary College, Bidar



Veterinary College Faculty Member Educating School Children about Zoonotic diseases

Awareness programme in
Jakkur



Demonstration on
preparation of egg
products during "World
Food Day" programme at
Yeliyur (village adopted
by Veterinary College,
Bangalore), Bangalore
North Taluk

Demonstration on Fish
Products at Yeliyur

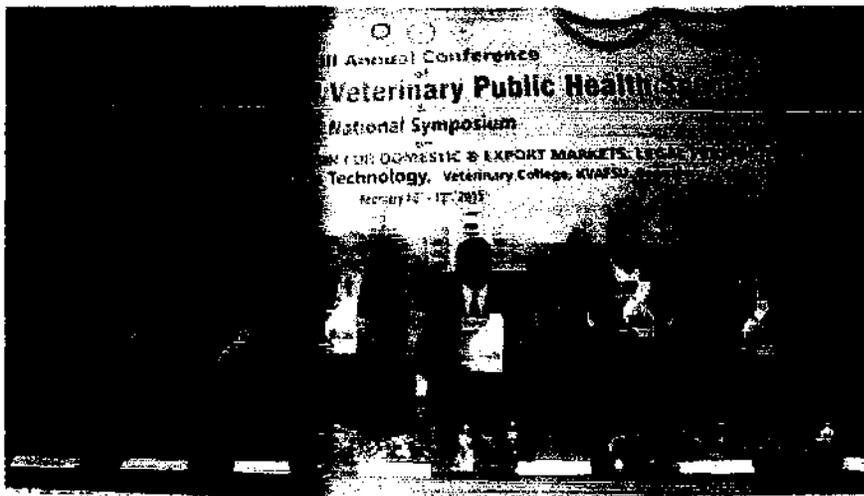




Dignitaries of UAS visit to
KVAFSU stall



Director of Extension
KVAFSU at Mela



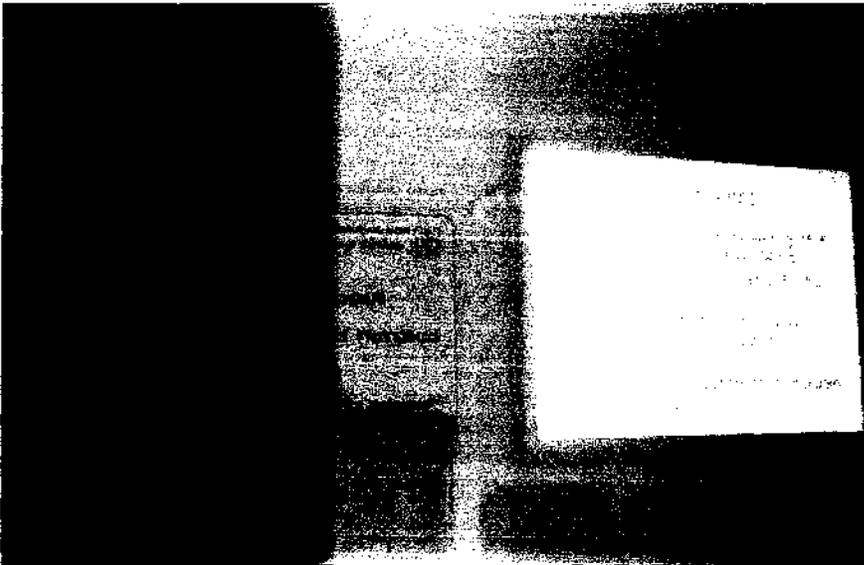
Exposure vist to Fodder
Museum



Farmers visiting
Fodder Museum

Farmers Training





Speech at Farmers Training

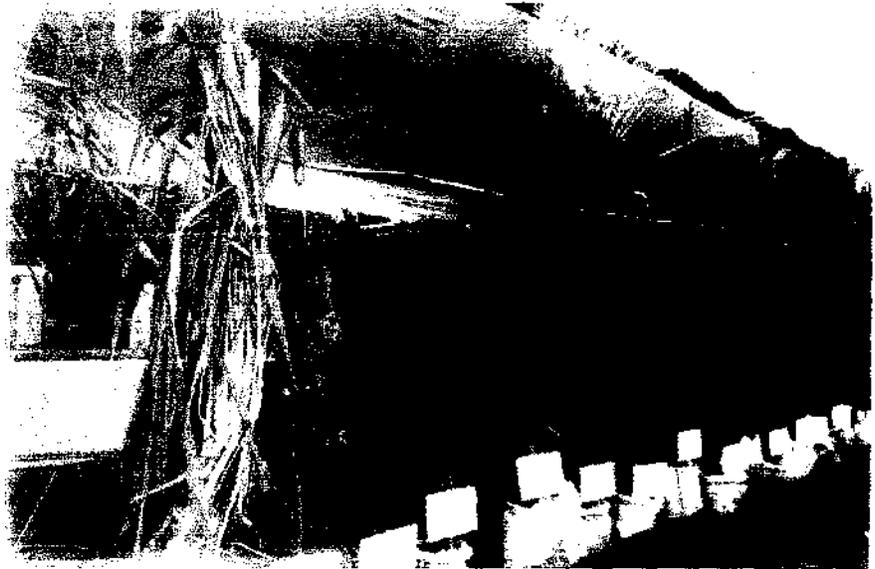


Scientist explaining Breeding of Seeds to the Farmers



Treatment of Animal at Annual Health Camp

KVAFSU Stall at
GKVK Krishinara



Scientist and
Officials of Seed
Board interacting with
Farmers

Distribution
Participation
Certificate by
Dean (Voc)





Piggery Training
participants exposure

Pig Production
Training Valedictory
Function



Participants viewing
the housing of pigs

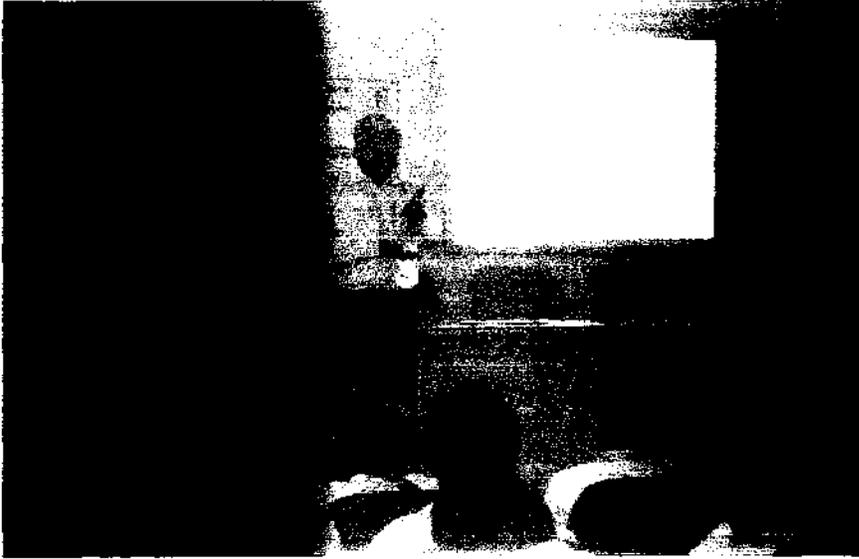
School Children
watching different
postures on Zoonosis



Training of Sheep &
Goat rearing for
Farmers

Zoonosis awareness
programme in Civil
Hospital, Bangalore





Farmers Training on
Sheep & Goat rearing

Demonstration of
silage preparation



Farmers visting
KVAFSU Stall at
GKVK, Krishimela,
Bengaluru

Hon'ble Board Members
visit to Dairy Unit LRIC (A)
Konchalli



Demonstration of Silage
making to AHP Students

AHP Staff Students at 25th
State Level Krishi Mela
SKDRDP in Tiptur





Explaining the uses
of Spineless Cactus
Cultivation to SKDRDP
Farmers

Participated as Resourc
person at a function
organized by SKDRDP

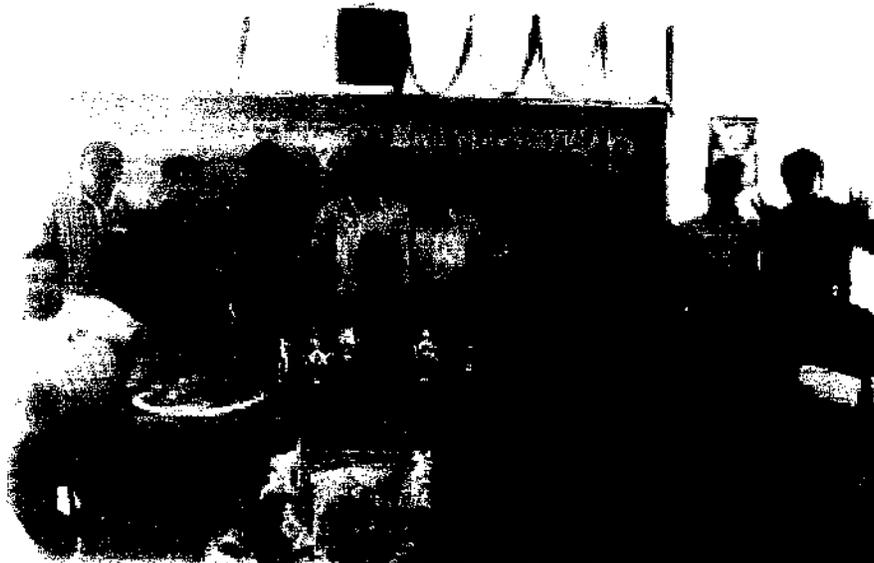


Addressing toAHP
Students by Hon'ble
Vice-Chancellor &
Director of Research

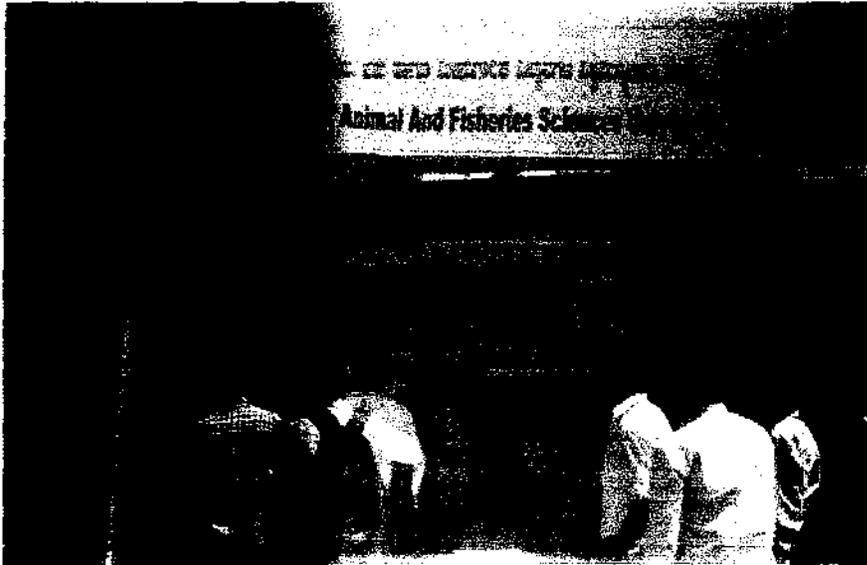


Participation of AHP
Students at Parthenium
Awareness Campaign

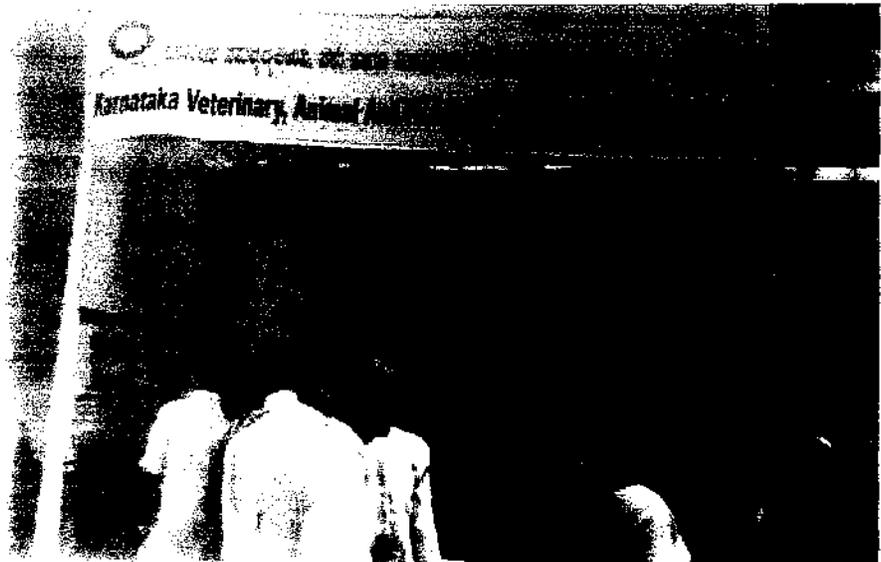
Distribution of Prizes to
the Students Participated in
various Sports Activities



Participation in World
Environment Day



Stall of Veterinary
College, Shivamogga
at UAHS, Shivamogga
Krishimela

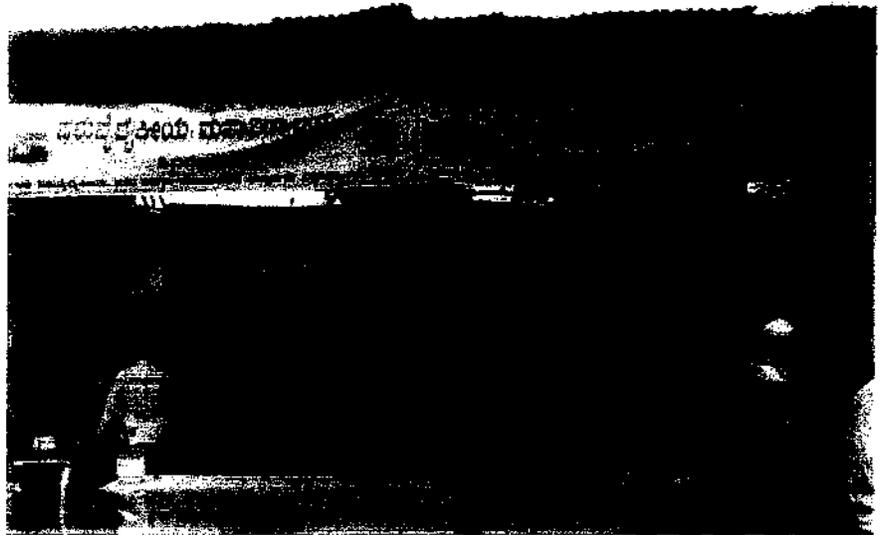


Stall of Veterinary
College, Shivamogga
at UAHS, Shivamogga
Krishimela



Demonstration at
Kommanal village of
Shivamogga Taluka
and District

Scientific Fish Farming



Kalgod Rathnakar,
President Zilla Panchayat,
Shivamogga, Rural
Empowerment through
Sheep and Goat Rearing
training programme
Inagural Address

Participants in Sheep and
Goat rearing training





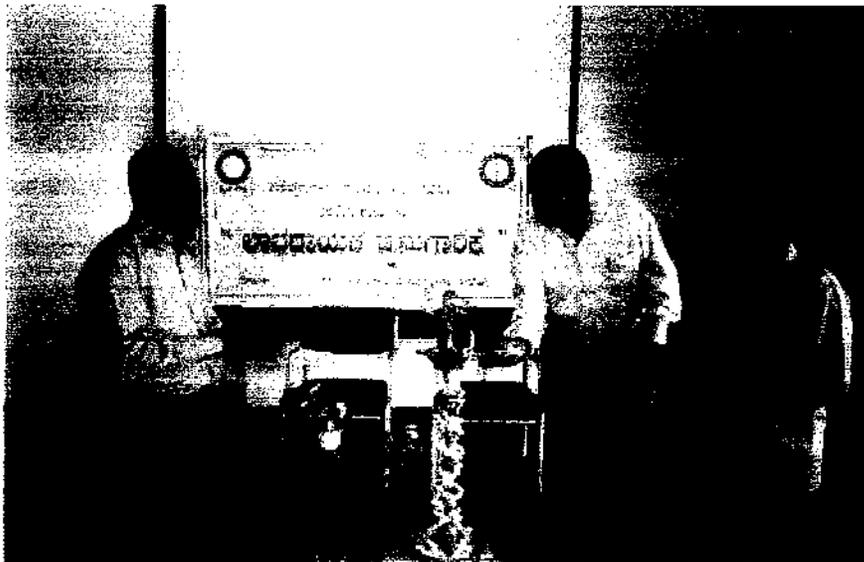
Concentrate Feed
Demonstration at
Kommanal Village

Training on Scientific Pig
rearing



Concentrate Feed
Demonstration at
Kommanal Village

Dr. H.T. Gowda, Director
of Extension UAHS
Shivamogga releasing
leaflet on Scientific Pig
rearing



Dr. R.V. Prasad, Dean,
Veterinary College,
Shivamogga Lighting the
Lamp for the Inauguration
of the Training

Participation in Training
on Profitable Dairying



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