

Minutes of the Second Meeting of Research Council held on 17th July, 2015

The second meeting of the Research Council of RAJUVAS, Bikaner was held on 17th July, 2015 at 3.00 PM in the Conference Hall of Vice-Chancellor's Secretariat, RAJUVAS, Bikaner under the Chairmanship of Hon'ble Vice-Chancellor. List of participants is provided in Annexure – I.

The Director Research, Member Secretary of the Research Council welcomed Hon'ble Vice-Chancellor and Chairman RC, official members of Government of Rajasthan, university officials and nominated members/livestock breeders/farmers who participated in the second Research Council meeting of RAJUVAS, Bikaner. The Director Research informed the house about the agenda to be considered in the meeting and requested Hon'ble Vice-Chancellor to initiate proceedings of the meeting.

Hon'ble Vice-Chancellor in his opening speech thanked all the participants including Shri Srigopal Upadhyay, Shri Agya Ram Singh, official from Government of Rajasthan and Comptroller, RAJUVAS. Hon'ble Vice-Chancellor informed the importance of this meeting as after the formation of RAJUVAS many new projects have been initiated and researchers have under taken the research work in these projects in full swing. The Chairman also thanked the scientists for their hard work and appreciated the individuals who are working for the progress of this institution despite having multiple responsibilities like teaching, research, extension, administration and expressed that it is necessary for survival and growth of this institution which is in its early phase of development. Hon'ble Chairman expressed his pain on selling of indigenous breed of cattle by their owners to slaughter houses when these animals stopped giving milk due to ageing and other natural factors and informed the house about the extent of loss by losing pure and healthy breeds of the State. He stressed the need to preserve these elite germplasms by creating awareness amongst the livestock owners who can be the main stream in this conservation work. In the matter of using cross breeds in research, Hon'ble Vice-Chancellor advised the scientists concerned to discourage cross breeding in shortest possible time and switch on to latest technologies by replacing traditional methods. Hon'ble Vice-Chancellor congratulated the scientists for their bright future specially the young and new ones who recently joined the RAJUVAS family.

AI-01/RC-02/RAJUVAS/2014-15 : To confirm the minutes of the 1st Research Council Meeting.

The minutes of the 1st Research Council meeting were confirmed and Annual Reports of year 2010-11, 2011-12, 2012-13 and 2013-14 were also approved by the house.

AI-02/RC-02/RAJUVAS/2014-15 : To review the progress of on-going research projects

After the brief remark by Hon'ble Vice-Chancellor presentation by Principal Investigators started one by one and at first Dr. S.K. Kashyap, Professor and Head, Department of Veterinary Microbiology and Biotechnology started his presentation.

“Establishment of Microbiological and Biotechnological Information System Network (Bioinformatics and Chemo informatics) Centre for exploring interconnections for molecular Biological Applications in the field of Veterinary and Animal Sciences

(RKVY): Prof. S.K. Kashyap presented objectives of the above project very briefly and informed the house about the work done in this project. Acquaintance of latest Bioinformatic tools and softwares for designing structures of Ligands, chemicals, biochemical-pathways inside the cells, software for designing the 3D structures of Ligands, software for drawing the structures of small chemical molecules to study the stereochemistry involved in their structures, modeling tool of biochemical networks with graphical user interface. **MFE-Primersoftware** was used for the development of Multiplex-PCR for rapid detection of virulence factors in Salmonella and Antibiotic resistance genes. The Software involves *in silico* Batch Mode analysis of multiplex Primers to determine the compatibility and specificity of the primers used in the study. The study involved development of two Multiplex-PCRs for detection of six Virulence genes, viz., Multiplex-I consisted of primer pairs for detection of *sopE*, *pipA* and *mgtB* genes and Multiplex II was designed to detect *trc*, *shd* and *spiC*. Acquaintance of Bionumerics version 7.5 for Fingerprint and quantitative data analysis: Bionumerics version 7.5 has been procured to build database of bacterial strains for clonal association and epidemiological purposes. Various molecular genotyping techniques, viz, ERIC-PCR, REP-PCR and RAPD-PCR have been standardized to study *Salmonella* sp. The bioinformatics Centre has established linkages with National Bioinformatics Grid System of ICAR and other centers of the country for sharing tools and information. Students research: post graduate and doctoral students and researchers of other departments are provided solutions to their bioinformatics issues regarding designing, validation of oligonucleotide primers, putative three dimensional structures of peptides and proteins of microorganisms. Testing for genetic defects: the animals to be used for breeding purposes were got tested for genetic defects. Microbiological testing: the animals to be used for breeding purposes were tested for possible infectious diseases. He assured all financial help and suggested scientists of related departments to sit together and chalk out the probabilities of Karyotyping in the University

(Action: PI and HOD ABG).

Apex Centre for Animal Disease Investigation, Monitoring and Surveillance (SP): Prof. A.K. Kataria, Officer Incharge of the centre explained in brief about the objectives of the centre and explained the work done. Dr. Kataria informed about various clinical and morbid samples collected by Apex Centre from Department of Animal Husbandry, Central Government Departments and private owners and processed to determine the etiology of the ailment, to confirm disease and suggested suitable treatment and preventive measure. He also informed the house about field work in disease outbreak in different districts and species of animals.

Centre for Excellence for Use of Space Based Technology in Animal Science (SP): Prof. A.K. Kataria Principal Investigator, of the project explained the mandate of this project which is to develop and make use of space-based technology in improvement of animal science sector for improved management and production. Dr. Kataria presented his work and reported data with maps on disease outbreaks, disease prevalence and migratory routes of sheep. Dr. Kataria was pleased to inform the house that for the first time GIS mapping of Jorbeer conservation reserve, in Bikaner has been taken up. He further informed that Jorbeer is dumping ground for animal carcasses only of its kind in the world where large number of raptors emigrate from various locations in the world. His centre has initiated work on migratory birds in Jorbeer Conservation Reserve, Bikaner. Since January, 2015 to March, 2015 various species of raptors viz. Eurasian griffon, Cinereous vulture, Egyptian vulture, Steppe eagle, Imperial eagle, White tailed eagle, long legged buzzard, Yellow yard pigeon, and black kite were sighted.

Centre for Studies on Wildlife Management and Health (SP): The Principal Investigator, Prof. A.K. Kataria explained in short about the mandate of the centre which is to act as a knowledge centre for wildlife protection and propagation and to design strategies for protection of endangered species of wildlife. After that Dr. Kataria briefed the house about work done in the centre in terms of disease control activities, surveys and research on gastrointestinal parasitic and microbial infections and educating students and masses for wildlife conservation. To give hands on training, the centre had organized educational tour of 40 students of College of Veterinary and Animal Science, Bikaner to various sanctuaries and parks situated in Rajasthan. He informed that the centre is continuously working for screening of wild animals for parasitological infestations. The Chairman suggested Dr. Kataria that since the centre is working as knowledge centre, more training for veterinarian from line department may be organized using its expertise. Apart from training Hon'ble Vice-Chancellor stressed the need for providing consultancy by using expertise possessed by the scientists of the centre and use its knowledge in extension activities. Chairman also suggested to collaborate with forest people and veterinarians attached with wildlife for feedback and future strategies
(Action: PI)

Establishment of Rathi Cattle Breeding Farm (RKVY): Prof. Rajeev Joshi, PI of the project after presenting introduction and objective in brief presented the achievement by informing that herd strength has been increased in purebred and cross bred Rathi cattle during the reporting year and present a table furnishing the details of the animals/germplasm distributed in the native area. Dr. Joshi informed the house that they are distributing surplus strength to Gaushalas, Panchayats, NGOs, Government Agencies and individual farmers. The Chairman advised that monthly report should be sent to Director Research/University and showed his concern about the low lactation yield and lactation length in this breed and suggested to look into the matter seriously.
(Action: PI)

Centre for Organic Animal Product Technology (SP): Prof. Basant Bais (PI) presented introduction, objective and future plan in brief. Dr. Bais informed the house that a unit of goat has been established at Livestock Research Station, Kodamdesar for demonstration and training of farmers in organic animal production as well as research in this area. She also informed the house about two days farmers training on "Importance of organic animal production in present scenario" in which farmers from Bhelu village of Kolayat tehsil participated. Hon'ble Vice-Chancellor suggested that for getting positive result we may test feed and fodder and also analyze these. He also said that training, maintenance of farm goat and publication work be done in next plan. The Chairman enquired about the number of farmers who have adopted organic animal production and informed the house that the farmers are apprehensive about adopting this technology as their production decreases by using organic animal production technology. Then he asked Dr. Bais to identify clusters where farmers can adopt animal organic production technology and to coordinate with VURTC for this work. He further suggested the PI to work on the marketability of such products.
(Action: PI and DEE)

Establishment of Live Demonstration Models of Diversified Livestock Production Systems for Motivating Adaption to Enhance Agricultural Income (RKVY): With the aim to shift from regional dominance of one species, to production from a number of species to meet ever increasing demand for human food and other livestock products this project was taken up in the University. Dr. Basant Bais, Principal Investigator informed that at poultry farm of CVAS, Bikaner various demonstration models for live animals, poultry, aquaculture,

store for feed and fodder and azzolla unit has been established and some units are going to be completed shortly in near future. Dr. Bais informed the house that housing for Emu and duckery for live demonstration of different duck breeds has been established. Similarly, a broiler house for brooding and rearing of broilers has been established. Sheds for sheep, camel, pig sty, fish pond and storage for feed and fodder for different species of livestock are ready. Training on scientific management of diversified poultry specie was organized under the RKVY project on "Establishment of Live Demonstration Models of Diversified Livestock Production System for Motivating Adaption to Enhancing Agricultural Income". The Principal Investigator concluded her presentation with no constraints in the project which was taken as satisfactory by the Chair as well as house.

Assessment of occurrence of various diseases in camel (*Camelus dromedaries*) prevailing in arid and semi-arid region of Rajasthan state using pathological diagnostic tools and development of field based diagnostic/sampling techniques for identification of camel diseases (RKVY): Prof. Hemant Dadhich, Principal Investigator presented progress of the project and informed that tissue samples of camels during post-mortem examination were collected and preserved for further histopathological and histochemical examinations. He informed the house that various agencies of state such as Department of Animal Husbandry, Government of Rajasthan, Border Security Force have been contacted to procure the information about disease occurring in camel for preparation of database which is under process. Dr. Dadhich also informed the house about diagnosis of diseases, purchase of equipments, chemicals and glassware etc. under the project. Hon'ble Vice-Chancellor suggested compiling data and preparing an epidemiological picture of camel diseases.

(Action: PI)

Area Specific Mineral Mixture Supplementation for Enhancing the Production, Reproduction and Health Status of Cattle and Buffalo of the Semi-Arid Eastern Plain of Rajasthan (RKVY): Dr. (Mrs.) Sheela Chaudhary, (PI) informed the house about the objective and budget outlay. Dr. Chaudhary informed the villages and tehsils covered before formulation of mineral mixture in accordance to ICAR project report which was as per deficiency of various mineral in different tehsils. Dr. Chaudhary explained the criteria for selection of livestock owners and animals in villages like Trilokpura (Bassi), Mahachandpura (Chaksu), Syampura (Phulera) and Banethi (Kotputli). She explained that in total 64 cattle were selected whose average lactation number was 2.75 and stage of lactation was 2.53 months. By feeding 50 gm of mineral mixture to each cow, an increase of 0.66 litre milk per day was observed. The Principal Investigator also informed the house that it was evident that regular feeding of mineral mixture can reduce age at first calving and can make the animals profitable. She also informed the house that by feeding mineral mixture estrus cycle could also be regulated and it could be helpful in reducing calving interval to make dairying a more profitable enterprise. Hon'ble Vice-Chancellor and Chairman asked Principal Investigator about the future plan pertaining to her project and suggested that the scope of the project could be increased by taking more districts into the project and also suggested that in collaboration with VUTRC deficiencies in those areas could be mapped and accordingly mineral mixtures could be prepared.

(Action PI)

Genetic Improvement of Sirohi Goats in Farmers' Flocks (ICAR): Dr. M.C. Sharma presented progress report of the project in place of Dr. R.K. Nagda, Principal Investigator who could not attend the deliberations due preoccupation. Dr. Sharma presented objective and budget allocation of the project in very brief and come straight on results and discussion. He informed the house that the overall growth was 84.09%. The Chairman pointed out

mortality rate and body weight of the goat and expressed his concern on the figure provide in the annual report of the project. Hon'ble Vice-Chancellor suggested more work is needed to be done to check this problem. **(Action PI)**

Establishment of Gir Cattle Breeding Farm (RKVY): Principal Investigator, Dr. C.S. Vaishnav presented the progress report of the project. He informed that A.I. with superior Gir semen is being done through already established A.I. centers in Gir breeding tract under the Department of Animal Husbandry, GOR. On this the chairman suggested that they should establish more centers in coordination with Animal Husbandry department. The Chairman pointed out that the milk yield and lactation length shown in the table is too low and asked Dr. Vaishnav to look into it because this may be a recording/typing error. Dr. Vaishnav answered that he will look into it. On PI's information that they have 1000 doses of semen in their possession Chairman advised to distribute the semen doses to livestock breeders and other line departments of animal husbandry. **(Action PI)**

Network Project on Buffalo Improvement (ICAR): Dr. K.S. Nehra, Principal Investigator presented the progress report. The objective of the project is to bring in genetic improvement in Surti Buffaloes. The PI informed that all the breedable females are bred through AI from semen obtained from the identified bull in the project. Proper record of AI, PD and calves born are maintained at the centers. All the female progeny born are identified and marked by alphanumeric code by ear tattooing. Male calves born from the elite dams are identified, selected and purchased on weaning and enlisted for future sets. Dr. Nehra informed that herd strength in conservation unit has increased from 127 to 133. Total 10, 370 semen doses were frozen during reported period with a closing balance of 38,644. Dr. Nehra informed that farmers of the region are showing interest towards buffalo rearing for milk production as evident from positive growth rate of buffaloes. Hon'ble Vice-Chancellor expressed his satisfaction on the fat percentage in milk which was 7.58% for 364 samples. The Chairman expressed concern on high rate mortality in the field unit and wanted to know the reason behind this. **(Action PI)**

Nutritional and Physiological Approaches for Enhancing Reproduction Performance in Cattle and Buffaloes (ICAR): Prof. J.S. Mehta presented the progress report and informed that data were collected in and around Bikaner on the crossbred cattle, native cattle breeds and on buffaloes. Cattle in Rathi belt was surveyed for the reproduction status of Rathi breed especially nomadic animals. Complete history of the animals was taken and the relevant reproductive information was noted in the data sheet. Screening on 490 cattle and 109 buffaloes from these areas was performed by taking history or rectal palpation, individual record for each of the screened animal was prepared. Animals were provided concentrate and mineral mixture supplement for a period of two months. Prolapse was found to be a frequent cause of reproductive inefficiency especially among Rathi breed of cattle.

Teaching Veterinary Clinical Complex, Vallabhnagar (RKVY): Teaching Veterinary Clinical Complex is being developed as per minimum standard of VCI and to address the problem faced by animal owners in the area pertaining to poor production of the animals due to occurrence of disease and heavy mortality. Dr. S.K. Sharma, PI of the TVCC informed the house that they performed clinical examination and treatment under outdoor, indoor wards for livestock and pet animal patients. Facilities for training of farmers, veterinary and para veterinary students have also been developed. The Principal Investigator informed the house that 9543 cases of different diseases were treated and a total number of 2188 animal owners were benefited, total number of 358 ambulatory cases (critically ill animals) were brought to

the TVCC by large animal ambulance. Outbreaks of H.S. B.Q. and F.M.D. in cattle and buffalo and P.P.R. and amphistomiasis in goats and sheep were observed during current year in the area. The Chairman asked Principal Investigator weather animal owners after treatment of their animals do come again? In reply to this Dr. Sharma said Yes! They do come again and bring other livestock owners also with them.

Capacity Building for Animal Feed Technology, Quality & Productivity Enhancement (RKVY): Dr. Vishnu Sharma, Principal Investigator presented the work done in the project. Dr. Sharma informed the house that training programme under the project was performed in two phases, in first phase theoretical trainings were given and in second phase practical trainings were given to 77 farmers, 60 Gaushala Incharges, 49 Veterinary Officers, 54 Livestock Assistants and 30 MBA agriculture students. In theoretical training they were taught about feed quality evaluation, feed formulation and rural self employment. In the practical training, methods for making urea molasses mineral block, urea treatment of straw, silage making etc were given.

Capacity Building for Detection of Newer Synthetic Ingredients, Highly Pathogenic Microbial Presence, Drugs, Pesticides Residues and Pollutants etc. by Establishing High End Milk Quality Testing Research Laboratory at Jaipur (RKVY): Dr. Vishnu Sharma, Prof. and Dean, PGIVER, Jaipur presented the progress of the project since the Principal Investigator, Dr. (Mrs.) Sanjita Sharma could not attend the deliberations. Dr. Sharma informed the house that under quality monitoring a total number of 1479 raw milk samples collected from different districts of Rajasthan and tested. Adulteration/synthetic ingredients such as urea, detergent, starch, soda, salt samples found in many samples. Quantitative estimation of urea revealed that 90 samples crossed positive limit of 70mg/100ml of urea. Pesticide residue and prevalence of highly pathogenic microbial was also detected. 196 farmers, Gaushala managers, unemployed youth, veterinary professionals etc. were sensitized and awareness regarding milk quality and safety aspects were told to them.

Establishment of Specialized Human Resource Development Centre of Veterinary and Animal Sciences at Jaipur (PGIVER) (RKVY): Dr. Vishnu Sharma informed that institute is actively engaged in basic as well as applied research to provide solution to different health as well as production problems of livestock through diagnostic research and technology development. Centralized testing facility has been developed for sample diagnosis. Medicine outdoor clinic is continuously involved in the treatment of diseased animals and providing consultation services to the animal owners. Animal nutrition department serve for analysis of feed brought from field farmers, private and cooperative dairies. The centre is liaisoning with various line departments and under extension activities organized training programme for farmers, Gaushala Incharges, Veterinary Officers and Para Vets are being done. Free camp for treatment of injured birds were also organized. Two days workshop on "Sensitization Workshop on Sustainable Production from Indigenous Cattle" and a seminar cum workshop on "Avian: Rescue and Rehabilitation of Injured Birds" was organized at PGIVER, Jaipur. Besides this Dr. Sharma also informed that many dignitaries visited the centre and took stock of the progress and work done in the centre.

Mega Sheep Seed Project (ICAR): Dr. P.C. Sharma, Principal Investigator informed the house that the aim of the project is conservation and improvement of Sonadi sheep by distributing the elite male in the home tract of Sonadi under which they are maintaining required number of high performing elite males for breeding after selection; the next superior stock were distributed to the farmers. Efforts were also made to improve the reproductive

performance of farm flock. The Chairman pointed out the low body weight and high mortality among the breed and asked the reason behind it. In reply to this the Principal Investigator and other scientists from Vallabh Nagar station drew attention towards the geographical condition of the area which is low lying area and informed that during monsoon rain water accumulated in these areas which stands till month of November due to rocky surface. Therefore, the water borne and allied disease are the probable cause of high mortality in the flock. Hon'ble Vice-Chancellor questioned then why the flocks are reared in these areas. The PI answered it is not possible to hold the animal at farm for such a long period as the water logging prevail till November. Suggestion came up during the discussion to fence the area to stop the flocks from grazing in water logged area. Hon'ble Vice-Chancellor also suggested that the PI along with the project people should resolve this issue as soon as possible. **(Action PI)**

Experimental Learning Unit Pet (Pup) Production (ICAR-ELU): Dr. Y.P. Singh, Principal Investigator briefed the house with presentation thereby informed that pet keeping is increasing day by day in urban and semi urban areas. Pet production has not developed in Rajasthan due to lack of organized pet Farms. The main aim of this project is to provide hands on training about pet breeding, management, nutrition, farm practices, vaccination, basic training of pets. Parent stock of different breeds viz. Labrador, Retriever, Dachshund, Pug, beagle, German Shepherd have been procured. Chairman inquired about the growth of breeds in answer to this the Principal Investigator replied that they have noticed satisfactory growth in these breeds. The Chairman suggested that the photographs of animals should be taken in a presentable manner in future. **(Action PI)**

Demonstration and Dissemination of More Remunerative Sirohi Goat Farming System (NMPS) RKVY): Dr. M.C. Sharma, Co-PI of the project presented the progress report. NMPS Project has been started at LRS, Chittorgarh and 300 goats of Sirohi breed have been purchased for conservation and improvement of the breed. The objective is to distribute improved bucks to goat breeders. The center will maintain 300 breedable doe and 10 bucks as a foundation stock. The preliminary selection of kids will be made on the basis of first lactation milk yield of their dam and their own six month body weights, under semi intensive system of management. The selected individuals will be reared until they attain sexual maturity at about one year of age. Till date 185 and 129 male and female respectively have been distributed to farmers for improving the productivity of Sirohi goats in farmers flock. The Co-PI informed the house that 1500 mtr fencing wall almost completed, modification and repairing of office building civil work has been completed and repairing of Goat shed has been completed at the station. The Chair has asked the Co-PI to form a distribution plan for effective distribution of the animals. **(Action PI)**

Centre for conservation of Animal Biodiversity (SP): Co-PI of the project presented the work done in the project. The Chairman felt that the work being done in the project is not as per the mandate/actual requirement and suggested that a prepare road map for the project be , create breeders association at district level, make efforts to develop this center as knowledge center and also collaborate with Dr. Kashyap for breed identification of the animals in the field. Principal Investigator with project staff should discuss the work out lay with him. **(Action PI)**

Centre for disaster management technology for animals (SP): New building of CDMTA comprising of one museum, one seminar hall and three office rooms was inaugurated by Hon'ble Vice-Chancellor. The centre has organized a national seminar on "Formulation of

Strategies for Disaster Management Technologies for Animals” and prepared a policy paper on disaster management for animals and suggested to include a course on dog training in undergraduate degree curriculum. The centre suggested that animal disease outbreaks and droughts are considered as disaster and specific trainings for management are required for area related disaster. The staff of CDMTA informed the house that various trainings of farmer on disaster management were organized at the centre as well as at villages like Ambasar, Gigasar, Sujasar of Bikaner district. Souvenir, folders and posters were published by the centre on animal disaster management technology. Air conditioned wards for heat stroke cases were developed through CDMTA in TVCC of CVAS, Bikaner and a fire-proof cattle shed was developed to prevent fire disasters in these dairy animals. The centre staff informed the house that centre is committed to host the workshops and conferences along with short training programmes. Various policies will be communicated to the State Government for management of disaster in animals from time to time. The Chair suggested that SOP should be prepared for heat stroke first aid and guide lines also should be prepared for veterinarians and identify veterinarians for training of five days. **(Action PI)**

Centre for Ethno-Veterinary Practices and Alternative Medicine (SP): Dr. Ashok Gaur, Aast.Professor (VPT), CEVPAM presented the progress report and work done in the project on behalf of Prof. A.P. Singh, PI of the project. Dr. Gaur informed the house that after the establishment of the centre collection of literature and information regarding ethno-veterinary practice is being done. The centre has developed Gau-Mootra Ark and other distillates (single distilled and double distilled) of fresh cow urine from indigenous cows following the GLPs which are to be tested and utilized further for development of various formulations and combinations with other herbs. The clinical trial work on the two herbal formulations developed by the centre during last year for dermatological disorders is in progress. The herbal formulations developed have been sent to an ICAR research institute for finger printing of bioactive pharmacological principles. It is also informed that work on Panchgavya is in progress.

Livestock Research Station, Beechwal : Prof. R.K. Singh (PI) presented the progress report of Livestock Research Station, Beechwal. Dr. Singh informed the house about various crop production activities and informed the house that associated herd of Tharparker under the project Tharparker cattle breeding farm is being maintained here beside a sheep unit for enhancing mutton productivity in Marwari sheep under arid conditions. The Chairman expressed his satisfaction over herd strength but pointed out why the lactation length of Tharparker cow maintained at LRS, Beechwal is low and suggested Dr. Singh to look into it. The Hon’ble Vice-Chancellor enquired about the farms income and questioned whether the income generated during the reported year is high as compared to previous year. PI replied in affirmative. **(Action PI)**

Livestock Research Station, Kodamdesar: Prof. Vijay Kumar, Officer Incharge of the station presented the progress report of LRS, Kodamdesar and informed the house that the Kodamdesar farm was initially used for sheep breeding (Bikaneri Chokla) and later on it has been developed as Livestock Research Station. For irrigation and use of water at the station construction of DH minor through 20 Div. IGNP, diggi making, pasture development and fencing work are under progress. Facilities for housing, feeding, watering, grazing of animals have been developed scientifically for a large number of livestock. LRS, Kodamdesar is maintaining Bikaneri Chokla sheep flock with a flock size of 282 animals which are superior carpet wool producing breeds and for used of genetic improvement in the farmers flock.

Conservation, evaluation and improvement of Kankrej cattle through breeding (RKVY): Dr. Vijay Kumar, Principal Investigator presented the progress report of the project and informed about the different aspects of growth, production, reproduction, health coverage, feed and fodder production. Dr. Vijay Kumar informed the house that herd strength increased from 461 to 510. The PI informed the house that Superior Kankrej bulls are being supplied to the interested farmers/gaushalas/village panchayats for genetic improvement of their animals.

Conservation, evaluation and improvement of Sahiwal cattle through breeding (RKVY): Principal Investigator, Prof. Vijay Kumar informed that the project was implemented in the year 2013-14 at LRS, Kodamdesar for undertaking improvement and conservation of Sahiwal cattle germplasm through selective breeding. For this semen collection will also be started and semen will be distributed to the farmers at natural breeding tract for which efforts are being made to identify the farmers in the breeding tract who are maintaining Sahiwal breed. Dr. Vijay Kumar informed the house that a total number of 139 animals were purchased in January, 2015 including 2 bulls. The herd strength at the beginning for the year was 160 animals and at the end of the year were 388. The percent of mortality was 4.38% during 2014-15 which lies in normal range of farm standards. Highest mortality was recorded in 0-3 month age group which indicates that better managerial practices are required for this age group.

Sewan grass development and green fodder production with fodder conservation for sustainable livestock production in arid region of Rajasthan (RKVY): Prof. Vijay Kumar presented the progress report of the project and informed the house that LRS, Kodamdesar provides a large area for cultivation of fodder and grasses having 3000 hectare of farm land. During the year 2014-15 a total of 100 hectare land was used for cultivation of sewan grass.

Reproductive and production performance of Tharparkar cattle under arid condition (NICRA): Prof. Vijay Kumar informed the house that objective of the project is to assess the impact of climate on productive and reproductive functions of Tharparkar cattle and identification of unique traits which make the cattle resilient to climate change. The data recording work temperature and humidity parameters was done regularly. Dr. Vijay Kumar informed the house that very little effect of weather parameters (relative humidity and THI) was observed on the production and reproduction performance of the animals. It was also observed that a slight modification in the animal houses was sufficient to meet optimum performances of the animals during adverse climatic conditions.

Establishment of Tharparkar Cattle Breeding Farm (RKVY): Dr. R.S. Pal, Officer Incharge, LRS, Chandan and Principal Investigator presented the progress report of the project. Dr. Pal informed the house that efforts are going on to increase the herd strength and productivity of the animal and reducing age at first calving as well as dry periods of the herd. Efforts are also going on to use superior bulls for breeding. The cows are increasing in milk production. Efforts would be made to increase the production of green fodder and availability of dry fodder through proper management to fulfill the requirement of the herd. Dr. Pal also informed the house that good quality germplasm were supplied to the farmers, NGOs, Gaushalas and line departments under the project for conservation and improvement of the breed. The farm generated an income Rs.61.61 lac during the year 2014-15 which is the highest income generated ever.

Dr. R.S. Pal, Principal Investigator of the project informed that mortality was recorded 2.13% during the year is lower than the previous year. Total milk production during 2014-15 was higher as compared to previous year. The Principal Investigator informed the house that as per project targets for the year of 2014-15, almost all the targets we have been achieved. Herd Strength in terms of female animals is 350. Peak yield of the herd in terms of milk production in a day was recorded 23 Kg. Number of improved germ plasm supplied is 25. Age at first calving has been reduced to 30 months. Number of semen doses persevered is 500 for A.I at Vallabhnagar. In this regards semen collection bank is established at CVAS Navania Vallabhnagar Udaipur. More than 500 doses are available at CVAS Navania Vallabhnagar Udaipur and as per the demand these can be supplied anywhere in India. The Hon'ble Vice-Chancellor enquired from Dr. Pal why herd strength of 438 is maintained at LRS, Chandan since this is causing financial burden on the station as well as on University. The Chairman suggested that herd strength should be maintained as per University norms and culling should be done whenever the number of cattle exceeds the norm of herd strength. This will reduce the financial burden and the resources and finances of the station will be used in judicious manner. On semen collection and sending it to the semen collection bank, the Chairman enquired why these are not used by the station and breeding tract of Jaisalmer and nearby areas.

(Action PI)

Establishment of State Level Feed and Fodder Analysis Laboratory for Quality Assurance in Feeding of Animals for Sustainable Animal Production in Rajasthan (RKVY): Dr. Rajesh Nehra presented the report of the project as Prof. Tribhuwan Sharma PI was on other official duty. The advance animal nutrition laboratory is under development in project which will support quality nutrition to the animals of state by analysis of feed & fodder for quality assurance including anti nutritional and toxic factors. Consultation to the farmers for solving nutrition related problems is of great advantage as observed from initial responses of farmers with existing status of lab. The package of practices to be delivered for specific problems will be of great help for solving problems of farmers at mass level.

Livestock Feed Resource Management and Technology Centre (SP): Prof. R.K. Dhuria, Principal Investigator presented the progress report and work done under the centre. Dr. Dhuria informed a feed and fodder analysis laboratory has been set up to achieve the objective of the centre. The centre organized two silage technology camps at Marwar Mundwa (Nagaur) and Chirawa (Jhunjhunu). New technique of silage making with the use of silo bags was demonstrated to farmers at LRS, Beechwal to preserve green fodder for future use. Farmers training on Hydroponics Technology to make avail green fodder round the year for animals were conducted. Forty livestock owners from Suratgarh, Taranagar, Nagaur were benefitted from this training. Thirty seven livestock owners from Jodhpur, Bikaner and Hanumangarh participated in this training.

Increased production of green fodder through hydroponics technology for sustainable livestock production in arid Rajasthan (RKVY): Prof. R.K. Dhuria informed the house that in an attempt to of introduces new technology in animal feeding system to address the issue of shortage fodder and its low quality effect on the productivity of animal's hydroponics is usefull. Dr. Dhuria also informed success in preparing planting material from pasture seeds using hydroponics technology and sewan grass seedlings were developed in 7 days through soil less cultivation using hydroponics technology. The demonstration of technology to the farmers has also been started for exposing farmers with new technology that can make provision of high quality green fodder for animals round the year to support and improve productivity.

All India Network Programme on diagnostic imaging and management of surgical conditions in animals (ICAR): The objective of the project is to study the diverse imaging techniques and surgeries of soft tissue, bones and joints, ophthalmic by using advance surgical equipments. Under the project various equipments have been purchased and fabrication and installation of Downer animal Bay in the TVCC, CVAS, Bikaner and Pilot Trial have been performed.

AICRP on Marwari Goat (ICAR): Principal Investigator Prof. G.C. Gahlot informed the house that this is a field based goat improvement project. The body weight, growth, mortality etc were recorded in the breeding tract of Marwari goat. The Hon'ble Vice-Chancellor pointed out why the body weight of Marwari goat is low and asked about the work on improvement of this breed. The Principal Investigator replied most of the time the goat breeder's sell their goat due to economical problem or for earning money hence it is not possible for maintaining track on the goats under study. Hon'ble Vice-Chancellor wanted to know how many new breeding tract/area their team have covered and suggested to coordinate with VURTC in this regard. **(Action PI and DEE)**

Animal Bio-Medical Waste Disposal Technology Centre (SP): Prof. Rakesh Rao PI of the project presented the report. He informed that laboratories for the project have been constructed. Manual on guidelines for handling of biomedical waste has been prepared. Procurement of laboratory equipments and chemicals is under process. Research work on the evaluation of different methods for the disposal of bio medical waste has been initiated.

AI-03/RC-02/RAJUVAS/2014-15 : Establishment of new Livestock Research Station to take up Malvi Cattle Breeding and setting up of an Institute for Diploma in Animal Husbandry (AHDP) at Dug, Jhalawar.

Establishment of LRS, Dug, Jhalawar to take up Malvi cattle breeding is a part of Budget Announcement of Hon'ble Chief Minister, Government of Rajasthan (Budget Announcement No.91 year 2015-16). The project is aimed to strengthen and conserve the indigenous Malvi cattle breed of Rajasthan. An AHDP programme will be started very soon at Dug, Jhalawar.

In this connection, University vide order No.F.(23)/RAJUVAS/Reg./Estt.-I/2015/434 dated 16.07.2015 nominated Prof. R.K. Nagda, Dean, College of Veterinary and Animal Science, Navania, Vallabhnagar, Udaipur as Project Incharge (P.I.) to act immediately upon this project . It was unanimously resolved to establish a new LRS and AHDP institute at Dug, Jhalawar. **(Action: Registrar and Dean, CVAS, Navania)**

AI-04/RC-02/RAJUVAS/2014-15: Establishment of Goat Breeding Farm for demonstration and dissemination of quality germplasm for remunerative goat farming system at Dholpur.

Establishment of Goat Breeding Farm for demonstration and dissemination of quality germplasm for remunerative goat farming system is in accordance to the Cabinet decision No.33 by Government of Rajasthan. A land at Dholpur has been proposed for LRS where a breeding farm of initially 600 goats will be established.

It was resolved by the house that in addition to VUTRC land already allotted by District Collector, Dholpur more land is required to establish the goat farm for which proposal has been moved by the University to GOR but land for this purpose is yet to be finalized by the Government. As soon as the land is allotted LRS will be established to take

up the work of goat farming system. This LRS will also strengthen the activities of VUTRC at Dholpur. (Action: Registrar, Dean, CVAS, Navania and DEE)

AI-05/RC-02/RAJUVAS/2014-15 : Promotion of research on milk of camel to control diabetes:

Camel milk is a relatively harmless food item consumed by many people. Therefore, research on milk of camel to scientifically establish/validate its anti diabetic use, an immediate need was felt to formulate a realistic action plan.

Directorate of Research vide letter No.F. ()/DRVAS/Tech/2015/196-201 dated 19.05.2015 organized a meeting to reach at consensus between RAJUVAS, NRCC, Bikaner and Rajasthan Ayurved University, Jodhpur and a copy of minutes of the meeting was tabled in the house. The house after going through the minutes resolved that realistic action should be prepared by above institutes to take up the work at the earliest.

(Action: PI, CEVPAM, S.R.Rajasthan Ayurved University, Jodhpur and NRCC, Bikaner)

AI-06/RC-02/RAJUVAS/2014-15 : E-governance in livestock and farm management as well as research management through IUMS at LRS(s).

University has procured two modules i.e. research and farm management to record daily farm activities and strengthening LRS(s) for projection of data in more efficient and effective manner.

It was resolved by the house that these modules be taken up by the LRS(s) of RAJUVAS to record daily farm activities of the station. (Action O/I of LRS(s))

AI-07/RC-02/RAJUVAS/2014-15: Maintenance of Livestock Research Station(s): The Livestock Research Station(s) are operating since long period of time and require structural maintenance of staff quarter, sheds and erection of new sheds for animals, khala repair, fencing etc.

The house resolved that the maintenance work and financial implication on this account will be taken up at the level of Officer Incharge, Director Works and Comptroller.

(Action: O/I, LRS(s), Director Works, Comptroller)

AI-08/RC-02/RAJUVAS/2014-15: Short term project of Public Health Foundation of India and RAJUVAS to be carried out in CVAS, Navania.

A joint short term project of RAJUVAS and Public Health Foundation of India is proposed on Bovine tuberculosis at Human Animal Interface and Veterinary Antibiotic use in small holder peri urban dairy farms in India to ensure safe and sustainable milk production at Udaipur and suburb areas.

The house resolved that this type of short term project should be encouraged to attract more short term projects. The MoU under process received from PHFI was finalized in the house which was signed and sent back to PHFI vide letter NoF. ()/DRVAS/Tech/2015/473-480 dated 21.07.2015.

AI-09/RC-02/RAJUVAS/2014-15: Creation of Revolving Fund at Livestock Research Station(s):

The budget allotted to Livestock Research Station(s) are meant and earmarked for research projects hence it is felt that additional funds needed for developmental work of LRS(s) will be generated through Revolving Fund.

The house resolved that since the Revolving Fund system is being practiced in Livestock Research Station, Beechwal and CVAS, Navania, hence similar Revolving Fund may be created in LRS(s) where this practice is not followed so that income generated from this account be used for developmental purpose of the station.

(Action: Officer Incharge, LRS(s))

AI-10/RC-02/RAJUVAS/2014-15: Internal Assessment Committee for enhancing quality of services and functioning of various units of the University:

Pursuant to the Resolution No.13/Q-10 of the Board of Management meeting held on 13.06.2014 an Internal Assessment Committee was constituted vide University order No.F.(99)/RAJUVAS/Reg./2015/439 dated 30.06.2015 which will look into the functioning of all the areas of improvement to encourage the quality services.

The house resolved that since no system is existing to assess the research and progress work of the project such as Quinquennial Review Team/Peer Review Team at University level. Therefore the committee should evaluate the work of different units of RAJUVAS since its inception in 2010.

(Action: All PIs and Members of Committee)

AI-11/RC-02/RAJUVAS/2014-15: Preparation of Annual Action Plan by Principal Investigators and Officer Incharges.

It was resolved that all the Principal Investigators and Officer Incharges should prepare and submit Annual Action Plan pertaining to their project for 2015-16 to Director Research within one month's time. They should also submit Action Plan for 2016-17 by January, 2016. The Action Plan for the year 2015-16 will be evaluated by the Research Council.

(Action: All PI(s), O/I(s), Director Research)

AI-12/RC-02/RAJUVAS/2014-15: Any other item with the permission to the Chair

The Chairman invited the scientists and members if they have any specific comments/suggestion for betterment of research work being undertaken as well as any future plan. Dr. S.K. Kashyap suggested that to popularize the work and findings of the research work undertaken at RAJUVAS the scientists/faculty may be asked to publish research papers in good journals.

University had issued a notification No.F.391-R)Comp/RAJUVAS/2010/440 dated 21.09.2011 in this regard to encourage the scientists/faculty to publish papers/findings in good journals. It was therefore resolved that a committee may be constituted at University level to invite and select the papers for publishing in good journal. It was also resolved that the reimbursement of expenses incurred on account of publication be fixed at Rs. 10000 as per above notification may be revised to actual/total/full expenses incurred on publication of papers (including processing, printing and mandatory minimum reprinting) and may be reimbursed to the scientists/faculty.

The members Shri Shree Gopal Upadhyay and Shri Agya Ram Singh raised some field problems from farmer's point of view regarding abortion, FMD; repeat breeding, prolapse and zoonotic infections. The house resolved to take action on these problems.

The Member Secretary thanked Chairman for review of research work and providing valuable suggestion/input to each Principal Investigator. The Member Secretary also thanked member Research Council, Government nominee, Comptroller and invitees for sparing precious time and attending the meeting whole day. The Member Secretary also thanked all the staff members for their hard work for making the deliberations successful.

The meeting ended with vote of thanks to the Chair.

Sd/-

Director Research & Member Secretary

No.F. ()/DRVAS/Tech/2015/559

Dated: 18.08.2015

Copy to:

1. P.S. to Vice-Chancellor, RAJUVAS for kind perusal of Hon'ble Vice-Chancellor
2. The Director, Directorate of Animal Husbandry, Jaipur
3. The Director, Directorate of Fisheries, Jaipur
4. The Managing Director, RCDF Ltd., Jaipur
5. Director Research, S.K. Raj.Agricultural University, Bikaner
6. Directors/Deans/COE,RAJUVAS, Bikaner
7. Registrar, RAJUVAS, Bikaner
8. Comptroller, RAJUVAS, Bikaner
9. Sh. Agya Ram Singh, Progressive Livestock Breeder, Kirti Stambh, Near Municipal Corporation, Bikaner
10. Sh. Srigopal Upadhyay, Progressive Livestock Breeder, Inside Eidgah Bari, Dharmnagar, Bikaner
11. OSD (VC), Jaipur
12. Principal Investigator/HOD, OI, LRS(s)
13. Prof. B.N. Shringi, Deptt.of Microbiology & Biotechnology, CVAS, Bikaner
14. Meeting Section, RAJUVAS, Bikaner
15. Technical Section, Directorate of Research, RAJUVAS, Bikaner

Ramesh Das
18/8/15

Director Research & Member Secretary

List of participants

1. Prof. A.K. Gahlot, Hon'ble Vice-Chancellor - **In the Chair**
2. Dr. O.P. Kelania, Jt. Dir., Department of Animal Husbandry-Represented the Director of the Department of Animal Husbandry, GOR, Jaipur
3. Sh. Agya Ram Singh, Progressive Livestock Breeder
4. Sh. Srigopal Upadhyay, Progressive Livestock Breeder
5. Prof. B.N. Shringi, Deptt.of Microbiology & Biotech, CVAS, Bikaner
6. Prof. R.K. Dhuria, Director Extension Education and PI, VURTC
7. Sh. Arvind Bishnoi, Comptroller, RAJUVAS, Bikaner
8. Dr. Umesh Agarwal, OSD (VC), Jaipur
9. Prof. S.B.S. Yadav, Prof., Deptt.of ABG, CVAS, Bikaner
10. Prof. G.S. Manohar, Dean PGS & Head. Deptt.of Parasitology, CVAS, Bikaner
11. Er. Basant Kumar Acharya, Director Works, RAJUVAS, Bikaner
12. Prof. S.S. Soni, COE, RAJUVAS, Bikaner
13. Prof. A.A. Gauri, Directorate of Research (VAS), Bikaner
14. Dr. U.K. Bissa, Retd. Sr. Scientist, Directorate of Research, Bikaner
15. Prof. Vishnu Sharma, Dean & PI, Capacity Building (RKVY), PGIVER, Jaipur
16. Prof. S.K. Kashyap, Head. Deptt.of Microbiology, CVAS, Bikaner
17. Prof. N.R. Purohit, Head, Deptt.of Vet.Extn. Education, CVAS, Bikaner
18. Prof. Anil Ahuja, Head, Deptt.of Clinical Medicine, CVAS, Bikaner
19. Prof. J.S. Mehta, Head, Deptt.of Gynaecology, CVAS, Bikaner
20. Prof. Nalini Kataria, Head, Deptt. of Physiology, CVAS, Bikaner
21. Prof. Rakesh Mathur, Head, Deptt.of Anatomy, CVAS, Bikaner
22. Prof. Hemant Dadhich, Head, Deptt. of Pathology, CVAS, Bikaner
23. Prof. R.K. Singh, Officer Incharge, LRS, Beechwal, Bikaner
24. Prof. R.S. Pal, Officer Incharge, LRS, Chandan & PI, RKVY, Tharparkar Cattle
25. Prof. C.S. Vaishnav, Officer Incharge, LRS, Vallabh Nagar
26. Prof. Basant Bais, PI, Centre for Animal Organic Product Tech., RAJUVAS, Bikaner
27. Prof. A.K. Kataria, Officer Incharge, Apex Centre, CVAS, Bikaner
28. Prof. A.P. Singh, PI, CEPVAM, RAJUVAS, Bikaner
29. Prof. R.K. Joshi, Officer Incharge, LRS, Bikaner & PI, RKVY, Rathi Cattle
30. Prof. G.C. Gahlot, PI, AICRP on Goat, CVAS, Bikaner
31. Prof. V.K. Chaudhary, PI, & OI, RKVY Kankrej Cattle, LRS, Kodamdesar
32. Prof. Anju Chahar, Head, Deptt.of Vet.Prev.Medicine, CVAS, Bikaner
33. Prof. Sheela Chaudhary, PI, ASMMS, PGIVER, Jaipur
34. Dr. K.S. Nehra, PI, NPBI, Vallabh Nagar
35. Dr. Praveen Bishnoi, Assoc.Prof., Deptt.of Surgery & Radiology, CVAS, Bikaner
36. Dr. Sunanda Sharma, Assoc.Prof.(VOG), CVAS, Navania
37. Dr. S.K. Sharma, PI, TVCC, Navania
38. Dr. P.C. Sharma, PI, MSSP, Navania, Vallabh Nagar
39. Dr. M.C. Sharma, Co-PI, LRS, Bojunda
40. Dr. Y.P. Singh, PI, Pet Pub Project, CVAS, Navania
41. Sh. Dinesh Chandra Saxena, PRO, PRC, RAJUVAS
42. Dr. Virendra Kumar, Asstt.Prof., LRS, Kodamdesar
43. Dr. Sita Ram Gupta, Asstt.Prof. LRS, Kodamdesar
44. Dr. Sumit Prakash Yadav, Asstt.Prof., LRS, Kodamdesar
45. Dr. Rajesh Nehra, Asstt.Professor, Deptt.of Animal Nutrition, CVAS, Bikaner
46. Dr. Ashok Gaur, Asstt.Professor, CEPVAM, RAJUVAS, Bikaner
47. Dr. Amit Sangwan, TA, CDMTA, RAJUVAS, Bikaner
48. Dr. Kapil Kachwaha, RA, AINP-DIMSCA, RAJUVAS, Bikaner
49. Dr. Devendra Singh Manohar, TA, Centre for Conservation of Animal Biodiversity
50. Prof. Rakesh Rao, Director Research, RAJUVAS, Bikaner