

**PROCEEDINGS OF VIII EXTENSION & CONTINUING EDUCATION COUNCIL MEETING HELD
ON 29TH DECEMBER, 2015**

The VIII meeting of Extension and Continuing Education Council of MAFSU was convened at 11.00 hrs, on 29th December, 2015 at University Headquarter, Nagpur under the Chairmanship of Prof. A. K. Misra, Hon'ble Vice Chancellor, MAFSU.

Following members attended the meeting.

1. Prof. A. K. Misra, Hon'ble Vice Chancellor, MAFSU.	Chairman
2. Dr. M. V. Joshi, Director of Research and D.I. & Dean (Vet.), MAFSU.	Ex-Officio Member
3. Dr. R. S. Dalvi, Dean Fisheries, MAFSU, Nagpur	Ex-Officio Member
4. Dr. S. P. Changade, Dean Dairy Technology, MAFSU.	Ex-Officio Member
5. Dr. A. S. Bannaliker, Associate Dean, KNP COVS, Shirwal.	Ex-Officio Member
6. Dr. N. P. Dakshinkar, Associate Dean, NVC, Nagpur.	Ex-Officio Member
7. Dr. M. L. Gatne, Professor, BVC, Mumbai.	Ex-Officio Member
8. Dr. A. G. Karpe, Associate Dean, COVAS, Udgir.	Ex-Officio Member
9. Dr. H. S. Birade, Associate Dean, PGIVAS, Akola.	Ex-Officio Member
10. Dr. (Mrs) S.B.Majee, Associate Dean, COVAS, Parbhani	Ex-Officio Member
11. Dr. M. R. Patil, Associate Dean, CDT, Warud.	Ex-Officio Member
12. Dr. A. P. Somkuwar, Associate Dean, COFS, Udgir.	Ex-Officio Member
13. Dr. S. S. Thakre, LDO. RJC, Nagpur as Representative, Commissioner A.H. Pune	Ex-Officio Member
14. Shri. A. S. Raut, Dy.Dir(Stat), JDA, Nagpur Representative, Commissioner of Agriculture, Pune	Ex-Officio Member
15. Dr. Satish Kulkarni, Principal Scientist and Head, National Dairy Research Institute, Bangalore	Nominated Member
16. Dr. D. T. Bhosle , Former Chairman, CLFMA of India, Pune, Vice President, Poultry Federation of India	Nominated Member
17. Mrs. Tarannum Kadarbhai, Pune	Nominated Member
18. Mrs. Ranjanatai Sheshrao Padole, Amaravati	Nominated Member
19. Dr. S .M .Duddalwar, Nagpur	Nominated Member
20. Dr. N. N. Zade, Director of Extension Education & Training, MAFSU.	Member Secretary

At the outset Dr. N. N. Zade, Director of Extension & Training and Member Secretary, welcomed the Chairman and all members and informed the house that the Indian Council of Agricultural Research, New Delhi is celebrating "Jai Kisan and Jai Vigyan" week during 23.12.2015 to 29.12.2015 on the eve of the birth anniversary of former Prime Ministers of India Shri Atal Bihari Vajpayee and Late Chaudhary Charan Singh. During the week, ICAR Institutes and Krishi Vigyan Kendras across the country are organizing various farmers awareness programs aiming to showcase and demonstrate new technologies for enhancing agriculture productivity and profitability. The progressive farmers, who have successfully adopted latest technologies and have contributed in their wide scale adoption, are being felicitated on this occasion. Dr. Zade told the house that in concurrence with the mandate of the week the University has decided to felicitate progressive farmers

of Maharashtra in the field of animal husbandry, dairy and fishery in recognition of their outstanding contribution. The nominations of farmers were invited from all the constituent colleges and following farmers have been nominated by the Associate Deans of constituent colleges of MAFSU.

Sr. No.	Name of the farmer	Nominated by (name of the college)	Area
1.	Shri. Balwantrao Yashwantrao Patil	COVAS, Udgir	Dairy Farming
2.	Shri. Ravindra Narayanrao Sawant	KNP COVS, Shirwal	Dairy Farming
3.	Shri. Ajay Shriramsa Gujar	PGIVAS, Akola	Fodder production and dairy
4.	Dr. Subodh Subhash Naik	BVC, Mumbai	Poultry Farming
5.	Shri. Prakash Janardhanrao Deshmukah	COVAS, Parbhani	Poultry Farming
6.	Smt. Vaishali Patre	NVC, Nagpur	Goat Farming
7.	Shri. Prafull Nandkishore Bhandari	CDT, Warud	Milk Processing
8.	Shri. Gangadhar Sambhajirao Dapkekar	CDT, Udgir	Milk Processing
9.	Shri. Brahmaji Madhavrao Kendre	COFS, Udgir	Fisheries
10.	Shri. Maroti Shravanji Bawne	COFS, Nagpur	Fisheries

Dr. Zade introduced all the farmers to the house and welcomed them.

Upon the request made by Dr. Zade Prof. A. K. Misra, Hon'ble Chairman released the 'MAFSU Varta' the quarterly news letter of the University. After the release of the news letter Dr. N. N. Zade requested Hon'ble Vice Chancellor to offer his introductory remarks. Hon'ble Chairman welcomed all the members and extended warm new year wishes. In his comments Hon'ble Vice Chancellor highlighted the importance of extension activities of the University especially in the backdrop of continued draught situation in some regions of Maharashtra. He observed that the efforts being undertaken by MAFSU in the draught hit areas are not up to the mark and there is considerable scope for improvement. Hon'ble Chairman informed the house that Swaminathan Foundation in its report concluded that about 40% of the farmers are quitting their occupation and searching for jobs. As far as the animal husbandry sector is concerned, the productivity of animals is less as compared to their Western counterparts and the problem is compounded by the scarcity of fodder.

Hon'ble Vice Chancellor observed that there is great demand of animal products in the country due to increase in the population; however, the supply is less. As compared to 1997 livestock census, the livestock population in Maharashtra has decreased in 2012. He told the house that those farmers who are maintaining animals are not committing suicide as the livestock act as buffers in the economic crisis and natural vagaries like famine, scarcity of rains, hail storms etc. He cited the example of Rajasthan where there is a continuous scarcity of water and cultivable land but still there is no report of farmer's suicide from Rajasthan and this is mainly due to livestock keeping practiced by the farmers as a major source of livelihood. Therefore, there is an emergent need to highlight the importance of livestock in rural life and MAFSU should take a lead in popularizing the animal husbandry practices among the farmers. Hon'ble Vice Chancellor congratulated the farmers who have

excelled in their field and emphasized over the need to promote their success stories in the draught prone areas of the state. Prof. Misra further informed the house that Govt. of India has sanctioned 5 KVKs to the state, one each in a district viz. Nagpur, Kolhapur, Sangli, Thane and Jalna; however, MAFSU does not have required land in these districts. Therefore, efforts are on to acquire land from Govt. of Maharashtra in these districts so that the KVKs will be sanctioned to MAFSU. Hon'ble Vice Chancellor also told the house about six large animal ambulances purchased by MAFSU for veterinary colleges. The ambulances are equipped with state of the art facilities required to lift and transport the ailing large animals and this is first of its kind facility in the state. Hon'ble Vice Chancellor informed the house about the research to be under taken by MAFSU in collaboration with Ayurvet Pvt. Ltd. in hydroponics fodder production. The company has agreed to install a hydroponic machine at Cattle Breeding Farm Nagpur Veterinary College, Nagpur and the faculty would conduct scientific studies on the economic feasibility and nutritional qualities of the fodder produced by Hydroponic technology.

Later on all the progressive farmers were felicitated at the hands of Hon'ble Vice Chancellor by offering a shawl, shreefal, bouquet and a certificate. The farmers shared their experiences and difficulties faced by them in their endeavor and how the faculty from constituent colleges helped them to overcome those difficulties. Hon'ble Vice Chancellor suggested the farmers that they should form Self Help Groups to collect milk and start value addition. He cited the example of Karnal where some women formed a Self Help Group and started collection of milk and value addition and as the demand increased the group swelled and the Chief Minister of Haryana took notice of that group and provided them shop in market place to market their produce. Hon'ble Vice Chancellor told that value addition of milk is the need of hour to get guaranteed prices and assured all support and help from the University in value addition of milk.

Dr. Zade thanked all the farmers and requested them to visit hatchery, poultry farm, TVCC and then join for the lunch. After that regular agenda of the meeting was taken up.

Subject No.8/1: Confirmation of minutes of VII meeting of Extension and Continuing Education Council held on 31st December, 2014

Dr. Zade informed the house that the minutes of the VII meeting of Extension and Continuing Education Council held on 31st December, 2014 have been circulated to all the members and no suggestions or corrections have been received from the members. The house unanimously confirmed the minutes of VII Extension and Continuing Education Council meeting and passed the following resolution.

Resolution No. 8/1: Extension and Continuing Education Council unanimously confirms the minutes of its VII meeting held on 31st December, 2014.

Subject No. 8/2: Compliance of the decisions taken in the VII meeting of Extension and Continuing Education Council held on 31st December, 2014.

Dr. N. N. Zade, Director of Extension and Training and Member Secretary presented the action taken report before the house as follows.

Brief review of regular extension activities undertaken during the year 2014-15

1. **On farm Demonstrations:** A total of 76 on farm demonstrations were conducted by the faculty of the constituent colleges of the University.
2. **Farmer's trainings:** In all 35 trainings for farmers and unemployed youths were conducted in the year 2014-15 apart from the 15 trainings sponsored by ATMA. Total 16 refresher trainings were organized for the Livestock Development Officers and other functionaries from the State Department of Animal Husbandry. A total of 2787 trainees were trained in various activities including dairy, poultry sheep and goat production, fish farming and value added product preparations. Total 320 lectures have been delivered by faculty members in the trainings organized by various developmental organizations and NGOs.
3. **Animal Health camps:** Total 54 animal health camps were organized across the state in which total 14894 animals were treated for various ailments.
4. **Extension publication:** The faculty of the colleges published 176 extension articles in reputed journals and leading news papers.
5. **Participation in Media:** Two special series of 13 episodes have been conducted by the University on Dairy and Poultry production under Farm School on All India Radio, Nagpur. Total 89 faculty members participated in various animal husbandry related radio programmes while 19 faculty members participated in the television programmes.
6. **Livestock rallies and workshop:** The constituent colleges participated in 14 events while 11 programmes like rallies and workshops were organized at various colleges of the University.
7. **Exhibitions:** The University participated in 30 exhibitions across the state while 13 exhibitions were organized for various events in the University including the seminars, workshops and students exhibitions under their study circles and experiential learning components. Total 69 audio visual exhibits were developed for display during the various events.
8. **Farmers Visit:** More than 5800 farmers and entrepreneurs visited various facilities like the livestock farms, colleges and experimental units in the University and about 8700 farmers queries were answered by the experts from the various constituent colleges of the University including the University headquarter.
9. **Visits of faculties:** The faculty members of the University guided in 49 farmers scientist meets apart from the 91 farm and home visits and 39 institutional visits across the state covering 13 extension related surveys on various important field issues and problems.
10. **Adopted village activities:** Total 150 visits were conducted in the adopted villages of the colleges for implementing various developmental activities while 6 field visits were organized for the farmers.
11. **MAFSU Advisory:** MAFSU published "Advisory for farmers" (monthly activities to be carried out in Animal Husbandry, Poultry and Fishery) a regular monthly feature in Marathi daily News paper Agrowon.
12. **Special Campaign:** MAFSU has initiated a special campaign for farmers awareness for starting animal husbandry activities in the suicide affected areas of Marathwada and Vidarbha region of the State. The programme has been initiated on 15th August 2015 from the

Dongargaon Village in the Akola District. Total 440 villages have been covered till 20th Dec. 2015 under this campaign.

13. **Toll Free Phone Number:** MAFSU's Toll Free Number **1800-233-3268** is operational since 27.10.2015 at the Directorate of Extension and Training.

Sr. No. 2: Registration of Breed Societies for up gradation of local breeds

College of Veterinary and Animal Sciences Udgir is working with already registered Deoni Breeders Association, Latur. In collaboration with Breeders Association, College has established Deoni Cattle Museum in the Dept. of Veterinary & Animal Husbandry Extension Education, COVAS, Udgir. Other colleges are in process of initiation for the establishment of breeders association with the help of local NGOs and development departments.

Sr. No. 3: Establishment of demonstration units of poultry, dairy and fisheries.

The college farms have established various demonstration units as follows.

Name of the college	Demonstration units
BVC, Mumbai	Loose housing of cattle and buffaloes, Silopit, Drum silage, Plastic bag silage, Calf pen, Milking machine, Fodder museum, Broilers farming and Layer farming
NVC, Nagpur	Two conventional dairy farm units for dairy animals, Chaff cutter units, Milk collection and dispatch room, Calf shed, Tick proof shed with automatic watering system for individual animal is recently constructed, Azolla cultivation units is on the verge of completion, Goat and sheep unit.
COVAS, Udgir	Azolla production, Silage making, Loose animal house, Biogas, Vermi compost, Broiler unit, Quail and Turkey unit establishment is under progress.
COVAS, Parbhani	Red Kandhari cattle unit, Marathwadi buffalo unit, Osmanabadi goat unit, Madgyal sheep unit, Fodder production unit, Silo pits, Chaff cutter, Bull exerciser, Loose Housing system, Tail to tail housing system
KNPCOVS, Shirwal	Semi Intensive housing unit for turkey birds, Layer unit, Broiler Unit, Hatchery, Piggery unit, Loose housing system for Khillar cattle & Phandharpuri Buffalo, Sangamneri Goat, Deccani Sheep, Loose housing system for Crossbred Cows, Milk processing (Mini milk processing plant) Fodder Museum having Yashwant, Jaywant, Maize, Jowar, Lucern, DHN-6, BHN-10 varieties of fodder crops, Hydroponics fodder Unit, Azolla production Unit
PGIVAS, Akola	The Poultry Research & Demonstration Centre, Purnathadi Buffalo Unit, Goat unit. The training and demonstration unit for poultry farming is under progress (RKVY Project).

CDT, Udgir	Skid mounted milk processing unit (50 LPH), Continuous khoa making vat (40 Lt), Lab Spray dryer, Tray dryer
COFS, Nagpur	Fish farm having nursery, rearing and stocking ponds, A polythene lined fish stocking pond is also established during 2014.
COFS, Udgir	Fish farm having nursery, rearing and stocking ponds

Sr. No. 4: Need for investigations into the reproductive disorders with special reference to infertility.

Reproductive Disorder Management Cell is operational at all the veterinary colleges except at PGIVAS Akola. This cell is regularly organizing various animal health camps to address the issues of infertility in the farm animals and pet animals. Total 2731 infertility related cases have been treated by this cell during the year 2014-15.

Sr. No.5: Need for giving more attention towards extension work in the poultry

Bombay veterinary college organized two poultry farming trainings for 47 trainees including 13 tribal poultry farmers. Faculty members of the University also participated in Radio and Television programmes on poultry related topics and also contributed in the form of extension articles in the local leading newspapers. Experts are regularly providing guidance to poultry entrepreneurs, farmers, women (SHG), unemployed youths in the poultry sector in various trainings, farmers meets, exposure visits, exhibitions etc.

Sr. No. 6: Establishment of a feed analytical laboratory that would offer quick services

Grant of Rs. 200.00 Lakhs has been received from Central and State Animal Husbandry Department in April, 2015 for the establishment of feed analytical laboratory at COVAS Udgir. Procurement process of modern instruments and equipments for establishing feed testing laboratory is under progress. The University has also submitted a proposal to establish a feed testing laboratory at all other colleges under the National Livestock Mission.

Sr. No. 7: Establishment of linkages with line departments of Govt., NGOs, industries etc.

State Animal Husbandry Department, Fishery Department and Dairy Development Department are working with the University to implement the Govt. schemes and other activities with the technical inputs from the colleges. Apart from this organization like ATMA, DRDA, VANAMATI, MSETI, SAMETI, KVKs, Radio and Television stations are taking help of the faculty members as an expert on various animal husbandry, dairying and fishery related activities.

NGOs working in the area of rural development and animal welfare are working in close collaboration with the University. To name a few are MMSRF, MAVIM, BAIF, PETA, Siddhivinayak Prathistan, Amravati; Bhandara Nisarg va Sankruti Abhyas Mandal, Bhandara, Vidarbha Association of Research Technology and Development in Agriculture and Rural Sector (VARIZARS), Akola,

Vasundhara Community Radio, Baramati and many more organization are taking help for various developmental activities.

Similarly, industry collaboration is also being harnessed for implementing various extension related activities especially the animal health camps and on farm training and demonstrations. Pharmaceutical companies, feed manufacturing companies, cooperative dairies, input supply companies and other allied companies are willingly helping the activities in the rural areas.

Memorandum of Understanding (MoU) between National Research Centre on Meat (NRCM), Hyderabad and Maharashtra Animal and Fishery Sciences University (MAFSU) has been signed for facilitating Collaborative Research and Extension activities. MoU between M.S. Swaminathan Research Foundation (MSSRF) and MAFSU have been signed for possible areas of collaboration to support the small holder and landless farmers. A MoU has been signed between MAFSU and Ayurvet Limited, New Delhi for collaborative research for animal health, nutrition, medicinal plant cultivation and its processing and integrated approach of livestock development.

Sr. No. 8: Establishment of Krishi Vigyan Kendra.

For establishment of KVK a total of 20 hec. land is required. The land available at Warud, Pusad is only 17.91 hec. Hence a letter to transfer the additional 2.09 hec. land for establishment of the KVK at Warud, Pusad has been sent to the Registrar of Dr. PDKV University, Akola. Proposals have been submitted to the ICAR to establish KVKs one each in a district viz. Nagpur, Kolhapur, Sangli, Thane and Jalna.

Sr. No. 9: Celebration of various events:

Various activities as follows were organized by the extension and NSS wings of the colleges.

- A) Animal welfare fortnight – 14.01.2015 to 30.01.2015
- B) World Women's day – 08.03.2015
- C) World tuberculosis day – 24.03.2015
- D) World health day – 07.04.2015
- E) World Veterinary day – 26.04.2015
- F) World Environment day – 05.06.2015
- G) World Biodiversity day – 22.05.2015
- H) World Zoonoses day – 06.06.2015
- I) World Oceans day – 08.06.2015
- J) Indian Fish Farmers day – 10.07.2015
- K) World Rabies day – 28.09.2015
- L) World Animal day – 04.10.2015
- M) World Fisheries day – 21.11.2015
- N) Clean Milk Production Day – 03.12.2015

Sr. No. 10: The training programmes organized for farmers, entrepreneurs, industry personnel, professionals etc. should be accompanied with feedback mechanism to assess impact.

Trainings for entrepreneurship development are organized for the farmers and unemployed youth. Post training evaluation of the training is conducted to ascertain the various points to be considered to improve the existing training module and incorporate the needed changes. Success stories of successful trainees are regularly published by the respective colleges.

Resolution 8/2: The Extension and Continuing Education Council expresses satisfaction over the action taken report on the decisions taken in the VII meeting and approves the same.

Subject No. 8/3: Regular extension activities to be under taken during the year 2016

Dr. Zade in his presentation highlighted various extension activities to be undertaken by MAFSU during the year 2016. Dr. Zade also informed about the various events such as world's women day, world tuberculosis day, world environment day, National Milk day, world animal day etc. The house expressed satisfaction over the future extension activities of the University and passed following resolution.

Resolution 8/3: The Extension and Continuing Education Council accords approval for extension activities to be conducted during the year 2016. (Annexure - I)

Action: DET and all Associate Deans of the constituent colleges.

Subject No. 8/4: Training programmes to be conducted for farmers and field veterinarians.

Dr. Zade told the house about proposed training programmes and that the training programmes will be implemented by the constituent colleges considering their academic programme and availability of human resource. After thorough discussion the house was satisfied over the training programmes to be conducted in 2016 and passed following resolution.

Resolution 8/4: The Extension and Continuing Education Council accords approval to the training programmes to be conducted by MAFSU in 2016. (Annexure - II)

Action: DET and all Associate Deans of the constituent colleges.

Subject No. 8/5: Strengthening of extension education programmes.

While highlighting the need to strengthen the extension education programmes, Dr. Zade informed the house about the efforts taken by the University in this regard. He told that MAFSU has initiated a campaign for farmers awareness in the suicide prone areas of Marathwada and Vidarbha region of the State. The programme was initiated on 15th August 2015 from the Dongargaon Village in the Akola District and a total of 440 villages have been covered till 20th Dec. 2015. Further, the University has purchased six well equipped Large Animal Ambulances for all the constituent Veterinary Colleges of the University to cater the need of transportation of sick animals to the hospitals. The ambulances have started functioning in respective colleges and providing transportation service for sick animals on no profit no loss basis. The house expressed satisfaction over the efforts taken by the University and passed following resolution.

Resolution No.8/5: The Extension and Continuing Education Council expresses satisfaction over the efforts taken by MAFSU for strengthening the extension education programmes.

Subject No. 8/6: Review of extension activities conducted by the constituent colleges during 2014-15

Upon the request made by Dr. N. N. Zade all the Associate Deans presented the report of various extension activities of their colleges undertaken during 2014-15 as detailed below.

A. NAGPUR VETERINARY COLLEGE, NAGPUR

Dr. N. P. Dakshinkar, Associate Dean, presented the report of various extension activities of Nagpur Veterinary College, Nagpur. During the discussion Hon'ble Chairman pointed out that NDDDB has developed an android phone application "**Pashu Poshan**" for providing personalized technical guidance to the farmers on balanced ration required for the dairy animals. Since majority of the infertility cases are linked to the various nutritional deficiencies, the application can be of great help to the farmers and the Associate Dean should take efforts to popularize the application among the farmers. While presenting the report of extension activities undertaken at adopted village Borgaon, Dr. Dakshinkar pointed out that due to the intervention of faculty members, the collection of milk in the village has increased. However, it has been observed that the farmers are reluctant to take up the dairy farming activity due to the low price for the milk from the private companies. Further the Govt. rates for milk are also less which has added to the woes of the farmers. Therefore, the inclination of the farmers is more towards the goat farming rather than the dairy farming. Dr. Dakshinkar also presented the report on the inauguration of Critical Care Unit at the hands of Hon'ble Director General of ICAR and Secretary DARE, Ministry of Agriculture, Govt. of India at Teaching Veterinary Clinical Complex. Hon'ble Chairman pointed out that due to the efforts put up by Dr. Dakshinkar and his team the receipt of the TVCC rose from Rs.17.00 lakh to Rs.40.00 lakh in 2014-15. Further, Hon'ble Chairman has also informed the house that TVCCs of COVAS, Udgir and KNP COVS, Shirwal also have state of the art facilities required for treatment of the animals. The house appreciated the efforts taken by Dr. Dakshinkar and his team.

Hon'ble Vice Chancellor informed the house about the establishment of Wild Life Research and Training Centre in collaboration with the Department of Forests, Govt. of Maharashtra at Gorewada Zoo which is one of its kind facilities in the region. The Govt. has provided the building and equipments for the center costing more than Rs.9.00 crores and 20 posts will be sanctioned by the Govt. for the center. The center will provide diagnostic and treatment facilities to both captive and free ranging wild animals and the students will get exposure to handling and treatment of wild animals.

Dr. Dakshinkar also informed about the progress of Tribal Sub Plan project being implemented at Gadchiroli District. During the discussion Mrs. Tarannum Kadarbhai enquired that how the University will reach to the farmers for proposed extension activities. Dr. Zade told that the University has tie up with Swaminathan foundation in Wardha District. The University has also applied for registration of the Kisan Portal for reaching to the farmers. Hon'ble Vice Chancellor instructed to all the Associate Deans that they should collect the data of farmers in their respective jurisdiction including their mobile numbers so that SMS can be sent to them. Mrs. Kadarbhai opined that M-Kisan

Portal would be of great help in this activity. Dr. Sariput Landge Technical Officer informed the house that the University has already applied for the registration at M-Kisan portal and the approval is awaited. Hon'ble Chairman directed that apart from M-Kisan Portal, the University should develop its own livestock farmer's data base. All Associate Deans should start collecting the data about the farmers in their respective region and submit it to the DET for compilation to increase the outreach of the University among the farmers. Mrs. Kadarbhai opined that since data collection is going to take some time the University can approach the Department of Animal Husbandry, Govt. of Maharashtra for collecting the information about the farmers so that they can be reached out immediately.

While discussing the hydroponics fodder production technology being installed at CBF, NVC, Nagpur Mrs. Kadarbhai expressed concern over the exorbitant running cost of the hydroponic machine. Hon'ble Vice Chancellor clarified that the machine is being installed at free of cost by M/s. Ayurvet Ltd. and the aim behind the installation of machine is to conduct scientific studies on the production cost, nutritional qualities of fodder produced through hydroponics and its effect on animal health. Since there is acute shortage of reliable scientific data on the hydroponics technology the project has been envisaged. Further, the Commissioner of Animal Husbandry had also requested the University to provide scientific information on hydroponics fodder production technology in respect of Maharashtra state. The Hon'ble Vice Chancellor further explained that the machine maintains constant humidity and temperature which is critical in hydroponics and this is achieved with the help of latest electronic gadgets and technology which is not possible in a simple bamboo and sprinkler system. Mrs. Kadarbhai suggested that only Maize crop is presently grown in hydroponics technology; however, University should conduct trials on other fodder crops also. Hon'ble Vice Chancellor concluded that the economics of hydroponics needs to be worked out and such techniques can be helpful in drought prone areas where cost of transportation is more than the cost of fodder production.

Dr. Dinesh Bhosle suggested that fodder production activity can be a good commercial activity for some of the farmers who have irrigated land. The University should identify such interested farmers and encourage them and 'Fodder Yatra' can also be taken out to create awareness among the farmers regarding importance of fodder production.

Resolution No.8/6/I: (a) The Extension and Continuing Education Council resolves that all Associate Deans should collect the data about the livestock farmers in their respective region including their mobile numbers and submit it to the Director of Extension and Training for compilation so that University will have its own data base of livestock farmers.

Action: All Associate Dean, Director of Extension & Training.

(b) The Extension and Continuing Education Council directs Associate Dean, Nagpur Veterinary College to conduct scientific trials on the Hydroponics Fodder Production Technology with various crops.

Action: Associate Dean, Nagpur Veterinary College, Nagpur.

B. BOMBAY VETERINARY COLLEGE, MUMBAI.

Dr. M. L. Gatne Professor of Parasitology, presented the report of extension activities undertaken by Bombay Veterinary College, Mumbai during 2014-15. During the discussion Mrs. Kadarbhai opined that the success stories of the farmers should be video graphed and the same can be shown to the farmers during the trainings as a source of inspiration. Dr. Joshi, Director of Instruction and Dean (Vet.) suggested that these videos can be used during the farmers awareness campaigns also. Hon'ble Vice Chancellor instructed Dr. Zade to look into the matter and prepare some good success stories of farmers in the form of small documentaries from different regions.

During the discussion Dr. Satish Kulkarni enquired about the activities undertaken by the University for conservation of local germ plasm/native breeds of Maharashtra. Hon'ble Vice Chancellor informed the house about the Instructional Livestock Farms and Cattle Breeding Farms under the University and the local breeds maintained at those farms. He told that genetic improvement of the native breeds is need of the hour and considering this the University has submitted various proposals to the Central and State Govt. for obtaining the funds to carry out conservation and genetic improvement of local breeds. Hon'ble Vice Chancellor suggested that Gir cattle breed can be a good option in Maharashtra for genetic improvement of nondescript animals.

During the presentation of Bombay Veterinary College Hon'ble Chairman pointed out the lack of farmers interaction and absence of direct contact with them and directed that farmers interaction need to be improved through various activities.

Resolution No.8/6/II: (a) The Extension and Continuing Education Council directs the Associate Dean, Bombay Veterinary College to enhance the farmers interaction with the faculty and to increase the field visits of the faculty.

Action: Associate Dean, Bombay Veterinary College, Mumbai

(b) The Extension and Continuing Education Council directs the Director of Extension and Training to prepare documentaries of success stories of the farmers for showing them in the exhibitions and training.

Action: DET and all Associate Deans.

C. COLLEGE OF VETERINARY & ANIMAL SCIENCES, PARBHANI.

Dr. (Mrs.) S. B. Majee, Associate Dean, COVAS, Parbhani presented the report of various extension activities undertaken by the college during the year 2014-15. During the presentation Hon'ble Vice Chancellor pointed out that the faculty members involved in various health camps and treatment of the animals are not wearing aprons. He recalled that the circular has been issued from his office regarding making aprons compulsory during treatment and other animals related activities. He expressed his displeasure over violation of the directives and directed all the Associate Deans that the faculty members should compulsorily wear aprons while treatment and other animals related activities. During the presentation it was also pointed out that the college is providing Anti Rabies vaccine to pet owners at subsidized rates. Hon'ble Vice Chancellor told that Anti Rabies Vaccine is a major source of revenue generation for the college and TVCC. Providing vaccines at subsidized rates

to the poor farmers can be understood but pet owners can afford the price of vaccines, therefore, it should not be given on subsidized rates to the pet owners.

Resolution No.8/6/III:: The Extension and Continuing Education Council directs to ensure that the faculty members should invariably wear aprons while performing animal related activities like treatment, health camps, pregnancy diagnosis, surgeries etc. and Anti rabies vaccine should not be given on subsidized rates to the pet owners.

Action: All Associate Deans.

D. COLLEGE OF VETERINARY & ANIMAL SCIENCES, UDGIR.

Dr. A. G. Karpe, Associate Dean, College of Veterinary & Animal Sciences, Udgir presented the report of various extension activities undertaken by the college during the year 2014-15. Dr. Karpe informed about the workshop conducted by the college on common ailments of equines and he also informed about the following new units established at college.

1. Quail farming, demonstration and research unit.
2. Layer poultry farming and demonstration unit.
3. Low cost hydroponic fodder production unit.
4. Strengthened feed testing laboratory at Department of Animal Nutrition of the college.

During the presentation regarding success stories of the farmers, Mrs. Kadarbhai enquired about the liaison of the college with successful farmers. Dr. Karpe informed that the faculty members regularly visit all the successful farmers and solve their technical difficulties. Mrs. Kadarbhai opined that the success stories should be published through local news papers which would be a source of inspiration to other farmers. She also expressed satisfaction over the increasing volume of extension activities being undertaken by the colleges over the years. Dr. Satish Kulkarni also lauded the efforts taken by the colleges. Mrs. Kadarbhai pointed out that the extension activities undertaken at drought affected areas and other areas are same and that is not going to serve the purpose. The farmers in drought affected areas should be given need based specific technical inputs and training since they are already stressed and routine extension activities would not help them. She advised that the colleges should form '**Shetkari Shastradnya Manch**' on the lines of Agriculture University wherein more personalized way of catering to the need of the farmers can be evolved. During the presentation Hon'ble Vice Chancellor expressed unhappiness over the poor qualities of photographs in the presentation. He directed all the Associate Deans to ensure that good photographs are selected and college photographer with good camera should be assigned during the extension activities for taking good photos.

Resolution No.8/6/IV: The Extension and Continuing Education Council directs to explore the possibility of formation of 'Shetkari Shastradnya Manch' at college level on the lines of Agriculture Universities and evolve more personalized ways for interacting with the farmers and providing them need based technical services especially in drought affected areas.

Action: All Associate Deans.

E. KNP COLLEGE OF VETERINARY SCIENCE, SHIRWAL

Dr. A. S. Bannalika, Associate Dean of KNP College of Veterinary Science, Shirwal presented the report of various extension activities undertaken by the college during 21014-15. He highlighted following workshops organized by the college.

1. Workshop on “**Dental Surgical Procedures**” for pet practitioner association, Pune. Dr. Ravi Morarka, Pennsylvania University, USA was the expert.
2. 14th Annual Conference of Indian Association of Women Veterinarians and National Seminar on “**Recent Advances in Veterinary & Animal Sciences and Role of Women Veterinarian**”.
3. Hands on training on “**Fundamentals in Fracture Repair-Part One**” in collaboration with Veterinary Orthopedic Foundation, Pune. Experts: Dr. Brian – US; Dr. Mathias Frank – Germany; Dr. Daniel Damoore – Switzerland; Dr. Tang- Thailand. Total number of participants was 76 plus 32 final year students of the college.

During the discussion on participation of faculty in exhibitions and trainings, Mrs. Kadarbhai pointed out that when the colleges are participating in the exhibitions it should not be free and the college should get something out of it. Hon'ble Vice Chancellor also supported the point raised by Mrs. Kadarbhai. Dr. Karpe informed that during a meeting at Pune, Commissioner of Animal Husbandry pointed out that the colleges are the best place to give trainings to farmers and livestock development officer since they have all the requisite facilities and expertise at their place including the practical demonstrations. Therefore, the Govt. is deputing the farmers and Livestock Development Officer for advance trainings at the colleges. Mrs. Kadarbhai appreciated the view; however, she reiterated that the college should charge some fees as the faculty of the college gets involved for the whole day when a group of farmers or Livestock Development Officers visit the college. Dr. Bannalika informed the house that the Animal Husbandry Department is providing the fees of Rs.5000/- per visit for farmers and Livestock Development Officer's visit.

Resolution No.8/6/V: The Extension and Continuing Education Council directs the constituent colleges to provide technical services to various agencies and participate in the exhibitions conducted by private parties on chargeable basis.

Action: DET and All Associate Deans.

F. POST GRADUATE INSTITUTE OF VETERINARY & ANIMAL SCIENCES, AKOLA

Dr. H. S. Birade, Associate Dean, Post Graduate Institute of Veterinary & Animal Sciences, Akola presented the report of various extension activities undertaken by the college during 2014-15.

During the presentation Mrs. Kadarbhai enquired about the 5 days silage making training being conducted by the college. Hon'ble Vice Chancellor informed the house that Bombay Veterinary College, Mumbai has developed anaerobic acidification technique, through which good quantity of silage can be prepared in short duration and highlighted the need to popularize such techniques amongst the farmers. Mrs. Kadarbhai showed a 3 minutes video about low cost hydroponic fodder production unit developed by a farmer at Satara. Hon'ble Vice Chancellor opined that while

conducting regular training programmes from agencies like RAMETI, ATMA etc. the colleges should charge fees and such trainings should not be provided free of cost.

Resolution No.8/6/VI: The Extension and Continuing Education Council directs that the training programmes for various agencies should be conducted on chargeable basis.

Action: All Associate Deans.

G. COLLEGE OF DAIRY TECHNOLOGY, WARUD.

Dr. S. P. Changade, Associate Dean, College of Dairy Technology, Warud presented the report of extension activities of the college. During the discussions Hon'ble Vice Chancellor suggested that the college should emphasize more on providing trainings on milk processing technologies. Mrs. Kadarbhai informed the house that Maharashtra Agricultural Competitiveness Project (MACP) is providing Rs.50,000/- for 5 days training on processing technologies and urged the colleges to take advantage of this scheme.

Dr. Changade informed the house about a survey conducted by the college in Warud for testing the fat and SNF content of milk available in market. He informed the house that the SNF and fat percentage in milk have been found below the standard limits of Food Safety and Standard Authority of India (FSSAI). Dr. Kulkarni opined that the SNF and fat percentage come below standard limits prescribed by FSSAI, it means that there is need to revise the standard in context with the Indian conditions and the Associate Deans of Dairy Technology Colleges should approach to the concerned agencies regarding the revision of standards by giving inputs to the agencies.

Resolution No.8/6/VII: The Extension and Continuing Education Council directs the Associate Deans of Dairy Technology Colleges to conduct trainings on milk processing under Maharashtra Agricultural Competitiveness Project (MACP) and take advantage of various schemes being run by MACP.

Action: Associate Dean, CDT, Warud and Udgir.

H. COLLEGE OF DAIRY TECHNOLOGY, UDGIR.

Dr. M. R. Patil, Associate Dean, College of Dairy Technology, Udgir presented the report of various extension activities undertaken by the college. During the discussion Dr. Satish Kulkarni suggested that small groups of farmers should be formed and technical input should be provided to them regarding value addition and milk product development as per the market demand. Dr. Kulkarni further added that farmers should be sensitized about the quality standards of the products since they should not fail in the quality standards. The farmers should be provided detailed technical guidelines about labeling requirements, packaging techniques, and about all other mandatory requirements of a product that is to be marketed in India.

Resolution No.8/6/VIII: The Extension and Continuing Education Council directs to design the training modules on milk processing on new product development and quality standards and other legal requirement of packaging and marketing.

Action: Associate Dean, CDT, Warud and Udgir.

I. COLLEGE OF FISHERY SCIENCES, NAGPUR.

Dr. R. S. Dalvi, Associate Dean, College of Fishery Sciences, Nagpur presented the report of various extension activities of the college. Hon'ble Chairman expressed displeasure over the inadequate extension activities of the college and asked the Associate Dean to step up the efforts in this direction. Hon'ble Chairman also expressed displeasure over the vague statement of the Associate Dean about the future extension activities to be conducted by the college and asked the Associate Dean to quantify the objectives, set the target and submit it to the Director of Extension and Trainings. Dr. Zade told Hon'ble Chairman that the faculty of COFS, Nagpur has already been requested to submit the popular articles on Fresh Water Fish Culture in local dailies; however, the articles are still awaited. Hon'ble Vice Chancellor directed the Associate Dean to submit the popular article at an earliest. Mrs. Kadarbhai pointed out that there is great potential in fingerling market if the college may contact the KVKs they can get good orders.

Resolution No.8/6/IX: The Extension and Continuing Education Council directs the Associate Dean, COFS, Nagpur to step up the extension activities of the college and submit the quantified objectives of extension activities to the Director of Extension and Training.

Action: Associate Dean, COFS, Nagpur

J. COLLEGE OF FISHERY SCIENCES, UDGIR.

Dr. A. P. Somkuar, Associate Dean, College of Fishery Sciences, Udgir presented the report of extension activities of the college before the house. Dr. Somkuar provided the detailed information about the farmer's awareness campaign being undertaken by the college at remote villages in Latur District.. Hon'ble Vice Chancellor expressed satisfaction over the extension activities conducted by the college. Dr. Dinesh Bhosle suggested that the presentations of the fishery colleges should be taken in the beginning of the meeting since there is more to discuss on the issues related with the fishery colleges. Dr. Zade assured to reschedule the presentation of the fishery colleges in the in the next meeting.

Resolution No.8/6/X: The Extension and Continuing Education Council directs that the faculty members of COFS, Udgir should submit the popular articles on various topics in the local dailies.

Action: Associate Dean, COFS, Udgir

Finally, the council expressed satisfaction over the report of the extension activities presented by the Associate Deans of the constituent colleges and passed following resolution.

Resolution No.8/6/XI: The Extension and Continuing Education Council expresses satisfaction over the report of the various extension activities conducted by the constituent colleges of MAFSU and directs the concerned officials to incorporate the suggestions/recommendations in their plan of activities in the coming year.

Action: DET and All Associate Deans.

During the concluding discussions Dr. Zade pointed out that all the Associate Deans are empowered to conduct any extension activity at college level still the Associate Deans ask for the permission for trivial and minor issues and it causes inordinate delay in execution of those events. Hon'ble Vice Chancellor instructed all the Associate Deans that they should consider that the permission to all the orientation programmes, workshop and other extension activities is granted and they should not ask permission of such activities. The Associate Deans should seek the permission only in specific cases that are not under their delegation of powers. The Hon'ble Vice Chancellor also directed that only Subject Matter Specialist should be allowed to present specific topics in radio and TV talks and not a single person should be given all the topics based on his liaison with Doordarshan or any other agencies. Hon'ble Vice Chancellor also directed that all Associate Deans should allow the faculty members to participate in TV and Radio talks and other such activities. Dr. Zade also pointed out that there is always inordinate delay from colleges in submitting the information for MAFSU Varta and because of this the particular issue gets delayed. Hon'ble Vice Chancellor directed all the Associate Deans to compile monthly information and submit it to the DET on regular basis so that the news letter is not delayed.

Dr. Satish Kulkarni thanked the University and appreciated the extension activities undertaken by the colleges. He said that he has been attending the Extension and Continuing Education Council meeting since last two years and this has been a great learning experience for him. He has been a witness to increasing volume of extension activities of the University. Further he suggested that the University should diversify its training activity and include consumer awareness programmes in their future activities.

Hon'ble Vice Chancellor in his concluding remarks thanked all the members and expressed satisfaction over the content and volume of extension activities of the University. However, he cautioned that the University should not become complacent over this since there is still a great scope for improvement. Hon'ble Vice Chancellor informed the house about review of the work load of individual faculties taken by him at college level and emphasized over the need to have more planned and systematic approach towards the extension activities. He expressed happiness over the extension activities of Dairy Technology colleges since they are constrained with less number of staff still they have done well in the extension. However, he expressed disappointment over the extension activities of the College of Fishery Science, Nagpur. Hon'ble Vice Chancellor advised the Associate Dean Bombay Veterinary College to increase the farmers contact and interaction.

The meeting ended with a vote of thanks proposed by Dr. Sariput Landge, Technical Officer, Director of Extension and Training.

**Director of Extension & Training
Member Secretary**

ANNEXURE - I

Regular extension activities to be undertaken during the calendar year 2016

1. On farm demonstrations for technologies like urea treatment, silage making, vermi compost, azolla production, value added milk products and low cost fish products etc.
2. Promoting success stories for strengthening farmer to farmer extension
3. Training Programmes to be conducted for the various stakeholders like farmers, entrepreneurs, veterinarians and para veterinarians involved in animal husbandry, dairy and fisheries sectors.
4. Faculty at the Training programme/lectures delivered during farmers fairs, trainings and other scientist- farmers meet.
5. Animal Health Camps to be organized at adopted villages, animal shelters etc by the constituent colleges
6. Extension publications in the form of popular articles, leaflets, folders, booklets etc.
7. Participation in radio talks by the faculty members of the University through various regional stations of All India Radio namely, Mumbai, Nagpur, Akola etc.
8. Participation in television talks by the faculty members of the University through various regional stations of Doordarshan namely, Mumbai, Nagpur and Pune.
9. Organization and participation in exhibitions,
10. Organization and participation in fairs, melavas, rallies, livestock shows, etc.
11. Development of audio-visual aids for effective outreach programmes
12. Exposure visits of farmers to the constituent colleges, research farms and modern establishments.
13. Answering farmer's queries through telephone and letters
14. Participation and organization of Scientists-Farmers Meet
15. Organization of farm visit for the faculty members of the University to have first hand exposure to field situations
16. Taking various extension oriented field studies.
17. Participation in programmes organized by Department of Animal Husbandry, Rajiv Gandhi Science and Technology Commission, Agriculture Technology Management Agency, District Rural Development Agency, ATMA and other agencies as resource persons for animal husbandry, dairy technology and fisheries practices.
18. Awareness programmes on Zoonotic diseases
19. Organization of technical seminars for field veterinarians
20. Awareness programmes on exotic invasive fish species, biodiversity importance and conservation, etc in fisheries
21. Promotion of scientific aquaculture practices in available and unutilized water bodies such as reservoirs, village tanks, derelict water bodies, farm ponds etc.
22. Celebration of following events
 - A. Animal welfare fortnight – Last two weeks of January
 - B. World Women's day – 08.03.2016
 - C. World tuberculosis day – 24.03.2016

- D. World health day – 07.04.2016
- E. World Veterinary day – 30.04.2016
- F. World Environment day – 05.06.2016
- G. World Biodiversity day – 22.05.2016
- H. World Zoonoses day – 06.06.2016
- I. World Oceans day – 08.06.2016
- J. Indian Fish Farmers day – 10.07.2016
- K. World Rabies day – 28.09.2016
- L. World Animal day – 04.10.2016
- M. World Fisheries day – 21.11.2016
- N. National Milk Day – 26.11.2016
- O. Clean Milk Production Day – 03.12.2016

ANNEXURE – II

TRAINING PROGRAMMES FOR FARMERS

Sr. No.	Name of Department	Title of Training	Eligibility of participant
FACULTY OF VETERINARY SCIENCE			
1	Animal Nutrition	1. Computerized balanced diet formulation for dairy animals.	Educated unemployed youth , Dairy entrepreneurs
		2. Fodder Management	Educated unemployed youth , Dairy entrepreneurs, Farmers
		3 Enrichment of fodder	LSS/ Educated unemployed youth , Dairy entrepreneurs, Farmers
		4. Green Fodder production for animals	Farmers
		5. Commercial Goat Farming	Farmers
2	Department of Livestock production and Management	1. Modern Dairy Farming	Farmers
		2. Intensive Dairy Farming	Farmers
		3. Modern Goat Farming	Farmers
		4. Intensive Goat Farming	Farmers
3	Poultry Science	1.Short Term Commercial Poultry Training Course	Any individual willing to undertake the course
4	Department of Livestock Products Technology	1. Milk processing and Value addition	No criteria for educational qualification
		2.Hygenic Meat production and processing	No criteria for educational qualification
		3. Utilization of slaughter house By-products	No criteria for educational qualification
5	Veterinary and Animal Husbandry Extension and LPM Department	1. Scientific Dairy Production	Farmers and unemployed youth
		2. Commercial Goat Production	Farmers and unemployed youth
6	Veterinary Parasitology	1.Control of parasitic infestations of farm /companion animals	Farmers/ Cattle owners/Pet owners
7	Department of Veterinary Public Health and Epidemiology	2. Occupational health hazards to Veterinarian, butchers and other workers.	Veterinarian and Butchers
		3. Hands on training on production of hygienic chicken meat on newly developed model retail outlet	Butcher or supervisors

		4. Standardization and calibration of laboratory equipments	Graduate in any science discipline with working experience in food / diagnostic laboratory
		5. Slaughter house by product utilization	Butchers and small entrepreneurs
		6. Food Safety Aspects of Animal Origin foods	Livestock Development Officers / Academicians / Industry personnel
8	Veterinary Clinical Medicine, Ethics and Jurisprudence	1. Health Management of Sheep and Goat	Farmers
		2. Health management of Dairy Animals	Farmers
9	Veterinary Epidemiology and Preventive Medicine	1. Diseases of Livestock and their prophylaxis	Literate Livestock Owners/ Farmers
		2. Care and Management of dogs and cats	Pet owners
		3. Care and management of turtle, rabbits, ornamental fish and guinea pigs	Pet owners
		4. Basics of Herd health Management for dairy farmer.	Literate Livestock Owners/ Farmers
		5. Preventive health care of pet animals.	Pet owners
		6. Fresh cow management programme for high yielding dairy animals	Dairy entrepreneurs, livestock managers and livestock owners
FACULTY OF DAIRY TECHNOLOGY			
1	Department of Dairy Technology	1. Dairying for Upliftment of farmers	Farmers
		2. Essentials of starting a new Dairy Business	Farmers, SHGs, Extension Officers, unemployed youth
		3. Value added milk products	Farmers, SHGs, unemployed youth
FACULTY OF FISHERY SCIENCE			
1	Department of Fish Processing Technology and Microbiology	1. Value added fish products Development	Women Self Help Group members and other
2.	Department of Aquaculture	1. Fish Farming in Ponds and Tanks	Farmers, fishermen, Entrepreneurs, members of Self Help Group
		2. Ornamental Fish Seed Production and management	Unemployed youth, Women SHG
3.	Department of Fisheries Resources, Economics, Statistics and Extension Education.	1. Culture Based Fisheries in Small Reservoirs	Farmers, fishermen, Fish farmers, Entrepreneurs, members of Self Help Group

4.	Department of Fisheries Hydrography	1.Management of Water Quality Parameters in Aquaculture	Farmers , fishermen, Entrepreneurs
5.	Fisheries Engineering	1. Design and construction of Fresh water Fish Farm	Farmers , fishermen, Entrepreneurs

TRAINING PROGRAMMES FOR FIELD VETERINARIANS

Sr. No.	Name of Department	Title of Training	Eligibility candidate
FACULTY OF VETERINARY SCIENCE			
1	Animal Genetics and Breeding	1. Conservation of Indigenous Livestock Germplasm	L. D. O./ ACAH
		2. Animal Recording For Improved Breeding And Management Strategies	L. D. O./ ACAH
		3.Genetic Improvement in Bovines through Progeny Testing	L. D. O./ ACAH
		4. Formation ,Registration and Functions of Breed Society	ACAH/ L. D.O. /LSS/Paravets/ Livestock Keepers
		5. Basic Techniques in Animal Molecular Genetics	L. D. O./ ACAH/ Biol. Sc. Teachers & Students
		6.Field Performance Recording (Milk) for Genetic Improvement of Livestock	L.S.S./ Para-Vets
		7. Field Livestock Data Collection for Breeding	L.S.S./ Para-Vets
		8. Essentials of Livestock Census	L.S.S./ Para-Vets
2	Animal Nutrition	1. Computerized balanced diet formulation for dairy animals.	LDO/LSS/
		2. Fodder Management	LDO/LSS
3	Department of Veterinary Physiology	1.Refresher course in basic laboratory diagnostic techniques & their application in veterinary practice	B. V. Sc & A. H.
		2. Refresher course in basic laboratory diagnostic techniques & their application in veterinary practice	LSS/ Diploma holders
		3. Short course in climate change and stress management in animals.	Master's degree in preferably Veterinary Science (preferably Physiology, Livestock Management)/ Life Sciences / Zoology / Dairy Science / Animal Husbandry / and allied science, working not below rank of Assistant Professor and equivalent

4	Department of Veterinary Biochemistry	1. Veterinary clinical Biochemistry Laboratory Diagnostic techniques	B. V. Sc & A.H /M.V.Sc/Diploma holder in animal husbandry
		2. Urine Analysis as an aid in Field Diagnosis for LDOs	LDOs
		3. Maintenance of Laboratory and Instrumentation for LSS	LSS Diploma holder in animal Husbandry
		4. Advances in clinical Biochemistry	B. V. Sc. & A.H., M. V. Sc., M. Sc., DMLT or its equivalent
		5. Atomic Absorption Spectrophotometry for micronutrient analysis	B. V. Sc & A. H/ M. V. Sc./M. Sc.
5	Department of Veterinary Microbiology and Animal Biotechnology	1.Refresher Course in Laboratory Diagnosis of Infectious Diseases	LDOs, Technocrats from Private/Public Institutions, students/staff from Life Science Colleges
		2.Techniques in Tissue Culture	LDOs, Technocrats from Private/Public Institutions, students/staff from Life Science Colleges
		3. Techniques in Molecular Biology	LDOs, Technocrats from Private/Public Institutions, students/staff from Life Science Colleges
		4. Hands on Training on Molecular Diagnosis of important infectious diseases	LDOs, Technocrats from Private/Public Institutions, students/staff from Life Science Colleges
		5. Techniques in investigations of Clinical Samples	LSS
6	Veterinary Parasitology	1. Control of economic losses to livestock sector through integrated Parasite Management Programme	LDO,SMS of KVK, Field vets
		2.Integrated Pest Management for optimum animal production	LDO, SMS of KVK, Field Vets, Scientists, Teachers, PG students.
7	Department of Pathology	1.Refresher training course on "Diagnostic Techniques in Veterinary Pathology"	B. V. Sc. & A.H. Graduates
8	Department of Veterinary Public Health and Epidemiology	1. General requirement for NABL accreditation of testing and calibration laboratories and Internal Audit	Graduate in any science discipline with working experience in food / diagnostic laboratory
		2. Occupational health hazards to Veterinarian, butchers and other workers.	Veterinarian and Butchers
		3. Environmental Hygiene and Sanitation	Veterinarian, Scientist, Academician, Post Graduate students

		4. Standardization and calibration of laboratory equipments	Graduate in any science discipline with working experience in food / diagnostic laboratory
		5. Advances in quality control of meat and meat products	LDOs / Academicians Meat Industry personnel
		6. Hygienic Meat Production	Municipal Officers / Livestock Development Officers / Veterinarians
		7. Food Safety Aspects of Animal Origin foods	Livestock Development Officers / Academicians / Industry personnel
		8. Hands on training on diagnostic techniques with special reference to important / zoonotic diseases	Livestock Development Officers / LSS / Academicians / Scientist
9	Veterinary Clinical Medicine, Ethics and Jurisprudence	1. Critical care and emergencies in Veterinary Practice	ACAH / LDO/ Private practitioner
		2. Herd approach to diagnosis and treatment of Metabolic and Nutritional Diseases	Livestock Keepers and field officers
		3. Animal Health Management	Livestock Keepers and LSS
		4. Recent trends in diagnosis and therapeutic management of ruminant and pet animals	ACAH and LDOs, of Govt of Maharashtra
		5. Therapeutic Management of Metabolic Diseases in animals	LDOs/Veterinary Graduates
10.	Department of Gynaecology and Obstetrics	1. Ultrasonography in large & small animals	B.V.Sc. & A.H./M.V.Sc
		2. A.I./Pregnancy Diagnosis in ruminants	B.V.Sc. & A.H./M.V.Sc
		3. Fertility management in farm animals	B.V.Sc. & A.H./M.V.Sc
		4. Postpartum reproductive disorders in Farm animals.	B.V.Sc. & A.H./M.V.Sc
		5. Canine Reproduction	B.V.Sc. & A.H.
11	Veterinary Surgery and Radiology	1. Diagnostic Imaging Technique	LDOs, Technical staff of SAU, Veterinary practitioners
		2. Canine Surgery	LDOs, Technical staff of SAU, Veterinary practitioners
		3. Advancement in Large Animal Surgery	LDO, Technical Staff of SAU, Vet practitioners, PG students
		4. Advanced Radiographic procedures in Veterinary Practice	LDO, Technical Staff of SAU, vet practitioners, PG students
		5. Recent protocols in Equine Anaesthesia & Surgery	LDO, Technical Staff of SAU, Vet practitioners, PG students
		6. Laparoscopy techniques in small animals	LDO, Technical Staff of SAU, Vet practitioners, PG students
		7. Large Animal Anaesthesia	LDO, Technical Staff of SAU, Vet practitioners, PG students