Department of Animal Genetics & Breeding





Acharya Narendra Deva University of Agriculture & Technology Kumarganj, Ayodhya-224229 (U.P.)

About the Department

- Department of Animal Genetics & Breeding was established in the year 1999.
- Animal Genetics & Breeding was recognized as an independent unit with the opening of College of Veterinary Science & Animal Husbandry, A.N.D.U.A.T.
- Department was involved in educating the students pursuing Veterinary Science on the subject of Animal Genetics & Breeding, leading to the award of B.V.Sc.&A.H., M.V.Sc. and Ph.D. degree.

Objective

- Imparting the quality education to veterinary science students.
- Need oriented research for Animal Genetics & Breeding.
- Identification and Characterization of lesser known and nondescript population of livestock.
- Hands-on-training for better animal production.

Vision:

• To be a centre of advance faculty training in Animal Genetics & Breeding and universal excellence in training, research and consultancy services in Animal Genetics & Breeding in order to realize sustainable and secure livelihoods.

Mission:

• To pursue and maintain a leadership role in the quality research, capacity building, consultancy and innovative outreach in order to contribute to animal productivity for poverty reduction and secure livelihoods through sustainable natural resources management.

Strengths of the Department:

- ► Vast experienced scientists
- ► Skilled technical staffs
- ► Collaboration with other institutes

Faculty Position:

S.N	Faculty	Designation	Contact	
1.	Dr. Jaswant Singh	Professor & Head	Mob. 7380561252 Email: dr.jaswant75@ gmail.com	
2.	Dr. M. K. Verma	Assistant Professor	Mob. 8005322623 Email: manojvet550@ gmail.com	

Course Curriculum

• Department of Animal Genetics & Breeding embraces excellence in modern teaching and facilitates higher education-

Course taught:

Under graduate: B.V.Sc.& A.H.

Course no.	Course title	Cr. Hr.
AGB	Animal Genetics & Breeding	3+1

Post graduate: M.V.Sc

Course No.	Course Title	Cr. Hr.
AGB 601	Animal Cytogenetics & Immunogenetics I	2+1
AGB 602	Molecular Genetics I	2+1
AGB 603	Population and Quantitative Genetics	2+1
AGB 604	Selection Method and Breeding System	2+1
AGB 605	Biometrical Genetics I	2+1
AGB 606	Conservation of Animal Genetics	2+0
	Resources	
AGB 607	Cattle and Buffalo Breeding	2+1
AGB 608	Sheep and Goat Breeding	2+0
AGB 609	Poultry Breeding	2+1
AGB 610	Laboratory Animal and Rabbit Breeding	2+0
AGB 611	Swine Breeding	1+0
AGB 612	Pet Animal Breeding (Dogs and Cats)	1+0
AGB 613	Wild Animal Genetics and Breeding	1+0

AGB 614	Equine Breeding	1+0
AGB 615	Camel Breeding	1+0
AGB 616	Yak and Mithun Breeding	1+0
AGB 617	Statistical Methods in Animal Breeding	2+1
AGB 699	Research	45

Doctorate: Ph.D

Course No.	Course Title	Cr. Hr.
AGB 701	Molecular Genetics II	2+0
AGB 702	Trends in Animal Breeding	2+0
AGB 703	Biometrical Genetics II	2+1
AGB 704	Advances in Selection Methodology	2+1
AGB 705	Bioinformatics in Animal Breeding	1+1
AGB 706	Animal Cytogenetics & Immunogenetics II	2+0
AGB 707	Statistical Software in Animal Breeding	1+1
AGB 791	Seminar I	1+0
AGB 792	Seminar II	1+0
AGB 799	Research	75

Interdisciplinary Courses

- The students have the opportunity to select from wide range of elective courses to augment their education with additional skills, expertise, and knowledge.
 - ➤ AS-102 Animal Breeding
 - ➤ STAT-511 Design of Experiment
 - ➤ STAT-512 Basic Sampling Techniques
 - ➤ PGS-601 Technical Writing and Communication Skills

RESEARCH AREA

- Animal Genetics
- Animal Breeding

MAJOR RESEARCH WORK

- ❖ Identification of discriminant ancestry informative SNP markers at genome level for accurate breed assignment and imputation in Indian sheep breeds.
- Genetic Characterization of native sheep of Fatehpur

district of Uttar Pradesh.

- Marphometric Characterization of Jaunpuri goat.
- **Solution** Evaluation of Genetic Parameters of form animals.

Research Infrastructure

The department is well equipped with the instruments required for the undergraduate and post graduates teaching and research. Three laboratories have been established by the department i.e., UG Lab, PG Lab, and Computer Lab.







Awards/Recognitions

- ➤ University Gold Medal for Ph.D degree program session 2020-21
- ➤ Best Paper Presentation in National Symposium on innovation in Veterinary medicine: present status and future implications held at ANDUAT, Kumarganj, Ayodhya during 06th-7th May, 2022
- Young Scientist Award (2017) by SAID, Ranchi, Jharkhand
- Young Teacher Award (2017) by Science & Tech Society for integrated rural improvement, Warangal, Telangana
- Excellence in Teaching (2018) by SAID, Ranchi, Jharkhand



Membership of National/International Committee or Editorial Board

- ➤ Lifetime membership of Indian Society of Animal Genetics & Breeding
- ➤ Lifetime membership of Society for Conservation of Domestic Animal Biodiversity
- Society for Veterinary Science and Biotechnology

Placement of Outgoing Students

Name and Batch	Achievement
Dr. N. Verma, 2005	Veterinary Officer
Dr. A. Patel, 2008	Veterinary Officer
Dr. P. Kumar, 2008	Veterinary Officer
Dr. D. Kumar, 2010	Veterinary Officer
Dr. J. Kumar, 2011	Veterinary Officer
Dr. S.P. Mishra, 2012	Entrepreneur
Dr. M.K. Verma, 2018	Assistant Professor
Dr. P. Swami, 2020	Veterinary Officer

Seminars/Conferences/Trainings organized

Five day training on "Cattle Health Management" for progressive farmers including persons with disabilities held in C.V.Sc.&A.H., Kumarganj, Ayodhya during $19^{th} - 23^{rd}$ Dec., 2022

Extension Activities

The department actively engaged in various awareness campaigns

- Awareness program on Lumpi Skin Disease
- Kisan Mela/ Pashu Aarogya Mela
- ➤ Kisan Vani (Radio Talk)
- ➤ World Veterinary day

Future Plans

- Establishment of molecular lab of Animal Genetics
- ➤ Identification and characterization of new genetic groups of different species
- > Smart teaching with practical interventions