

Directorate of Research



Bihar Animal Sciences University, Patna came into being on June 13, 2017 with a aim to promote Education, Research and Extension activities pertaining to animal husbandry and Fisheries. Within short period of time, University has established Directorate of Research with a mandate to visualize future research strategies and prioritize research in every discipline. Directorate of Research envisage to set up Regional Research Centre cum Modern Buffalo Breeding farm at Sipaya (Gopalganj) on 80 acres of farm area. Similarly at Tekna Farm, Gaya Regional Research Centre cum Model Goat Breeding farm with objective to meet the germ plasm supply in state and start Goat milk production unit along with training and diagnostic center. Directorate of Research has facilitated Memorandum of understanding with leading National institute and plans to form a regional research consortium comprising of medical and Veterinary research institutes of area to facilitate sharing of research facilities.

Livestock farm having indigenous cows, crossbred cows, buffalos. Instruction sheep and goat unit has been started with Corridale cross sheep and Goat unit has Black Bengal and Sirohi Goats. Fodder farm has total cultivable area of 23 acres to meet the requirement of green fodder.

Research Projects

To meet the aspirations of people of state good number of externally funded and institutional projects has been commissioned to carry out research in priority areas.

Externally funded Research Project

- National Agricultural Higher Education Project(Innovation Grant)
- Establishment of Embryo Transfer Technology Centre
- FIST Programme – 2016
- Poultry Seed Project
- All India Coordinated Research Projects for “Epidemiological Studies on Foot and Mouth Disease”
- All India Coordinated Research Project for “Animal Disease Monitoring and Surveillance”
- Outreach Programme on “Monitoring of Drug Residues & Environmental Pollutants”
- Experimental Learning Unit (Critical Care Unit)
- Strengthening and Up gradation of TVCC as a Experiential Learning Unit for Pet animals
- Krishi Mantra- CDAC

Institutional Project

- * Studies on Urohydropropulsion and Tubecystostomy for surgical
- * Management of Urolithiasis in goats.
- * Radiographic and Sonographic screening of cardiac, hepatic and urinogenital diseases of canine.
- * Bio-fabrication of Gold Nano particles and its anti proliferative effect in cell line.
- * Comparison and development of standard protocol of oestrous synchronization in anoestrous buffaloes.
- * Formulation and evaluation of Area Specific Mineral Mixture on the performance of dairy cattle and buffaloes.
- * Assessment of Moringa oleifera as a fodder
- * Process standardization and optimization for shelf life enhancement of Paneer from milk of Bihar origin.
- * Isolation and characterization of bacteriophages targeting food borne pathogens from sewage samples of livestock farm.
- * Adoption of Quail farming in difrent system and assessment of its productivity performance under deep litter and cage system of housing.

Rastriya Krishi Vikash Yojna Project :

Four RKVY projects worth 12.32 crores has been approved for funding during 2019-20.

- Capacity building of rural youths for employment generation in chicken product preparation & marketing.
- Establishment of Regional Disease Diagnosis Laboratory.
- Monitoring of Arsenic Level in Input, Throughput and Output Samples of Cattle and Poultry in Certain Arsenic Endemic Areas of Bhagalpur and Khagaria District.
- Augmenting Veterinary Clinical Diagnostic and Therapeutic Facilities at University Referral Hospital.

Flagship Projects of University



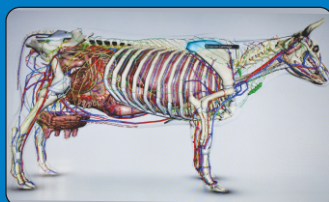
National Agricultural Higher Education Project

Bihar Animal Sciences University has been sanctioned National Agricultural Higher Education Project Innovation grant (NAHEP-IG) by ICAR for capacity building of the faculty and students through National and international trainings, Seminars and Workshops and develop important infrastructure to make University accreditation ready.

Some of key out comes of the project are

Virtual Dissection Table:

For simulation method of teaching for animal Anatomy, Surgery and Pathology to students. A unique facility first in Asia



Establishment of Alumni & Placement cell:

Alumni -cum-placement cell has been established in the University. Better coordination and management has resulted in 53% increase in campus placements during 2018-19. For the first time Bihar Rural Livelihoods Promotion Society - JEEVIKA and COMFED made campus recruitment of passing out graduates of Bihar Veterinary College, Patna. Alumni cell too has been made functional and executive committee has been reconstituted and annual meet of the Alumni Association has been planned.



Installation of RFID for large Animals:

For better data management of Livestock farm radio frequency identification device has been installed at Instructional livestock farm and same is being extended at small ruminant farm.



Language Lab:

Hardware and software for language lab at SGIDT has been installed for improved training on language lab and classes has been started to upscale language skills of students.

• Seminar/workshops organized under NAHEP-IG project:

- ★ Six days workshop on “Development of Teaching Skills” July, 8-13, 2019
- ★ Five days training-cum-workshop on “Chromatographic Technique and their Applications in Research” June, 08 -22, 2019
- ★ Workshop on “Cell Culture Techniques in Animal Disease Diagnosis and Research” May, 14-17, 2019.
- ★ Workshop on Recent advances in soft tissue surgery and ultrasonography, May, 13-14, 2019.
- ★ Workshop on Animal Health Management, Feb. 04-06, 2019.
- ★ Workshop on use of Assisted Reproductive Technology augmenting Livestock Productivity, from Dec 23-25, 2018.

Exposure Visits for Students

- ★ Twenty students were sent to ICAR-Indian Veterinary Research Institute, Izatnagar and ICAR-National Dairy Research Institute, Karnal for total 30 days exposure visit on Animal health and farm management.
- ★ Five post-graduate students were deputed for one week training at Vaccine production facility of Hester Biosciences, Ahmedabad.



Success Stories/Placements:

- ★ Campus placement of graduates of Bihar Veterinary College by Bihar Rural Livelihoods Promotion Society - JEEVIKA and COMFED.
- ★ Post graduate students were sent for training at Vaccine production facility of Hester Biosciences, Ahmedabad.
- ★ Four National Conferences /symposia, nine workshops and six seminars were organized for faculty & students capacity building as well as to improve the visibility of University.
- ★ Training on Cell Culture Techniques for faculty and students helped to grow stem cell for therapeutic purpose.



Establishment of Embryo Transfer Technology (ETT) Centre

A research project on Embryo Transfer Technology (ETT) funded by DADF, Govt of India has been initiated at the Bihar Animal Sciences University, Patna aimed at conservation and propagation of indigenous cattle breeds in form of embryos and set up Bull mother station.



Since the commencement of the project, Sahiwal cows have been purchased and other indigenous breeds of state Gangatiri, Bachaur is being in process of purchase. Red Sindhi cows of good genetic potential is being procured. All major equipment's have been purchased and set up of ETT lab has been initiated with Bihar Construction department.

Superovulation and embryo collection work is being standardized, before actual production and preservation of germ plasm.

Regional Research Farms

Sipaya farm Gopalganj:

University has been transferred 80.80 acre areas of land at Sipaya (Gopalganj) by Department of Animal & Fisheries Resources, Govt of Bihar to develop Regional Research Centre and Modern Buffalo breeding Center, along with diagnostic and training facilities

Tekna farm Gaya:

Government Cattle Farm Tekna, Gaya is having area of 22 acre is likely to be transfer by Department of Animal and Fisheries Resources, Govt. of Bihar, to develop Regional Research Centre and modern goat breeding center, along with diagnostic and training facilities.

Central Poultry Farm at Patna is to be transferred to Bihar Animal Sciences University as per Gazette notification and it shall be developed in to Model Poultry Production and training center, to cater to needs of state

Institute of Animal Health and Production, Patna is to be transferred to Bihar Animal Sciences University as per Gazette notification and it shall be further developed by the University as disease diagnostic center.



Livestock Farm Complex

Livestock Farm Complex was established in year 2007 with an objective for teaching and research for the students of Bihar Veterinary College, Patna and

Sanjay Gandhi Institute of Dairy Technology. Now with the establishment of Bihar Animal Sciences University the Livestock Farm Complex has been expanded in old Exotic cattle farm complex.



The Livestock Farm Complex has Cow and Buffalo unit, Small ruminant's unit and poultry unit. In cattle farm Sahiwal, Jersey Cross, HF Cross cows and Murrah, Nili-Ravi breeds of buffaloes are being maintained. In small ruminants

Black Bengal, Beetal, Sirohi breeds of goats and Sonadi x Corridale cross of sheep breed is being reared in the sheep unit for research, production and instructional purpose.

In Poultry Seed Production unit Vanraja and Grampriya variety are multiplied for distribution among rural masses for starting backyard poultry unit, which is helping in protein supplementation in diet of rural population. A few entrepreneurs under supervision and technical guidance have established large rural backyard poultry units, thus supplementing their income. Kadaknath, Aseel and Japanese Quail rearing too has been started on experimental basis. The poultry unit also has a Hatchery unit with 6 incubators and 6 hatchers with the capacity of 15000 eggs.

Fodder Production unit

The Livestock Farm Complex has its own fodder production unit, with total cultivated fodder area of about 23 acres in which round the year



green fodders is cultivated for the feeding of animals and surplus fodder is used for preparation of silage for feeding during lean period using latest technology.

Berseem, Maize, Sorghum, Hybrid Napier, Oats, Mustard, Cowpea is grown during different season. The livestock farm complex also has some fodder tree plantation like Moringa Olifera and Subabool which is being used for supplementary feeding as and when required.

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