



ANNUAL REPORT

2024-25



Guru Angad Dev Veterinary and Animal Sciences University



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GURU ANGAD DEV VETERINARY AND ANIMAL SCIENCES UNIVERSITY
LUDHIANA-141 004



**Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana-141 004
(Official publication of GADVASU)**

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Technology
- Dr. Harpreet Singh**
Associate Professor (Communication)

PREFACE

It gives me immense pleasure to present to you the Annual Report of Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, for the period 2024-25. This report encapsulates the broad spectrum of the university's academic, research, extension and co-curricular activities, as well as those of its affiliated colleges. Since its inception in 2005, the university has consistently demonstrated excellence in education, research and service to the farming communities of Punjab and beyond.

In terms of student intake, the university admitted a total of 2110 students, comprising 808 females and 1302 males across a range of undergraduate, postgraduate, doctoral, and diploma programs. Our state-of-the-art lecture halls, equipped with cutting-edge facilities, foster an environment conducive to effective teaching and learning, ensuring that our students receive the highest standard of education.

On the research front, the university successfully operated 46 research and development schemes, funded by various prestigious national and international agencies, including the Indian Council for Agricultural Research, Department of Science and Technology, Department of Biotechnology and the Ministry of Animal Husbandry, Dairying & Fisheries under the National Livestock Mission. These projects span a wide range of Veterinary and Animal Sciences and are pivotal in advancing our academic mission.

In the realm of animal welfare and clinical services, the university boasts one of the most advanced veterinary hospitals in the region, fully equipped with modern diagnostic tools and cutting-edge technologies. During the year, the hospital handled 36,428 clinical cases of livestock and pet animals, while also testing 31,135 clinical samples. Our dedicated faculty and staff continue to make significant strides in disease prevention, diagnostic techniques and surgical innovations, contributing to groundbreaking research in the field of livestock health and production.

In 2024-25, GADVASU also forged new international collaborations, transferring cutting-edge technologies to industry and entrepreneurs, thus contributing to the global advancement of veterinary science.

As far as co-curricular activities are concerned, our students enthusiastically engaged in diverse events, including Inter-University Sports Tournaments, the Annual Athletic Meet, cultural activities, youth festivals, and programs under NCC and NSS, both at the university and national levels. These endeavors resulted in numerous accolades and brought great pride to our institution.

At GADVASU, we have always emphasized a student-ready entrepreneurship approach, one that equips our students with job-oriented skills through quality education, need-based research projects, and strengthened linkages with industry. We are committed to boosting productivity, adding value, and ensuring the quality and safety of animal-based foods, while simultaneously promoting environmentally sustainable production systems.

None of these achievements would have been possible without the unwavering commitment, expertise and passion of our dedicated staff. Their professionalism and tireless efforts form the backbone of the university's success. I hope that the Annual Report 2024-25 will serve as a comprehensive and valuable resource for professionals in the fields of livestock, dairy, and fishery development, as well as for other institutions of higher learning across the country.



Vice-Chancellor

SUMMARY

Guru Angad Dev Veterinary and Animal Sciences University (GADVASU), Ludhiana, continued to uphold its mandate of excellence in education, research, extension and clinical services during the year 2024–25. Established in 2005, the university has evolved into a premier institution of veterinary and animal sciences in the country and its achievements during the reporting year reaffirm its pivotal role in the development of the livestock, dairy and fisheries sectors of Punjab and beyond.

The university admitted a total of 2,110 students, comprising 808 females and 1,302 males, across undergraduate, postgraduate, doctoral and diploma programs in diverse disciplines including veterinary science, dairy technology, fisheries and biotechnology. GADVASU also manages affiliated colleges such as the Khalsa College of Veterinary and Animal Sciences, Amritsar and Baba Hira Das Ji College of Veterinary Pharmacy, Badal, thereby extending its academic footprint. The faculty strength during the year stood at 246, of which nearly 88% hold doctoral degrees, highlighting the high academic standards and commitment to research excellence. The student-ready and entrepreneurship-driven approach of the university ensures that graduates are equipped with both technical competence and practical skills, fostering employability and innovation.

On the research front, the university successfully implemented 46 research and development schemes, funded by prestigious agencies such as ICAR, DBT, DST and the Ministry of Animal Husbandry, Dairying & Fisheries. These projects covered a wide spectrum of disciplines, ranging from livestock health and production to fisheries, dairy technology and biotechnology. Research outputs included the development of value-added fish-based products like gelatin gummies, collagen ointments and high-protein powders, along with advances in nanobubble technology for wastewater treatment, novel diagnostic tools for livestock diseases and biotechnological innovations in reproduction and nutrition. The university's Intellectual Property Rights (IPR) Cell continued to promote innovation by facilitating patent filing, technology transfer and licensing to industries and entrepreneurs, thereby ensuring that research outcomes translate into tangible benefits for society and the economy.

Clinical and animal healthcare services remained a cornerstone of the university's activities. The multi-specialty veterinary hospital, equipped with modern diagnostic and surgical facilities, handled 36,428 clinical cases of livestock and companion animals and tested 31,135 clinical samples during the year. The hospital's services extended from routine treatment to specialized surgical interventions, disease prevention programs and diagnostic advancements, thereby serving both the farming community and pet owners. The Directorate of Livestock Farms supported teaching, research and extension through its elite dairy herd, poultry, goat and piggery units and new initiatives included the mechanized urea-molasses treatment of paddy straw, precision dairy farming with artificial intelligence and embryo transfer technology services.

Extension education remained a major thrust area, with GADVASU playing a pivotal role in disseminating scientific knowledge to farmers and rural youth. The university operates four Regional Research and Training Centres and three Krishi Vigyan Kendras, which organized extensive training programs, demonstrations and awareness campaigns on clean milk production, goat and pig farming, scientific poultry management, crop residue management, fish farming and value addition in animal-based foods. The Pashu Palan Melas, organized twice a year, served as flagship events for technology transfer, attracting large numbers of farmers, entrepreneurs and industry stakeholders. In addition, specialized training on entrepreneurship development and self-employment opportunities was offered, supporting rural livelihoods and sustainable practices.



Financially, the university was allocated grants worth ₹20,895.03 lakhs, of which ₹18,111.37 lakhs were utilized during the year. The major funding came from State Non-Plan Veterinary Schemes, ICAR projects, National Livestock Mission and research schemes under DBT, DST and SERB. The prudent management of financial resources ensured the smooth implementation of academic, research and extension programs across all units.

Faculty and students brought laurels to the university through numerous national and international awards, fellowships and honors, recognizing their contributions in diverse fields. The university further strengthened its international collaborations, signing agreements with institutions in Canada, Thailand, and Malaysia, as well as building strong partnerships with ICAR institutes and agricultural universities across India. These linkages enhanced academic exchanges, collaborative research and capacity-building programs.

Beyond academics, the university emphasized holistic student development through active participation in sports, cultural activities, youth festivals and NCC/NSS programs. Students achieved commendable success in inter-university competitions, cultural events and national-level platforms, contributing to the vibrant campus life and reinforcing the institution's focus on all-round growth. The Placement Cell facilitated on-campus recruitment by leading industries and organizations, including Verka, Amul, Nestlé, Baani Milk and national banks, while also guiding students towards higher studies and self-employment ventures.

In summary, the Annual Report 2024–25 highlights GADVASU's comprehensive progress in education, research, clinical services and extension outreach. With its strong academic foundation, cutting-edge research, farmer-oriented programs and growing international collaborations, the university continues to serve as a beacon of excellence in veterinary and animal sciences. By producing skilled professionals, generating innovative technologies, and supporting farmers and entrepreneurs, GADVASU is not only strengthening the livestock, dairy and fisheries sectors of Punjab but also contributing to national food security, rural development and sustainable agriculture.



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ABOUT THE UNIVERSITY

Guru Angad Dev Veterinary and Animal Sciences University (GADVASU) was established on 9th August 2005 through Punjab Act No. 16 of 2005 at Ludhiana, with its operations commencing on 21st April 2006. Initially, it began with the College of Veterinary Science, which had been established in 1969 and was transferred from Punjab Agricultural University to GADVASU. Since its inception, the university has made remarkable strides and is now recognized as one of the top-ranked Veterinary and Agricultural Universities in India.

The university was established with a clear objective i.e. to produce highly skilled, trained and efficient human resources to accelerate the growth of Punjab's livestock, dairy and fishery sectors. To achieve this, GADVASU established several key institutions, including the College of Dairy & Food Science Technology, the College of Fisheries, the College of Animal Biotechnology and the Veterinary Polytechnic, all aimed at providing exceptional teaching, research and extension services in their respective fields.

In addition, recognizing the growing demand for professionally qualified veterinary graduates, the university inaugurated a constituent Veterinary College in Rampura Phul, Bathinda, which became operational in the academic session 2019-20. This college aims to meet the increasing demand for veterinary professionals across the state. The university has also established Regional Livestock Research and Training Centres at Kaljharani (Bathinda), Talwara (Hoshiarpur), Booh (Tarn Taran) and Sappanwali (Fazilka) to address region-specific needs in the dairy sector. Moreover, three Krishi Vigyan Kendras have been set up in Tarn Taran, Barnala and Mohali districts for the assessment, dissemination, refinement and demonstration of agricultural technologies.

GADVASU's reputation has been bolstered through multiple recognitions. The university is listed under Section 12(B) of the UGC Act, 1956, which allows it to receive central assistance from the University Grants Commission (UGC). The university has also received accreditation from the UGC and the Indian Council for Agricultural Research (ICAR) and is a regular member of the Association of Indian Agricultural Universities (AIAU) and the Association of Indian Universities (AIU). Furthermore, the ICAR has accredited the university and its three constituent colleges (College of Veterinary Science, College of Dairy Science and Technology and College of Fisheries) with a Grade A for five years.

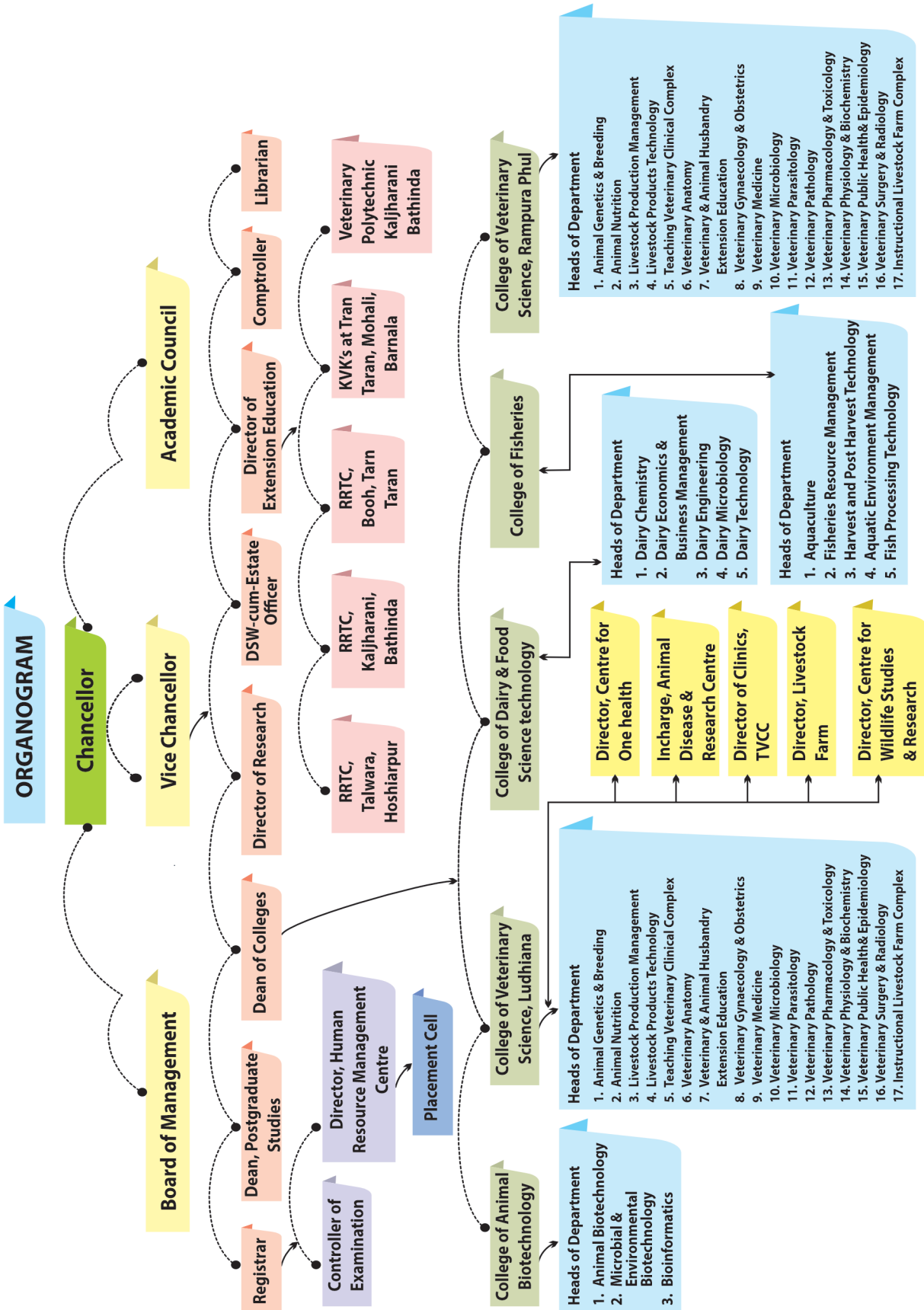
In recent years, the university has further advanced its academic landscape. The School of Animal Biotechnology was upgraded to the College of Animal Biotechnology in 2019, while the School of Public Health and Zoonoses was transformed into the Centre for One Health in 2021. Additionally, the establishment of the Directorate of Human Resource Management in 2021 marked a significant step toward accelerating the growth and development of the university's human resources through enhanced training, operational activities and managerial development.

The University's Key Goals and Objectives:

- ✓ To produce highly trained, competent veterinary, animal husbandry, dairy and fishery professionals, including Master's and Doctoral level specialists, to address the pressing needs of the state in animal health and production.
- ✓ To undertake cutting-edge, multi-disciplinary research in priority areas, aiming to resolve challenges in veterinary, animal husbandry, dairy and fishery sectors.
- ✓ To foster faculty development through opportunities for participation in training programs, workshops, seminars and international exchange programs, enhancing their capabilities in teaching and research.
- ✓ To provide continuous professional education in the fields of veterinary, animal, dairy and fishery sciences, ensuring that professionals stay abreast of new developments in their fields.
- ✓ To offer expert consultancy and services to livestock owners, government agencies and other stakeholders, aiding in livestock policy formation and the overall advancement of the sector.
- ✓ To run a state-of-the-art multi-specialty veterinary hospital, this not only provides high-quality animal treatment but also offers clinical training opportunities for students.
- ✓ To encourage cooperation and collaboration with national and international institutions, universities, industries and governmental agencies, strengthening the university's research and educational capacities.
- ✓ To conduct extension education activities, effectively disseminating knowledge and technologies to end-users, including farmers, the industry, government agencies, and the marketing sector.

The unwavering commitment to these goals ensures that GADVASU continues to serve as a beacon of excellence in the veterinary and animal sciences sector, driving progress and development across Punjab and beyond.

ORGANIZATIONAL SETUP





FUNCTIONAL SETUP

The functioning of Guru Angad Dev Veterinary and Animal Sciences University (GADVASU) is guided and regulated by a set of key bodies that focus on the university's core areas of education, research, and extension activities. These bodies ensure that the university operates efficiently and meets its mission to serve the academic, professional and societal needs. The primary governing bodies include:

- Board of Management
- Academic Council
- Committee on Students' Welfare
- Research Advisory Committee
- Extension Education Advisory Committee
- Resident Instruction Committee
- Postgraduate Committee
- Board of Studies

Board of Management

The Board of Management is the supreme administrative body of the university, overseeing its financial operations and assets. It plays a critical role in the appointment of officers, faculty and in setting the strategic direction for the university's overall functioning. The Board provides essential guidance for the smooth and effective running of all university affairs.

Academic Council

The Academic Council is responsible for managing the academic functions of the university, ensuring the maintenance of educational standards alongwith regulating the curriculum, teaching methodologies and examinations. It ensures that the university maintains the highest academic integrity and excellence in its educational offerings.

Committee on Students' Welfare

The Committee on Students' Welfare is dedicated to overseeing and regulating all aspects of student life and welfare. This body is committed to ensuring that students' academic, personal and professional needs are addressed, thereby fostering a conducive environment for learning and growth.

Research Advisory Committee

The Research Advisory Committee oversees the university's research programs, including the allocation of research funds, the conditions under which research grants are accepted, and the strategic direction of research initiatives. It plays an essential role in shaping the research agenda and ensuring that the university's research activities align with its mission to address the needs of the veterinary, animal sciences, poultry and fisheries sectors.

Extension Education Advisory Committee

The Extension Education Advisory Committee is charged with coordinating and guiding the university's extension programs, ensuring alignment with both state and national priorities. This committee devises strategies to implement the university's outreach programs and fosters stronger connections with rural communities and industry stakeholders.

Resident Instruction Committee

The Resident Instruction Committee serves as the key body responsible for recommending changes in the university's curricula, including the introduction of new courses or the modification and removal of

existing ones. It ensures that the curriculum remains relevant, rigorous and responsive to the needs of the profession and the evolving demands of the industry.

Postgraduate Committee

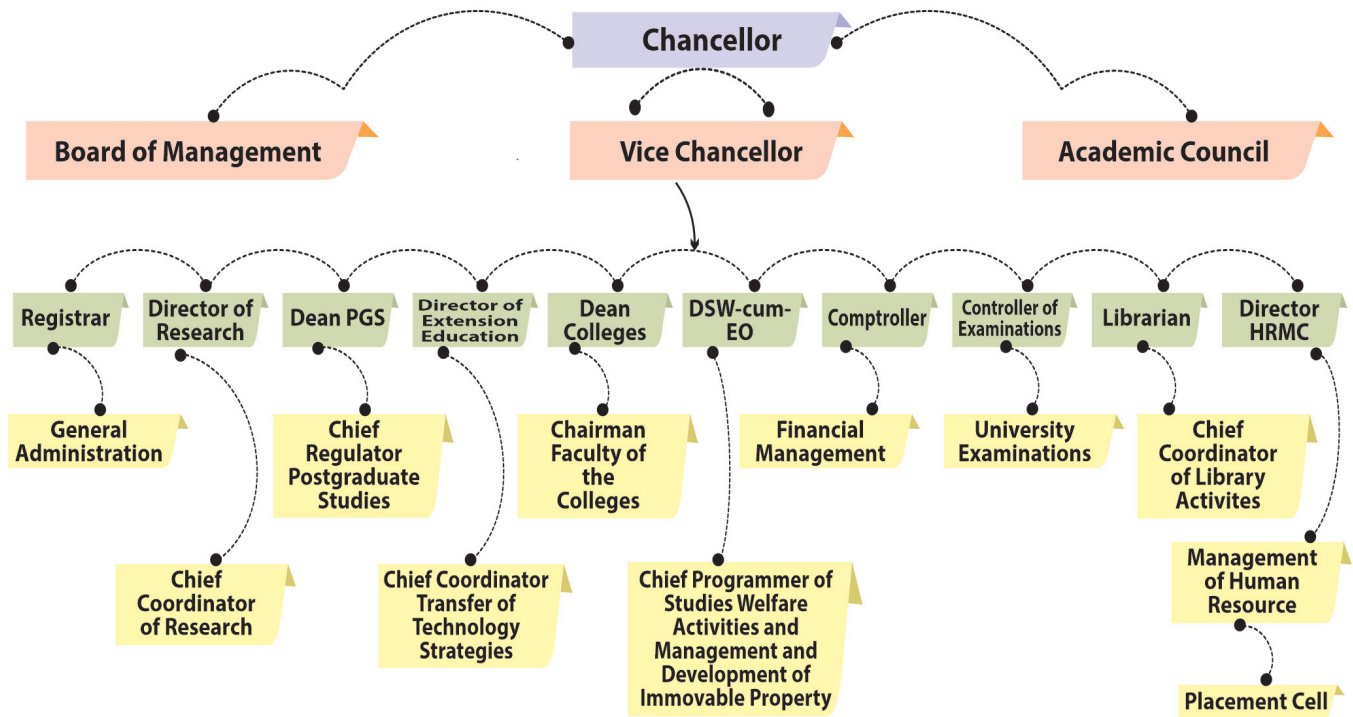
The Postgraduate Committee reviews and evaluates the curricula and courses for postgraduate students, which are recommended by the Board of Studies. This body ensures that the postgraduate programs maintain a high standard of education and align with the university’s academic goals. The committee plays an instrumental role in shaping the university’s postgraduate offerings before they are presented to the Academic Council for final approval.

Board of Studies

The Board of Studies is responsible for proposing new courses and curricula for the university’s various academic programs and for reviewing the teaching standards and evaluation procedures. It ensures that the courses offered are academically rigorous, current and relevant to the needs of the profession and society at large. Through its recommendations, the Board plays a key role in shaping the university’s academic framework and enhancing the quality of education.

Together, these bodies ensure that GADVASU operates with the highest standards of academic excellence, research integrity and extension impact, fulfilling its mission to serve the veterinary, animal sciences, and fisheries sectors both regionally and nationally.

FUNCTIONAL SETUP



ADMINISTRATION

BOARD OF MANAGEMENT

Sl. No.	Member of the Board of Management	Designation & Period
1.	Dr. Jatinder Paul Singh Gill Vice-Chancellor, Guru Angad Dev Veterinary & Animal Sciences University Ludhiana	Working Chairman (11.09.2024 to onwards)
	Dr. Inderjeet Singh Vice-Chancellor, Guru Angad Dev Veterinary & Animal Sciences University Ludhiana	Working Chairman (01.04.2024 to 10.09.2024)
2.	Shri. K.A.P. Sinha IAS, Chief Secretary to Government of Punjab, Room No. 26, 6 th Floor, Punjab Civil Secretariat, Sector-1, Chandigarh	Ex-officio Member (01.04.2024 to onwards)
3.	Shri. Rahul Bhandari IAS, Principal Secretary, Department of Animal Husbandry, Dairy Development & Fisheries, Punjab, Room No. 327, 3 rd Floor, Punjab Civil Secretariat-2, Sector-9, Chandigarh	Ex-officio Member (01.04.2024 to onwards)
4.	Shri. Ajoji Kumar Sinha IAS, Principal Secretary, Department of Finance Punjab, Room no. 10, 8 th Floor, Punjab Civil Secretariat-1, Sector-1, Chandigarh	Ex-officio Member (01.04.2024 to onwards)
5.	Shri Basant Garg IAS, Secretary, Department of Agriculture and Farmers Welfare, Punjab, Chandigarh	Ex-officio Member (01.04.2024 to onwards)
6.	Dr. Raghavendra Bhatta Deputy Director General (Animal Sciences), Division of Animal Science, Krishi Bhawan, ICAR, New Delhi	Ex-officio Member (01.04.2024 to onwards)
7.	Dr S.K. Uppal Dean Postgraduate Studies, Guru Angad Dev Veterinary & Animal sciences University, Ludhiana	Ex-officio Member (01.04.2024 to onwards)
8.	Dr. Gursharanjit Singh Bedi Director of Animal Husbandry, Punjab, Livestock Complex, 2 nd Floor, Sector-68, Near Army Law College, SAS Nagar, Mohali	Ex-officio Member (01.04.2024 to onwards)
9.	Shri. Kuldeep Singh Director, Dairy Development, Punjab, Livestock Complex, 4 th Floor, Sector-68, Near Army Law College, SAS Nagar, Mohali	Ex-officio Member (01.04.2024 to onwards)
10.	Dr. Jasvir Singh Director and Warden of Fisheries, Punjab, Livestock Complex, 4 th Floor, Sector-68, Near Army Law College, SAS Nagar, Mohali	Ex-officio Member (01.04.2024 to onwards)
11.	Dr. Harmanjit Singh Banga Registrar, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana	Secretary (01.04.202 to 05.02.2025)
	Dr. Suresh Kumar Sharma Registrar, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana	Secretary (06.02.2025 to onwards)



ACADEMIC COUNCIL

(as on March, 2025)

S. No.	Member of Academic Council	Designation
1.	Dr. J.P.S. Gill Vice-Chancellor	Chairman
2.	Dr. Parkash Singh Brar Director of Research	Member
3.	Dr. Sanjeev Kumar Uppal Dean Postgraduate Studies	Member
4.	Dr. Ravinder Singh Grewal Director of Extension Education	Member
5.	Dr. Swaran Singh Randhawa Dean, College of Veterinary Science, Ludhiana	Member
6.	Dr. Sanjeev Kumar Uppal Dean, College of Dairy & Food Science Technology (Additional Charge)	Member
7.	Dr. Meera D. Ansal Dean, College of Fisheries	Member
8.	Dr. Suresh Kumar Sharma Dean, College of Animal Biotechnology (Additional Charge)	Member
9.	Dr. Digvijay Singh Dean, College of Veterinary Science, Rampura Phul, Bathinda	Member
10.	Dr. Vaneet Inder Kaur Principal Scientist (Fisheries), Department of Aquaculture	Member
11.	Dr. Kuldip Gupta Head, Department of Veterinary Pathology	Member
12.	Dr. Nirbhay Kumar Singh Head, Department of Veterinary Parasitology	Member
13.	Dr. M.S. Bal Principal Scientist-cum-Incharge, ADRC	Member
14.	Dr. M. Honparkhe Head, Department of Veterinary Gynaecology & Obst.	Member
15.	Dr S.P.S Ghuman Director of Students' Welfare-cum-EO (additional charge)	Special Invitee
16.	Dr. Opinder Singh Controller of Examinations	Special Invitee

Secretary: Dr. S.K.Sharma, Registrar

OFFICERS OF THE UNIVERSITY DURING THE PERIOD OF REPORT

Sr. No.	Name	Designation	Period	
			From	To
01.	Dr. Inderjeet Singh	Vice Chancellor	01-04-2024	10-09-2024
	Dr. Jatinder Paul Singh Gill		11-09-2024	Continue...
02.	Dr. Harmanjit Singh Banga	Registrar	01-04-2024	05-02-2025
	Dr. Suresh Kumar Sharma		06-02-2025	Continue...
03.	Dr. Vinod Kumar Dumka	Comptroller	01-04-2024	Continue...
04.	Dr. Jatinder Paul Singh Gill	Director of Research	01-04-2024	10-09-2024
	Dr. Sanjeev Kumar Uppal		11-09-2024	19-09-2024
	Dr. Anil Kumar Arora		20-09-2024	28-02-2025 (FN)
	Dr. Parkash Singh Brar		28-02-2025 (AN)	Continue...
05.	Dr. Parkash Singh Brar	Director Extension Education	01-04-2024	05-02-2025 (FN)
	Dr. Ravinder Singh Garewal		05-02-2025 (AN)	Continue...
06.	Dr. Jatinder Paul Singh Gill	Director Student's Welfare-cum-Estate officer	01-04-2024	11-09-2024
	Dr. Parkash Singh Brar		12-09-2024	28-02-2025 (FN)
	Dr. Sarvpreet Singh Ghuman		28-02-2025 (AN)	Continue...
07.	Dr. Sanjeev Kumar Uppal	Dean Postgraduate Studies	01-04-2024	Continue...
08.	Dr. Sarvpreet Singh Ghuman	Dean, College of Veterinary Science, Ludhiana	01-04-2024	05-02-2025 (FN)
	Dr. Swarn Singh Randhawa		05-02-2025 (AN)	Continue...
09.	Dr. Baljinder Kumar Bansal	Dean, College of Veterinary Science, Rampura Phul	01-04-2024	30-10-2024 (FN)
	Dr. Digvijay Singh		30-10-2024 (AN)	Continue...
10.	Dr. Meera D. Ansal	Dean, College of Fisheries	01-04-2024	Continue...
11.	Dr. Ramneek	Dean, College of Dairy & Food Science Technology	20-09-2024	30-09-2024
	Dr. S.K. Uppal		01-10-2024	Continue...
12.	Dr. S.K. Uppal	Dean, College of Animal Biotechnology	30-08-2024 (AN)	29-11-2024
	Dr. Suresh Kumar Sharma		30-11-2024	Continue...
13.	Dr. Nirmal Singh	University Librarian	01-04-2024	Continue...
	Dr. Anil Kumar Arora		01-04-2024	04-04-2024
14.	Dr. Anil Kumar Arora	Controller of Examination	01-04-2024	04-04-2024
	Dr. Opinder Singh		05-04-2024	Continue...
15.	Dr. Lachhman Das Singla	Director, Human Resource Management Centre	01-04-2024	Continue...

FACULTY PROFILE

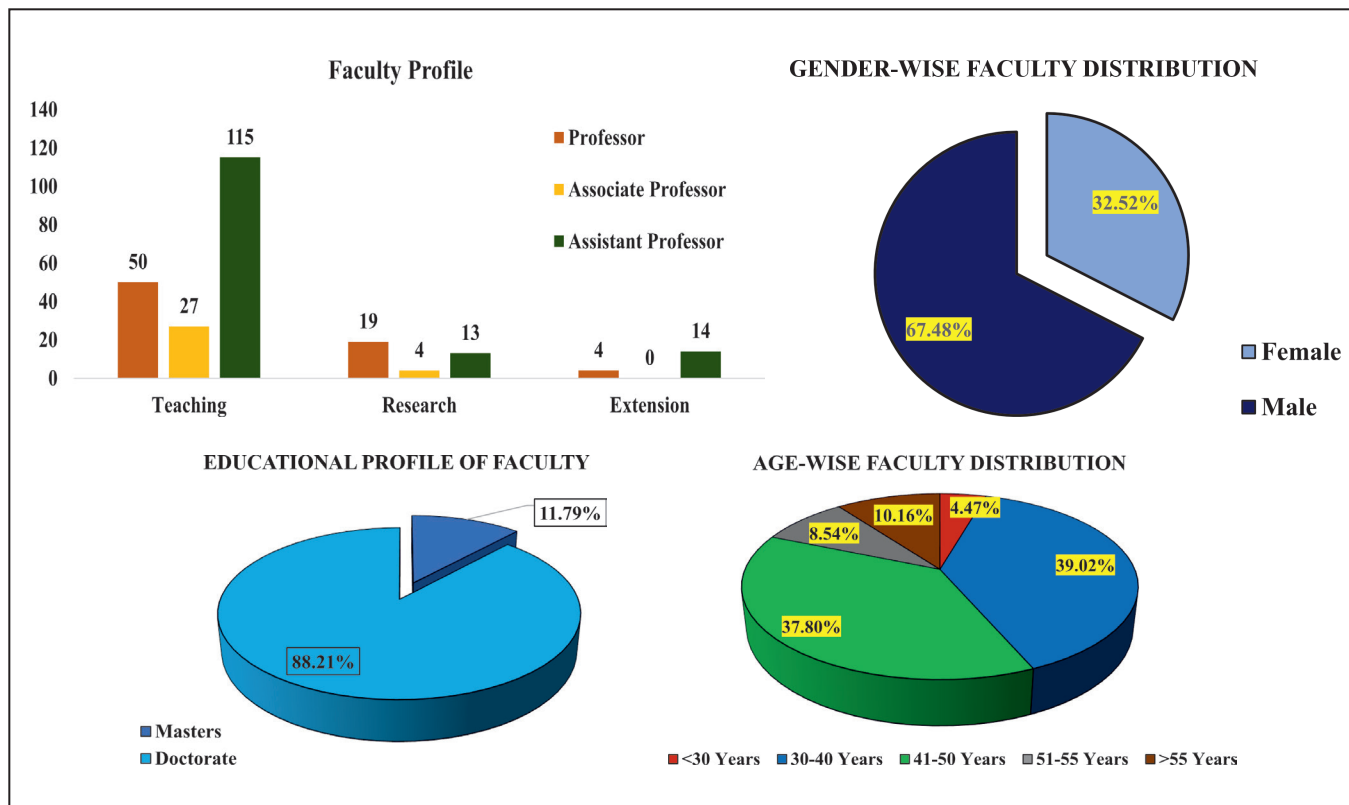
A total of 246 faculty members are currently on the rolls of Guru Angad Dev Veterinary and Animal Sciences University (GADVASU). This distinguished team is composed of 73 Professors, 31 Associate Professors (or equivalent), and 142 Assistant Professors (or equivalent). Of these, 192 faculty members are engaged in teaching roles, 36 in research and 18 in extension activities, contributing significantly to the university’s core mission in education, research, and outreach.

Notably, 32.52% of the faculty are women, reflecting the university’s commitment to gender diversity. An impressive 88.21% of the faculty members hold a doctoral degree, underscoring the university’s high academic standards and its focus on research excellence.

The university also boasts a youthful and dynamic workforce, with 43.49% of the faculty members being under the age of 40, bringing fresh perspectives and innovative approaches to teaching, research, and service. This vibrant demographic plays a pivotal role in driving the university’s growth and success.

FACULTY STRENGTH

Scheme	Teaching	Research	Extension	Total
Professor	50	19	04	73
Associate Professor	27	04	0	31
Assistant Professor	115	13	14	142
Total	192	36	18	246

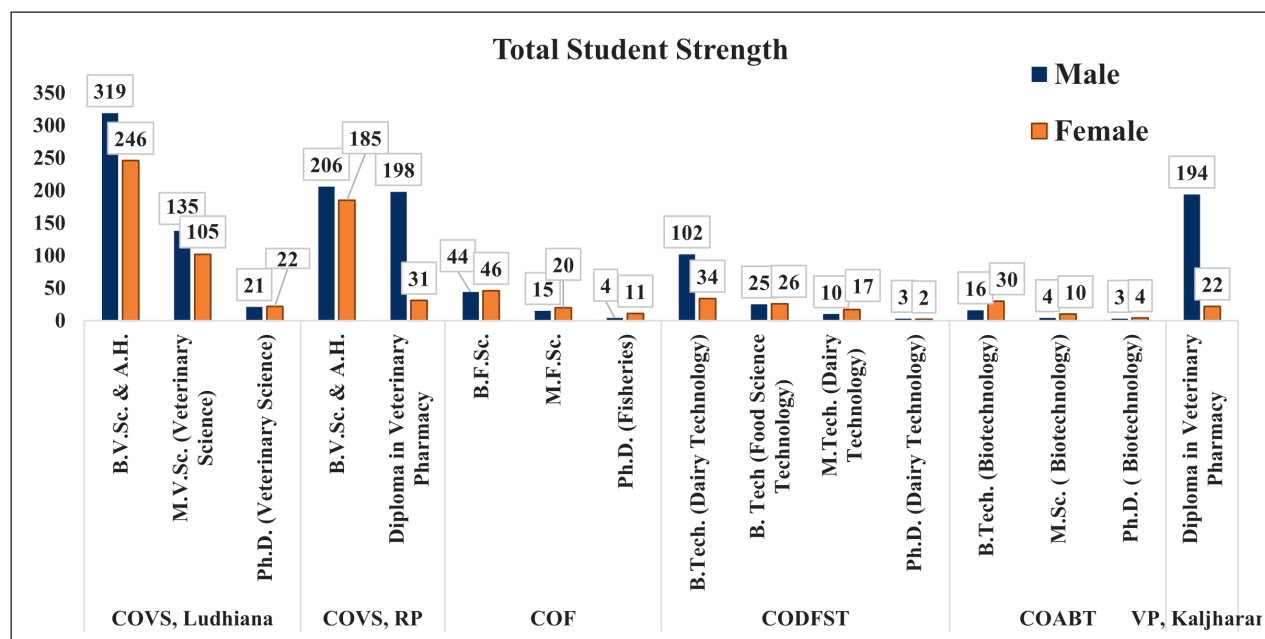


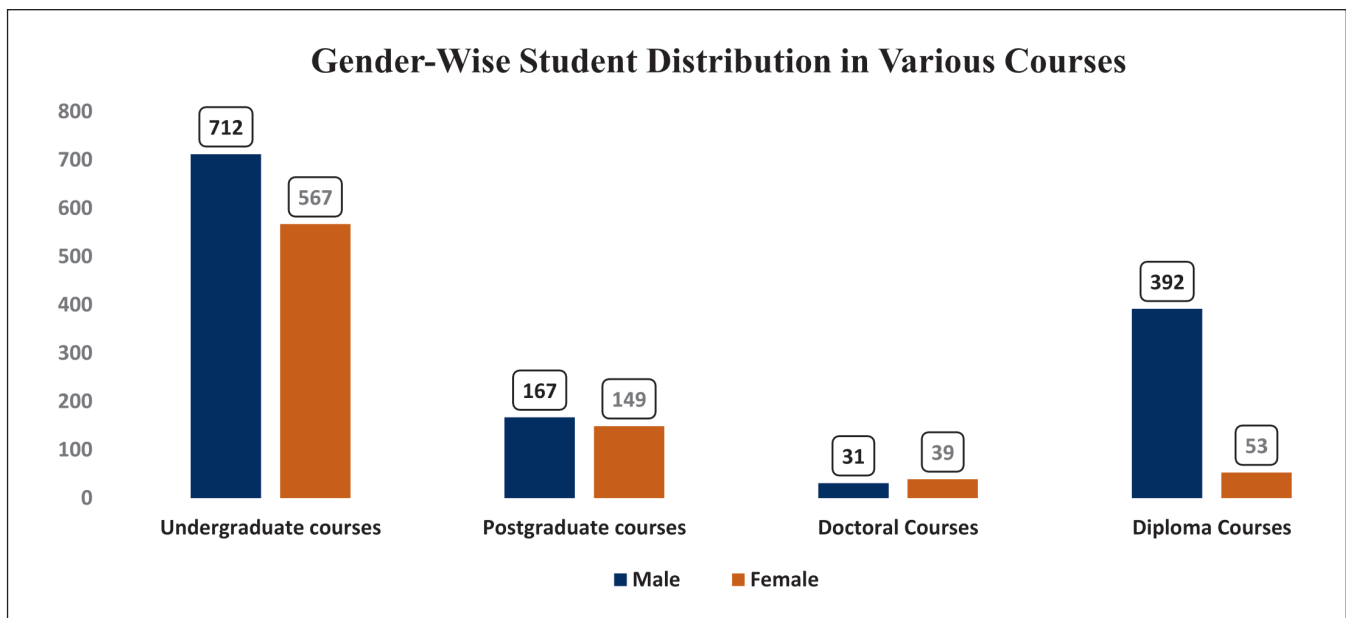
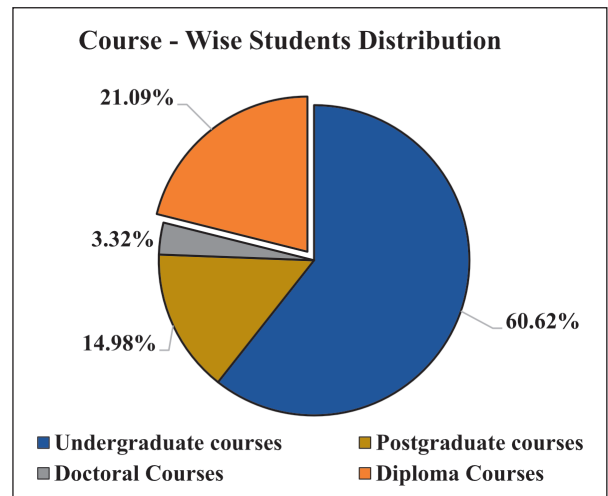
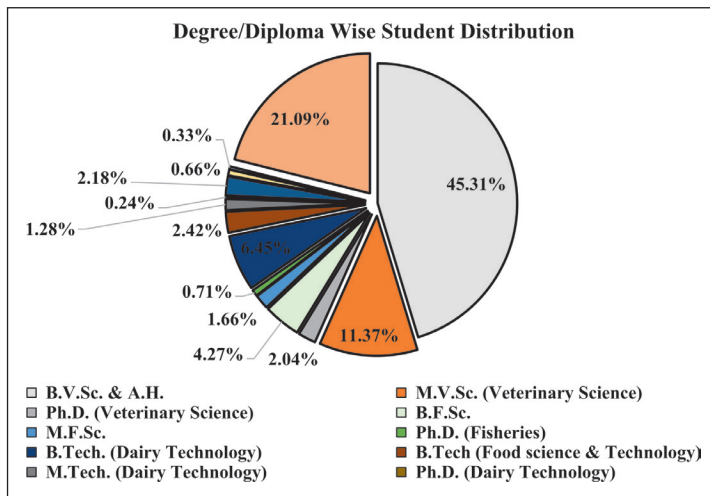
STUDENTS' PROFILE

The total strength of students for the year 2024-25 and their gender-wise distribution in various degree/diploma programs offered by various colleges of the university is as under:

College	Degree/Diploma Programs	Male	Female	Total
COVS, Ludhiana	B.V.Sc. & A.H.	319	246	565
	M.V.Sc. (Veterinary Science)	135	105	240
	Ph.D. (Veterinary Science)	21	22	43
COVS, Rampura Phul	B.V.Sc. & A.H.	206	185	391
	Diploma in Veterinary Pharmacy	198	31	229
COF	B.F.Sc.	44	46	90
	M.F.Sc.	15	20	35
	Ph.D. (Fisheries)	04	11	15
CODFST	B.Tech. (Dairy Technology)	101	33	134
	B. Tech (Food Science Technology)	22	29	51
	M.Tech. (Dairy Technology)	12	17	29
	Ph.D. (Dairy Technology)	03	02	05
COABT	B.Tech. (Animal Biotechnology)	16	30	46
	M.Sc. (Animal Biotechnology)	04	10	14
	Ph.D. (Animal Biotechnology)	03	04	07
VP, Kaljharani	Diploma in Veterinary Pharmacy	194	22	216
TOTAL		1302	808	2110

Apart from these students, a total of 499 students were also studying at Khalsa College of Veterinary & Animal Sciences, Amritsar in the B.V.Sc. & A.H. degree program and 208 students in the Diploma in Veterinary Pharmacy at Veterinary Polytechnic, Baba Hira Das Ji College of Veterinary Pharmacy, Badal, Sri Muktsar Sahib, affiliated with the university.





FINANCIAL REPORT

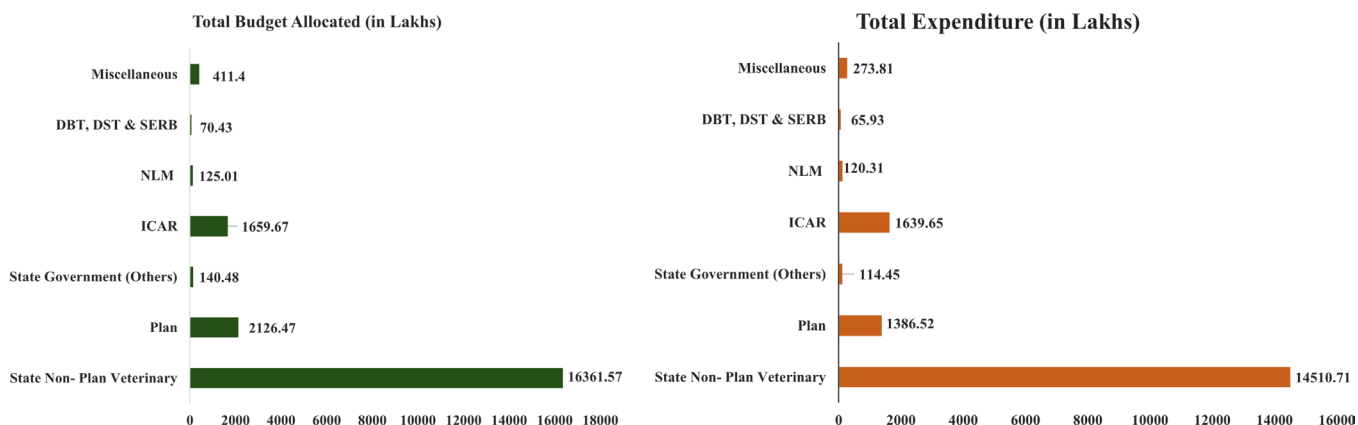
In the financial year 2024-25, the University was allocated a total grant of Rs. 20895.03 lakhs comprising Rs. 16361.57 lakhs under State Non-Plan Veterinary Schemes, Rs. 2126.47 lakhs under Plan Schemes and Rs. 140.48 lakhs under Other State Government Schemes. In addition, the University also received Rs. 1659.67 lakhs under ICAR Schemes/ Projects, Rs. 125.01 lakhs from NLM Schemes, Rs. 70.43 lakhs from DBT, DST & SERB Schemes and Rs. 411.40 lakhs from Miscellaneous funding agencies.

The total expenditure of the University for the year 2024-25 was Rs. 18111.37 lakhs, which included Rs. 14510.71 lakhs under State Non-Plan Veterinary Schemes, Rs. 1386.52 lakhs under Plan Schemes, Rs. 114.45 lakhs under Other State Government Schemes, Rs. 1639.65 lakhs under ICAR Schemes/Projects, Rs. 120.31 lakhs under NLM Schemes, Rs. 65.93 lakhs under DBT, DST & SERB schemes and Rs. 273.81 lakhs under Miscellaneous schemes.

A financial statement indicating budget allocated and amount spent (rupees in lakhs) under various schemes/projects during the financial year 2024-25

S. No.	Scheme	Total Budget Allocated*	Expenditure
1.	State Non- Plan Veterinary	16361.57	14510.71
2.	Plan	2126.47	1386.52
3.	State Government (Others)	140.48	114.45
4.	ICAR	1659.67	1639.65
5.	NLM	125.01	120.31
6.	DBT, DST & SERB	70.43	65.93
7.	Miscellaneous	411.40	273.81
TOTAL		20895.03	18111.37

*Allocated budget includes the budget revaluated, grant received and income generated



ACADEMIC UNITS

Guru Angad Dev Veterinary and Animal Sciences University (GADVASU) was established on 9th August 2005 in Ludhiana through Punjab Act No. 16 of 2005. The university's journey began with the College of Veterinary Science, which had been established in 1969 and was subsequently transferred from Punjab Agricultural University to GADVASU. After formally commencing operations on 21st April 2006, GADVASU has rapidly emerged as a leader in both academics and research & development (R&D), consistently ranking among the top Veterinary and Agricultural Universities in India since 2017, and earning a significant international reputation.

With a robust organizational structure, GADVASU plays a pivotal role in the holistic development of Punjab's animal husbandry, dairy, poultry and fisheries sectors. This is achieved through a comprehensive 3-tier approach that includes human resource development, cutting-edge research and technology transfer, which together contribute to the sustainable growth of these vital sectors in the state.

The university has received accreditation and recognition from the University Grants Commission (UGC) under Section 12(B) of the UGC Act, 1956, enabling it to receive central assistance. It has also been accredited by the Indian Council of Agricultural Research (ICAR) and is a proud member of the Association of Indian Agricultural Universities (AIAU) and the Association of Indian Universities (AIU). GADVASU and its three constituent colleges i.e. College of Veterinary Science, College of Dairy Science & Food Science Technology and College of Fisheries have been awarded an 'A' grade by ICAR, a testament to the university's unwavering commitment to academic and research excellence.

GADVASU's mission is to produce world-class professionals in veterinary, dairy, poultry and fisheries sciences, who are well-equipped to serve the livestock and fisheries sectors both nationally and internationally. Its alumni have established themselves as leaders in academics, research, administration, and policy-making across India and abroad. Furthermore, to foster self-reliance and entrepreneurship among its graduates, the university has implemented a range of innovative capacity development programs, aimed at instilling entrepreneurial skills that meet regional, national, and international needs.

GADVASU encompasses six constituent colleges, each contributing to the university's broad educational and research mission:

- College of Veterinary Science, Ludhiana
- College of Dairy & Food Science Technology
- College of Fisheries
- College of Animal Biotechnology
- College of Veterinary Science, Rampura Phul
- Veterinary Polytechnic College, Kaljharani (Bathinda)

Additionally, the university has established the Centre for One Health, a cutting-edge institution for multi-disciplinary research on a national and international scale. To further enhance its outreach, GADVASU operates four Regional Research & Training Centres located in Kaljharani (Bathinda), Talwara (Hoshiarpur), Booh (Tarn Taran), and Sappanwali (Fazilka). These centres are focused on meeting the region-specific needs of livestock owners, providing vital research and training to improve animal husbandry practices.

The university also manages three Krishi Vigyan Kendras in Booh (Tarn Taran), Handiya (Barnala), and Majri (SAS Nagar, Mohali), which are dedicated to the dissemination of agricultural technologies and the training of farmers to enhance productivity and sustainability.



In addition to its constituent colleges, GADVASU affiliated two esteemed institutions:

- Khalsa College of Veterinary & Animal Sciences, Amritsar
- Baba Hira Das Ji College of Veterinary Pharmacy, Badal, Sri Muktsar Sahib

Through these collaborations and initiatives, GADVASU continues to play an indispensable role in shaping the future of veterinary science, animal husbandry, dairy, and fisheries, both within Punjab and globally.

College of Veterinary Science, Ludhiana

The College of Veterinary Science was established in 1969 as a constituent college of Punjab Agricultural University, Ludhiana. Following the formation of a new university in 2006, it became part of Guru Angad Dev Veterinary and Animal Sciences University. The college is home to 17 departments, offering excellent laboratory facilities and infrastructure for undergraduate (UG) and postgraduate (PG) teaching and research. Additionally, it is equipped with a well-equipped Veterinary Teaching Hospital that meets the healthcare needs of both large and small animals.

The college owns a fully functional Livestock Farm Complex, which includes an elite dairy herd, a poultry farm, a goat farm and a piggery unit. The Multi-Speciality Veterinary Hospital serves the healthcare needs of both large and small animals. The hospital provides facilities of radiography, interventional ultrasound, critical care unit, echocardiography, endoscopy, canine dental unit and state of art specialized operation theatres for soft tissue surgery, orthopedic surgery, equine operation theatre and central diagnostic laboratory. The college also boasts three Indian Council of Agricultural Research (ICAR) Centers for Advanced Faculty Training, which specialize in Veterinary Surgery and Radiology, Veterinary Gynaecology and Obstetrics and Veterinary Pathology. Furthermore, departments such as the Teaching Veterinary Clinical Complex, Veterinary Medicine, Livestock Products Technology and Livestock Production Management offer experiential learning projects.

The Bachelor of Veterinary Science (B.V.Sc. & A.H.) degree is designed to equip graduates with the knowledge and skills necessary for careers in veterinary science and animal husbandry, in accordance with the norms set by the Veterinary Council of India (VCI). The program is divided into three phases:

Pre-clinical phase: Provides foundational education in subjects such as Veterinary Anatomy, Physiology, Biochemistry, Genetics, Breeding and Extension.

Para-clinical phase: Covers bridging subjects between the pre-clinical and clinical phases, including Veterinary Pathology, Microbiology, Public Health, Epidemiology, Parasitology, Pharmacology, Toxicology, Nutrition, Livestock Farm Practices and Livestock Products Technology.

Clinical phase: Focuses on Veterinary Surgery & Radiology, Medicine, Gynaecology and Obstetrics.

Upon completion of coursework, students are required to undergo a compulsory rotational internship program. Successful completion of the B.V.Sc. & A.H. program allows graduates to register as a Veterinary Practitioner with the Punjab State Veterinary Council or the Veterinary Council of India. The college is recognized by the VCI, and all ongoing UG and PG programs are accredited by ICAR with an 'A' grade.

The college's mission is to produce high-quality veterinary graduates, scientists and extension workers dedicated to promoting livestock health, preventing diseases and enhancing production and reproduction to improve the quality of rural life in Punjab. As part of this mission, the college engages in undergraduate and postgraduate teaching, research and extension education in various disciplines related to livestock production and health. It is recognized by the VCI and has received an overall score of five from ICAR for its academic programs. The college stands as a regional, national and international hub



for research and learning in animal health and production, serving the needs of not just Punjab but also its neighbouring states. The college has played a pivotal role in the state’s ‘White Revolution.’

The college also houses the Animal Disease Research Centre, which provides quick and reliable disease diagnosis and treatment advice to livestock owners. Additionally, the Directorate of Livestock Farms operates an elite dairy herd and poultry farm, supporting teaching and research activities. Directorate of Livestock Farms has made new initiatives by using paddy straw for feeding and bedding of animals. During 2024-25, 3724 qtl. bails of paddy straw from nearby villages were used. Apart from that mechanized urea molasses treatment of paddy straw and AI based precision dairy farming has been introduced. The embryo transfer technology lab of the colleges offers embryo transfer service at farmers doorstep and is recognized as OPU IVF training centre at National level by DAHD. In 2017, the college established India’s first Collaborative Research Centre for Veterinary Ayurveda, supported by the Central Council of Research in Ayurvedic Sciences (CCRAS), Ministry of AYUSH, Government of India.

The college offers the following academic programs in veterinary science:

- B.V.Sc. & A.H. (5½ years)
- M.V.Sc. (2 years) in 15 disciplines
- Ph.D. (3 years) in 15 disciplines

Student intake capacity

Programme of Study	Number of Seats
B.V. Sc & A.H (5½ years)	<ul style="list-style-type: none"> • 75 – For residents of Punjab State and Union Territory of Chandigarh through merit of NEET (UG) • 15 - Candidates nominated by the VCI • 10 - Self financed seats • Additional NRI seats • 01 – Kashmiri migrants • 01-additional seatfor Rural Area • 01- additional seat for Border Areas • 01-additional seat for Backward Area • 01- additional supernumerary seat for Orphan Children • 01- additional seat for the wards of permanent employee
M.V.Sc. (2 years)	<ul style="list-style-type: none"> • 49 - For residents of Punjab State and Union Territory of Chandigarh • 29- ICAR nominee • Additional NRI seats • 02 - Self-financed seats in each discipline • 01 - Kashmiri migrants
Ph.D. (3 years)	<ul style="list-style-type: none"> • 24 - For residents of Punjab State and Union Territory of Chandigarh. • 18 - ICAR nominee • Additional NRI seats • 01 - Self-financed seats in each discipline

Further, the College of Veterinary Science, Ludhiana also offers Post Graduate Diploma and Short & Certificate Courses, as per the details below:

Name of Postgraduate Diploma (PGD)	No. of seats	Eligibility Qualifications*	Course Duration
PGD in Large Animal Reproduction	5+1#	B.V.Sc. & A.H	01 year (02 Semesters)
PGD in Small Animal Clinical Practice	5+1#	B.V.Sc. & A.H	01 year (02 Semesters)
PGD in Bovine Clinical Practices	5+1#	B.V.Sc. & A.H	01 year (02 Semesters)
PGD in Equine Clinical Practices	5+1#	B.V.Sc. & A.H	01 year (02 Semesters)
PGD in One Health (Distance Learning Programme).	20	Graduate/ Post Graduate in any science, preferably health sciences (Veterinary, Medicine, Dentistry, Alternative Medicine, Nursing, Pharmacy) and Forestry and Environmental Science	01 year (02 Semesters)

Name of course	No. of seats	Eligibility Qualifications*	Course Duration
Online short course in Extension and Entrepreneurship Management	10	B.V. Sc& A.H./B.F.Sc./B. Sc (Agric/Med./Zool/ Fisheries/Home Science)/B. Tech. (Biotechnology/Dairy Technology/ Food Technology)	6 weeks (5 days on-campus training)
Online short course in Feed and Fodder Technology	10	Any Graduate	6 weeks (5 days on-campus training)
Online short course in Poultry Science	10	Any Graduate	6 weeks (5 days on-campus training)
Online short course in Ethno-veterinary practices	10	Veterinary graduates/ Veterinary Diploma Holder or Farmer with minimum matriculation qualification	2 week (1-2 day on-campus visit)
Short Course in Veterinary Diagnostic Imaging	3+1#	B.V.Sc. & A.H	6 Weeks
Short Course in Small Animal Anaesthesia	3+1#	B.V.Sc. & A.H	6 Weeks
Short Course in swine Farming	Min 5 max 20	Senior Secondary (10+2) in any stream, Desirable Graduation in any stream or Pet Owner	6 week (5 week online and 1 week offline)
Short Course in Pet-General Care and Management	Min 5 max 20	Senior Secondary (10+2) in any stream, Desirable Graduation in any stream or Pet Owner	6 week (5 week online and 1 week offline)



CC in Veterinary Diagnostic imaging	3+1#	B.V.Sc. & A.H	6 months (1 week/month on campus)
CC in small Animal Anaesthesia	3+1#	B.V.Sc. & A.H	6 months (1 week/month on campus)
CC in Embryo transfer technology in farm animal	3+1#	B.V.Sc. & A.H	6 months (3 month on campus)
CC in Veterinary Forensic Science	10	B.V.Sc. & A.H	6 months (1 week/month on campus)
CC ion Semen Handling and Artificial insemination	3+1#	B.V.Sc. & A.H	6 months (3 month on campus)
CC in Laboratory Diagnostic	10	Graduate	6 months
ATC in Important Veterinary Clinical Procedures	5+1#	B.V.Sc. & A.H	3 weeks/15 working days
ATC in Microbiological and Molecular Biology Techniques	20	Graduate/Post-graduate in any Science Subjects	One month

Foreign students, in case it remains vacant, it will be filled from national candidates as per merit.

College of Veterinary Science, Rampura Phul, Bathinda

The College of Veterinary Science, Rampura Phul, is a prominent constituent college of the Guru Angad Dev Veterinary and Animal Sciences University (GADVASU), Ludhiana. The foundation stone of this esteemed institution was laid on 30th October 2014, marking the beginning of a transformative journey. The college became fully operational on 1st October 2019, following the formal approval of the Veterinary Council of India.

The primary mission of the college is to produce highly skilled veterinary graduates, para-professionals and trained personnel to meet the growing demands of the animal husbandry sector in Punjab. Furthermore, the college is dedicated to advancing research initiatives and extension education programs that enhance livestock health and productivity, with a particular focus on the South Western Zone of Punjab.

Spread across an expansive 67 acres, the college campus is equipped with state-of-the-art infrastructure, including academic buildings, a teaching veterinary hospital, animal farms, and fodder production facilities. The residential complex on campus consists of hostels, a guest house, and staff quarters, ensuring a comfortable environment for students and faculty alike.

The Teaching Veterinary Hospital is fully equipped to provide comprehensive healthcare for both large and small animals. It boasts the latest diagnostic technologies, including X-ray machines, ultrasound systems and more. The college also features a well-established diagnostic laboratory for the examination of blood, urine, faeces, tissues and other essential tests.

This institution stands as a beacon of excellence, dedicated to fostering the future of veterinary science while contributing significantly to the health and well-being of livestock in the region.

The college offers the following academic programs:

Programme of Study	Duration	Number of seats
B.V. Sc & A.H	5½ years	68- for residents of Punjab State and Union Territory of Chandigarh through merit of NEET 12- Self-financed seats 01- an additional seat for Kashmiri migrants

Diploma in Veterinary Science and Animal Health Technology	2 years	52 Seats for residents of Punjab state and Chandigarh 51 Self-financed 01- an additional seat for Rural Area 01- an additional seat for Border Area 05 - an additional seat for EWS
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Further, the College of Veterinary Science, Rampura Phul also offers certificates and short courses, as per the details given below:

Name of Certificate Course (CC)/Short Course (SC)	Duration	Number of seats	Eligibility Qualification
CC in Artificial Insemination Technician	3 months	20	Minimum 10 th Standard
SC in Scientific Dairy Farming	2 weeks	20	Minimum 10 th Standard
SC in Backyard Poultry Farming	6 weeks	20	
SC in Veterinary Laboratory Techniques	6 weeks	20	Diploma in Veterinary Science & Animal Health Technology
SC in Health Care and Management of Dogs	6 weeks	20	
SC in Feed Processing Technology	6 weeks	20	

Centre for One Health

The Centre for One Health was established with a singular and critical mandate: to lead groundbreaking efforts in teaching, research and extension activities focused on zoonoses, milk and meat hygiene, food safety, environmental hygiene and epidemiology. At the heart of its mission, the Centre seeks to address some of the most pressing global health challenges at the interface of human, animal and environmental health.

The Centre is actively engaged in collaborative research with several prestigious national and international agencies, including DBT, UGC, the Gates Foundation, ICAR and ICMR, on high-impact projects related to zoonoses, food safety and environmental health. This extensive network of partnerships highlights the Centre's commitment to advancing scientific knowledge and finding solutions to complex health issues.

Furthermore, the Centre maintains strong ongoing collaborations with renowned international institutions, such as the Royal Veterinary College, London, University of Sydney, Australia and University of Saskatchewan, Canada. These partnerships are instrumental in fostering global dialogue, sharing expertise and conducting cutting-edge research.

In addition to these international alliances, the Centre works closely with medical colleges and hospitals, collaborating on evidence-based research to tackle endemic zoonoses and food safety challenges. It is deeply involved in epidemiological studies and public awareness initiatives on critical zoonotic diseases, including brucellosis, tuberculosis, rabies, cysticercosis, hydatidosis, as well as foodborne pathogens and environmental contaminants.

To further its mission of capacity building, the Centre for One Health offers a specialized one-year Post-Graduate Diploma in One Health, designed to empower professionals across various health sectors with the knowledge and skills needed to address today's complex health challenges.

With its unwavering commitment to improving public health through interdisciplinary approaches, the Centre for One Health stands as a vital institution at the forefront of advancing global health and environmental sustainability.



College of Dairy and Food Science Technology, Ludhiana

The College of Dairy & Food Science Technology, Ludhiana stands as one of the premier institutions for dairy education and research at the national level, dedicated to meeting the growing demand for skilled professionals in the dairy and food processing industries. Established in 2008 as a constituent college of the university, its core mission is to equip students with the expertise required by dairy and food industries, government departments and R&D organizations.

With a commitment to excellence, the college boasts state-of-the-art infrastructure, including cutting-edge classrooms and well-equipped laboratories featuring advanced analytical instruments, ensuring that students receive the highest quality of education and hands-on training.

One of the key features of the college is its Experimental Dairy Plant, which operates year-round, offering students invaluable practical experience in milk processing and dairy product development. The plant also serves as a platform for the development of innovative technologies in milk processing and product formulation, with a focus on transferring these breakthroughs to end-users.

The college prides itself not only on its world-class facilities but also on its dynamic and young faculty, many of whom have experience working at internationally renowned institutions. This combination of cutting-edge resources and expert guidance ensures that students are at the forefront of industry-relevant knowledge. The accreditation of the college's academic programs by the Indian Council of Agricultural Research (ICAR), New Delhi, with an 'A' grade, stands as a testament to the exceptional quality of education and training offered.

The flagship program of the college is the B.Tech. (Dairy Technology), a four-year undergraduate program highly sought after by students. This job-oriented course is designed to equip students with the skills necessary for both technical and managerial roles in the dairy and food industries. In addition to undergraduate studies, the college offers Master's and PhD programs in five specialized disciplines: Dairy Technology, Dairy Engineering, Dairy Chemistry, Dairy Microbiology and Dairy Economics & Business Management. These programs provide students with the opportunity to engage in cutting-edge research, culminating in theses, research papers and even patents, fostering innovation in the dairy sector.

In addition to this, the college has started new UG programme from Academic session 2024-25 i.e. B. Tech (Food Science & Technology) a four-year programme with multiple exit system within this period.

The college also benefits from strong collaborations with both industry and academic institutions, both nationally and internationally. These partnerships provide students with the opportunity to work in dynamic, real-world research environments. Many of our graduates find employment not only in India but also across the globe, with alumni pursuing careers in countries such as the USA, New Zealand, Canada and Australia.

The college's courses ensure that students emerge as highly skilled professionals, equipped with the knowledge, research experience and practical skills to excel in the dairy and food science fields. Furthermore, the college provides campus placement opportunities and many students secure employment through these placements. Prestigious companies such as Verka, Amul, Nestlé and Baani have previously visited the campus to recruit talented graduates.

In essence, the College of Dairy & Food Science Technology is not just an academic institution; it is a launchpad for the next generation of leaders in the dairy and food industries, committed to advancing the future of dairy science and technology on both national and global stages.

Student intake capacity

Programme	Available seats
B. Tech. (Dairy Technology) (4 years)	38- for residents of Punjab State and Union Territory of Chandigarh 07- seats for candidates nominated by the ICAR Additional seats: Kashmiri Migrants (01), ward of GADVASU employees (01), candidates from other states (05), Candidates from J&K and Ladakh (PMSSS Scheme) (03), Rural Candidates (01), Border Area Candidates (01), Backward Area (01), self-financed seats (03), Supernumerary seat for orphan children (01)
B. Tech (Food Science & Technology) (4 Years)	40- for residents of Punjab State and Union Territory of Chandigarh Additional seats: Kashmiri Migrants (01), ward of GADVASU employees (01), candidates from other states (05), Candidates from J&K and Ladakh (PMSSS Scheme) (03), Rural Candidates (01), Border Area Candidates (01), Backward Area (01), self-financed seats (03)
M. Tech. (Dairy Technology, Dairy Engineering, Dairy Microbiology and Dairy Chemistry)	10- for residents of Punjab State and Chandigarh 05- for nominees of the ICAR
M.Sc. Agriculture Economics (Animal Husbandry)	02- for residents of Punjab State and Chandigarh 01- seat for nominee of the ICAR
Ph.D. (Dairy Technology, Dairy Engineering, Dairy Microbiology)	03- for residents of Punjab State and Chandigarh 03- for nominees of the ICAR
Ph.D. Agriculture Economics (Animal Husbandry)	01- for residents of Punjab State and Chandigarh 01- for nominee of the ICAR

To meet the requirements of skilled floor-level workers in dairy and food industries from the current academic session the college has started two new short courses of 8 weeks duration with intake capacity of 15 candidates per batch.

Name of Short Course (SC)	Duration	Number of seats	Eligibility Qualification
Dairy Entrepreneurship Development	(8 weeks)	15	Minimum Matriculation
Dairy Services and Maintenance	(8 weeks)	15	Minimum Matriculation

College of Fisheries, Ludhiana

The College of Fisheries, GADVASU, established in April 2008, stands as a cornerstone for the development and advancement of the fisheries sector in Punjab. Situated over an expansive 6-hectare campus, the college was founded with the vision to cultivate highly skilled human resources and provide technical support to enhance the productivity and sustainability of the state's fisheries industry. With a focus on both expansion and innovation, the college aims to drive significant growth in fisheries through cutting-edge research, advanced training and technology dissemination to farmers and entrepreneurs.

The college operates with a multi-disciplinary approach and houses five specialized departments:

- Aquaculture
- Fisheries Resource Management
- Aquatic Environment

- Fish Processing Technology
- Fish Engineering

Each department is staffed with competent, experienced faculty, ensuring that students receive world-class education and guidance. The college's infrastructure is robust and well-equipped, featuring state-of-the-art laboratories and farm facilities. Notably, the college is home to an instructional cum research farm, which serves as a hub for experiential learning, training programs, and demonstrations, empowering students with hands-on experience in fisheries practices.

The primary objective of the college is to foster higher fish productivity and sustainable practices through basic, applied and adaptive research. Additionally, it plays a pivotal role in transferring innovative technologies directly to farmers and entrepreneurs, ensuring these advancements are practically applied to improve the commercial viability of the fisheries sector.

Through its academic programs and outreach initiatives, the College of Fisheries is committed to empowering the next generation of fisheries professionals, driving forward the development of the industry and contributing significantly to the economic growth and sustainability of the fisheries sector in Punjab and beyond.

The college offers the following academic programs:

Programme	Available seats
Bachelor of Fisheries science (B.F. Sc) – 4 yrs	25-for residents of Punjab State and Union Territory of Chandigarh 05-seats for candidates nominated by the ICAR Additional Seats: 10-candidates from other states 01-ward of GADVASU employees 01-Kashmiri Migrants 02- self-financed seats 03-Candidates from J& K and Ladakh (PMSSS Scheme) 01-Rural Candidates 01-Border Area Candidates 01-Backward Area Candidate 01-Seat for orphan children
M.F.Sc.	
Aquaculture	04- for residents of Punjab State and Chandigarh 01- for nominees of the ICAR
Fisheries Resource Management	02- for residents of Punjab State and Chandigarh 01- seat for nominee of the ICAR
Aquatic Environment Management	02- for residents of Punjab State and Chandigarh 01- for nominees of the ICAR
Fish Processing Technology	01- for residents of Punjab State and Chandigarh 01- for nominee of the ICAR
Ph. D	
Aquaculture	01- for residents of Punjab State and Chandigarh 01- seat for nominee of the ICAR

Fisheries Resource Management	01- for residents of Punjab State and Chandigarh 01- for nominees of the ICAR
Aquatic Environment Management	01- for residents of Punjab State and Chandigarh 01- for nominee of the ICAR
Fish Processing Technology	01- for residents of Punjab State and Chandigarh 01- for nominee of the ICAR

Short courses (w.e.f. 2024-25)

Name of Short Course	Duration	Number of seats	Eligibility Qualification
Ornamental Fisheries & Aquarium Science	4 Weeks 2 Weeks Online 2 Weeks Offline	05	10+2 (Any Stream)
Fish Hatchery Management		05	10+2 (Any Stream)
Aqua-Clinics		05	10+2 (Medical)
Fish Processing Technology		05	10+2 (Any Stream)
Aquarium Fabrication & Maintenance		05	10+2 (Any Stream)
Fish Feed Formulation and Manufacturing		05	10+2 (Any Stream)

In just 15 years since its establishment in 2008, the College of Fisheries has achieved remarkable academic growth and made a profound impact on the development of the fisheries sector in Punjab. Through its commitment to producing highly skilled graduates and postgraduates, generating innovative, need-based technologies and delivering impactful ‘Lab to Land’ extension programs, the college has been instrumental in the vertical and horizontal expansion of the aquaculture sector.

The college’s four-year undergraduate degree program (B.F.Sc.) has been meticulously designed in accordance with the recommendations of the 5th Deans’ Committee of the Indian Council of Agricultural Research (ICAR), starting from the academic session of 2016-17. The program, divided into eight semesters, offers a comprehensive curriculum that covers a wide range of subjects. In the first six semesters, students engage in both theory and practical courses in areas such as taxonomy, anatomy, physiology, biochemistry, culture techniques, nutrition, breeding, disease management, aquatic ecology, genetics, biotechnology, culture and capture fisheries, fish processing, marketing, economics, statistics and extension education.

In alignment with the college’s Student Ready Program, students participate in a crucial ‘In-Plant Training Program’ during the 7th semester. This hands-on training spans diverse areas such as aqua-farms, hatcheries, feed industries, fish markets and processing/value addition units. During the 8th semester, students engage in on-campus experiential learning, skill development and project development programs, ensuring they gain practical exposure and industry-relevant competencies.

The M.F.Sc. programs, specializing in Aquaculture, Fisheries Resource Management, Aquatic Environment Management and Fish Processing Technology, as well as the Ph.D. programs in Aquaculture, Fisheries Resource Management and Aquatic Environment Management, are designed based on ICAR’s rigorous guidelines, combining both theoretical learning and advanced research.

The college also offers a One-Year Diploma in Inland Fisheries, specifically designed for sponsored in-service candidates from the State Fisheries Department, aiming to strengthen the professional expertise within the department.

In an effort to meet the growing demand for industry-ready professionals, the college launched tailor-made six-month certificate courses in industry-oriented fields in 2020-21. These programs are designed to instill entrepreneurial skills among graduates, youth and stakeholders, promoting fisheries as a viable career option and entrepreneurial venture at regional, national and international levels.

Career Opportunities and Entrepreneurial Potential

Graduates (B.F.Sc.), postgraduates (M.F.Sc. and Ph.D.) and certificate holders from the college are highly sought after and well-equipped to pursue promising career opportunities in both the public and private sectors. Potential employers include the State Fisheries Department, Fish Farmers Development Agencies (FFDAs), agricultural and veterinary universities, Krishi Vigyan Kendras (KVKs), fisheries institutes/agencies, banks, hatcheries, aquaculture farms, feed mills, pharmaceutical companies, processing plants, trading firms and export companies. Additionally, fisheries professionals have significant opportunities for higher studies and placements overseas.

Moreover, the fisheries sector offers vast potential for self-employment and entrepreneurship development. With the increasing demand for sustainable fisheries management, innovative fish farming techniques and value-added fish products, the opportunities for entrepreneurial ventures in the sector are boundless.

In essence, the College of Fisheries has emerged as a pioneering institution, not only advancing academic excellence but also empowering the fisheries sector with a skilled workforce, innovative research, and practical solutions. The college remains steadfast in its mission to foster career advancement, entrepreneurship and sustainability in the fisheries industry, both locally and globally.

College of Animal Biotechnology, Ludhiana

Over the past three decades, molecular biology and biotechnology have revolutionized numerous fields, from animal husbandry and medicine to industry and environmental sciences. Recognizing the transformative potential of biotechnology in the animal sector, Guru Angad Dev Veterinary and Animal Sciences University established the Department of Animal Biotechnology in 2008. This visionary step led to its designation as the School of Animal Biotechnology in 2010 and its elevation to the College of Animal Biotechnology in 2019, reflecting its growing prominence and impact.

The primary mandate of the College of Animal Biotechnology is to foster scientific expertise and develop a highly skilled human resource in various facets of animal biotechnology. The college is committed to advancing cutting-edge research and creating specialized facilities that address the emerging needs in biotechnology, particularly in animal sciences. Through its pioneering research, the college is engaged in both basic and applied research in areas such as genomics, molecular diagnostics, vaccinology, stem cell biology, cancer biology, proteomics and bioinformatics.

To meet the demands of both undergraduate and postgraduate education in these dynamic fields, the college has established three specialized departments:

- Department of Animal Biotechnology
- Department of Microbial & Environmental Biotechnology
- Department of Bioinformatics

Each department is equipped with state-of-the-art infrastructure and cutting-edge laboratory facilities, ensuring that students and researchers have access to the best resources to conduct innovative work. The college follows the course curricula recommended by the Indian Council of Agricultural Research (ICAR), ensuring that its educational offerings meet national standards of excellence.



Currently, the college offers the following degree programs:

- B.Tech. (Biotechnology)
- M.V.Sc./M.Sc. (Animal Biotechnology)
- Ph.D. (Animal Biotechnology)

The M.V.Sc./M.Sc. and Ph.D. programs in Animal Biotechnology adhere to the rigorous course curriculum prescribed by ICAR, equipping students with the expertise necessary to thrive in this rapidly evolving field.

In May 2021, the college achieved a significant milestone by earning ISO 9001 certification, affirming its adherence to international standards for quality management systems in delivering consistent products and services. Additionally, the college received ISO 45001 certification, recognizing its commitment to occupational health and safety, ensuring a safe and secure environment for its faculty, staff and visitors. These prestigious certifications reflect the college’s global recognition and its continuous pursuit of excellence in both education and research.

Through its comprehensive academic programs, cutting-edge research and commitment to industry standards, the College of Animal Biotechnology is at the forefront of advancing animal biotechnology. It continues to shape the future of the animal husbandry sector by nurturing skilled professionals and producing breakthrough technologies that benefit both the industry and society at large.

The College of Animal Biotechnology offers the following programs:

Programme	Available seats
B. Tech. (Biotechnology) (4 Years)	25- for residents of Punjab State and Union Territory of Chandigarh 05- for Candidates from other states Additional Seats: 01- Kashmiri Migrants 01- ward of GADVASU employees 03-Candidates from J& K and Ladakh (PMSSS Scheme) 01-Rural Area Candidates 01-Border Area Candidates. 01-Backward area candidates
M.V.Sc. (Veterinary Biotechnology) M.Sc. (Molecular Biology and Biotechnology) (2 Year Programs)	02 seats for veterinary graduates 02 seats for Nominee of the ICAR 04 seats for non-veterinary graduates 02 seats for Nominee of the ICAR
M.Sc. (Molecular Biology and Biotechnology) with specialization in Animal Biotechnology (DBT sponsored 2 Year Programs)	10 seats under DBT-Postgraduate teaching programme through GAT-B
Ph.D. (Veterinary Biotechnology) Ph.D. (Molecular Biology and Biotechnology)(non-veterinary graduates) (3-year Programs)	02 - Preference to candidates with Master’s in Veterinary/ Animal Biotechnology 02 seats for Nominee of the ICAR 04- Preference to candidates with Master’s in Molecular Biology & Biotechnology. 02 seats for Nominee of the ICAR

Veterinary Polytechnic, Kaljharani (Bathinda)

In 2010, the Guru Angad Dev Veterinary and Animal Sciences University (GADVASU) established the Veterinary Polytechnic at Kaljharani, Bathinda, with the aim of providing specialized education in Veterinary Science and Animal Health Technology. As a constituent institute of GADVASU, the polytechnic plays a pivotal role in supporting veterinary services by producing highly trained para-veterinary staff, who are essential for the efficient functioning of animal healthcare systems.

The polytechnic boasts state-of-the-art teaching infrastructure and is equipped with comprehensive facilities for practical training. This includes a well-maintained Sahiwal cattle dairy farm and a Beetal goat farm, providing students with hands-on experience in animal care and management. These farms serve as vital resources for students, allowing them to apply theoretical knowledge in real-world settings, making them highly capable of contributing to the veterinary profession.

The polytechnic also provides modern hostel facilities, equipped with the latest amenities, including a gymnasium and a playground, ensuring that students have a comfortable and holistic living experience while pursuing their education.

Upon completing the Diploma in Veterinary Science and Animal Health Technology, graduates enjoy excellent career opportunities across a variety of sectors. These include positions in Veterinary Hospitals, Veterinary Colleges, Research and Training Institutes, the Cooperative Sector and Non-Governmental Organizations (NGOs). Many alumni of the polytechnic have been successfully appointed to positions within the Department of Animal Husbandry, the Cooperative Sector and GADVASU, while others have secured roles in leading NGOs. Furthermore, in recent years, there has been a growing demand for diploma holders abroad, creating exciting job opportunities on a global scale.

In essence, the Veterinary Polytechnic at Kaljharani is at the forefront of developing a skilled workforce for the veterinary sector, ensuring that students receive high-quality education and practical experience to excel in the rapidly evolving field of animal healthcare.

The Polytechnic offers the following academic program:

Programme	Available seats
Diploma in Veterinary Science & Animal Health Technology (2 years)	72 seats for residents of Punjab State and Union Territory of Chandigarh 10 self-financed seats for residents of Punjab State and Union Territory of Chandigarh/ Other states 10 seats reserved for candidates from other states 02 seats for residents of Kaljharani, Bathinda 01 seat reserved for rural area 01 seat for border area

Placement Cell

University Placement Cell: Bridging Students to Career Success

Established on 5th December 2006, the Placement Cell at Guru Angad Dev Veterinary and Animal Sciences University (GADVASU), Ludhiana serves as a dynamic, centralized facility dedicated to helping students from all colleges and institutes within the university secure rewarding career opportunities. The Placement Cell plays a crucial role in acting as a liaison between the university's graduates and recruiting agencies, ensuring a seamless transition from education to employment.



The Placement Cell's role begins well before the recruitment process. It works closely with students to organize their resumes, offering tailored career counselling based on individual interests, talents, and career aspirations. This personalized guidance helps students align their skills with appropriate career paths and opportunities.

Mode and Mechanism of Placement and Counseling:

- **Recruitment Partnerships:** The Placement Cell proactively reaches out to a wide array of prospective employers, including veterinary pharmaceuticals, banks, insurance firms and feed, dairy and meat industries, fostering valuable partnerships for on-campus and off-campus recruitments. This process is supported through emails, phone calls and social media platforms.
- **Job Notifications:** Students are regularly updated about vacancies and placement opportunities through multiple communication channels, including the university website, WhatsApp groups, emails and notice boards across colleges, libraries and hostels, ensuring they never miss an opportunity.
- **Personality Development and Career Seminars:** The university conducts periodic seminars focused on personality development, exploring career opportunities in higher education both in India and abroad. In addition, adjunct faculty from relevant industries are invited to share insights on current trends, industrial scenarios and emerging career opportunities, empowering students with the knowledge needed to excel in their respective fields.
- **Industry Linkages for Placement:** The Placement Cell works diligently to establish and nurture industry linkages, creating a robust network of recruitment avenues across various sectors. It actively facilitates the recruitment process by organizing group discussions and personal interviews for on-campus placements, while off-campus placements typically involve employers requesting student biodata and inviting shortlisted candidates for interviews at their headquarters.

Placement Cell: 2024-25 Updates

The Placement and Counseling Cells at both the College and University levels are strategically aligned to provide comprehensive training in personality development and competitive exams. They also guide students through opportunities for higher education and offer invaluable support in securing job placements. The Placement Cell's efforts span across key sectors, including the government sector, private industry, self-employment, higher education and international career opportunities.

During the 2024-25 academic year, the Placement Cell successfully organized both offline and online campus placements for undergraduate and postgraduate students from the College of Veterinary Science, College of Fisheries, and College of Dairy and Food Science Technology. Leading recruiting agencies that participated included prominent names such as: Milked, Verka, Nestlé, Amul, Bani Milk, IDBI Bank, and more.

In addition, the Placement Cell ensured that job openings from various recruiting agencies were promptly circulated among eligible students through the university website and social media platforms, further enhancing job prospects. To ensure widespread outreach, the placement committee organized placement awareness camps during the university's Pashu Palan Melas, bringing attention to the latest opportunities and career advice.

Placement Success (2024-25)

The success of the Placement Cell during the 2024-25 year is evident in the number of students placed across diverse sectors. Graduates have found employment in prestigious public and private organizations,

while others have pursued further studies or self-employment ventures, contributing to a diverse and thriving workforce.

In conclusion, the Placement Cell at GADVASU is not just an employment facilitator—it is an integral partner in shaping the future of its students. Through its proactive initiatives, extensive industry partnerships, and commitment to holistic student development, the Placement Cell continues to bridge the gap between education and employment, empowering students to pursue successful careers and make meaningful contributions to their respective fields

Placement of Undergraduate and Postgraduate Students

S No	Name of the University/ College/ Faculty	Courses	Passed out students	Student Placed	CAU/ SAU	Central Govt.	State Govt./ Corporate	PDF/ Foreign	Pvt/ Others*	Higher Studies
1	College of Veterinary Science, Ludhiana	UG	103	52	-	01	01	14	36	38
		PG	23	20	03	01	07	01	08	03
2	College of Fisheries, Ludhiana	UG	18	01	01	-	-	-	-	11
		PG	08	03	02	-	-	-	01	04
3	College of Dairy & Food Science technology, Ludhiana	UG	32	17	--	-	-	--	17	07
		PG	05	04	-	01	01	--	02	-
4	College of Animal Biotechnology, Ludhiana	UG	14	02	--	--	--	--	02	03
		PG	12	02	--	--	--	--	02	04
5	Veterinary Polytechnic Kaljharani, Bathinda	UG	91	47	0	0	0	0	47	17
Total			306	148	06	03	09	15	115	87

IPR cell

Intellectual Property Rights (IPR) Cell at GADVASU: Empowering Innovation and Protecting Intellectual Capital

The IPR Cell at the university plays a pivotal role in the management and protection of the university’s intellectual property (IP). It is the central hub responsible for the day-to-day operations related to invention disclosures, patent filings and technology transfer, ensuring that GADVASU’s intellectual assets are properly safeguarded and commercialized. The IPR Cell is instrumental in fostering an environment where innovation is encouraged, protected and leveraged for research, development, and industry collaboration.

The core responsibilities of the IPR Cell include, but are not limited to:

- **Receiving and managing invention disclosures:** The IPR Cell meticulously handles the documentation of inventions, ensuring that they are accurately filed and maintained for further development.
- **Engaging with external agencies:** The cell works closely with patent authorities and external agencies to facilitate the patent application process, ensuring that GADVASU’s inventions are

legally protected on a national and international level.

- **Encouraging faculty and researchers:** The IPR Cell actively encourages faculty, students and research groups to file disclosures of inventions, fostering a culture of innovation and IP creation across the university.
- **Technology Transfer:** The IPR Cell plays a crucial role in negotiating license agreements with potential commercialization partners, ensuring that innovations are transferred effectively to industry, where they can be applied to real-world challenges.

Objectives of the IPR Cell:

1. **Facilitating the Creation of Intellectual Property:** The IPR Cell provides comprehensive support for researchers and faculty to identify and protect their innovative works. By nurturing a conducive environment, it helps in the creation of valuable intellectual property across various domains.
2. **Raising Awareness about Intellectual Property:** One of the key objectives of the IPR Cell is to educate and raise awareness among faculty, students and research groups about the importance and value of their ideas, innovations, IPR and genetic resources. This awareness fosters a deeper understanding of the economic and social value of intellectual property.
3. **Supporting IP Creation and Protection:** The IPR Cell actively guides researchers and creators through the process of submitting proposals for the creation and protection of their intellectual property. It provides essential support for obtaining patents, copyrights, trademarks and other forms of protection to safeguard their work.

By focusing on these key objectives, the IPR Cell ensures that GADVASU not only generates valuable intellectual property but also maximizes its potential for innovation, commercialization and industry collaboration. The cell is dedicated to supporting the university's mission of fostering cutting-edge research while ensuring that the intellectual contributions of its faculty and students are protected and valued on both national and international platforms.

In essence, the IPR Cell serves as a vital catalyst for technology transfer, knowledge protection and the commercialization of innovations, empowering GADVASU to contribute meaningfully to scientific, industrial and economic advancements.

Nodal Cell, ICAR

The university has established a dedicated ICAR Nodal Cell to seamlessly coordinate the various initiatives of the Indian Council of Agricultural Research (ICAR) and the university under the prestigious "Strengthening and Development of Higher Education in India" scheme. This Nodal Cell plays a pivotal role in ensuring efficient communication, collaboration, and the smooth implementation of key projects aimed at enhancing agricultural education in India.

Operating as a Single Window System, the ICAR Nodal Cell serves as the primary point of contact for providing all essential information, updates and documentation to the Agricultural Education Division of ICAR. This centralized coordination ensures that GADVASU aligns with the broader national objectives of improving higher education standards and fostering research excellence in the agricultural and veterinary sciences.

The Dean of Postgraduate Studies, Dr. Sanjeev Kumar Uppal, has been appointed as the Nodal Officer, bringing his expertise and leadership to oversee the functioning of the cell. Under his stewardship, the Nodal Cell is committed to driving forward the university's initiatives under the ICAR scheme, ensuring that both faculty and students benefit from cutting-edge developments in agricultural education,

research, and innovation.

In summary, the ICAR Nodal Cell at GADVASU is a key driver of the university's ongoing commitment to excellence in agricultural education. It ensures that the university remains at the forefront of national efforts to strengthen and modernize higher education in India, with a particular focus on the agricultural and veterinary sectors.

Human Resource Management Centre

The Human Resource Management Centre (HRMC) at the university was established in 2021, following the approval of recommendations by the Academic Council in its 61st meeting and the Board of Management in its 49th meeting, held on 19th February 2021. The primary objective of setting up the HRMC was to create a robust framework for accelerating professional development across the university, with a dual focus on both managerial and operational activities. The HRMC is dedicated to fostering a culture of excellence by providing targeted training, workshops and resources that equip university members with the skills required to thrive in today's dynamic academic and administrative environment.

Key Activities and Programs Organized by HRMC (2024-25)

In the year 2024-25, the HRMC organized a diverse range of training sessions, workshops and lectures aimed at enhancing the capabilities of faculty, officers, students and non-teaching staff at GADVASU. The Centre's activities were designed to address both professional and personal development, contributing significantly to the university's growth as a centre of excellence in education and research.

- **Special talk on “Role of specific Artificial Intelligence (AI) Tools and ChatGPT’s for Office Productivity and Office Management” (09.04.2024):** This session was organized for office staff, Senior Assistant level and above, besides typist/Steno-typist/Personal Assistant/Private Secretary of the University. This informative session was conducted for the awareness and adaptability of AI technologies is crucial for maintaining competitive edge and delivering exceptional service to stakeholders.
- **Special Talk on “How to Crack US and Canadian Veterinary Medical Boards with Minimal Funds.” (29.04.2024):** This session was organized for final-year undergraduate students, underscoring the critical importance of for future academic exchange programme(s) that may benefit and propel collectively our mutual interests.
- **Talk on Motivation through Goal Setting” (13.05.2024):** A specialized talk aimed at enhancing understanding of parasitology and the development of a parasite resource bank, offering valuable insights for future research in the field.
- **Three-days preparatory training program for “The Higher Standard Departmental Examination of Accounts and General Services” (13, 14 & 16.08.2024):** The Higher Standard Departmental Examination of Accounts and General Services for the Non-Teaching staff members. This training covered all six papers and was designed to equip non-teaching staff members with the necessary knowledge and skills to excel in the examination.
- **Talk on “Animal Cloning: Status and Scope in Indian Livestock Production” (23.08.2024):** This session was organized for PG students and faculty members.
- **Faculty Induction Training Programme (02-13.09.2024):** This comprehensive training session was organized to induct and orient new faculty members, providing them with the necessary tools and resources to excel in their teaching and research roles.



- **Expert lecture on “CPR Training Session: Awareness about Heart health and mission swasth kawach” (27.09.2024):** This session was organized for the students.
- **Expert lecture on “Meeting the Challenge of Controlling Pathogens: Immuno Pathology” (18.11.2024):** This session was organized for PG students and Faculty members. The session explored groundbreaking approaches to managing immune system overreactions that often worsen diseases.
- **Two Days workshop on “Writing Winning Research and Grant Proposals” (09-10.12.2024):** The workshop was organized for PG students and Faculty members.

HRMC’s Vision and Impact

The HRMC has proven to be a cornerstone of professional development at GADVASU, driving a continuous process of learning, growth and leadership. By offering specialized programs and fostering a culture of excellence, the HRMC ensures that faculty, staff, and students are well-equipped to meet the challenges of a rapidly changing academic and professional landscape.

In summary, the Human Resource Management Centre is committed to empowering the GADVASU community through continuous professional development, skill enhancement, and leadership training, ensuring that every individual is well-prepared to contribute meaningfully to the university’s mission of academic excellence and research innovate on.

TEACHING

Admissions in undergraduate and postgraduate programmes in academic session 2024-25

Programme	Male	Female	Total
B.V.Sc. & A.H. (COVS, Ludhiana)	68	59	127
B.V.Sc. & A.H. (COVS, Rampura Phul)	45	36	81
B.V. Sc & A.H. (KCVAS, Amritsar) *	56	43	99
B.F.Sc.	12	17	29
B.Tech.(Dairy Tech)	40	09	49
B. Tech. (Biotechnology)	08	11	19
B.Tech.(Food Science &Tech)	25	26	51
M.V.Sc./M.F.Sc./M.Sc./M. Tech.	67	63	130
Ph.D.	05	05	10
Diploma in Veterinary Science & Animal Health Technology (Veterinary Polytechnic, Kaljharani)	101	07	108
Diploma in Veterinary Science & Animal Health Technology, (Rampura Phul)	96	14	110
Diploma in Veterinary Science & Animal Health Technology (Baba Hira Ji Das, College of Veterinary Polytechnic, Badal) *	95	10	105
Any other Degree/Diploma	37	16	38
Total	658	313	971

* Affiliated private colleges of the university

Passed out students in academic session 2024-25

Programme	Boys	Girls	Total
B.V.Sc. & A.H. (COVS, Ludhiana)	58	41	99
B.V.Sc. & A.H. (COVS, Rampura Phul)	37	29	66
B.V. Sc & A.H. (KCVAS, Amritsar) *	33	14	47
B.F.Sc.	06	12	18
B.Tech.(Dairy Tech)	26	09	35
B. Tech. (Biotechnology)	06	09	15
M.V.Sc./M.F.Sc./M.Sc./M.Tech.	16	22	38
Ph.D.	07	12	19
Diploma in Veterinary Science & Animal Health Technology, (Rampura Phul)	58	12	70
Diploma in Veterinary Science & Animal Health Technology (Veterinary Polytechnic, Kaljharani)	78	08	86
Diploma in Veterinary Science & Animal Health Technology (Baba Hira Ji Das, College of Veterinary Polytechnic, Badal) *	69	06	75
Total	395	173	568

* Affiliated private colleges of the university



College of Veterinary Science, Ludhiana

Academics and Teaching:

The College of Veterinary Science admitted a total of 286 students for the 2024-25 academic session, comprising 127 students in B.V.Sc. and A.H., 101 in M.V.Sc., 05 in Ph.D. and 53 in short-term and certificate courses. During the reporting period, 186 students graduated from the college, including 99 B.V.Sc., 34 M.V.Sc., 12 Ph.D. and 41 from short-term/certificate courses.

Courses Taught

Students pursuing the B.V.Sc. & A.H. program were offered courses in accordance with the Minimum Standards of Veterinary Education Degree Course (B.V.Sc. & A.H.) Regulations 2016 established by the Veterinary Council of India. Postgraduate students were provided courses in their respective major, minor and supporting fields as approved by the Dean of Post Graduate Studies.

Scholarships / Fellowships

Scholarship	Undergraduate Students	Postgraduate Students	Doctorate Students
University Merit Scholarship	40	-	-
University Merit Fellowship	-	37	02
Post Matric scholarship for UG & PG	24	-	-
National Talent Scholarship	29	22	-
Dr G S Khush Foundation Scholarship	08	-	-
ICAR- PG Scholarship (JRF)	-	09	-
Post Matric Scholarship	24	-	-
Pradhan Mantri Scholarship scheme	01	-	-

The college awarded various scholarships and fellowships to support student education across all academic levels. A total of 126 undergraduate students, 68 postgraduate students, and 02 doctorate students benefited from these financial assistance programs. The University Merit Scholarship and National Talent Scholarship were the most widely distributed awards, demonstrating the institution’s commitment to recognizing academic excellence and supporting student advancement.

Internship Programme

A total of 92 students (comprising 53 males and 39 females) from the B.V.Sc. & A.H. (2019 Batch) successfully completed their intensive one-year internship programme, marking a significant milestone in their academic journey. Throughout the internship, students were posted across various departments of the university, gaining invaluable practical exposure in specialized areas such as Veterinary Medicine, Veterinary Surgery and Radiology, Veterinary Gynaecology and Obstetrics and Animal Disease Research Centre. Interns also received direct training and practical experience at the Directorate of Livestock Farms and the Teaching Veterinary Clinical Complex, where they participated in a range of clinical activities, honing their diagnostic and treatment skills.

In addition to these core areas, students were provided with broad-based training in Dairy Technology, Fisheries, Poultry, National Cadet Corps (NCC) and the Punjab Veterinary Vaccination Institute, allowing them to diversify their expertise across multiple facets of animal husbandry and veterinary care. To further enrich their learning experience, students were also posted at veterinary colleges in other states and Government Veterinary Hospitals across Punjab, offering them a broader understanding of the veterinary landscape and practices in different regions.

The internship programme also included exposure visits to renowned institutions such as the Punjab Home Guard Canine Training & Breeding Institute in Dera Bassi and the Punjab Police Academy (Equestrian Wing) in Phillaur. These visits provided students with a unique opportunity to witness the integration of veterinary care in specialized fields such as canine training and equestrian management.

In conclusion, the internship programme provided these future veterinarians with unparalleled practical exposure, ensuring that they are equipped with the necessary skills, knowledge and real-world experience to excel in their careers and contribute meaningfully to the field of veterinary sciences.

All India Study Tour

An All-India Study Tour for final year B.V.Sc. & A.H. students (2020 batch and repeaters) from the College of Veterinary Science, Ludhiana was conducted from February 26 to March 13, 2025. The students, accompanied by faculty members, visited four veterinary colleges: College of Veterinary Science, Hyderabad; Veterinary College, Bangalore, KVAFSU and Bombay Veterinary College, MAFSU, Maharashtra.

Teaching Veterinary Clinical Complex

The College of Veterinary Science boasts a well-established Teaching Veterinary Hospital Complex, which is a cornerstone of the college’s clinical training and animal healthcare services. The hospital is thoughtfully designed with two key units: a Primary Unit and a Specialized Unit, ensuring comprehensive care for a wide range of animal conditions. A significant milestone in the college’s commitment to excellence is the establishment of a new Multispecialty Veterinary Hospital dedicated to small animal care. This modern facility is equipped with state-of-the-art medical technology, offering the highest standards of treatment and care for companion animals.

The hospital features indoor wards for both small and large animals, ensuring that all animals receive appropriate care in a comfortable and controlled environment. To enhance the experience for animal attendants, there are also dedicated rooms for their use during hospital visits, fostering a supportive and welcoming atmosphere.

The hospital is further strengthened by its clinical diagnostic laboratory and radiographic unit, enabling timely and accurate diagnoses, critical for effective treatment planning. In addition to routine care, the hospital provides advanced diagnostic and treatment facilities, including endoscopy, echocardiography, a dermatology unit, a dialysis unit and Blood Bank to facilitate emergency transfusions. The number of clinical cases registered for treatment and the clinical samples examined at the hospital continue to rise, underscoring the growing trust in the hospital’s capabilities and the increasing demand for specialized veterinary care.

Clinical cases and Laboratory Services

Number of Clinical Cases Presented from April 2024 to March 2025	
Small Animals	27,780
Large Animals	8648
Total	36,428

Clinical Samples Examined from April 2024 to March 2025	
Pathology	17382
Microbiology	1878
Biochemistry	8860
Parasitology	3015
Total	31,135

The Veterinary Hospital treated a total of 36,428 clinical cases from April 2024 to March 2025, with small animals comprising the majority at 27,780 cases and large animals accounting for 8,648

cases. Additionally, the hospital's diagnostic laboratories examined 31,135 clinical samples across four departments, with pathology services handling the highest volume at 17,382 samples, followed by biochemistry (8,860), parasitology (3,015) and microbiology (1,878). These figures demonstrate the hospital's comprehensive veterinary care and robust diagnostic capabilities serving the regional animal health needs.

Thesis/Dissertation awarded to Postgraduate students (2024-25)

	College of Veterinary Science		College of Fisheries		College of Dairy & Food Science Technology		College of Animal Biotechnology	
Degree	Ph. D	M.V. Sc	Ph. D	M.F. Sc	Ph. D	M.Tech	Ph. D	M.Sc/M.Tech
No.	12	34	01	01	03	02	03	01
Total	46		02		05		04	

Department (Year)	Name of the student (Major Advisor)	Thesis /Dissertation Title
COVSc, Ph. D		
Veterinary Gynaecology & Obstetrics (2024)	Pitroda Manisha Harshadrai (Dr. Ashwani Kumar Singh)	Studies on hemato-biochemical parameters, cytokine levels and evaluation of different therapeutic regimens in dogs suffering from pyometra.
Veterinary Gynaecology & Obstetrics (2025)	Bilawal Singh (Dr. S.P.S Ghuman)	Effect of pre-freeze supplementation of tissue derived stromal vascular fractions on post thaw semen quality and conception rate in dogs.
Veterinary Surgery & Radiology (2024)	Kartik Sharma (Dr. Navdeep Singh)	Surgical management of diaphragmatic hernia in bovine with special reference to economics.
	Rohit Kumar Sharma (Dr. S. K. Mahajan)	Evaluation of different Surgical techniques for the management of corneal affections in dogs.
Animal Nutrition (2024)	Jujhar Singh Sidhu (Dr. Udeybir Singh Chahal)	Effect of varying levels of dogs, hemp seeds and chia seeds on the productive performance of egg type birds.
Livestock Products Technology (2024)	Jeyapriya S (Dr. Nitin Mehta)	Isolation, characterization and valorization of chicken meat proteins for development of shelf stable snack products.
Veterinary Public Health & Epidemiology (2024)	Brindha S (Dr. Randhir Singh)	Epidemiology of brucellosis in livestock farmers and their farm animals.
Veterinary Public Health & Epidemiology (2025)	Arvinderpal Singh (Dr. Simranpreet Kaur)	Studies on emerging zoonotic and transboundary viral diseases in northwestern India.
Veterinary Anatomy (2025)	Tulumoni Seal (Dr. Anuradha Gupta)	Histomorphochemical study on buffalo uterine tube during different seasons.

Veterinary Pharmacology & Toxicology (2025)	Sushree Sangita Mohapatra (Dr. Saloni Singla)	Evaluation of <i>in silico</i> screened active compound(s) and its nanoformulation against Canine Distemper Virus (CDV) <i>in vitro</i> .
Veterinary Parasitology (2025)	K. Lalawmpuii (Dr. L. D. Singla)	Comparative prevalence and drug efficacy studies against abomasal nematodes of small ruminants.
Veterinary and Animal Husbandry Extension Education (2025)	Kritika Verma (Dr. Jaswinder Singh)	Assessment of livestock technology transfer services among dairy farmers of Punjab.
Animal Genetics & Breeding (2024)	Padma Parte (Dr. S. K. Sahoo)	Morphometric characterization and polymorphism of heat shock protein 70 (Hsp 70) gene in different poultry genetic groups.
	Garima Kalra (Dr. Bharti Deshmukh)	Genetics association of estrogen receptor-1 (ESR1) and diacylglycerol o-acyltransferase gene-1 (DGAT1) polymorphism with performance traits in Murrah buffalo.
	Revathy T (Dr. Neeraj Kashyap)	Relative efficiency of machine learning modules for prediction of milk yield as a tool for genetic evaluation in bovines.
Animal Nutrition (2024)	Patil Pragati Dinkar (Dr. Parminder Singh)	Nutritional evaluation of cottonseed meal as a protein source in broilers.
	Shyam Sunder Rathore (Dr. Udaybir Singh)	Utilization of caged poultry litter as feed in growing buffalo calves.
	Paviter Singh (Dr. Sandeep Uniyal)	Evaluation of dried distiller's grains with solubles as an alternate protein resource for beagle dogs.
Livestock Production Management (2024)	Gurcharan Singh (Dr. Daljeet Kaur)	A study on performance of laying pullets in free range vis-à-vis poultry coop rearing.
	Hemant (Dr. Ravi Kant Gupta)	Effects of mono-chromatic (coloured) light emitting diodes (leds) as supplemental light on the performance, behavior and welfare of layer birds.
Veterinary Anatomy (2024)	Roop Kiran (Dr. Neelam Bansal)	Gross and histomorphochemical studies on the lungs of goat.
Veterinary Microbiology (2024)	Shreya Prasher (Dr. Paviter Kaur)	Enterotoxigenicity of coagulase positive and coagulase negative <i>Staphylococcus</i> spp. isolated from poultry, handlers and their environment.
Veterinary Microbiology (2024)	Yeleswarapu Vani Sree (Dr. G. Filia)	Molecular detection of <i>Staphylococcus aureus</i> and <i>Staphylococcus pseudintermedius</i> from ear infections of dogs.

Veterinary Pharmacology & Toxicology (2024)	Natasha Yadav (Dr. Vinod Kumar Dumka)	To study therapeutic efficacy of <i>Moringa oleifera</i> in the treatment of subclinical mastitis in bovines.
	Dhebar Marmik Jignashubhai (Dr. S.P.S. Saini)	Effect of isoflurane anesthesia on the disposition kinetics of ceftriaxone administered along with tazobactam in horses.
Veterinary Public Health & Epidemiology (2024)	Preeti (Dr. J. S. Bedi)	Study on risk assessment of non-typhoidal <i>Salmonella</i> spp. from consumption of chicken meat in Punjab.
Veterinary Parasitology (2024)	Bhavjot Singh (Dr. L. D. Singla)	A study on trypanosomosis in animals with indication of possible subclinical human infections.
Veterinary Pathology (2024)	Tanu Sharma (Dr. L. Geeta Devi)	Toxicopathology of benfuracarb and its amelioration with andrographolide in mice.
	Garima Chahar (Dr. Sidharth Deshmukh)	Effect of early age feeding of chitosan and essential organic acids on gut immunity and gastro-intestinal morphology in layer chicken-an immunopathological approach.
	Kanle Shivani Tatyarao (Dr. Kuldip Gupta)	Pathology of experimental acetaminophen induced acute liver toxicity in mice and its amelioration with polyphenol and extract of <i>Rauvolfia tetraphylla</i> .
Veterinary Gynaecology & Obstetrics (2024)	Manvi Gupta (Dr. Ajeet Kumar)	Effect of different concentrations of egg yolk and glycerol on quality of frozen dog semen.
	Sneha S.H. (Dr. Prahlad Singh)	Cytokine profiling and enhancement of puberty through altrenogest feeding in pre pubertal buffalo (<i>Bubalus bubalis</i>) heifer.
	Prateek Grover (Dr. Ashwani Kumar Singh)	Effect of exogenous melatonin implant on semen quality of buffalo bulls.
	Bhavneet Singh Wadhwa (Dr. Ashwani Kumar Singh)	Effect of glutathione supplementation in extender on the post-thaw quality and fertility of cryopreserved buffalo bull semen.
Veterinary Medicine (2024)	Silpa S. N. (Dr. Sujata Turkar)	Diagnosis of septic and non-septic peritonitis with special reference to biomarkers in dogs.
	Navjeet Singh Brar (Dr. Neetu Saini)	Studies on arrhythmias with special reference to bradycardia and its management in dogs.
Veterinary Medicine (2025)	Gaganjot Kaur Ahluwalia (Dr. Sikh Tejinder Singh)	A longitudinal study on risk factors associated with sub-clinical mastitis in crossbred cattle.
Veterinary Surgery & Radiology (2024)	Diksha (Dr. Pallavi Verma)	Evaluation of conservative and minimally invasive surgical techniques for the management of teat and udder affections in dairy animals.

	Hussain Khan (Dr. Vandana Sangwan)	Clinical study on the peri-operative monitoring of general anaesthesia using xylazine, ketamine and isoflurane with or without butorphanol and diazepam in equines.
	Nuvpreet Singh (Dr. Tarunbir Singh)	Morphometric studies on canine stifle joint following surgical fixation of distal femoral fractures.
	Santosh Kumar Adil (Dr. J. Mohindroo)	Clinical studies on prevalence, diagnosis and management of surgical affections of lower urinary tract in dogs.
Veterinary Surgery & Radiology (2025)	Amandeep Kaur (Dr. Arun Anand)	Morphometric assessment of normal and diseased stifle joint with special reference to patella luxation in dogs.
	Rahul Chadha (Dr. Ashwani Kumar)	Functional outcome of avulsion fracture in dogs stabilized using tension band wiring technique.
Veterinary and Animal Husbandry Extension Education (2024)	Kiranjot Kaur (Dr. Rajesh Kasrija)	Status and prospects of backyard poultry farmers of Punjab.
	Simranpal Singh Sekhon (Dr. R. K. Sharma)	A study on content analysis of GADVASU monthly Punjabi magazine-Vigiyank Pashu Palan.
	Muskaan (Dr. Rajesh Kasrija)	A study on preference of dairy farmers of Punjab regarding use of branded or self-made concentrate feed.

College of Dairy and Food Science Technology

In the academic session 2024-25, a total of 113 students were admitted to various programs, with a distinguished cohort across undergraduate, postgraduate and doctoral levels. Specifically, 49 students enrolled in B. Tech. (Dairy Technology), 51 in B. Tech (Food Science & Technology), 12 in M. Tech. (Dairy Technology) and 01 in Ph.D. programs. The gender-wise distribution of students was notable, with 68 male and 45 female students, reflecting a strong and diverse student body. Throughout this period, 35 students successfully completed their undergraduate degrees, while 05 students earned their postgraduate degrees.

Courses Taught

In accordance with the 5th Deans' Committee recommendations from the Indian Council of Agricultural Research (ICAR), undergraduate students were offered comprehensive curricula tailored to their respective programs. B.Tech. (Dairy Technology) students completed 137 academic credits, while B.Tech. (Food Science & Technology) students completed 148 academic credits, with both programs incorporating 35 credits of practical training and fieldwork to ensure hands-on learning experience.

For postgraduate students, the curriculum was structured around their specialized fields of study, incorporating major, minor and supporting courses as approved by the Dean of Post Graduate Studies.

Scholarships/Fellowships

Scholarship	Undergraduate Students	Postgraduate Students	Doctorate Students
University merit scholarship	26	10	-
National Talent Scholarship	13	03	-
Dr. G. S. Khush scholarship	03	-	-
Student READY (RAWE) batch 2021	10	-	-

The college awarded scholarships to 60 students across various programs, with 52 undergraduate and 8 postgraduate recipients. University Merit Scholarships constituted the largest category with 31 awardees, followed by National Talent Scholarships supporting 16 students, demonstrating the institution's commitment to recognizing academic excellence and supporting student advancement.

All India Study Tour:

A compulsory educational tour for final year students of B.Tech. Dairy Technology (2021 batch) was organized from 5th Feb. to 12th Feb. 2025. Total 18 students were part of this tour including 13 boys and 5 girls. During this one-week duration, several esteemed dairy organizations such as Banas Dairy, Palanpur, Dudhsagar Dairy, Mehsana, AMUL Dairy plant, Anand, Amul Chocolate Plant, Anand and SARAS Dairy, Jaipur Rajasthan were visited. Besides this, reputed educational institutes of dairy sciences and training institutes such as SMC College of Dairy Science, Anand; Vidya Dairy, Anand; Mansinhbhai Institute of Dairy and Food Technology (MIDFT), Mehsana and Mansinh Institute of Training, Mehsana from National Dairy Development Board were also explored during the tour programme.

Internship/ other training Programmes: -

Theses / Dissertations Details

Department (Year)	Name of the student (Major Advisor)	Thesis /Dissertation Title
Ph.D. Programme		
Dairy Technology (2024)	Harsimran Kaur Gill (Dr. S. Sivakumar)	Development of composite biodegradable film and cup reinforced with nanoparticles for packaging application in dairy products.
	Bhawna (Dr. Rekha Chawla)	Study on the development and characterization of milk protein-based hydrogel.
Dairy Economics & Business Management (2024)	Hanish Sharma (Dr. Inderpreet Kaur)	Water footprint analysis of dairy sector in Punjab.
Master's Programme (M. Tech)		
Dairy Microbiology (2024)	Deepak Dewansh (Dr. Namita Rokana)	Evaluation of Indigineous oleaginous yeast strains for the production of value-added additives using whey as a substrate.
Dairy Economics & Business Management (2024)	Jeevan Singh (Dr. Varinder Pal Singh)	An Economic evaluation of broiler farming in Punjab.

College of Fisheries

Academics and Teaching:

The 2024-25 academic session witnessed remarkable academic engagement with 43 students enrolled across various degree programs. Specifically, 29 students joined the B.F.Sc., 11 students were admitted to the M.F.Sc., and 03 students embarked on their Ph.D. journey. During this period, a total of 20 students, comprising 18 undergraduate and 02 postgraduate students successfully completed degree programs.

Courses Taught

In line with the esteemed guidelines of the 5th Deans' Committee constituted by ICAR, the undergraduate B.F.Sc. students were offered a well-rounded and rigorous curriculum. A total of 78 courses were taught, covering all critical aspects of fisheries science to equip students with the comprehensive knowledge and practical skills needed to thrive in the field.

For postgraduate students, the curriculum was designed to meet the highest academic standards, offering specialized courses in their respective major, minor, and supporting fields, as approved by the Dean of Post Graduate Studies.

New/Revised Courses, if any

PG Courses were revised as per ICAR BSMA, Fisheries Sciences (2021)

Scholarships / Fellowships

Scholarship	Undergraduate Students	Postgraduate Students	Doctorate Students
University merit scholarship	22	06	04
National Talent Scholarship	07	05	-
Dr G S Khush Foundation Scholarship	03	-	-
Mata Ind Kaur Award	03	-	-

The college distributed scholarships to 50 students across all academic levels, with 35 undergraduate, 11 postgraduate and 04 doctorate recipients. University Merit Scholarships formed the largest category with 32 recipients, followed by National Talent Scholarships supporting 12 students, reflecting the institution's dedication to academic excellence and student financial support.

Theses / Dissertations Details:

Department (Year)	Name of the student (Major Advisor)	Thesis /Dissertation Title
Ph.D. Programme		
Aquaculture (2024)	Khushvir Singh (Dr.Vaneet Inder Kaur)	Performance Evaluation of Automated Aquaponics System Under Agro-Climatic Conditions of Punjab.
M.F. Sc Program		
Aquatic Environment (2024)	Niharika Maurya (Dr. Naveen Kumar B.T.)	Biomedical Applications of Nano-Curcumin in Neuro-Regeneration of the Brain of Zebrafish (<i>Danio Rerio</i>) Impaired by Arsenic.

College of Animal Biotechnology

Academics and Teaching:

During the 2024-25 academic session, the college enrolled 26 students across three programs: 19 in B.Tech. (Biotechnology), 06 in M.Sc./M.V.Sc. and 01 in the Ph.D. program. Throughout this period, 19

students successfully graduated, including 15 B.Tech. degree recipients and 04 postgraduate students (01 Master's and 03 Ph.D.).

The college offered a comprehensive curriculum comprising 62 courses across various disciplines. The course distribution included 50 courses for undergraduate students, 25 for postgraduate students, and 06 for doctoral candidates, ensuring a rigorous and well-rounded academic experience tailored to each student cohort's specific needs and career aspirations.

New/Revised Courses, if any

The new PG students were offered the courses as per adapted syllabus in accordance to BSMA 2021

Scholarships / Fellowships

Scholarship	Undergraduate Students	Postgraduate Students	Doctorate Students
University merit scholarship	10	01	01
DST inspire fellowship	-	-	01
DBT-Postgraduate teaching programme scholarship	-	06	-
Post matric scholarship	08	-	-

The college awarded scholarships to 28 students across all academic levels, with 18 undergraduate, 08 postgraduate and 02 doctorate recipients. University Merit Scholarships were the most widely distributed (13 recipients), followed by Post Matric Scholarships (8 recipients) and DBT-Postgraduate Teaching Programme Scholarships (6 recipients), demonstrating strong institutional support for academic excellence and research advancement.

All India Study Tour:

Three students were selected for a cultural exchange program (Punjab to Jaisalmer) organized by Punjab Youth Services from February 24-28, 2025. During their visit to Jaisalmer, the participants explored diverse attractions including the historic Kuldhara village, Longewala border, Tanot Mata temple, Jaisalmer fort, Gadisar lake, Patwa palace, and India's largest date farm. The program also featured experiential activities such as camel rides, desert safari and cultural evening performances, providing students with comprehensive exposure to Rajasthan's rich heritage and traditions.

Thesis / Dissertations

Department (Year)	Name of the student (Major Advisor)	Thesis /Dissertation Title
Ph.D. Programme		
Animal Biotechnology (2024)	Shazia Yousuf (Dr. Yashpal Singh Malik)	Development and validation of indigenous immuno-nucleo diagnostics for the detection of African swine fever virus.
	Aakriti Pathania (Dr YPS Malik)	Molecular epidemiology, characterization and nucleo-diagnostics development for enteric calicivirus and astrovirus in farm animals.
	Jaswinder Kaur (Dr. C.S. Mukhopadayay)	Exploring the systems biology through <i>In-vitro</i> study of differential transcriptomic analysis in indigenous versus exotic dogs.
Master's Programme (M.V. Sc/ M. Sc)		
Animal Biotechnology (2024)	Muskan Bhadok (Dr. Adarsh Mishra)	Development and Standardization of nested Polymerase Chain reaction and Taqman Real-Time PCR Assay for Detection of Marker's Disease Virus.



College of Veterinary Science, Rampura Phul

The College of Veterinary Science, Rampura Phul, is a newly established constituent college of Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, which commenced operations on October 01, 2019.

Academics and Teaching

For the 2024-25 academic session, the College admitted 191 students across two programs: 81 students in the B.V.Sc. & A.H. program and 110 students in the Diploma in Veterinary Science & Animal Health Technology (D.V.Sc. & A.H.T.) program. The student demographics comprised 141 male and 50 female students.

During this academic year, 141 students successfully graduated from both the B.V.Sc. & A.H. and D.V.Sc. & A.H.T. programs.

Courses Taught

The B.V.Sc. & A.H. program offers courses in strict accordance with the *Minimum Standards of Veterinary Education Degree Course (B.V.Sc. & A.H.) Regulations, 2016* established by the Veterinary Council of India. The comprehensive curriculum comprises 20 courses totaling 82 credit hours.

The two-year D.V.Sc. & A.H.T. diploma program features 19 courses totaling 47 credit hours, supplemented by 15 non-credit hours to ensure comprehensive practical training.

Veterinary Polytechnic Kaljharani, Bathinda

The Veterinary Polytechnic and Regional Research and Training Centre (VP & RRTC) was established by the university in 2010 at Village Kaljharani, District Bathinda. The Polytechnic was created to offer a Diploma in Veterinary Science and Animal Health Technology, aimed at supporting veterinary services through the training of para-veterinary staff.

Upon completing the diploma program, graduates are qualified to coordinate and work under the supervision of registered veterinary practitioners, providing essential healthcare to animals in veterinary hospitals, veterinary colleges, research and training institutes, as well as in the cooperative sector and non-governmental organizations. The majority of graduates have been employed by the Department of Animal Husbandry, while others have found positions in the cooperative sector, Veterinary University Ludhiana, private industry, and various non-governmental organizations.

Academics and Teaching

For the academic session 2024-25, a total of 108 students were admitted to the Diploma in Veterinary Science and Animal Health Technology program, including 101 male and 07 female students. In the same session, 86 students (78 male and 08 female) successfully graduated.

Courses Taught

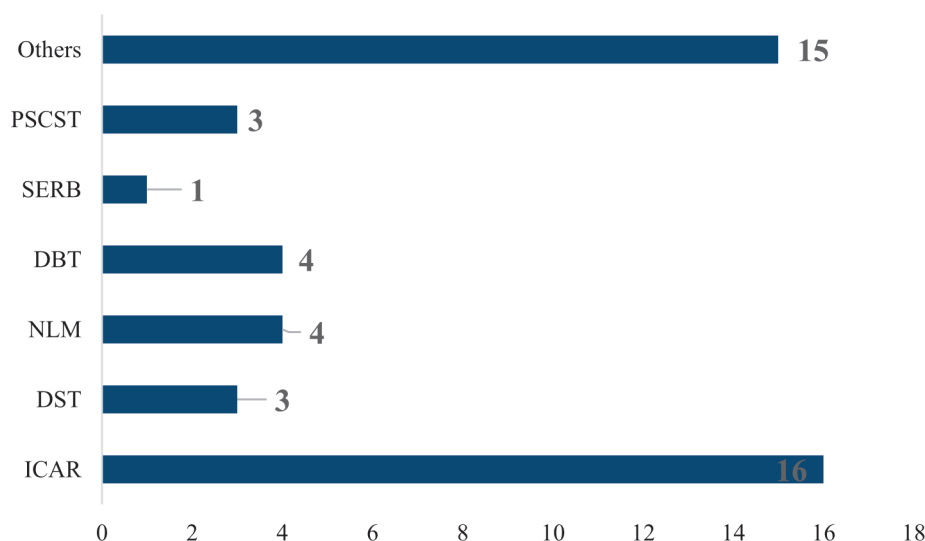
The diploma program includes a total of 19 courses, comprising 47 credit hours of theoretical instruction and 15 non-credit hours of practical training.

Scholarships / Fellowships:

Scholarship	Diploma students
Post Matric Scholarship	41: SC

RESEARCH

During the year 2024–25, Guru Angad Dev Veterinary and Animal Sciences University demonstrated significant research momentum by submitting 46 project proposals to various esteemed funding agencies, including the Department of Biotechnology (DBT), Department of Science and Technology (DST), Indian Council of Agricultural Research (ICAR), National Livestock Mission (NLM), Indian Council of Social Science Research (ICSSR), National Bank for Agriculture and Rural Development (NABARD), Board of Research in Nuclear Sciences (BRNS), and the Anusandhan National Research Foundation (ANRF), among others. Concurrently, 12 new research projects were sanctioned, supported by agencies such as the Asian Development Bank (ADB), ICMR, DST-NIDHI, PSCST and DBT, with a cumulative budget allocation exceeding ₹700 lakhs. Furthermore, the university continued implementation of 46 operational research projects funded by prominent organizations like ICAR, DBT, NFDB, BRNS, and MSME, reflecting a multidisciplinary and translational research approach in areas ranging from animal health, nutrition, genetics, and biotechnology to rural livelihood enhancement, food safety, and zoonotic disease surveillance. These efforts underscore university’s commitment to advancing veterinary and animal sciences through innovation, collaboration, and societal impact. Furthermore, in the 2023-24 period, 47 research schemes were actively underway at the university, as outlined below:



Research Highlights

A. College of Veterinary Science

1. Animal Disease Research Center (ADRC)

- The Clinical Diagnostic Laboratory at ADRC was further strengthened with the introduction of advanced and refined diagnostic tests to meet the evolving demands of disease diagnosis and management. During the reporting period, 31,135 samples were analyzed in the laboratory.
- The Clinical Microbiology Laboratory processed 2,286 clinical samples, including sera for brucellosis screening, samples for bacterial culture and sensitivity testing, fungal isolation, and fecal examinations for Johne’s disease (JD).
- A PCR-based molecular diagnostic facility was established to enable precise and rapid detection of pathogens in clinical specimens. This significantly enhanced the department’s diagnostic capacity, with 317 samples analyzed for diseases affecting canines, cattle, and buffaloes.
- The department successfully investigated 15 disease outbreaks in animals using both conventional

and advanced diagnostic tools, leading to timely and effective implementation of preventive strategies for livestock owners.

- Additionally, disease data from Punjab was shared with the National Institute of Veterinary Epidemiology and Disease Informatics (NIVEDI) to support the development of a robust national database aimed at forecasting and managing infectious animal diseases.

2. Veterinary Anatomy

- **Gross and histomorphochemical studies on the lungs of goat:** The research findings showed that the plastinated specimens preserved by indigenous method showed more shrinkage of lungs than glycerin plastinates. So, it is recommended that the glycerin technique of plastination should be preferred than indigenous method. The silicone cast was easy to handle, non-toxic and flexible specimen used to study the different branches of bronchial tree in goat lung.

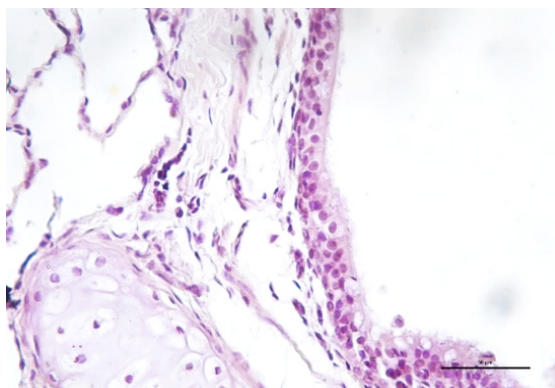


Normal goat lung

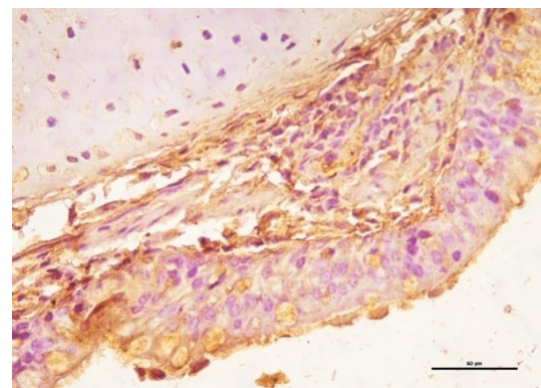


Silicone cast of goat lung

The histological observations showed that the number of goblet cells, bronchial glands and hyaline cartilage plates decreased from primary to secondary to tertiary bronchi. The lining epithelium of bronchioles varied from simple columnar to cuboidal types and turned into simple squamous in the alveoli. The number of clara cells increased and that of goblet cells decreased from primary to respiratory bronchioles. Immunoreactive Clara cells were present in the lumen of bronchioles, whereas alveolar macrophages were mostly present alveolar septa and epithelium.



Histology of primary bronchus in goat



Immunohistochemistry of goat lung

- **Histomorphochemical Study on the Uterine Tube of Buffalo During Summer and Winter Seasons:** A comparative study was conducted on the uterine tube (infundibulum, ampulla and isthmus) of buffaloes during summer and winter seasons. The findings revealed that histomorphological features such as epithelial height, mucosal folding and tunica thickness were more pronounced in winter. Ciliated and clear cells were more abundant during the follicular phase, while pseudo glands were limited to the infundibulum and ampulla. Histochemical analysis showed increased acid and neutral mucopolysaccharides, basic proteins, and bromophenol blue staining in winter. Lipids and phospholipids were more during the luteal phase and higher in winter. Histo enzymic studies indicated stronger AKPase and SDH activity in the lamina epithelialis during winter and luteal phase. Immunohistochemical expression of vimentin, VEGF, PCNA, ER and PR was significantly elevated in winter, indicating enhanced cellular activity and reproductive efficiency. Overall, winter season exhibited superior histological, histochemical and molecular parameters, suggesting improved reproductive potential in buffaloes during colder months.

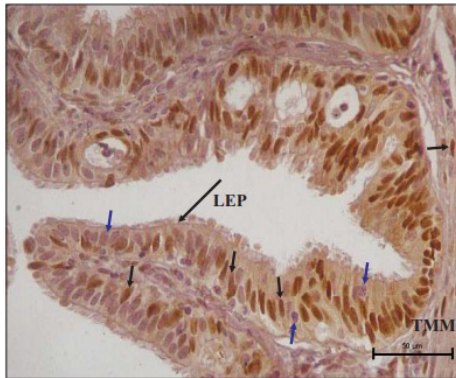


Fig. 1: Photomicrograph of infundibulum of buffalo during winter season and luteal phase showing ERα immunoexpression in the lamina epithelialis (LEP) and tunica muscularis (TMM) (positive cells with black arrows, negative cells with blue arrows). Poly HRP ×400

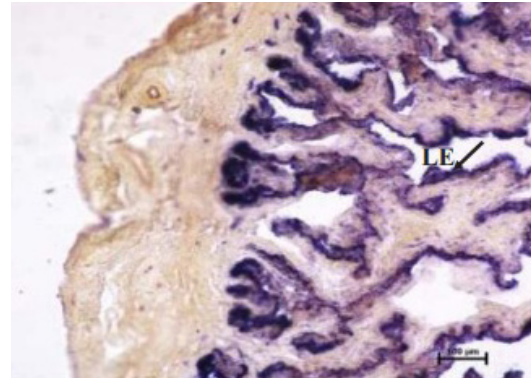


Fig. 2: Photomicrograph of infundibulum of buffalo during winter season and luteal phase showing intense AKPase reaction in the lining epithelium (LE). Azo dye method ×100

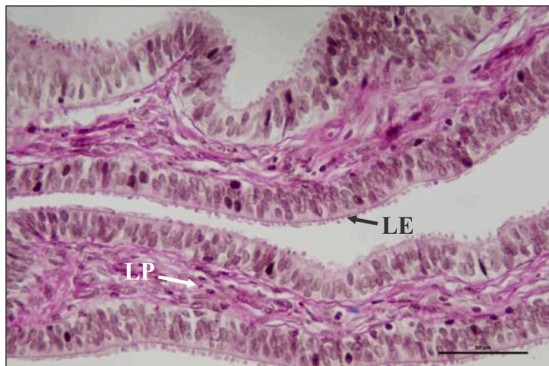


Fig. 3: Photomicrograph of infundibulum of buffalo during summer season and luteal phaseshowing localization of basic protein in the lining epithelium (LE), lamina propria (LP) and tunica muscularis (TMM). Bromophenol blue ×200

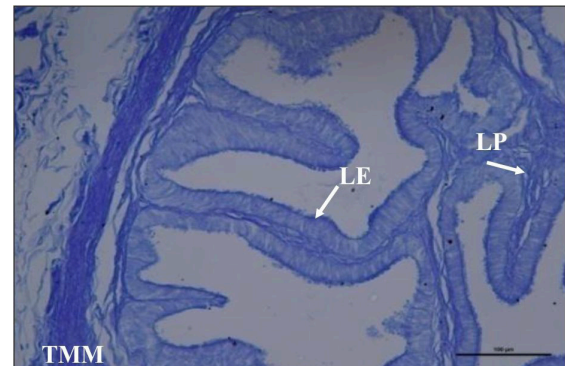


Fig.4: Photomicrograph of infundibulum of buffalo during winter season and follicular phase showing strong alcian blue reaction in the ciliary tufts (CT) of the lining epithelium (LE). Alcian blue ×400

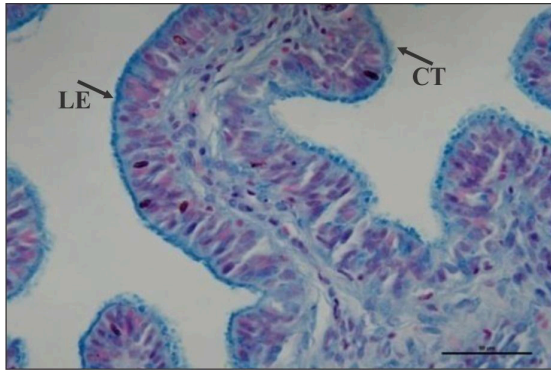


Fig. 5: Photomicrograph of infundibulum of buffalo during winter season and luteal phase showing weak to moderate PAS activity in the lining epithelium and strong activity in the lamina propria. PAS $\times 400$

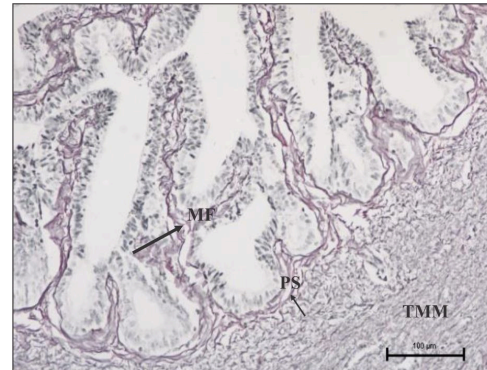


Fig. 6: Photomicrograph of isthmus of buffalo during summer season and follicular phase showing the distribution of reticular fibers in the mucosal folds (MF), propria submucosa (PS) and tunica muscularis (TMM). Gridley's stain $\times 200$

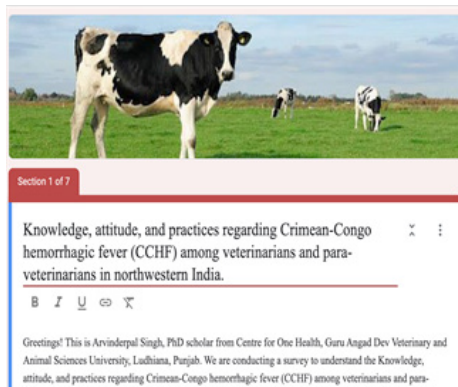
- **Characterization and Decellularization of Caprine Heart Valves:** This study aimed to characterize the structural and compositional features of native caprine heart valves and evaluate the efficacy of a detergent-based decellularization protocol designed to preserve the extracellular matrix (ECM). A selected group of valves underwent an optimized decellularization process, allowing direct comparison with native valves. The atrioventricular valves were found to consist of three distinct layers: a central lamina spongiosa, a lamina fibrosa on the ventricular surface, and a lamina atrialis on the atrial side. In contrast, semilunar valves exhibited a more complex structure, comprising a lamina arterialis (arterial surface), lamina fibrosa, central lamina spongiosa and lamina ventricularis (ventricular surface). Notable differences in gross morphology, morphometric parameters and histoarchitecture were observed between native and decellularized valves. Histochemical analysis indicated variation in the distribution of carbohydrates and proteins across valve types. Scanning electron microscopy provided further insight into surface and structural changes. Immunohistochemical studies examined the expression of smooth muscle actin (SMA), laminin, vimentin and proliferating cell nuclear antigen (PCNA). SMA and laminin showed distinct localization patterns in atrioventricular versus semilunar valves, while vimentin and PCNA displayed differential expression between native and decellularized tissues. Preliminary ex-vivo recellularization of decellularized valves was also undertaken. Overall, the detergent-based decellularization protocol was found to be effective in removing cellular components while maintaining ECM integrity, supporting its potential application in heart valve tissue engineering.

3. Centre for One Health

- **Studies on Biosecurity:** The Centre for One Health conducted a comprehensive year-long assessment of six veterinary facilities in Punjab; comprising three institutional clinics and three government polyclinics—using a 96-parameter checklist covering personal biosecurity, infrastructure, sanitation protocols and animal-client handling. Knowledge, Attitude and Practice (KAP) surveys were administered to 196 veterinary staff, 113 pet owners and 8 animal handlers. Environmental sampling yielded 51 *E. coli* and 104 *Staphylococcus aureus* isolates, with over 30% of *E. coli* showing resistance to key antibiotics and 21.6% identified as ESBL producers. Resistance to cefoxitin and penicillin in *S. aureus* was observed at 32.7% and 40.4%, respectively. Notable gaps included inadequate client-flow control and limited use of isolation wards in some polyclinics. The study underscores the urgent need for standard operating procedures, improved infrastructure, targeted staff training,

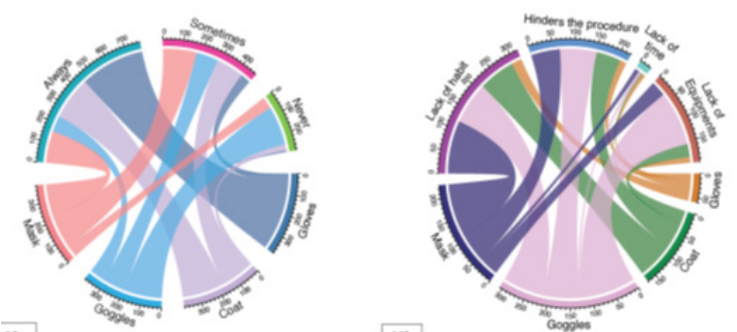
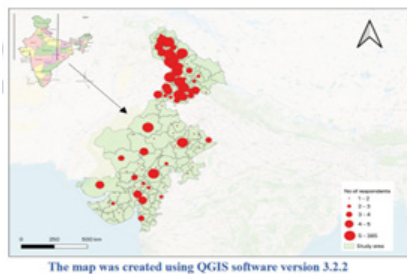
public awareness and regular antimicrobial resistance (AMR) surveillance to enhance biosecurity in veterinary healthcare settings.

- **Antimicrobial Resistance Profiling in Livestock:** The Centre for One Health carried out screening of livestock samples for the isolation and characterization of antimicrobial-resistant (AMR) bacteria. Bacterial isolates, including *Escherichia coli*, *Klebsiella* spp. and *Enterococcus* spp., were identified using MALDI-TOF mass spectrometry. Antimicrobial susceptibility testing was conducted using the disc diffusion method and the results were cross-verified at PGIMER, Chandigarh.
- **Studies on Emerging Zoonotic & Transboundary Viral Diseases in Northwestern India:** A comprehensive study was conducted across northwestern India to assess the prevalence of Crimean-Congo hemorrhagic fever (CCHF), Swine Influenza (SI), Japanese Encephalitis (JE) and Lumpy Skin Disease (LSD), with a focus on CCHF-related risk factors and the knowledge, attitudes and practices (KAP) of high-risk occupational groups. CCHF seroprevalence in cattle was 13.81%, highest in Rajasthan (20.3%), while in goats, it was 7.0%, with no positive cases in Punjab. JE was detected in 22.77% of pigs, with Himachal Pradesh showing the highest rate (40%) and SI was found in 7.92% of pigs, with Rajasthan again leading (20%). Among 384 cattle screened for LSD, 22.14% were seropositive, with Rajasthan recording the highest prevalence (39.87%). The KAP survey revealed that 53.8% of veterinarians and para-veterinarians had moderate knowledge of CCHF, 60% had a neutral attitude and 73.1% reported moderate adherence to preventive practices, though challenges such as inadequate PPE and habitual non-compliance were noted. These findings highlight the urgent need for targeted awareness and training programs among high-risk occupational groups to mitigate the spread of emerging zoonotic and vector-borne viral diseases.



Collection of cattle blood samples

Geographical distribution of study participants



- **Study on Risk Assessment of Non-Typhoidal *Salmonella* spp. from Consumption of Chicken Meat in Punjab:** The present study aimed to investigate the occurrence and enumeration of non-typhoidal *Salmonella* (NTS) in retail chicken meat shops and to assess the quantitative risk of NTS illness through chicken meat consumption in Punjab, India. The highest occurrence of NTS was

found in faecal samples (15.2%), followed by chicken meat (12.64%), cutting boards (6.35%) and knives (3.28%). The predominant serovars identified were *Salmonella Typhimurium* (83.33%), *S. Kentucky* (14.58%) and *S. Infantis* (2.08%). The mean MPN counts were 3.33 ± 0.72 MPN/g (faeces), 2.98 ± 0.67 MPN/g (chicken meat), 0.34 ± 0.18 MPN/cm² (cutting board) and 0.12 ± 0.08 MPN/cm² (knife). While most consumers exhibited good knowledge (82.8%) and positive attitudes (87.1%) towards food safety, only 17.74% followed safe handling practices. The probability of NTS illness per serving was estimated at 7.22×10^{-5} , 3.86×10^{-4} and 1.92×10^{-3} for properly cooked, undercooked and raw chicken, respectively. Correspondingly, the annual probability of illness per person was predicted as 4.76×10^{-3} , 2.54×10^{-2} and 1.24×10^{-1} . Sensitivity analysis indicated that serving size, consumption frequency, and cooking practices were critical factors influencing the risk of NTS infection among consumers.

- **Epidemiology of brucellosis in livestock farmers and their farm animals:** A multistage cluster sampling study was conducted across five randomly selected districts of Punjab to screen livestock farmers and their animals for brucellosis. From 281 livestock farming households, 507 farmers (138 female, 369 male) and 511 animals (347 cattle, 149 buffalo, 2 sheep, 13 goats) were sampled, along with 492 vaginal swabs, 319 milk, and 259 manure samples for *Brucella* isolation. The apparent prevalence of brucellosis among farmers was 9.27%, with higher seropositivity in females (10.14%) than males (8.94%), and a household-level prevalence of 14.94%. Among animals, cattle and buffaloes showed brucellosis prevalence rates of 17.29% and 19.42%, respectively. Risk factors included raw milk consumption, handling of placental material with bare hands, and assisting in calving, while household-level risks were linked to abortion history and improper placental disposal. Six *Brucella* isolates were obtained, including *Brucella melitensis* (1), *Brucella abortus* (3), and *Brucella intermedia* (2). Knowledge, Attitudes, and Practices (KAP) assessment revealed that only 23.07% of farmers were aware of brucellosis, and biosecurity practices were largely inadequate; thus, educational materials such as pamphlets and videos were disseminated to improve awareness.

4. Directorate of Livestock Farms (DLF)

- **Cattle Breeding:** During the year, the average 305-day milk yield and peak yield of HF crossbred cows were recorded at 5437.38 kg and 27.62 kg, respectively, with an average total lactation yield of 6027.23 kg. The highest recorded 305-day milk yield was 8454.5 kg. The average age at first calving (AFC) in the crossbred cattle herd was 27.48 months. A total of 9 bulls/bull calves and 9070 doses of crossbred cattle semen (frozen and liquid) were supplied to Gaushalas, farmers and various dairy development agencies across the state for breeding purposes.



Fig.1: Progeny of elite crossbred animals produced from nominating mating



Fig. 2: FC1430 with Peak Yield: 43.7kg, 305-day milk yield: 6407.5kg

- **Nili Ravi Buffalo Breeding:** Nili-Ravi is a prominent milch breed of buffalo that originated in Punjab and is recognized for its significant contribution to dairy production. Under the conservation initiative of the Ministry of Animal Husbandry and Dairying, Government of India, a Network Project on Nili-Ravi buffalo was sanctioned to the university in 2017 by the Indian Council of Agricultural Research (ICAR). The institute has since been actively engaged in improving herd performance, producing superior germplasm, and disseminating quality genetic material to dairy farmers across Punjab. During the reporting period, the average 305-day milk yield, total milk yield, and peak yield of the herd were recorded at 2668.54 kg, 2692.05 kg, and 14.54 kg, respectively, with the highest 305-day yield reaching 3574.6 kg. The average age at first calving was noted as 37.90 months. In line with the project's objective of promoting superior germplasm, a total of 11 Nili-Ravi bulls/bull calves and 29,569 semen doses were distributed to dairy farmers during the year.



Fig.3: Bull no.:507 with Dam's best lactation yield: 4268 kg and Peak yield: 21.5 kg



Fig. 4: NR2835 with peak Yield:18.8 kg, 305 day milk yield: 3530.6 kg

- **Murrah Buffalo Breeding:** Genetic improvement of buffaloes at GADVASU is carried out through progeny testing of bulls under the AICRP/Network Project on buffalo breeding, operational at the dairy farm since 1971. Superior Murrah bulls are selected based on daughter performance data collected from GADVASU Ludhiana, NDRI Karnal, CIRB Hisar, LUVAS Hisar, IVRI Izatnagar and surrounding villages. The university herd recorded an average 305-day lactation yield of 2614.32 kg, a complete lactation yield of 2638.30 kg and an average peak yield of 14.31 kg, with an average age at first calving of 37.80 months. To date, the project has supplied 1,079 bulls/male calves and 1.147 million doses of high genetic merit semen to farmers and dairy agencies. Currently, semen doses from 25 progeny-tested and 28 bulls under testing are available. During the year, 17 Murrah bulls/bull calves and 45,636 frozen semen doses were distributed to farmers to support breeding programs.



Fig. 5: Test Murrah bull of XIIIth set of Network Project



Fig. 6: Buffalo no.:2897 produce record milk

A total of 161,769 frozen semen doses were produced, with 108,409 doses supplied from Murrah, Niliravi, FC, and Sahiwal bulls. Notably, Murrah bull number 2383 from Set XVII, developed at the Directorate of Livestock Farms, achieved the prestigious 3rd rank at the national level among top bulls across various centers under the Network Project on Buffalo Improvement.

➤ **AICRP on Cattle: FPT programme of Frieswal cattle:**

- ◇ **Use of Frozen Semen and Artificial Insemination:** During the reporting period, frozen semen from the 18th set of bulls, belonging to the Field Progeny Testing (FPT) program of the Frieswal Project implemented by ICAR-CIRC, Meerut, was utilized for a total of 4,864 artificial inseminations.
- ◇ **Lactation Performance of Progeny:** A total of 465 daughters (comprising 210 from the 15th set and 255 from the 16th set) successfully completed their first lactation 305-day milk production records, exhibiting an average yield of $3,935.8 \pm 21.5$ kg. Further analysis of the first lactation 305-day milk yield revealed that the performance of daughters from 904 bulls of the 15th set ranged between $3,441.9 \pm 212.6$ kg and $4,054.2 \pm 85.9$ kg, while those from 310 bulls of the 16th set ranged from $3,731.7 \pm 200.4$ kg to $4,298.7 \pm 74.7$ kg. The overall average first lactation 305-day milk production of daughters sired by bulls from the 15th and 16th sets were recorded as $3,881.2 \pm 15.8$ kg and $3,945.0 \pm 25.6$ kg, respectively.
- ◇ **Contribution to Breeding Research:** Additionally, two male calves were supplied to ICAR-CIRC, Meerut for the purpose of breeding research under the ongoing project.

- **AICRP on Poultry Breeding:** Evaluation of PB-1 and PB-2 lines along with the native Punjab Brown chicken was conducted. At 5 weeks of age, body weights of PB-1 and PB-2 were recorded as 1242g and 1124g, respectively. Average egg production up to 40 weeks was 58 eggs for PB-1 and 67 eggs for PB-2. Punjab Brown chickens showed body weights of 338g, 677g, 1445g, 2105g and 2811g at 4, 8, 16, 20, and 40 weeks of age, respectively, with an average egg production of 56 eggs up to 40 weeks. Additionally, three training sessions were conducted to benefit SC farmers.



PB2 Male



PB2 Female



Punjab brown



Desi cross (Punjab Gold)



Kadaknath

- **NLM-1:** The housing system for backyard poultry was evaluated, and the double-deck iron coop was identified as the superior option compared to bamboo coops and free-range housing, establishing the hierarchy of housing effectiveness as iron coop > bamboo coop > free-range. Additionally, egg quality parameters were analyzed in two genetic lines along with RIR birds, with results showing that Line 1 exhibited better egg weight and shape index than the other groups.
- **Sequencing:** Two partial coding sequences (cfs) of the transposase gene associated with the insertion sequence IS1311 of *Mycobacterium avium* subsp. *paratuberculosis* strain DSM 44135 were successfully submitted to the NCBI GenBank database under accession numbers PP544395.1 and PP556866.1.
- **Establishment of Instructional Gaushala at Guru Angad Dev Veterinary and Animal Sciences University (RDP – 1):** Seven high genetic merit Sahiwal female calves were born at the University Model Gaushala, marking a significant contribution to the conservation and genetic improvement efforts of indigenous cattle at university.
- **Goat Farm:**
 - ◇ To enhance genetic variability, the existing nucleus stock of Beetal goats at the University Goat Farm was further strengthened during the financial year 2024–25.
 - ◇ The opening and closing strength of the Beetal goat nucleus flock was 140 and 149, respectively.
 - ◇ During the year, a total of 115 kids were born, and 18 animals were procured to augment the nucleus herd. Out of the total animals, 57 Beetal goats were distributed to farmers as part of the germplasm dissemination programme.
 - ◇ The proportion of multiple births has shown a consistent increase—from 64% in 2020–21 to 79% in 2024–25, while the incidence of single births declined during the same period.
 - ◇ The fecundity rate improved significantly, reaching 1.9 in 2024–25, up from 1.5 in 2019–20.
 - ◇ Growth performance also showed marked improvement. The average daily weight gain during the first year of life increased from 48 g/day in 2019–20 to 92 g/day in 2024–25. Male kids demonstrated superior growth compared to females. The average live body weight at 12 months of age reached 32.2 kg, compared to 21.0 kg in 2019–20.
 - ◇ Milk production performance improved substantially. The total milk yield (TMY) over 90 days of lactation increased from 83 kg in 2020–21 to 117 kg in 2024–25. The average daily milk yield was recorded at 1466 g, with an average peak yield of 2074 g.
 - ◇ Notably, two elite Beetal does recorded peak milk yields exceeding 5 kg/day: B1168F – 5.150 kg and B1192 – 5.100 kg.
 - ◇ Construction of a new goat shed with a housing capacity for 100 breedable does is currently in progress to support flock expansion.
 - ◇ Additionally, a small unit of Avishaan and Dumba sheep has been introduced at the university for diversification and research purposes.

5. Veterinary Gynaecology & Obstetrics

- **Canine Pyometra: Efficacy of Different Therapeutic Protocols on Blood Count and Serum Biochemistry:** A study was conducted on 75 dogs affected with pyometra presented at the University Hospital, which were randomly divided into five treatment groups: Group I (cabergoline), Group II (mifepristone), Group III (cloprostenol sodium), Group IV (cabergoline + cloprostenol sodium),

and Group V (mifepristone + cloprostenol sodium), with 15 dogs in each group. Treatments were administered for 7 days, and blood samples were collected on days 0, 3, and 7 for haemato-biochemical evaluation. Haematological analysis revealed elevated total leukocyte and neutrophil counts on day 0 across all groups, which significantly ($P<0.05$) normalized by day 7, with Group IV showing a more pronounced therapeutic response. Mean haemoglobin, lymphocyte count, and packed cell volume were below normal on day 0; however, lymphocyte counts showed significant ($P<0.05$) improvement in Group IV by day 7. Biochemical parameters such as AST, ALT, total protein, BUN, and creatinine remained within normal limits throughout the study, while ALKP was elevated ($P<0.05$) on day 0 and returned to normal by day 7 in all groups except Group II. Overall, the combination of cabergoline and cloprostenol sodium (Group IV) proved to be the most effective medical therapy for managing pyometra in dogs.

- **Optimization of Canine Semen Cryopreservation using Various Concentrations of Stem Cells:** The study explored stromal vascular fractions (SVFs) as a promising source of canine mesenchymal stem cells (MSCs) to enhance the regenerative efficacy of treated semen, particularly for improving post-thaw sperm quality. While previous research has primarily focused on protecting sperm during freezing rather than repairing cryo-induced damage, this study aimed to isolate SVFs from periovarian adipose tissue (AT-SVFs) and amniotic fluid (AF-SVFs) obtained from healthy female Labrador dogs ($n=12$) undergoing ovariohysterectomy or fetal delivery at the institute. These SVFs were enzymatically extracted and utilized at varying concentrations (1, 2.5, 5.0, and 7.5 million cells/ml) during semen cryopreservation to assess their potential in enhancing sperm survival and function after thawing.

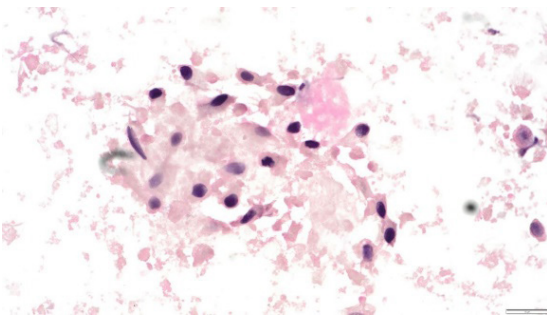


Fig. 1: Freshly isolated SVFs showing heterogeneous pool of cells (H&E stained image)

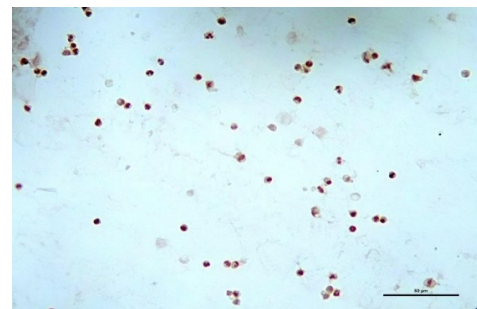


Fig. 2: H&E-stained image of freshly isolated SVFs filtered using 40 µm cell strainer

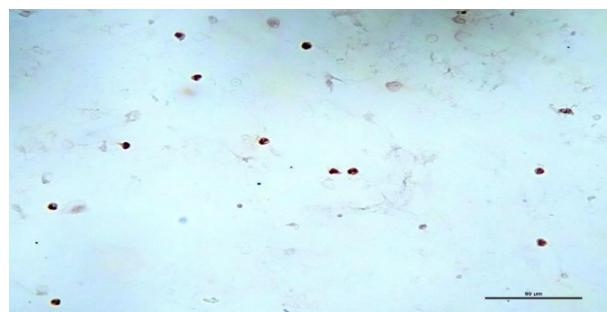


Fig. 3: H&E-stained image of unfiltered SVFs

Stem cell presence in SVFs was confirmed through qPCR analysis, showing high viability in fresh (91.5%) and post-thaw (71.4%) cells, with significant expression of stem cell markers CD44 (475-fold), CD90 (2-fold), and OCT4 (5-fold) compared to amniotic fluid cells. When added at 5 million cells/ml in

semen straws, AT-SVFs significantly improved amplitude of lateral head (ALH) movement and both total and progressive sperm motility. Similarly, AF-SVFs at 2.5 million cells/ml enhanced sperm kinematics, indicating better motility and quality. These improvements may be attributed to SVF-secreted proteins that support membrane repair and reduce cryo-induced damage and oxidative stress, suggesting that SVFs can effectively improve post-thaw semen quality by protecting or repairing sperm during cryopreservation.

- **Effect of glutathione supplementation in extender on freezability of buffalo bull semen:** A study was undertaken to evaluate the effect of varying concentrations of glutathione (0, 0.5, 1.0, 1.5, and 2.0 mM/ml) on the freezability and in vivo fertility of buffalo spermatozoa, given its critical role in maintaining cell membrane integrity during cryopreservation. Semen ejaculates (n=24) from four healthy Murrah buffalo bulls were diluted in Tris-citric acid extender containing the respective concentrations of glutathione and cryopreserved. Post-thaw analysis revealed that extender supplemented with 0.5 mM/ml glutathione significantly ($P<0.05$) improved sperm motility, viability, plasma membrane integrity, and mitochondrial membrane potential, while also reducing lipid peroxidation. Although no significant effect ($P>0.05$) was observed on acrosome integrity, the extender with 0.5 mM/ml glutathione showed better preservation of overall semen quality. In a fertility trial involving 60 inseminations, the conception rate was higher with the glutathione-supplemented extender (46.7%) compared to the control (33.3%). These findings demonstrate that 0.5 mM/ml glutathione supplementation enhances both the cryosurvival and fertility potential of buffalo spermatozoa.
- **Effect of exogenous melatonin implant on post-thaw semen quality of buffalo Bulls:** A study was conducted at the bull farm of Guru Angad Dev Veterinary and Animal Sciences University to evaluate the impact of melatonin implants (18 mg/50 kg body weight) on semen quality and fertility in buffalo bulls. Melatonin, known as an intracellular antioxidant, was tested for its ability to enhance post-thaw sperm attributes, including motility (assessed by CASA), viability, acrosome integrity, mitochondrial membrane potential, plasma membrane integrity, oxidative stress markers, hormonal profiles (melatonin, testosterone, LH), and fertility outcomes. Six healthy breeding Murrah buffalo bulls were randomly divided into control (n=3) and melatonin-treated (n=3) groups, and semen and blood samples were collected weekly over a 20-week period. Results revealed significant improvements ($P<0.05$) in post-thaw sperm motility, viability, mitochondrial membrane potential, and reduced lipid peroxidation (MDA levels) in the melatonin-treated group during the post-implantation period. Additionally, plasma melatonin and testosterone levels were significantly elevated, while LH levels remained unaffected. Fertility, as measured by first service conception rate, was higher in the melatonin group (43.3%) compared to controls (30.0%), though the difference was not statistically significant. The study concludes that melatonin implants effectively protect buffalo bull sperm from oxidative damage and enhance semen quality and fertilizing potential.
- **Effect of different concentrations of egg yolk and glycerol on quality of frozen dog semen:** A study was undertaken to optimize the cryopreservation protocol for canine semen by evaluating the effects of different concentrations of egg yolk (15%, 20%, and 25%) in combination with 7% glycerol—commonly used cryoprotectants in semen extenders. Semen was collected from eight dogs (Pug, Beagle, Labrador) using manual manipulation, and the second ejaculate fraction was processed. After pre-freeze evaluation, the semen was diluted with extenders containing the respective concentrations, loaded in 0.25 ml straws, cooled, and frozen in liquid nitrogen vapor for storage at -196°C . Post-thaw assessments at 37°C included motility analysis (CASA), viability (Hoechst 33342/PI), acrosome integrity (Hoechst 33342/FITC-PNA), and mitochondrial membrane potential (Hoechst 33342/Rhodamine 123). The results demonstrated that the extender containing 15% egg

yolk with 7% glycerol provided superior protection to spermatozoa, significantly enhancing post-thaw motility and other sperm quality parameters compared to 20% and 25% egg yolk concentrations.

- **Cytokine profiling and puberty enhancement post altrenogest feeding in pre pubertal Murrah buffalo (*Bubalus bubalis*) heifers:** A study was conducted to evaluate the impact of progesterone supplementation and co-synchronization protocols on cytokine and anti-Müllerian hormone (AMH) profiling in prepubertal Murrah buffalo heifers. Eighteen heifers (15–17 months, 250–300 kg) were randomly assigned to three groups: Group 1 received oral altrenogest (0.044 mg/kg/day for 14 days) along with a Co-synch program; Group 2 was treated with a CIDR device for 14 days plus Co-synch; and Group 3 received only the Co-synch protocol. Hormonal assays (Progesterone, Estrogen, AMH) and cytokine profiling (IFN- γ , IL-6, IL-1, IL-13, TNF- α , TGF- β) were performed, and ovarian follicular development was assessed through ultrasonography. Pregnancy was diagnosed at 45- and 60-days post-AI. Estradiol levels remained consistent across groups during treatment, with a significant drop observed on day 9 of Co-synch in the altrenogest group. Progesterone levels differed significantly between groups, with Group 01 showing a marked increase by day 14 of altrenogest treatment. A strong correlation was found between IFN- γ and progesterone ($r = 0.626$, $P < 0.01$), highlighting its role in puberty. AMH levels in the altrenogest group showed a positive correlation with IFN- γ ($r = 0.673$) and TGF- β ($r = 0.463$), but a negative correlation with TNF- α ($r = -0.34$). IL-13 and TGF- β emerged as potential biomarkers for puberty onset in buffalo heifers.

6. Livestock Products Technology

- **Development of Functional Chicken Nuggets:** Low-fat, high-fibre chicken nuggets were successfully developed by incorporating 15% kodo millet flour and 3% whey protein concentrate, enhancing their nutritional profile.
- **Biodegradable Antimicrobial Films:** Biodegradable films with superior mechanical, barrier, and antimicrobial properties were formulated as an eco-friendly alternative to synthetic packaging. The incorporation of *Hippophae rhamnoides* extract significantly boosted antimicrobial activity and effectively controlled pH fluctuations, TBARS, and peroxide values, while maintaining desirable sensory attributes including color, texture, and overall acceptability.
- **Protein-Enriched Extruded Puffs:** Extruded puffs were developed using 10% modified freeze-dried spent hen meat protein isolate. Proximate analysis showed a significant ($P < 0.05$) improvement in protein and ash content, with reductions in fat (from 1.84% to 1.49%), fibre (from 1.42% to 1.15%), and moisture (from 9.41% to 8.17%). Inclusion of the protein isolate resulted in increased yellowness and decreased lightness and redness, with 10% identified as the optimal level for improving product quality.
- **Standardization of Processing for Protein Isolate Powder:** The process for restructuring freeze-dried spent hen meat protein isolate powder was standardized, with optimal conditions determined to be 35% amplitude for 15 minutes.

7. Veterinary Medicine

- **Current Culture Sensitivity Pattern of Clinical Mastitis in State:** During the year, a total of 1,641 quarter foremilk samples were received from 628 dairy animals—comprising 1,504 samples from 478 cows and 537 samples from 150 buffaloes—for culture and sensitivity testing in the Mastitis Laboratory. Microbiological analysis revealed that the predominant organisms isolated were coagulase-negative staphylococci (52.89%), followed by *Staphylococcus aureus* (33.21%), *Pseudomonas* and other Gram-negative species (6.52%), and *Streptococcus* spp. (3.57%).

Drug sensitivity testing indicated that Ceftriaxone-tazobactam (89.05%) was the most effective antimicrobial agent, followed by Ceftriaxone-sulbactam (85.75%) and enrofloxacin (79.51%), while Penicillin (38.04%), Ampicillin (39.13%), and Amoxicillin (46.48%) were found to be the least effective.

- **Biocide resistance pattern in *S. aureus*:** Out of 103 *Staphylococcus aureus* isolates tested, 5.82% showed reduced susceptibility to benzalkonium chloride (BZC), 8.73% to chlorhexidine (CH), 17.47% to povidone-iodine, and 17.47% to lactic acid. Notably, 96% of isolates with reduced biocide susceptibility were methicillin-resistant *S. aureus* (MRSA). A significant correlation was observed between biocide resistance phenotypes and the multiple antibiotic resistance (MAR) index, indicating that isolates less susceptible to biocides are more likely to harbor multiple antibiotic resistances. Among isolates with reduced susceptibility, the majority exhibited high MAR indices (0.5 to 0.9). The most prevalent biocide resistance genes in MRSA were *sepA* (52.45%), *norA* (34.42%), *qacA/B* (29.51%), *smr* (18.03%), and *mepA* (16.39%), while in methicillin-sensitive *S. aureus* (MSSA), *norA* (42.85%) and *sepA* (35.71%) predominated. A significant association ($p < 0.05$) was found between antibiotic resistance and the presence of biocide resistance genes, especially *qacA/B* and *smr*, highlighting the role of these genes in promoting antibiotic resistance.

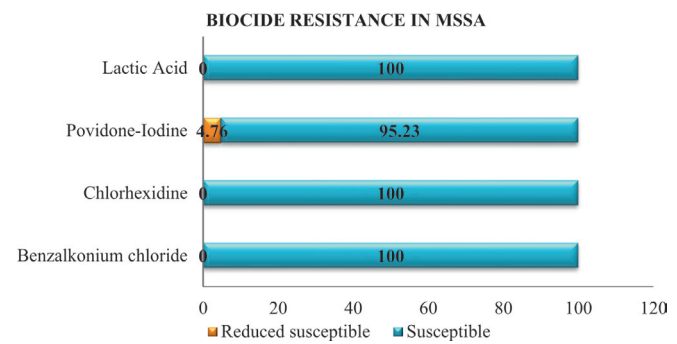
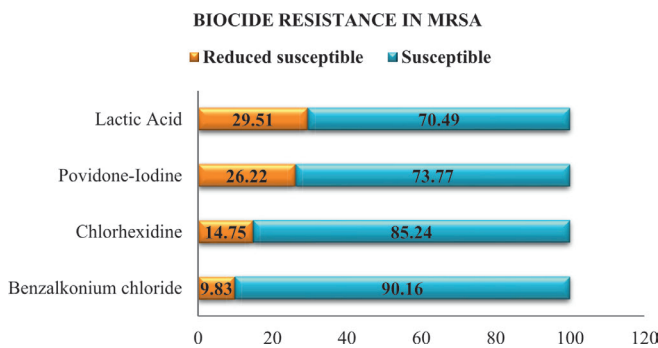


Fig. 1: Resistance pattern of biocides in Methicillin Resistant *S. aureus* (MRSA) **Fig. 2:** Resistance pattern of biocides in Methicillin Susceptible *S. aureus* (MSSA)

- The gastrointestinal tract is the primary source of infection in septic peritonitis, followed by the urogenital tract. The hospital incidence of peritonitis among dogs presenting with ascites is 11%.
- Early diagnosis and treatment of septic peritonitis in dogs can be aided by a high blood-to-fluid glucose gradient and a low blood-to-fluid lactate gradient.
- Elevated levels of sepsis biomarkers, including IL-6, IL-10, CRP, and PCT, are effective in differentiating septic peritonitis from aseptic peritonitis.
- *Escherichia coli* is the most frequently isolated bacterium in septic peritonitis cases, showing highest sensitivity to ampicillin.
- Reference electrocardiographic data were established for 20 healthy Cocker Spaniel and 22 Dachshund dogs. Atropine proved effective in treating vagally induced bradycardia, while the administration of warm fluids reversed hypothermia-induced bradycardia.
- Among 826 recorded dermatological cases, bacterial infections were most prevalent, accounting for 389 cases (47.09%), followed by hypersensitivity reactions with 215 cases (26.03%), and parasitic infections at 151 cases (18.28%). Fungal diseases constituted 3.27%, keratinization disorders 3.03%, with neoplastic and endocrine diseases being comparatively less common at 1.33% and 1.09%, respectively.

8. Veterinary Microbiology

- **Studies on molecular detection of Mycobacterium tuberculosis complex and rifampicin resistance in cattle and buffaloes:** A comprehensive investigation using Xpert MTB/RIF Ultra and XDR assays was carried out on 13 trans-tracheal washes (TTW), 75 nasal swabs, and 32 tissue samples for Mycobacterium tuberculosis complex (MTC) DNA detection. Results revealed MTC DNA in 10 TTW, 45 nasal swabs, and 21 tissue samples, with most falling under the 'MTB trace detected' category. No rifampicin resistance was found in any sample. The XDR assay further confirmed MTC DNA in 4 TTW and 7 tissue samples, with one tissue specimen showing SLIDs resistance. For non-tuberculous mycobacteria (NTM) detection, 193 samples including faeces, blood, TTW, nasal swabs, and tissues were collected from clinically affected or suspected bovines. Of the 27 isolates obtained, 18 were hsp65 gene-positive and were subjected to MALDI-TOF MS, which confirmed 7 isolates as NTMs. PCR-based detection identified Mycobacterium avium subsp. paratuberculosis (MAP) in 29 faecal samples, M. kansasii in multiple sample types (total 44), and M. vaccae in 41 samples. Pure cultures of M. kansasii and M. vaccae were successfully isolated from faecal, tissue, nasal, TTW, and blood samples. Screening of 27 isolates for resistance genes showed genotypic presence of rpoB, katG, and gyrA in 20 isolates (17 hsp65-positive and 3 hsp65-negative), indicating potential resistance to rifampicin, isoniazid, and moxifloxacin respectively, whereas no rpsL gene associated with streptomycin resistance was detected.
- **Isolation of Newcastle disease virus in suitable cell line:** For the isolation of Newcastle Disease Virus (NDV), a tissue suspension previously confirmed positive for NDV by RT-PCR in the virology laboratory was utilized. Hemagglutination (HA) test confirmed the presence of NDV with a titre of 1:64. To enhance the HA titre, NDV positive control was inoculated into 9-day-old embryonated eggs and incubated for 96 hours, with routine candling. On the fifth day post-inoculation, allantoic fluid was harvested, and the HA titre increased to 1:128 after the second passage. RT-PCR targeting the partial F gene (535 bp) confirmed NDV presence, and further isolation in Vero cells is underway for the development of hyperimmune serum.
- **Studies on mastitis caused by Staphylococcus aureus and their antibiotic profile:** The study aimed to isolate *Staphylococcus aureus* from bovine mastitis milk samples, for which 112 samples from clinically and sub-clinically affected bovines were screened. Out of these, 18 isolates (18.36%) were phenotypically identified and confirmed at the species level using MALDI-TOF MS and PCR with species-specific 16S rRNA primers. Antibiotic sensitivity testing revealed high resistance to ceftiofur (83.33%), ampicillin (77.77%), and penicillin G (77.77%), while the isolates showed considerable sensitivity to enrofloxacin and vancomycin (83.33% each), followed by tetracycline, chloramphenicol, and ciprofloxacin (77.77% each). The findings highlight the widespread antimicrobial resistance in *S. aureus* isolates, likely due to indiscriminate antibiotic usage.
- **Enterotoxigenicity of coagulase positive and coagulase negative Staphylococcus spp. isolated from poultry, handlers and their environment:** A study was conducted to assess the enterotoxigenicity of coagulase-positive and coagulase-negative *Staphylococcus* species isolated from poultry, handlers, and their environment. A total of 430 samples—including nasal, cloacal, and skin swabs from 100 healthy broiler birds (n=250), raw meat swabs (n=71), hand swabs from workers (n=43), and environmental swabs (n=66)—were collected. Isolation and identification of *Staphylococcus* spp. were performed using conventional bacteriological methods, with confirmation by genus-specific PCR and MALDI-TOF MS. Out of 312 staphylococcal isolates, 29 (9.29%) were coagulase-positive and 283 (90.7%) were coagulase-negative. Multiplex PCR targeting 19 superantigen genes, including 05 classical enterotoxins, 13 novel enterotoxins, and one *tst-1* gene,

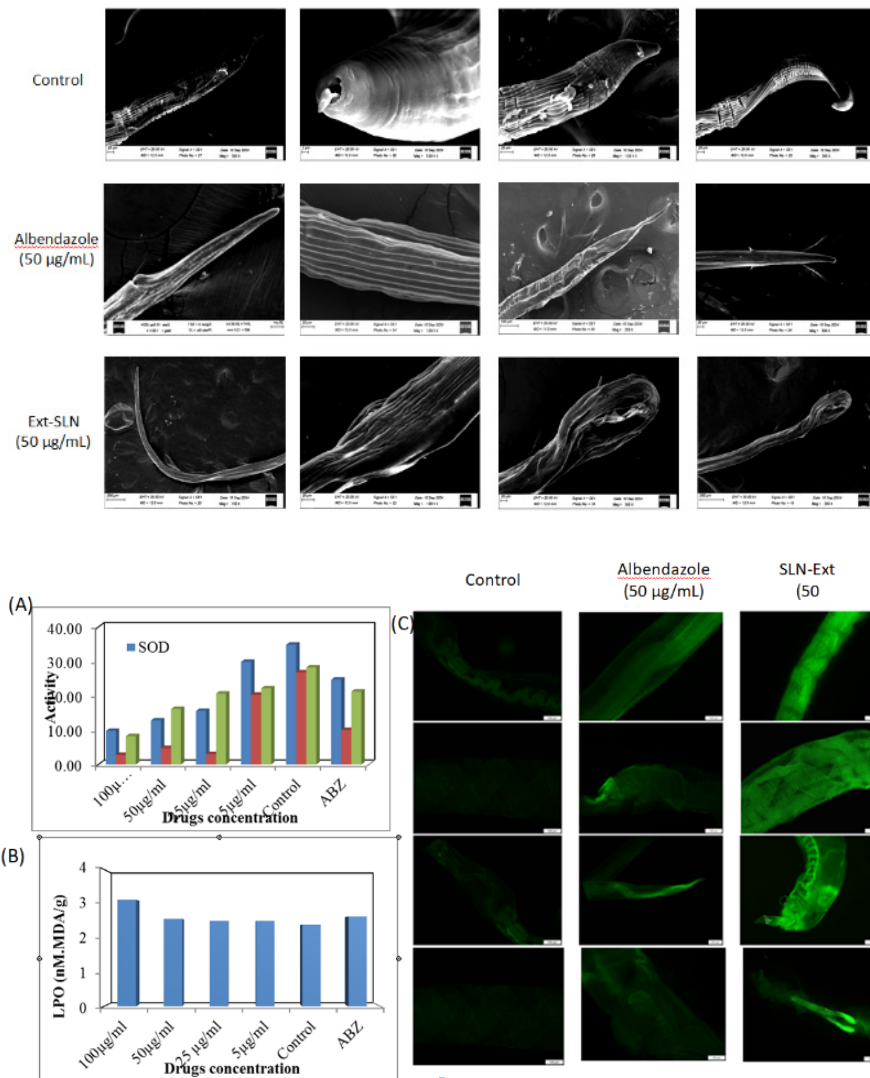
revealed that 44 isolates (10.12%) carried one or more toxin genes—22 from poultry farms and 22 from meat shops. Notably, the majority of positive isolates harbored novel enterotoxins (93.18%) such as *selu*, *seq*, *sem*, and *sen*, while only a small fraction (6.82%) carried classical enterotoxins.

9. Animal Nutrition

- **Sustainable Alternatives in Poultry Feeding:** Bakery meal and hatchery-discarded egg meal (with shell) were successfully incorporated into broiler diets at inclusion levels of 20% and 5%, respectively, replacing 16% maize and 12% soybean meal. These substitutions did not compromise growth performance or health, offering economical and sustainable feed options for poultry production.
- **Evaluation of Alternative Mineral Sources in Dairy Nutrition:** Replacement of conventional salt with Himalayan pink or black salt in total mixed rations (TMR) had no adverse impact on in-vitro rumen fermentation, highlighting their potential as cost-effective mineral alternatives for dairy animals.
- **Utilization of Bakery Waste in Dairy Cattle Ration:** Bakery industry by-products such as biscuit waste, snack waste, and noodle waste were included in concentrate mixtures up to 30%, supporting productive and reproductive performance in dairy animals without detrimental effects.
- **Cerium Oxide as a Feed Additive in Buffalo Nutrition:** Supplementation of cerium oxide at 300 mg/kg dry matter in Murrah buffaloes improved rumen fermentation and boosted immune response, without affecting overall growth performance.
- **Enhancing Nutrient Utilization through Urea-Molasses Treatment:** Steam treatment alone did not significantly affect nutrient utilization in-vitro. However, its combination with 3.5% urea and 10.5% molasses significantly improved digestibility of dry matter, organic matter, and neutral detergent fibre, as well as metabolizable energy availability.
- **Feeding Potential of Paddy Stubble Silage in Dairy Animals:** Feeding lactating buffaloes with paddy stubble silage at 6–7 kg/day showed no adverse effects on production or health. Additionally, biological treatment of this silage with lactic acid bacteria and enzymes did not yield any nutritional advantage over the untreated variant.

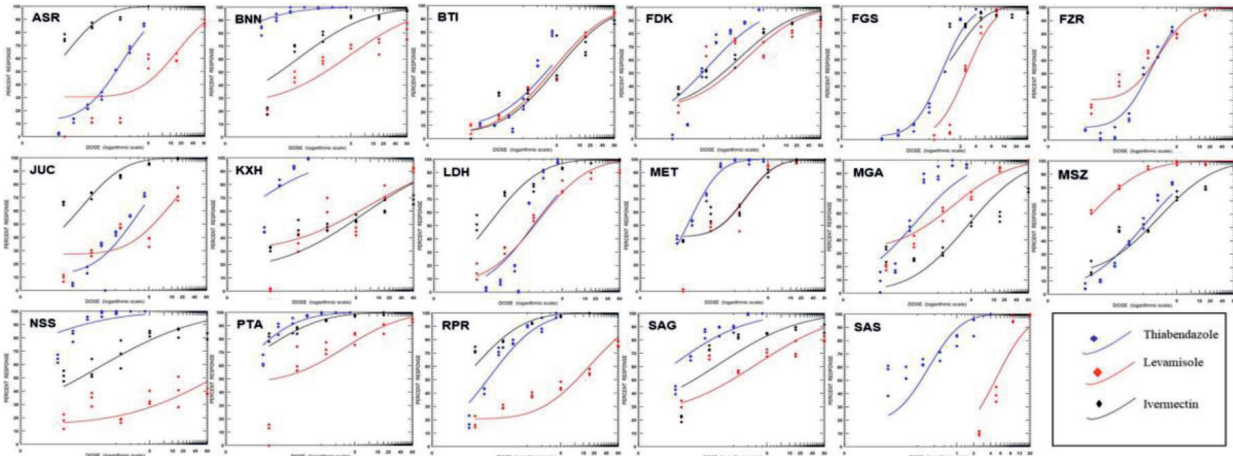
10. Veterinary Parasitology

- **Innovative Anthelmintic Strategies: Evaluating the efficacy of encapsulated *Trachyspermum ammi* against *Haemonchus contortus*:** A comprehensive study was conducted to evaluate the anthelmintic potential of ethanolic extract of *Trachyspermum ammi* (Ajwain). The phytochemical profile was identified using gas chromatography-mass spectrometry (GC-MS), and its efficacy was tested against *Haemonchus contortus* through adult and larval mortality assays, benchmarked against standard synthetic anthelmintics. To improve effectiveness, the extract was encapsulated in solid lipid nanoparticles (SLNs) prepared via a double emulsion method using beeswax and Poloxamer-407, achieving sustained release up to 48 hours. The extract-loaded SLNs caused significant morphological changes in adult worms, reduced antioxidant enzyme activities in a concentration-dependent manner, and induced oxidative stress as confirmed by fluorescent dye assays. These findings highlight the promising role of herbal extract-based nanodelivery systems as innovative anthelmintic agents for veterinary applications.

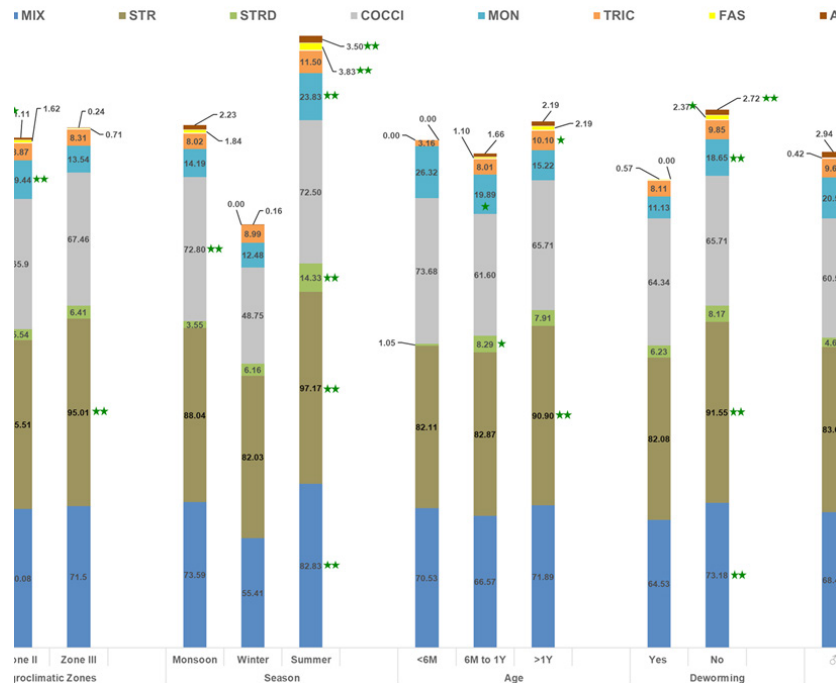


- **Epidemiology of caprine gastrointestinal nematodes and associated efficacy of anthelmintic drugs in Punjab:** A total of 1,962 faecal samples were collected from goats across 17 districts of Punjab and subjected to both qualitative and quantitative analyses. The study revealed a high overall prevalence of gastrointestinal parasitism at 93.62%. Among the parasites identified, strongyles were the most dominant (88.99%), followed by coccidia (65.34%), *Moniezia* spp. (16.62%), *Trichostrongylus* spp. (9.38%), *Strongyloides* spp. (7.65%), with trematodes (*Fasciola* spp. and amphistomes) being the least prevalent (0.02%). Quantitative evaluation categorized 48.05% of goats with low, 14.43% with moderate, and 37.51% with heavy gastrointestinal nematode infections (GIN). Faecal culture identified six genera of GINs, with *Haemonchus* predominating (75.94%), followed by *Trichostrongylus* (16.44%), *Oesophagostomum* (4.85%), *Bunostomum* (1.65%), *Ostertagia* (0.77%), and *Cooperia* (0.33%). Logistic regression analysis demonstrated significant associations of parasite prevalence with agroclimatic zones, season, sex, and deworming status. The efficacy of fenbendazole, levamisole, and ivermectin was evaluated using in vivo faecal egg count reduction tests at 17 goat farms, showing mean efficacies (\pm SE) of $55.97 \pm 4.78\%$ (range 18.92–92.44%), $51.74 \pm 4.77\%$ (11.20–77.86%), and $62.63 \pm 4.66\%$ (32.41–98.63%), respectively. Notably, resistance to fenbendazole and levamisole was recorded on 100% of farms, and to ivermectin on 94.1% of farms. Corresponding in vitro tests (egg hatch test and larval development assay) confirmed resistance rates

of 70.6%, 93.8%, and 73.3%, respectively. The study highlights the widespread prevalence of GINs in Punjab and their correlation with resistance to commonly used anthelmintics, emphasizing the urgent need to explore alternative non-chemical control strategies. These findings will greatly assist policymakers, field veterinarians, and extension workers in developing and implementing effective worm management programs through the prudent use of anthelmintics.



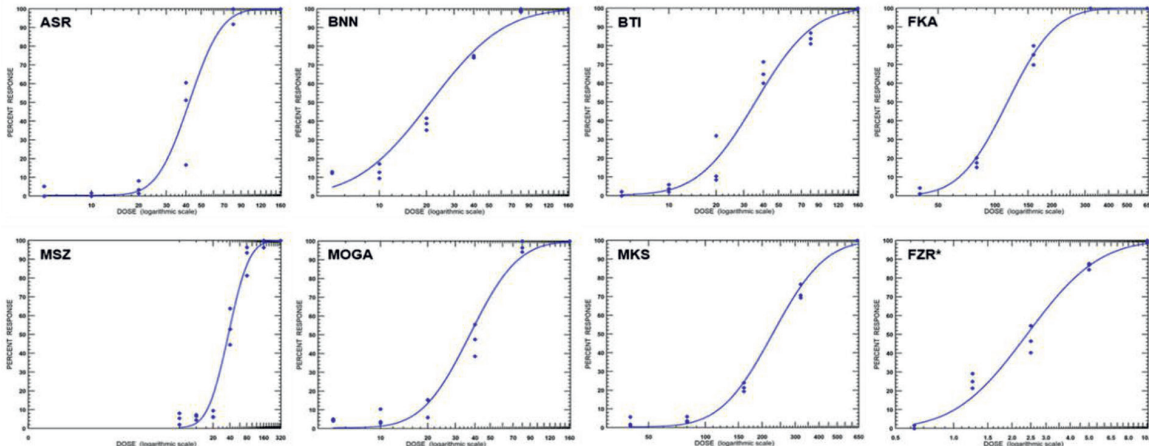
Regression plots of egg hatching/larval development inhibition against log concentrations of anthelmintics for various farms



Prevalence of gastrointestinal parasites with respect to associated risk factors in goats of Punjab

- **Phenotypic resistance to ivermectin in *Hyalomma anatolicum* populations of Punjab:** The resistance status of *Hyalomma anatolicum* field populations to ivermectin was evaluated using the larval immersion test. Dose–mortality responses were analyzed through probit analysis of percent mortality against logarithmically transformed drug concentrations, and lethal concentration values (LC₅₀, LC₉₀, and LC₉₉) along with resistance ratios (RR₅₀) were calculated. All field isolates tested exhibited resistance to ivermectin, with RR₅₀ values ranging from 8.87 to 95.22. The highest

resistance was observed in the MKS isolate ($RR_{50} = 95.22$), followed by FKA ($RR_{50} = 48.78$), and the lowest in BNN ($RR_{50} = 8.87$). These findings underscore a significant trend of emerging resistance in this multi-host cattle tick species across Punjab, stressing the urgent need for strategic resistance management, including integrated tick control approaches, rotational acaricide use, and alternative control measures.



Dose mortality curves of various field isolates of *Hyalomma anatolicum* against ivermectin

11. Veterinary Pathology

- **Effect of early aged feeding of chitosan and essential organic acids on gut immunity and gastrointestinal morphology in layer chicken – An immunopathological approach:** Feeding chitosan, either alone or in combination with a blend of organic acids, short-chain fatty acids, and essential oils, significantly enhanced gut health and immune responses in young chicks. The intervention improved gut mucosal immunity by increasing the population of IgA^+ and $Bu-1^+$ cells, supported optimal gut morphology through a higher villus height to crypt depth ratio and promoted early tissue maturation. Additionally, it enhanced the bactericidal activity of both serum and gut fluid against avian pathogenic *E. coli*, and stimulated systemic innate immunity by elevating serum lysozyme activity.

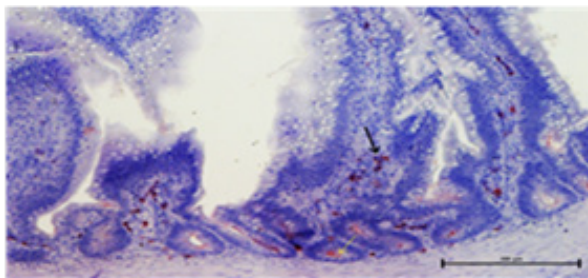


Fig: Chicken, Duodenum from chitosan fed (CH) group, showing distinct multiple individual cell IgA^+ cells (black arrow) in lamina propria and also in the form of secretory IgA (yellow arrow) in crypt area at 42nd DPF (arrow) X20 IHC

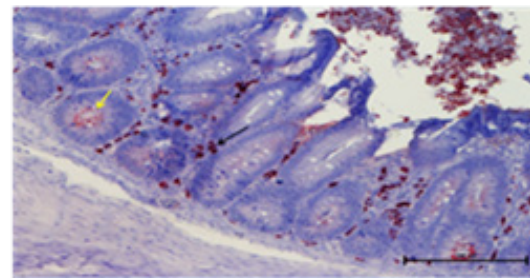


Fig: Chicken, Coacum from chitosan and organic acid fed (CH + OE) group with increased IgA^+ cells (black arrow) in and around intestinal glands and secretory IgA (yellow arrow) in crypt area at 42nd DPF (arrow) x20 IHC.

- **Toxicopathology of Benfuracarb and its amelioration with andrographolide in mice:** Andrographolide demonstrated a protective effect against benfuracarb-induced toxicity by mitigating inflammation, oxidative stress, and associated structural damage. This ameliorative action is primarily attributed to the downregulation of the NF- κ B signaling pathway, highlighting its potential as a therapeutic agent in managing pesticide-induced toxicities.

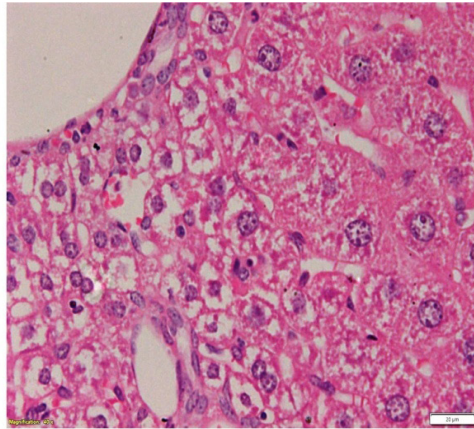


Fig: Liver, BEN: Necrosis and ballooning degeneration of hepatocytes in the periportal areas (H&E, Bar=20µm)

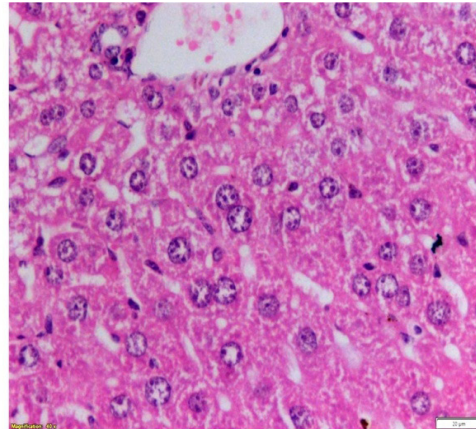
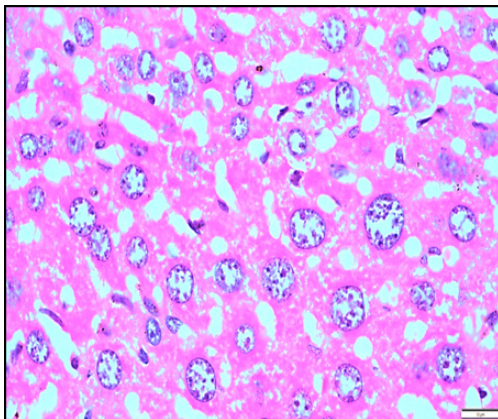
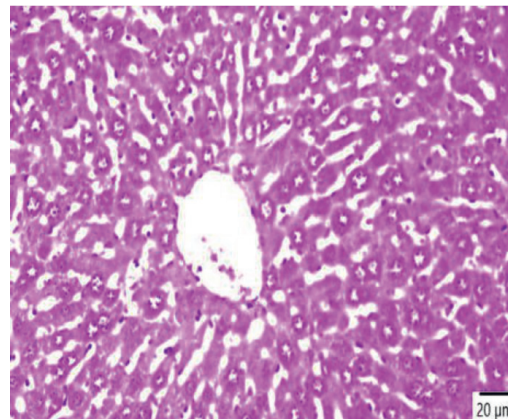


Fig: Liver, BEN/ADG: Degeneration of the hepatocytes in the periportal areas (H&E, Bar=20µm)

- **Pathology of experimental acetaminophen induced acute liver toxicity in mice and its amelioration with polyphenon and extract of *Rauvolfia tetraphylla*:** In this study, the hepatoprotective effects of polyphenols and aqueous extract of *Rauvolfia tetraphylla* were evaluated against acetaminophen-induced liver toxicity in mice. A total of 48 adult male albino mice were divided into eight groups (n=6 per group). Group I served as the control, while Groups II, VI, VII, and VIII received a single intraperitoneal dose of acetaminophen (300 mg/kg body weight). Groups III, V, VI, and VIII were administered polyphenols (200 mg/kg body weight orally for seven days), and Groups IV, V, VII, and VIII received *R. tetraphylla* extract (20 mg/kg body weight orally for seven days). All animals were sacrificed on day eight, and no gross lesions were observed in any group, indicating a possible protective role of polyphenols and *R. tetraphylla* against acetaminophen-induced hepatotoxicity.



Liver-Group II (Acetaminophen fed group) showing nuclear pleomorphism- H.E x 100X



Liver-Group VIII (Acetaminophen, Polyphenon & *Rauvolfia tetraphylla* fed group) showing mild degeneration and necrosis of hepatocytes- H.E x 40x

12. Veterinary Pharmacology & Toxicology

- **Pharmacokinetics of Ceftriaxone-Tazobactam in Unanesthetized and Anesthetized Horses:** A study was conducted to compare the pharmacokinetics of ceftriaxone (8 mg/kg) administered intravenously along with tazobactam (1 mg/kg) in unanesthetized (Group I) and isoflurane-anesthetized horses (Group II). Plasma drug concentrations were determined using microbiological

assay. The peak plasma concentration (C_{max}) was significantly higher in Group II ($114.22 \pm 1.51 \mu\text{g/ml}$) than in Group I ($96.88 \pm 3.11 \mu\text{g/ml}$), with drug detectable for up to 8 hours in Group II and 6 hours in Group I. Key pharmacokinetic parameters such as AUC, AUMC, $V_d(\text{area})$, and $V_d(\text{ss})$ were significantly elevated in Group II, indicating altered drug distribution under anesthesia. Additionally, the elimination half-life ($t_{1/2\beta}$) and mean residence time (MRT) were also prolonged in anesthetized horses, while clearance (CLB) and elimination rate constant (β) were reduced. Protein binding of ceftriaxone was estimated at $18.44 \pm 1.19\%$. Based on PK-PD integration, the optimal dosing interval for ceftriaxone-tazobactam is 8 mg/kg every 12 hours in unanesthetized horses, whereas a reduced dose of 6 mg/kg every 12 hours is recommended for anesthetized horses to effectively target bacteria with $\text{MIC} \leq 5 \mu\text{g/ml}$.

- **Therapeutic Potential of *Moringa oleifera* Pod Powder in Subclinical Mastitis in Cows:** A study was undertaken to evaluate the therapeutic efficacy and safety of *Moringa oleifera* pod powder in subclinical mastitis in cows. Twelve affected cows were divided into control and treatment groups, with the latter receiving 100 g of *M. oleifera* powder orally twice daily for 7 days. Milk samples were collected on days 0, 7, 15, and 30, and safety assessments were conducted in six healthy cows administered the same dose, with blood samples collected on days 0 and 7. Significant reductions in somatic cell count, California Mastitis Test scores, and electrical conductivity were observed on days 15 and 30 in the treatment group, with no adverse changes in pH or NAGase levels. Safety evaluation showed no significant changes in hematological, biochemical, or antioxidant parameters. Antibacterial assays revealed that hydro-alcoholic and aqueous extracts exhibited the lowest minimum inhibitory concentrations against *Escherichia coli* ($6.67 \pm 1.33 \text{ mg/ml}$) and *Staphylococcus aureus* ($4.33 \pm 2.03 \text{ mg/ml}$), respectively. Molecular docking of bioactive compounds identified quercetin-3-O-malonyl glucoside and procyanidin as having strong binding affinities against bacterial proteins. The study concludes that *M. oleifera* pod powder is effective in managing subclinical mastitis without compromising animal health and highlights its potent antibacterial constituents.
- **Screening of FDA-Approved Drugs and Nanoformulation Against Canine Distemper Virus (CDV):** A comprehensive study was undertaken to identify FDA-approved drugs with potential antiviral activity against Canine Distemper Virus (CDV) using an integrated strategy involving *in silico* screening, *in vitro* assays, and nanoformulation techniques. Molecular docking and dynamics simulations were conducted to target the viral fusion protein responsible for CDV entry into host cells, leading to the identification of promising candidates such as Amphotericin B, Nystatin, Rifaximin, and Rifapentine. Among these, Amphotericin B and Rifaximin were shortlisted based on favorable pharmacokinetic (ADMET) profiles and further evaluated in *in vitro* models using CDV-infected Vero cell lines. Amphotericin B exhibited potent, dose-dependent inhibition of CDV propagation with significant reduction in cytopathic effects and viral RNA copies—up to 99.79% at $50 \mu\text{g}$ —whereas Rifaximin showed limited efficacy as an entry inhibitor. To improve the drug's delivery and stability, Amphotericin B was encapsulated in a chitosan-TPP nanoparticle system via ionic gelation. The nanoformulation demonstrated suitable physicochemical characteristics and sustained drug release while retaining antiviral activity. These findings support the potential of Amphotericin B, especially in nano formulated form, as a promising therapeutic candidate for future translational research targeting CDV.

13. Veterinary Surgery and Radiology

- **Morphometric Assessment of Normal and Diseased Stifle Joint with Special Reference to Patella Luxation in Dogs:** A study was conducted on healthy and patellar luxation-affected stifles in dogs to assess the utility of radiographic morphometry in diagnosing and managing patellar instability.

The findings indicated that morphometric analysis is a valuable tool for identifying patellar disorders and planning surgical interventions. In small-breed dogs, a greater medial trochlear inclination angle was observed, aligning with their predisposition to medial patellar luxation, while the opposite was noted in large breeds. Trochlear depth measurements were found useful in predicting future patellar displacement. Regarding surgical treatment of Grade IV patellar luxation, the Retinacular Imbrication technique emerged as a less invasive option with satisfactory recovery outcomes, whereas the Tibial Tuberosity Transposition technique, though more invasive, showed a guarded prognosis.

- **Functional Outcome of Avulsion Fracture in Dogs Stabilized Using Tension Band Wiring Technique:** This clinical study involved 10 dogs presenting with avulsion fractures of the tibial tuberosity (5 cases), olecranon (2 cases), and fibular tarsal (3 cases). All fractures were repaired using the tension band wiring technique, employing one or two K-wires or pins combined with stainless-steel orthopedic wire in a figure-8 configuration. The affected dogs were young, with a mean age of 13.3 ± 14.4 months (range 4–48 months) and body weight averaging 13.7 ± 8.5 kg (range 5–30 kg). The average duration between injury and treatment was 5.0 ± 6.3 days (range 0–22 days). Falls from height were the predominant cause (60%), followed by automobile trauma (20%), and running or dog fights (10% each). Male and female dogs were equally affected, with Pomeranians and Greyhounds each comprising 30% of cases. Postoperative assessments based on radiographs, weight bearing, lameness scoring, and joint goniometry showed improvements in all animals. Minor complications included K-wire or pin migration (3 cases), stainless-steel wire breakage (1 case), and splitting of the avulsed bone fragment (1 case), resulting in mild misalignment or skin wounds; however, these did not compromise the final functional outcome. The study concludes that tibial tuberosity avulsion fractures are most common and that tension band wiring with one or two K-wires/pins and figure-8 wiring provides stable fixation and satisfactory recovery. Implant removal after healing further enhances joint mobility, and minor implant-related complications do not adversely affect the clinical results.

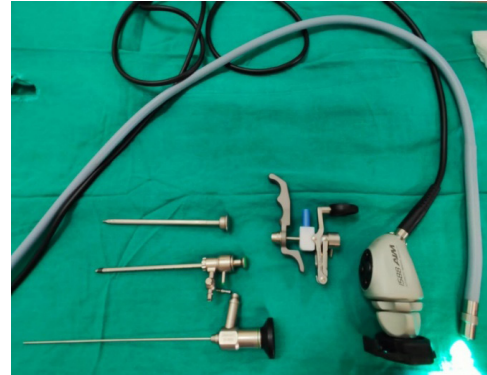


- **Evaluation of Conservative and Minimally Invasive Surgical Techniques for the Management of Teat and Udder Affections in Dairy Animals:** The study evaluated conservative and minimally invasive surgical techniques for managing teat and udder affections in dairy animals, revealing that buffaloes exhibit a higher prevalence of milk flow disorders than cattle, with hind quarters more commonly affected than fore quarters. Ultrasonography using the water bath technique with a 6-12 MHz linear transducer for the teat and a 5 MHz probe for the udder at 4 cm depth in standing animals proved reliable for diagnosing lesion location and extent in teat obstruction cases. Theloscopy effectively visualized internal lesions related to teat canal obstructions, though its use was limited in

complete teat tip obstructions or severe fibrosis. Theloresectomy, a minimally invasive treatment for covered teat affections, successfully restored teat function and anatomy, offering a safer alternative to conservative methods by reducing mastitis risk and animal discomfort. Despite higher initial surgical costs, theloressectomy showed better economic outcomes due to shorter antibiotic courses, earlier return to milking, reduced milk withholding periods, improved milk yield, and fewer postoperative complications.

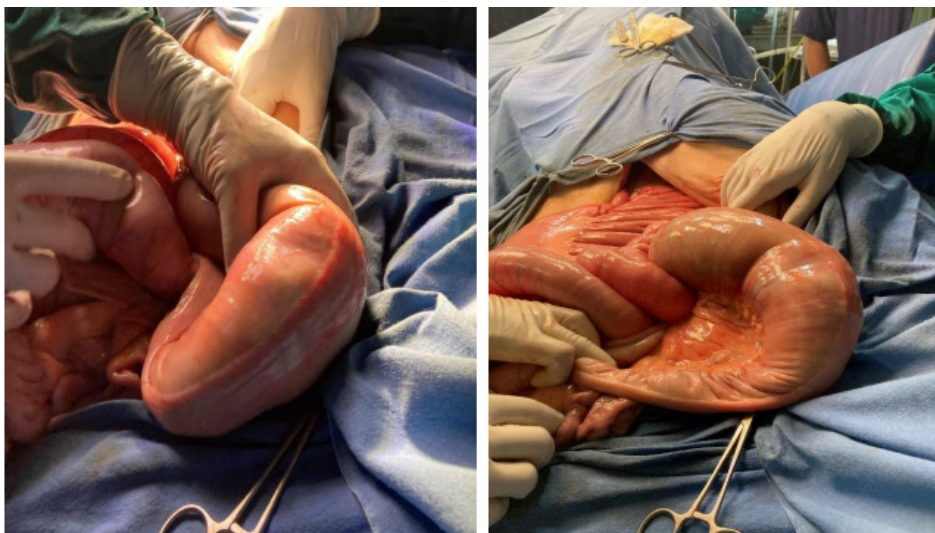


Figure showing parts of Theloscopy unit



Insertion of assembled theloscope into the teat canal via the Cannula

- **Clinical Studies on Diagnostic Indicators and Surgical Management of Equine Colic:** A study was conducted to evaluate diagnostic indicators, surgical findings, and postoperative outcomes in equine colic cases. Key diagnostic features identified included significantly elevated lactate levels, severe abdominal pain and distension, prolonged capillary refill time, altered mucous membrane perfusion, peritoneal fluid cytology, and abdominal ultrasonography, all of which proved valuable in assessing colic patients. Surgical outcomes varied by condition: pelvic flexure impaction and small colon fecoliths showed favorable prognoses with survival rates of 100% and 75%, respectively, while small intestine strangulation and right dorsal displacement of the large colon were associated with poor prognosis. Overall, surgical intervention successfully saved 50% of affected horses, with normal functionality maintained during a six-month follow-up period.



Intra-operative photograph showing fecalith obstruction of small colon, observe distended small colon cranial to fecalith and collapsed small colon caudal to fecalith

- **Morphometric Studies on Canine Stifle Joint Following Surgical Fixation of Distal Femoral Fractures:** A comparative study was conducted to evaluate the effectiveness of the pin-screw combination versus pin fixation for repairing distal femoral fractures in dogs, alongside an assessment of the morphometry of normal and diseased canine stifle joints. The findings revealed that the pin-screw combination facilitated earlier weight-bearing and improved range of motion compared to pin fixation alone. Additionally, standardized morphometric measurements were established, providing a valuable reference to assess outcomes of orthopedic procedures and to detect abnormalities in canine stifle morphology.

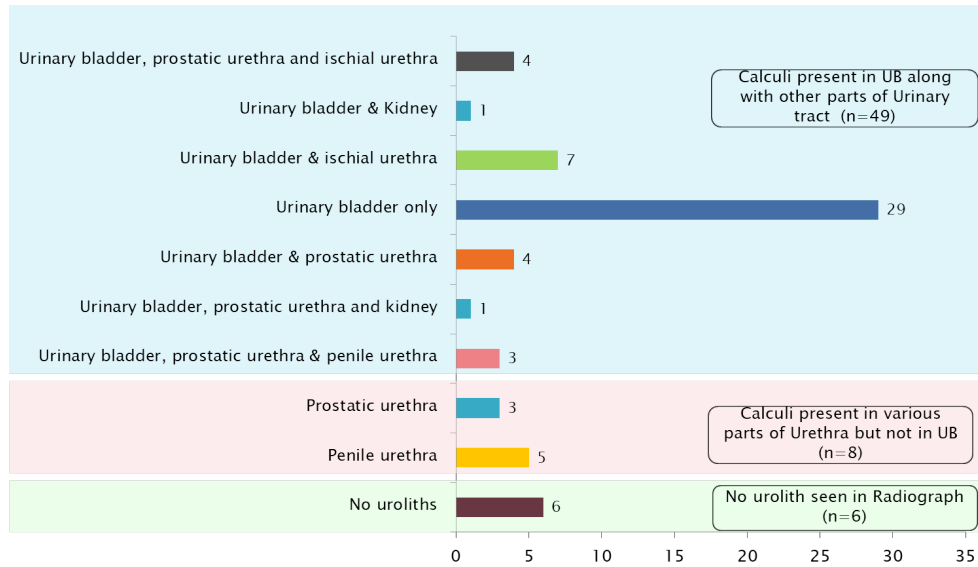


Cross pinning for fixation of distal femoral fractures



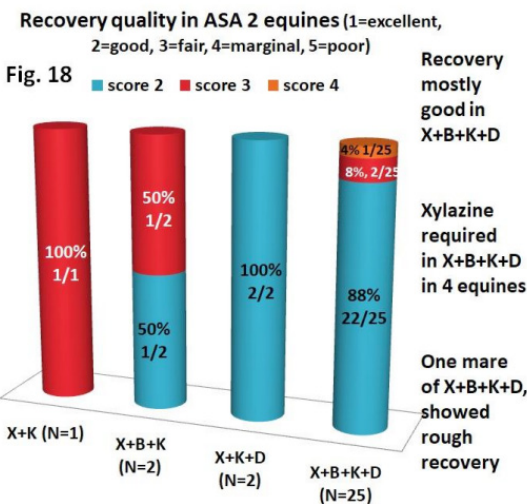
Pin screw combination for fixation of distal femoral fractures

- **Clinical Studies on Prevalence, Diagnosis and Management of Surgical Affections of Lower Urinary Tract in Dogs:** A retrospective study conducted over two years (October 2021 to September 2023) investigated surgical affections of the lower urinary tract in dogs in Punjab, revealing an incidence of 0.86%, with urolithiasis as the most common condition. The study found that winter season, Pugs, middle-aged male dogs from the Malwa region were more susceptible, while male American Bully dogs under one year showed a higher risk of urethral prolapse, especially during the rainy season. A strong correlation was observed between urolithiasis occurrence in pets and their owners, possibly linked to water and feed, warranting further research. Escherichia coli and Staphylococcus were the predominant urinary pathogens, with aminoglycosides and enrofloxacin being the most effective antibiotics. Diagnostic imaging using both radiography and ultrasonography proved valuable, with ultrasonography outperforming radiography for detecting calculi in the bladder and prostatic urethra. Therapeutically, hydro-repulsion was effective for dislodging urethral calculi in males, cystotomy yielded excellent outcomes in both sexes, and urethrostomy served as a successful salvage procedure when hydro-repulsion failed in obstructive urolithiasis cases.

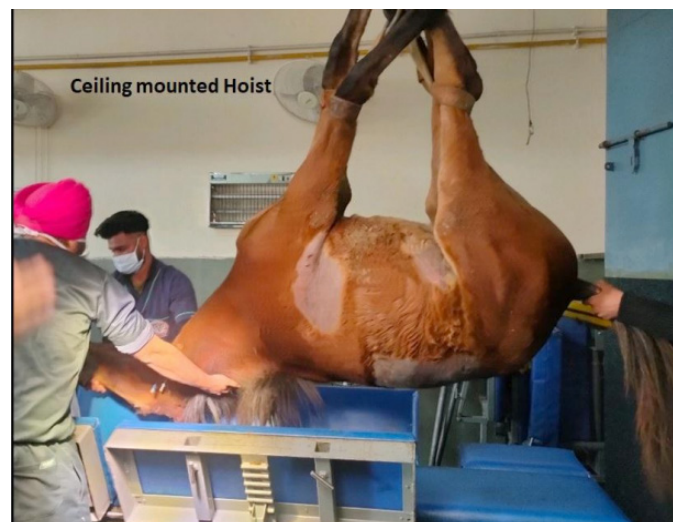


Distribution of uroliths based on radiograph in dogs with urolithiasis

➤ **Clinical Study on the Peri-Operative Monitoring of General Anaesthesia Using Xylazine, Ketamine and Isoflurane with or Without Butorphanol and Diazepam in Equines:** A study was conducted to evaluate peri-operative monitoring of general anaesthesia in equines using Xylazine, Ketamine, and Isoflurane, with or without Butorphanol and/or Diazepam. The findings highlight the necessity of systematic monitoring of physical parameters during anaesthesia for improved outcomes. Special attention is required when selecting and monitoring anaesthetic protocols for foals up to three weeks old. The conventional doses of xylazine with butorphanol and ketamine with diazepam used in this study may be insufficient for ASA 2 Marwari breed equines, indicating the need for further research. Additionally, intravenous xylazine at 0.25 mg/kg is recommended during recovery for ASA 1, 2, and 3 equines, tailored to their pre-anaesthesia and recovery temperament. While overall recovery was good, a high mortality rate was observed in colic cases, alongside notable morbidity such as rough recovery and radial paralysis in ASA 2 and 3 equines.



Bar Graph showing recovery quality in ASA 2 Equines



Ceiling Mounted Hoist for transfer of equine to Operation table

- **Surgical Management of Diaphragmatic Hernia in Bovine with Special Reference to Economics:** Between 2021 and 2023, a study was conducted on 287 bovines (279 buffaloes and 8 cows) referred to the Department of Veterinary Surgery and Radiology at GADVASU, Ludhiana, to investigate diaphragmatic hernia. The findings revealed that bovines in their 1st to 3rd parity, as well as non-pregnant animals and those in the 3rd trimester of pregnancy, are more susceptible to this condition. Laparo-rumenotomy combined with ultrasonography and radiography proved to be the most effective diagnostic approach. Animals with severe adhesions from foreign bodies or abscesses that risk pleura rupture and open-mouth breathing had a poor prognosis. Higher Body Condition Scores (BCS) correlated with better survival chances, and if the animal survived beyond 24 hours post-treatment, the prognosis improved significantly. Pregnant animals showed good recovery prospects after herniorrhaphy, although abortion risk was higher in the late 2nd or early 3rd trimester. Mortality accounted for the major direct economic loss, while treatment costs incurred before referral to the university hospital represented the primary indirect losses.

14. Livestock Production and Management:

- **Punjab Red Layer Performance Study:** Iron coops outperformed bamboo coops and free-range systems for consistent egg production, superior egg quality, enhanced hygiene, and optimal productivity in backyard operations.
- **LED Lighting Impact on Laying Birds:** Monochromatic LED supplementation with natural lighting from 42 weeks showed no significant effects on production performance, health parameters, or welfare indicators.
- **Livestock Waste-to-Wealth Initiative:** A portable pyrolysis unit (20 kg capacity, 10 kg batches) was designed with temperature regulation and rotation control (0-50 RPM). Biochar yields varied by source: paddy straw achieved highest yields (49.61±3.78%), followed by cow dung (49.16±3.95%), poultry droppings (47.07±2.94%), and goat droppings (42.59±3.74%).

15. Veterinary and animal Husbandry Extension Education:

- **An exploratory study on factors affecting the adoption of improved dairy farming practices by pastoralists of Punjab**

Study was undertaken to assess the knowledge level and adoption of improved dairy farming practices among pastoralists in three distinct regions of Punjab, namely Majha (Group- I), Malwa (Group-II) and Doaba (Group- III). In addition, the study documented the ethno-veterinary practices traditionally used by these pastoralists. A total of 90 respondents, comprising 30 pastoralists from each group. The salient features included:

- Pastoralists rely heavily on raising livestock; their understanding and adoption of contemporary dairy farming techniques are still restricted because of their low literacy, little interaction with extension agents, and lack of formal training.
- Compared to Group I (Majha) and Group III (Doaba) pastoralists in Group II (Malwa) showed a higher level of awareness and adoption of these practices.
- While pastoralists are more knowledgeable about breeding techniques, they are not familiar with government programs.
- The study also indicates that a growing number of pastoralists are choosing permanent settlements over transhumance.

➤ **To study farm level silage making practices and quality parameters:**

Research examines the knowledge and practices of dairy farmers regarding silage production, along with the silage quality and the structure of silo in the Punjab (India). Data on knowledge, practices and silo structure were collected from 385 silage-making farmers, selected through multistage sampling techniques across the state using a structured interview schedule. A total of 100 silage samples were examined for quality characteristics and Fleig score. Further, 18 samples were tested for mycotoxin level in silage. The salient features included:

- Majority farmers prepared silage by their own (84.42), lined the bottom of silo with tarpaulin, straw or both (85.5%), covered the silo from top immediately after compaction (74.03%), fed the silage round the year (81.56%), removed silage from silo manually on daily basis (84.94%) and were unaware about silage additives (79.74%).
- The knowledge-practice score was positively correlated ($p < 0.01$) with herd size ($r = 0.185$), milk production ($r = 0.159$), land owned ($r = 0.125$) and training attended ($r = 0.626$). The average dry matter, pH, crude protein, lactic acid and ammoniacal nitrogen were 29.52 ± 1.30 percent, 4.34 ± 0.94 percent, 9.36 ± 0.88 percent, 4.34 ± 0.58 percent and 9.82 ± 2.3 percent respectively.
- The average Fleig score of silage was 90.58 ± 36.82 indicating good quality.
- The mean mycotoxin level was 18.49 ± 16.0 ppb (range 2.10 - 50).
- Majority respondents ($n=275$) had pit silo while rest 110 farmers were having stacked silo.

16. Veterinary Physiology and Biochemistry:

- A comprehensive research study titled “Comparative Analysis of Exosomes Derived from Milk of Murrah Buffalo, Sahiwal Cattle and Beetal Goat” was successfully conducted. This investigation involved detailed comparison and analysis of exosomes isolated from the milk of three distinct livestock species: Murrah buffalo, Sahiwal cattle, and Beetal goats.
- The department was awarded a research grant under the scheme “Advanced Techniques for Assessment of Biomarkers of Oxidative Stress in Clinical Samples of Animals,” funded by the Science and Engineering Research Board (SERB) with an allocation of ₹5 lakh. As part of this initiative, a comprehensive training program was organized for 25 students from various colleges to enhance their research capabilities and upgrade their technical skills in oxidative stress biomarker assessment.
- A second research project entitled “Transcriptomic Approach to Identify Urine-Specific Biomarkers for Early Pregnancy Detection in Indian Beetal Goats” was approved under the NPV-15 scheme, with a sanctioned amount of ₹5 lakh. This project focuses on evaluating and analyzing urine biomarkers to develop reliable methods for early pregnancy detection in Beetal goats using advanced transcriptomic techniques.
- The research outcomes have been successfully disseminated through scholarly publications, resulting in three national research articles and one international research article being published in peer-reviewed journals.

B. College of Animal Biotechnology

- **Patent Granted:** A patent has been granted to Dr. Neeraj Kashyap, Assistant Professor, College of Animal Biotechnology, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana. The patent is titled “*IOT Based System for Authenticating Milk Yield Recording of Dairy Animals and Method thereof*”. The application (Ref. No. 202311022189) was filed on 27th March 2023 and officially granted on 9th August 2024.

- **Development of BuffaloQTLdb:** The university successfully developed BuffaloQTLdb, the first-ever web resource dedicated to Buffalo Quantitative Trait Loci (QTL) and trait association data, aimed at facilitating genetic improvement in buffaloes.
- **Copyright Registration of Android App “Your Own Dairy Hard-data Analyzer (YODHA)”:** The copyright for the Android application “Your Own Dairy Hard-data Analyzer (YODHA)” designed for data recording by small dairy farmers, has been secured. The ownership is attributed to Dr. CS Mukhopadhyay, Dr. Kirtypal Singh, Dr. YS Malik, Dr. JPS Gill, and Dr. Inderjeet Singh. The registration details are: Number SW-19797/2024; Diary No. 10926/2024-CO/SW.
- **Copyright of Buffalo AMPs Database “BufAMPdb”:** The copyright for the database “BufAMPdb,” dedicated to buffalo antimicrobial peptides (AMPs) research, has been obtained by Dr. Kalpana Singh in collaboration with the IASRI, New Delhi team. The registration number is SW-19584/2024.
- **Copyright of Buffalo AMPs Prediction Server “BufAMPpred”:** The copyright for the prediction server “BufAMPpred,” designed to support buffalo AMPs research, was also secured by Dr. Kalpana Singh along with the IASRI, New Delhi team. The registration number for this software is SW-19815/2024.

C. College of Dairy and Food Science Technology

1. Department of Dairy Technology

- **Development and characterization of milk protein based hydrogel:** Sodium caseinate hydrogel was fabricated using (10%w/v) solutions of 1M HCl, at different pH, following heating at 70°C for 5 min. The hydrogel developed at pH 2.5 exhibited the highest gel strength. However, reducing of pH from 2.5 to lower subsequently decreased the gel strength. The microstructural analysis obtained by FTIR analysis confirmed a slight shift of bonds after gelation compared to the non-gelled casein powder. Different modifications and conjugations significantly improved the thermal stability of native sodium caseinate hydrogels. Curcumin, known for its health benefits but limited by low water solubility and stability, was also encapsulated within these hydrogels to enhance its bioavailability. Therefore, the ability to tailor hydrogel properties through various treatments and conjugations provides versatility for specific applications.

2. Department of Dairy Engineering

- **Development of Fluidized Bed-Based Prototype for Instant Kheer Mix Production:** A fluidized bed-based prototype was developed for the production of Instant Kheer Mix, a traditional Punjabi milk-rice dessert, offering a faster and more efficient alternative to conventional methods. The system features a flat-bottom drying chamber, a 0.5 hp centrifugal blower for fluidization, a 2 kW nichrome heater, a two-fluid nozzle for uniform coating, and a digital control panel for precise operation. Using Response Surface Methodology (RSM), the process was optimized at 80°C air temperature, 5 m/s air velocity, and 70 minutes processing time. The developed unit is scalable, energy-efficient, and enables the mass production of high-quality Instant Kheer Mix with enhanced shelf stability.

3. Department of Dairy Economics and Business Management

- **Predictive Modelling for Milk Yield:** A predictive model for milk yield was developed in collaboration with IIT-Ropar to enhance productivity assessment and planning in the dairy sector.
- **Water Footprint Assessment of Milk Processing:** The total water footprint for processing one kilogram of milk was calculated, incorporating both direct and indirect water usage components.
- **Global Assessment of Indirect Water Footprint:** The first global assessment of the indirect water footprint was conducted as part of a comprehensive evaluation of water use in milk processing.

- **Prediction of Water Usage in Processing Plants:** Water usage was predicted for existing and proposed milk processing plants to aid in efficient water resource management.
 - **Sector-Wide Water Usage Analysis:** An extensive assessment of water consumption was carried out across the entire milk processing sector.
 - **Breed-Specific Water Footprint Calculation:** The water footprint for one kilogram of fat- and protein-corrected milk (FPCM) was calculated for various cattle breeds to support breed-based sustainability strategies.
 - **Feed Optimization Models for Livestock:** Concentrate feed models for cattle and buffalo were developed using linear programming techniques to improve feed efficiency and reduce input costs.
 - **Economic Analysis of Broiler Farming:** Net returns per kg live weight were found to be Rs. 0.99 in contract broiler farms and Rs. 1.35 in non-contract farms. Channel III (Farmer-Retailer-Consumer) was identified as the most efficient marketing channel in terms of marketing efficiency and the producer's share in the consumer's rupee.
 - **Carbon Footprint Estimation of Milk Supply Chain:** Ongoing efforts are being made to estimate the carbon footprint of the milk supply chain—from commercial dairy farms and cooperative societies to processing plants—by quantifying greenhouse gas emissions associated with the production and processing of 1 kg of milk in Punjab.
 - **Costing of Livestock Enterprises:** Costing analysis was conducted for various livestock enterprises, including dairy, poultry, and piggery, to guide financial planning and enterprise selection.
 - **Analysis of Indian Buffalo Meat Exports:** The performance of buffalo meat exports from India was analyzed with a focus on cost-return structures in Punjab, alongside trade trends and export direction shifts across the country.
 - **Women's Empowerment Index in Rural India:** An index to measure women's empowerment in rural areas was developed in collaboration with IIT-Roorkee and icipe (Kenya), comparing empowerment levels between the livestock and agriculture sectors.
4. **Department of Dairy Microbiology**
- **Screening of Lactic Acid Bacteria for Production of Bioactive Milk Protein Hydrolysates with Anti-Diabetic Potential:** A study was conducted to isolate and identify various strains of lactic acid bacteria, which were then screened based on their proteolytic activity. Selected isolates were employed to generate milk protein hydrolysates from goat and sheep milk through fermentation. These hydrolysates were evaluated for their anti-diabetic potential by assessing the inhibition of key enzymes involved in glucose metabolism—namely dipeptidyl peptidase-IV (DPP-IV), α -glucosidase, and α -amylase. The findings indicated that casein hydrolysates derived from goat and sheep milk possess promising bioactive properties capable of ameliorating insulin resistance, highlighting their potential role in the dietary management of type-2 diabetes.



Microbial hydrolysis of goat and sheep milk by selected isolates

D. College of Fisheries

1. Intensive Aquaculture Technologies

- **Dissemination of Intensive Aquaculture Technologies:** The Capacity Building Resource Centre (CBRC) for Intensive Aquaculture Technologies was established at the College of Fisheries under the Pradhan Mantri Matsya Sampada Yojana (PMMSY) of the Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Government of India, to meet regional needs and promote the commercial adoption of intensive aquaculture technologies through a comprehensive approach involving research, demonstration, and skill development. Since its inauguration on January 7, 2023, a total of 276 stakeholders, including 49 officials from the Department of Fisheries, Punjab (Fisheries Officers, Senior Fisheries Officers, and Assistant Director Fisheries), and 227 farmers, entrepreneurs, and graduating students have been trained. During 2024–25 (April 2024 to March 2025), 109 farmers, entrepreneurs, and graduating students were trained through six specialized training programs.



Glimpses of Training in Intensive Aquaculture Technologies (RAS & BFAS)

- **Testing of new candidate species under RAS and BFAS of Regional Importance:** Stinging catfish/ Singhi, *Heteropneustes fossilis*) and Climbing perch (*Anabas testudineus*) introduced in RAS and BFAS. Growth performance and socio-economic evaluation of said species in reference to RAS and BFAS is being evaluated, under the regional climatic conditions. More than 90% survival rate was achieved for both the species in RAS; whereas, in BFAS, 80-85% fish survival was achieved.



Heteropneustes fossilis



Anabas testudineus

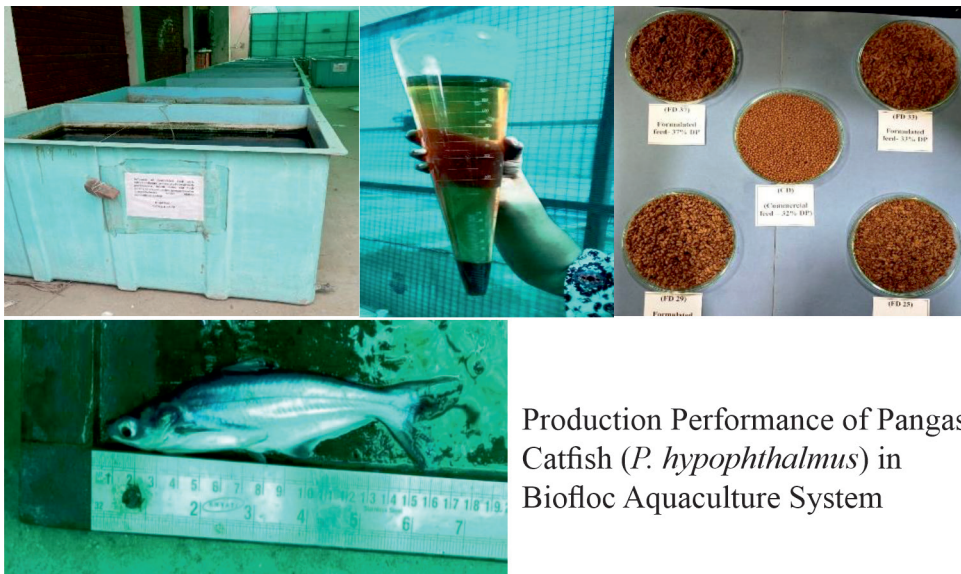
- **Nanobubble Technology for Waste Water Treatment:** A nano-bubble ozone generator was successfully designed and developed in collaboration with the Department of Chemical Engineering, IIT Ropar, and installed in a Recirculating Aquaculture System (RAS) during September–October 2024. The system demonstrated marked improvements in water quality and operational efficiency during the testing phase. Notably, ammonia ($\text{NH}_3\text{-N}$) levels in the RAS effluent were reduced by up to 10 times—from 0.30–0.35 ppm to 0.03–0.05 ppm—and operational costs were lowered by approximately 10%, highlighting the potential of this innovation in enhancing sustainable aquaculture practices.



Nano - Bubble Ozone Generator

2. Aquaculture Nutrition

- **Production Performance of Pangas Catfish (*P. hypophthalmus*) in Biofloc Aquaculture System (BFAS) with Varying Dietary Protein Levels:** A comparative evaluation of commercial and farm-made formulated feeds with varying dietary protein levels (25%, 29%, 32%, 33%, and 37%) revealed that fish fed with 33% protein exhibited optimal performance. This group demonstrated improved survival rates (5.14–12.60% increase), enhanced body weight gain (10.31–44.02% increase), and better specific growth rates (3.88–18.74% increase). Feed conversion ratio significantly improved



Production Performance of Pangas Catfish (*P. hypophthalmus*) in Biofloc Aquaculture System

(3.60–15.70% reduction), along with increased digestive enzyme activity and superior flesh quality (protein: 9.10–10.89%↑, lipid: 6.28–30.69%↑). Haematological and immunological parameters such as erythrocyte count (6.47–9.48%↑), haemoglobin (0.41–7.39%↑), and serum protein (32.83–74.78%↑) also improved. Notable stress tolerance was observed, with enhanced superoxide dismutase activity (2.48–35.78%↑) and decreased glucose (16.80–35.55%↓), cholesterol (8.17–26.29%↓), and triglyceride levels (9.27–20.78%↓). Additionally, feeding fish with 33% protein feed resulted in a higher benefit-cost ratio and reduced production costs by 1.78–41.23% per kg of fish, highlighting its economic viability.

- **Production Performance of Pangas Catfish (*P. hypophthalmus*) Fed with Varying Levels of Infertile Poultry Egg Meal Incorporated Diets:** A feeding trial was conducted to evaluate the replacement of fish meal with infertile egg meal at varying levels (0–100%) in fish diets. Optimal results were observed at 80% replacement, with significant improvements in survival rate (5.66–9.80%), body weight gain (6.44–43.83%), specific growth rate (4.14–21.04%), and feed conversion ratio (3.77–16.46% reduction). Additionally, enhancements in digestive enzyme activity, flesh protein content (0.63–1.37%), and haematological and immunological parameters, including erythrocyte count (22.08–36.73%) and haemoglobin levels (22.18–24.40%), were recorded. Stress biomarkers also showed improvement, with increased superoxide dismutase activity (3.66–61.35%) and reduced glucose (0.32–1.75%), cholesterol (1.03–21.91%), and triglyceride levels (0.58–24.43%). Moreover, feeding fish with a 33% protein diet resulted in a higher benefit-cost ratio (up to 50% increase) and a significant reduction in anticipated production cost (18.33–33.51% per kg of fish), indicating the economic viability of this dietary strategy.



Infertile Poultry Eggs



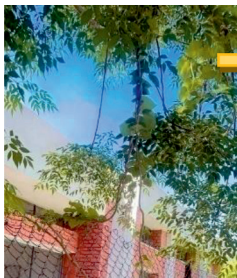
Infertile Poultry Egg Meal (Powder)



Experimental Pelleted Feeds

- **Efficacy of giloy stem and leaf powder in Common carp:** A study was conducted to evaluate the efficacy of dietary supplementation of giloy (*Tinospora cordifolia*) stem powder (GSP) and leaf powder (GLP) in common carp (*Cyprinus carpio*) at three inclusion levels (0.5, 1.0, and 1.5 g/kg feed). Fish were fed experimental diets at 2% of their body weight for 120 days. Among the treatments, GLP at 1.0 g/kg (GLP2) showed significantly higher survival (86.66%) and improved growth performance indicators such as net weight gain, specific growth rate, protein efficiency ratio,

and feed conversion ratio. Health parameters including hemato-biochemical indices, antioxidant profile (SOD), and non-specific immune response (lysozyme activity) were also enhanced in GLP2 and GLP3 groups. Although the flesh quality in terms of total protein and lipid content did not differ significantly, it improved with giloy supplementation. Overall, the results suggested that giloy leaf powder, particularly at 1.0–1.5% inclusion, was more effective than stem powder in enhancing growth, immunity, and overall productivity of common carp and could be recommended for incorporation into carp diets.



Giloy Plant



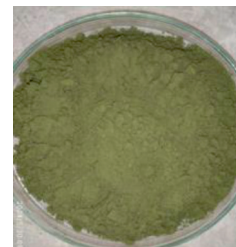
Giloy Leaves



Giloy Stems & Stem cuttings



Giloy Stem Powder



Giloy Leaf Powder

- **Recycling of Floral Waste through Ornamental Fish Production:** A 180-day feeding trial was conducted to evaluate the efficacy of incorporating varying levels (1%, 3%, 5%, and 7%) of floral waste in the diet of freshwater ornamental koi carp. The flower waste was collected from different religious places and Marriage halls, was checked for % composition, pooled and was air-dried in the shade followed by oven-drying at $60 \pm 5^\circ\text{C}$ to form powder.



Flower Waste



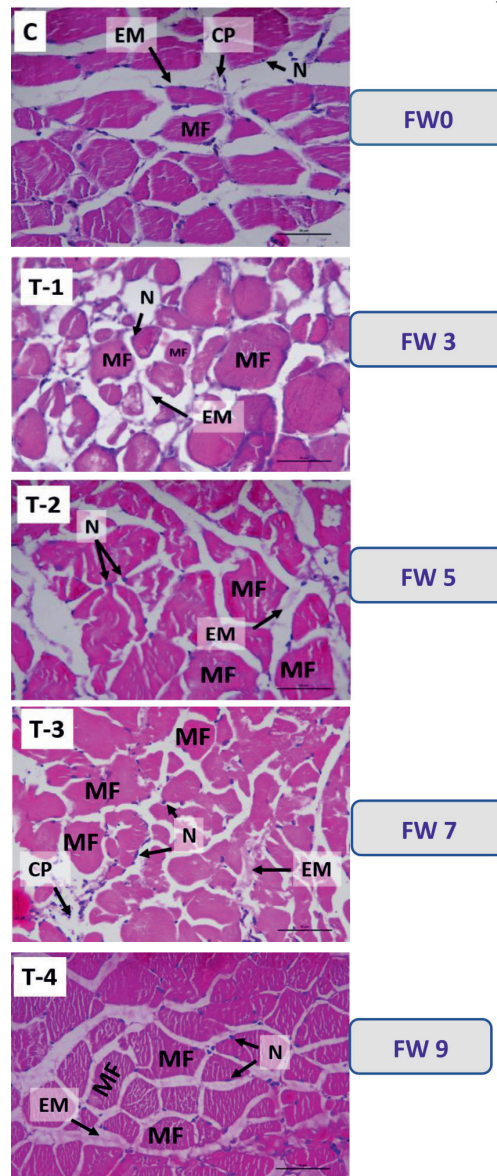
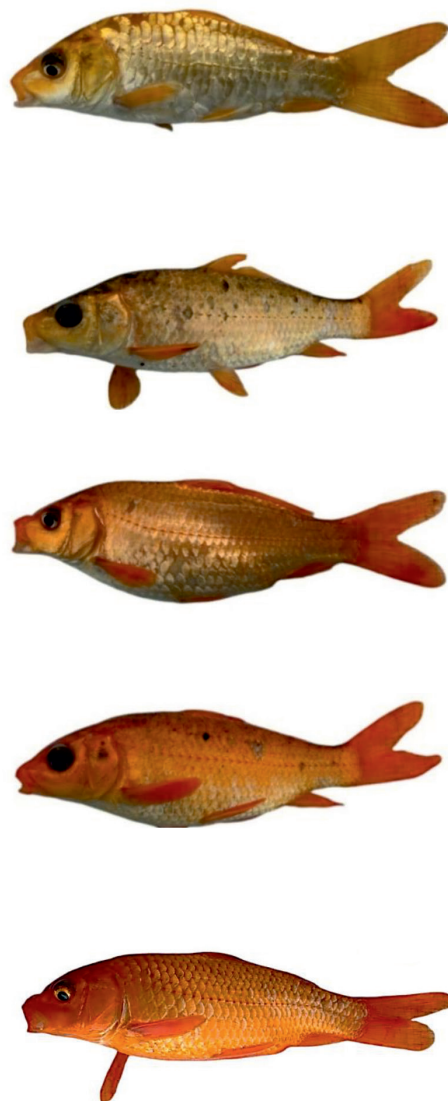
Segregated Flower waste



Formulated Feed

The study revealed that feeds containing 5% and 7% floral waste resulted in higher survival rates (94.44%), with significant improvements ($P < 0.05$) in net weight gain (43.80g), specific growth rate (1.94), feed conversion ratio (2.03), feed conversion efficiency (49.29%), and condition factor (1.63) at 7% inclusion. Enhanced coloration was observed with a significantly higher total carotenoid content ($10.50 \mu\text{g g}^{-1}$) at 7% inclusion. Fish fed with 5% and 7% floral waste also showed improved

blood biochemical parameters, including lower glucose levels (76.70 mg dl⁻¹) and elevated total protein (3.84 g dl⁻¹), albumin (2.11 g dl⁻¹), and immunoglobulin (1.23 g dl⁻¹), along with healthier muscle histology. Furthermore, a challenge test with *Aeromonas hydrophila* demonstrated superior disease resistance in these groups. Overall, the study suggests that incorporating 5–7% floral waste in koi carp feed significantly enhances growth, survival, coloration, immunity, and overall health.

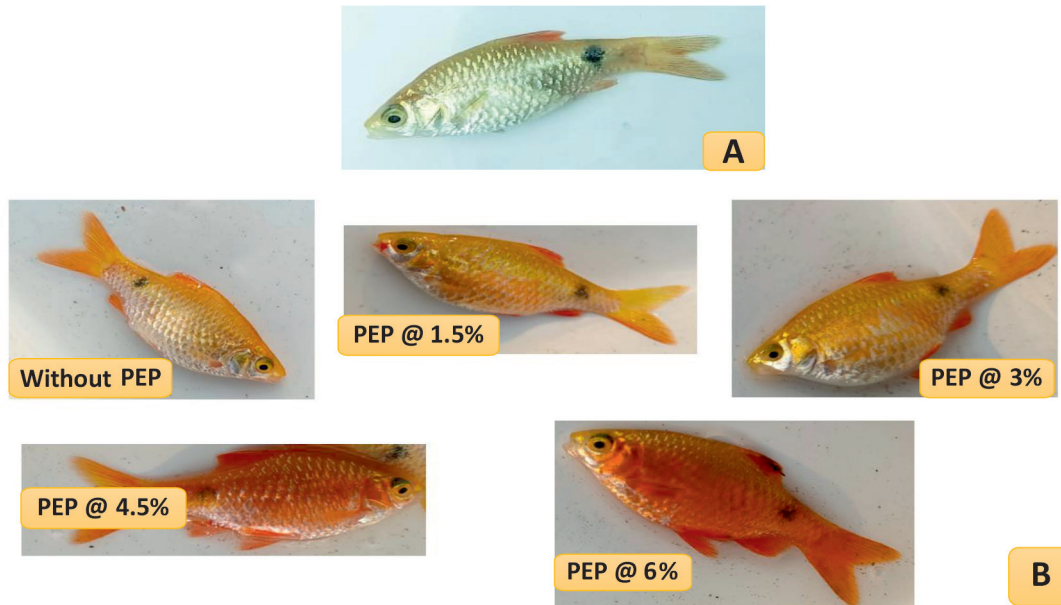


Changes in Colouration with increasing levels of Flower waste in feed of koi Carp

Histological observations in muscles at 40x at different levels of Flower waste in feed of koi Carp

- **Utilization of papaya Epicarp Meal (PEP) as Natural Carotenoid Source for Indigenous Ornamental Fish, Rosy Barb (*Pethia conchonius*):** A study was conducted to evaluate the efficacy of papaya epicarp (PEP) meal as a natural source of carotenoids on the growth, coloration, and muscle histology of indigenous ornamental fish, rosy barb (*Pethia conchonius*). Papaya peels were collected locally, shade-dried, and processed into powder, which was then incorporated into basal feed at four inclusion levels (1.5%, 3%, 4.5%, and 6%). After a 120-day feeding trial, fish fed diets containing 3% and 6% PEP showed significantly higher total length gain, while 3% PEP feed yielded

the best results in terms of weight gain, specific growth rate (SGR), and lowest feed conversion ratio (FCR).



Skin and muscle carotenoid content, as well as digital colour analysis, revealed the most enhanced pigmentation in fish fed 6% PEP. Histological examination indicated increased muscle striations and nuclei in fish fed 3% PEP, correlating with improved growth. Overall, while both 3% and 6% PEP levels improved growth performance, 6% PEP notably enhanced skin colouration, suggesting its potential as an effective natural feed additive in the diet of rosy barb for ornamental value enhancement.



Comparative Skin Colouration of Rosy barb, *Pethia conchonius* at Initiation (A) and after Completion (B) of Experiment in Different Treatments

3. Aquatic Environment and Health Management

- **National Surveillance Programme for Aquatic Animal Diseases (NSPAAD) - Phase – II:** As part of an active shrimp disease surveillance program in Punjab, 61 farms were randomly selected and screened for OIE-listed pathogens using standardized protocols. All farms tested negative except for *Enterocytozoon hepatopenaei* (EHP), which was detected in 17 farms, indicating an overall farm-level prevalence of 28%. District-wise, Mansa had the highest farm-level prevalence (78%), followed by Shri Muktsar Sahib (31%) and Fazilka (9%), while no EHP cases were found in Bathinda. A total of 142 shrimp ponds across these districts were also tested using nested PCR, revealing EHP presence in 33 ponds with an overall pond-level prevalence of 23%; Mansa again recorded the highest (67%), followed by Shri Muktsar Sahib (25%) and Fazilka (5%). Concurrently,

bacterial infections were identified in various fish and shellfish species, including *Acinetobacter* spp. (carps), *Aeromonas hydrophila* (carps and catfish), *A. veronii* (carps, catfish, and ornamental fish), and *Citrobacter freundii* (ornamental fish). Additionally, awareness campaigns promoted the “Report Fish Disease” mobile app through meetings and multimedia platforms, resulting in approximately 110 downloads and significantly enhancing stakeholder engagement.

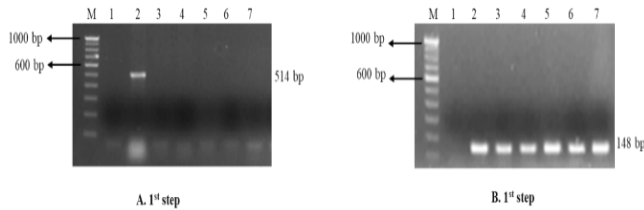


Figure: Agarose gel electrophoresis displaying the amplified PCR product using the SWP_1F and SWP_1R (A) and SWP_2F and SWP_2R (B) primers for detecting EHP in *P. vannamei* field samples. M - molecular weight marker (100 bp), Lane 1 - Negative control, Lane 2 - EHP positive control, Lane 3 to 7 - Samples.

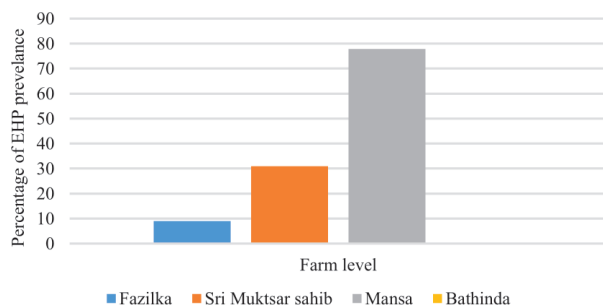


Figure. EHP prevalence (%) at shrimp farm level of Punjab during the year 2024

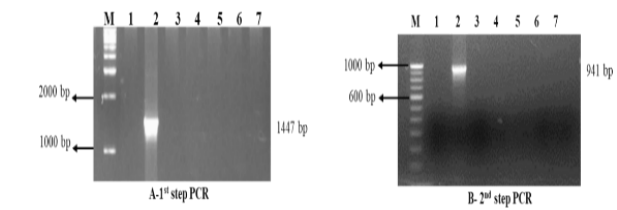


Figure: Agarose gel electrophoresis of PCR products amplified with 146F1 and 146R1 primers (A) and 146F2 and 146R2 primers (B) for detecting WSSV in *Penaeus vannamei* field samples. M - Molecular weight marker (1k bp), Lane 1 - WSSV Negative control, 2 - WSSV Positive control, 3 to 7 - Samples.

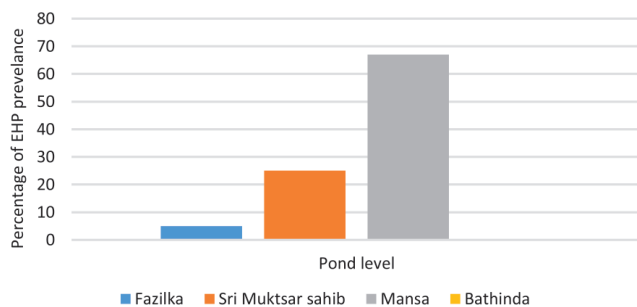


Figure: EHP prevalence (%) at shrimp pond level of Punjab during the year 2024



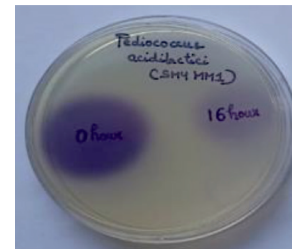
Fig. Visual assessment of clinical signs in diseased fishes

- **Autochthonous quorum-quenching probiotics for biocontrol of potentially pathogenic *vibrio* spp. in inland saline water shrimp culture:** A total of 50 bacterial isolates from shrimp gut samples were screened, out of which eight—*Bacillus cereus* (SV92), *Oceanimonas kimchii* (SV97), *B. marisflavi* (SV101), *Staphylococcus hominis* (SV100), *Enterococcus avium* (MM28), *Weissella paramesenteroides* (MM29), *E. faecium* (MM8), and *Pediococcus acidilactici* (SM4, MM1)—were selected based on abundance and probiotic characteristics. Notably, SV92 and SV101 exhibited

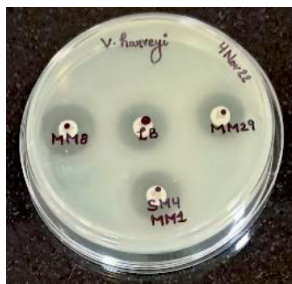
strong anti-quorum sensing activity, indicating potential for disrupting pathogenic signaling and supporting gut health. Most isolates displayed antagonistic activity against *Vibrio harveyi* and *V. parahaemolyticus*, with the strongest inhibition against the former. Acid and bile salt tolerance assays confirmed their survivability in shrimp gut conditions, with *P. acidilactici* showing robust growth and *B. marisflavi* demonstrating phenol tolerance. Biofilm formation by *V. parahaemolyticus* was significantly inhibited by SV97, SV101, and SV92, which were also non-hemolytic with low multiple antibiotic resistance (MAR) indices. Enzyme activity assays revealed high cellulase activity from SV92 and SV97 in co-culture with *V. parahaemolyticus*, with moderate lipase and protease activities across isolates and no hemolytic activity. The protective efficacy of quorum-quenching probiotic (QQP) isolates was further validated in a germ-free *Artemia salina* model, where co-culture significantly improved nauplii survival, demonstrating reduced virulence of *V. parahaemolyticus*.



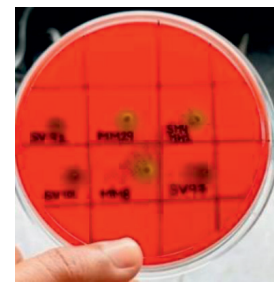
Shrimp samples collected from inland saline districts of Punjab



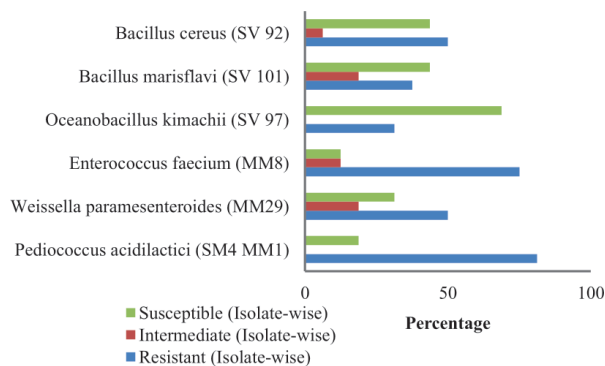
P. acidilactici showing quorum quenching activity (as there is reduction of purple colour pigment after 16 hours of incubation).



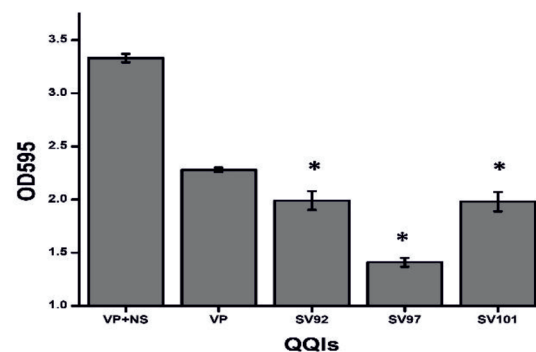
Bacterial isolates showing antagonistic activity against pathogenic *V. harveyi*.



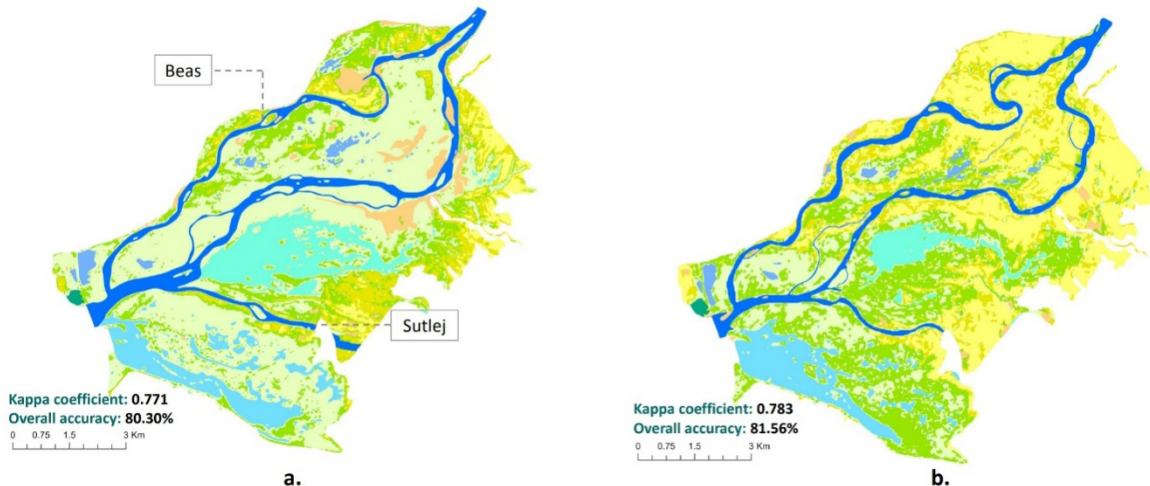
Hemolytic activity of selected bacterial isolates.



Distribution of multiple antibiotic resistance (MAR) index presented in percentage for the selected bacterial isolates to study the QQPs



Evaluation of the efficacy of quorum quenching inhibitors (QQIs) in preventing biofilm development by *Vibrio parahaemolyticus*



4. Fisheries Resource Management

- **Geospatial Assessment of Harike wetland system using Landsat Imagery:** The study evaluated the ecological changes in the Harike Wetland, a Ramsar site in Punjab, and its surrounding fishing grounds covering approximately 7,401 hectares. Using Landsat satellite imagery from 1995 to 2023, significant Land Use and Land Cover (LULC) changes were documented, with classification accuracy validated by a Kappa coefficient above 0.7. Results revealed a sharp increase in aquatic weed infestation, covering 42% of the area by 2023, severely impacting wetland hydrology and fish habitats. Agricultural land expanded markedly from 12.1% in 1995 to 39% in 2023, contributing to habitat degradation and declining groundwater levels. Additionally, the surface water area declined from 15.2% to 10% during the pre-monsoon period over the same period, indicating substantial loss of wetland water bodies. The findings highlight the urgent need for regular monitoring and the adoption of an integrated conservation strategy to preserve the ecological balance of the Harike Wetland.
- **Assessment of microplastic contamination in commercial fish species available in river Sutlej stretch in Punjab:** A comprehensive study was conducted to assess microplastic (MP) contamination in the Sutlej River in Punjab, focusing on water quality and six commercially significant fish species across three river stretches. The analysis included herbivores (*Labeo rohita*, *Labeo gonius*), omnivores/detritivores (*Cyprinus carpio*, *Cirrhinus mrigala*), and carnivores (*Wallago attu*, *Sperata seenghala*). Fibre was the predominant MP type detected in gills, guts, and muscle tissues, with the highest presence in *S. seenghala* (83.33%) and *W. attu* (74.57%). Films, granules, and crystal MPs were also observed, particularly in *C. mrigala* and *C. carpio*. MP colors varied by species, with transparent MPs dominating in *L. rohita* and blue MPs in *C. carpio*. Water samples revealed a high MP load, primarily fibres (47.89%), followed by films and fragments, with transparent MPs being most common. SEM analysis showed diverse MP morphologies including fibres, flakes, beads, and honeycomb structures, suggesting both industrial and domestic pollution sources. The study confirmed bioaccumulation and biomagnification trends, with omnivorous and carnivorous fish exhibiting higher MP loads, indicating trophic transfer. Notably, the MP burden in the Sutlej River was higher than global averages, highlighting serious risks to aquatic ecosystems and food safety. A detailed MP contamination database has been developed to support urgent waste management and pollution control measures.



Labeo rohita
Herbivorous



Cyprinus carpio
Omnivore



Wallago attu
Carnivore & predator



Labeo gonius
Herbivorous

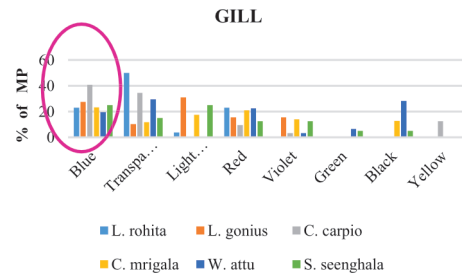
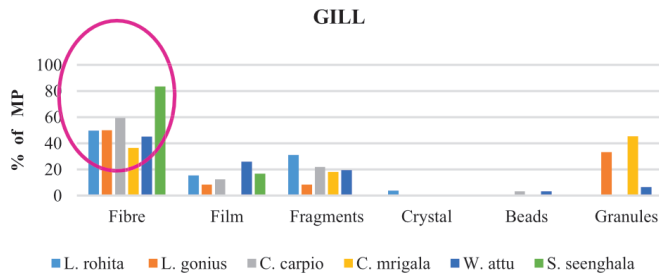


Cirrhinus mrigala
Detritivorous

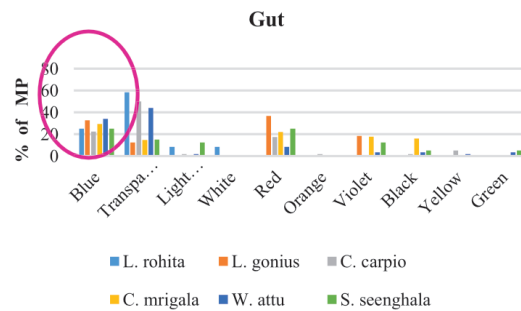
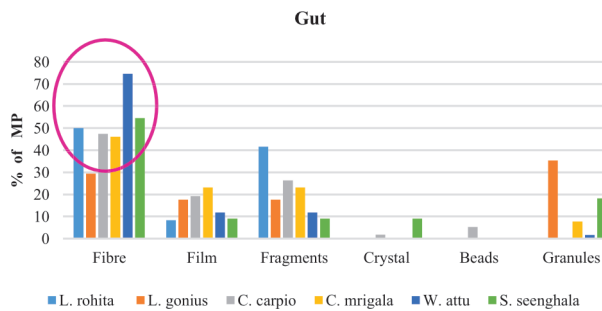


Sperata seenghala
Carnivorous

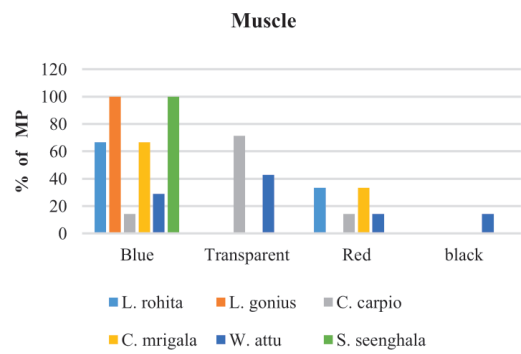
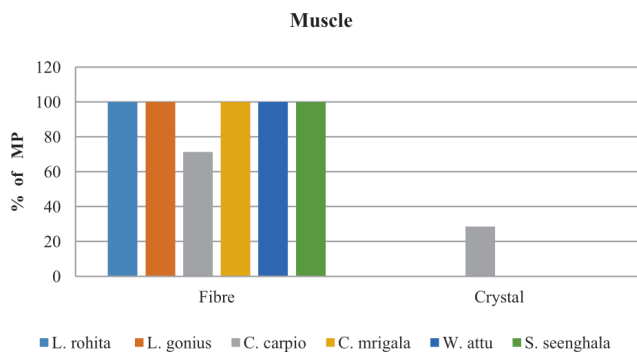
Major food fishes
(35-40% market share on weight basis)



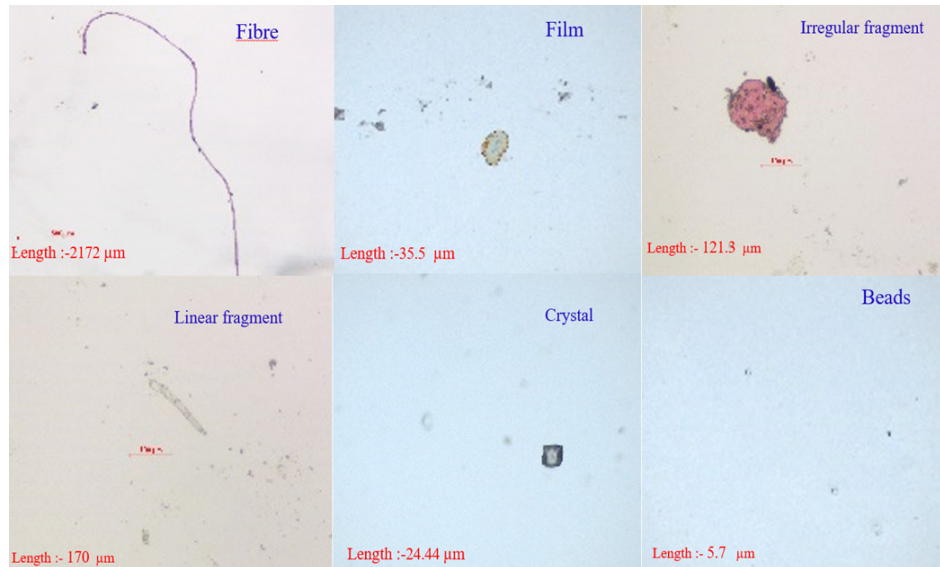
Assessment of microplastic (types and colour) in gills of selected fish species



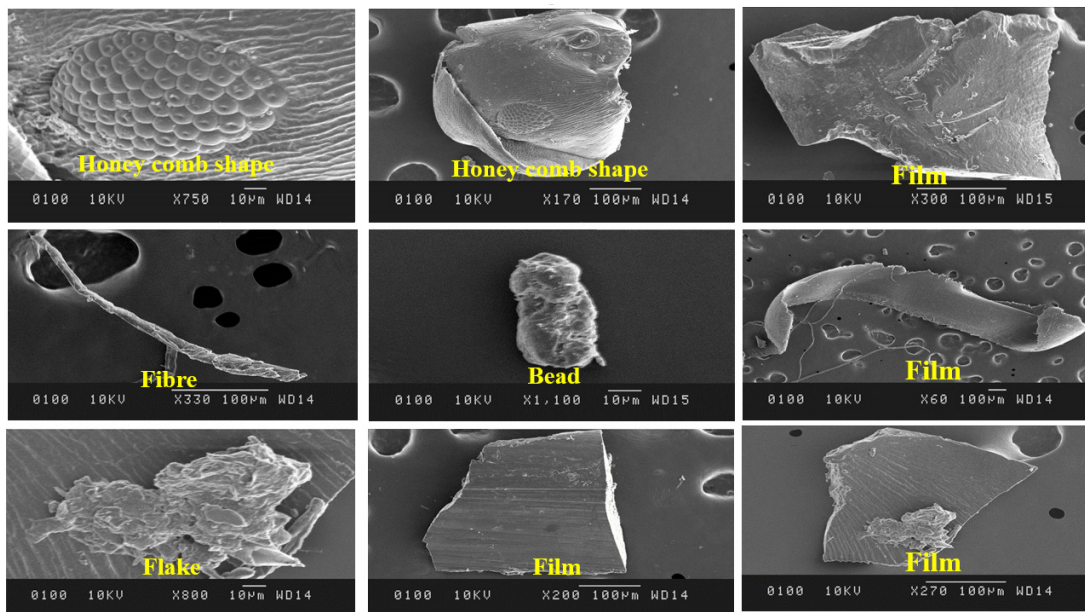
Assessment of microplastic (types and colour) in guts of selected fish species



Assessment of microplastic (types and colour) in muscle of selected fish species



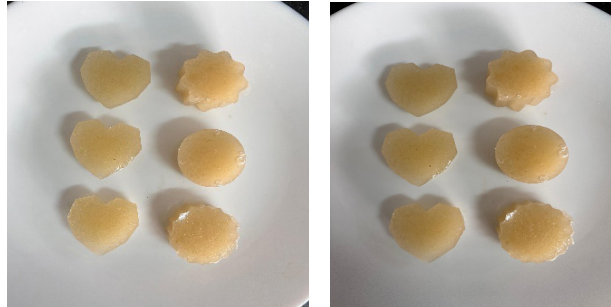
MPs determination and verification by Stereomicroscope



Scanning electron microscope (SEM) analysis of MPs to determine MPs morphology found in gill, gut and muscles of selected fish species of River Sutlej stretch in Punjab

5. Post-harvest Technology and value addition

- **Development of Sustainable Fish Gelatin Gummies:** To evaluate the viability of fish skin gelatin as a sustainable alternative to mammalian gelatin in gummy production, gelatin was extracted from the skin of Pangas catfish (*Pangasius hypophthalmus*) with a yield of 18.75%, comparable to other fish sources. Gummies were formulated using optimized concentrations of fish skin gelatin along with pectin and agar. The best formulation, containing 20% gelatin, had a setting time of 10 minutes and a protein content of 9.65%. These gummies exhibited low water activity (<0.5), indicating good shelf stability, and received high sensory scores, reflecting strong consumer acceptance. This study highlights the potential of fish skin gelatin in developing nutritious, appealing snack products while promoting sustainable utilization of fish processing by-products and supporting a circular bio-economy.



Gummies Developed by incorporating gelatin extracted from Pangas Skin

- **Fish Skin Collagen infused Ointment for Wound Healing:** A collagen-infused ointment named Aqua-Derma was developed using fish skin, offering exceptional wound-healing and skincare benefits while promoting sustainable utilization of fish processing waste. This innovative product demonstrated 45% wound closure within 24 hours in in-vitro testing, attributed to its rich bioactive collagen content. With a pH of 4.8, closely mimicking natural skin pH, Aqua-Derma creates optimal healing conditions. It also features excellent spreadability (3.0 cm/g) for easy application and a high moisture content (50.3%) for deep skin hydration. Beyond its therapeutic efficacy, Aqua-Derma presents an eco-friendly solution to fish waste disposal by converting it into a value-added product.



- **Stable and Protein-Dense Fish Powder for Food Applications:** A stable and protein-rich powder, “FISH-PRO-MAX,” was developed from Pangas catfish (*Pangasianodon hypophthalmus*) meat using a controlled extraction and drying process. Containing 70–75% protein, this nutrient-dense product serves as a versatile taste and nutrition enhancer for various culinary applications, including pizzas, soups, and Indian dishes. With a high sensory acceptability score of 8 out of 9 and a practical shelf life of three months at room temperature, FISH-PRO-MAX presents a sustainable method for fish resource utilization and offers the food industry a novel, high-quality protein ingredient.



- **The technology for the Production of convenient, rehydratable fish meat lumps:** A novel technology was developed for producing shelf-stable “Rehydratable Fabricated Fish Mince-based Product” using freshwater fish meat such as Pangas and Rohu. This innovation addresses key limitations of traditional dried fish products by enhancing rehydration capacity and ensuring a texture comparable to freshly cooked fish. The resulting product is convenient, hygienic, versatile, and suitable for a wide range of culinary applications including salads, gravies, and soups, offering an effective solution for extended shelf life and ease of use.



- **Pangas Fish Waste Meal-based Dog Biscuits:** Pangas fish waste meal was used to formulate dog biscuits, offering a waste valorization pathway for the fish processing industry. Dog biscuits formulated with pangas waste meal demonstrated good palatability and acceptability among dogs. The biscuits possessed an average protein content of 15.8% and a fat content of 1.22%, offering nutrient rich diet for pets. Despite different initial processing, the final baked biscuits (180°C for 20 min) met microbiological safety standards, being free from Salmonella and having Coliform and Staphylococcus counts below required limits. The minimal processing may be preferable for retaining flavour compounds attractive to dogs and slightly better nutrient profiles, without compromising safety in the final baked biscuits.



E. College of Veterinary Science, Rampura Phul

- **Genetic Improvement in Sahiwal Herd under AICRP on Cattle:** Under the AICRP on Cattle, Sahiwal Data Recording Unit, notable genetic improvement was observed in the Sahiwal herd from 2023 to 2024. The first lactation total milk yield increased significantly from 1663.86 ± 179.65 kg to 1884.30 ± 182.25 kg, while the all-lactation total milk yield rose from 1830.94 ± 94.09 kg to 1927.79 ± 108.07 kg. Additionally, the calving interval showed a marked reduction from 547.49 ± 25.44 days to 483.00 ± 21.00 days, indicating enhanced reproductive efficiency alongside improved productivity.

F. KVK, SAS Nagar

- **Biological Control of Tick Infestation in Crossbred Cattle:** A field trial was conducted to evaluate the impact of Taramira (*Eruca sativa*) seed supplementation and integration of poultry birds in cattle sheds to manage tick infestation in crossbred cattle. Eighteen animals were divided into three groups: control (T1), cypermethrin application (T2), and Taramira seed with poultry birds (T3). T2 showed rapid reduction in ticks within 30 days, while T3 resulted in progressive decline up to 90 days. Milk yield increased by 17.85% in T2 and 20.27% in T3 compared to control, demonstrating that biological intervention offers more than 83% tick protection and enhances productivity.
- **Probiotic Supplementation to Improve Growth in Goat Kids:** A trial was undertaken to assess the effect of probiotic supplementation on the growth and health of goat kids. Eighteen kids were divided into three groups: farmer's practice (T1), commercial probiotic (T2), and traditional curd with turmeric (T3). Over 90 days, T3 achieved the highest weight gain (10.5 kg) followed by T2 (8.95 kg) and T1 (7.25 kg). The incidence of diarrhoea was also lowest in T3, indicating the effectiveness of traditional probiotic supplementation.
- **Use of Organic Manures to Enhance Plankton Production:** A trial aimed at improving plankton production and pond productivity was conducted using different organic manures. Treatments included farmers' practice with cow dung (T1), vermiwash (T2), and fermented slurry (T3). The highest plankton productivity was observed in T3, followed by T2 and T1, suggesting fermented slurry as a superior input for enhancing primary productivity in aquaculture systems.
- **Impact of Mineral Mixtures on Fish Growth:** To improve fish productivity, a trial tested the efficacy of fish-specific and livestock mineral mixtures. Farms were grouped into T1 (farmer's practice), T2 (fish-specific mineral mixture), and T3 (livestock mineral mixture), each applied at 1.5% of feed. Both T2 and T3 showed better growth performance than T1, with T3 performing slightly better, indicating that livestock mineral mixtures could also be beneficial in fish feed.
- **Eco-friendly Control of Mustard Aphid in Gobhi Sarson:** On-farm trials across 10 acres evaluated control strategies against mustard aphid in Gobhi Sarson using three treatments: farmer's practice (T1), Thiamethoxam spray (T2), and Brahmastra bio-spray (T3). T2 achieved the highest yield (22 q/ha) followed by T3 (20.8 q/ha). The B:C ratio was highest in T2 (3.14), with T3 (3.09) showing similar efficiency. Brahmastra can thus be recommended as an eco-friendly and effective alternative.
- **Management of Foot Rot in Basmati Rice:** To manage *Fusarium*-induced foot rot in basmati rice, trials were conducted at three farmer locations. Treatments included SAAF spray (T1), Trichoderma-based seed and root dip (T2 – PAU practice), and Trichoderma broadcast via enriched FYM (T3 – APEDA). Yields were highest in T2 (52.02 q/ha) followed closely by T3 (51.89 q/ha). Both had a B:C ratio of 2.85, outperforming the farmer's practice. Biological options provide effective and safe alternatives for disease management.
- **Evaluation of Okra Varieties:** A trial compared okra varieties at three farmers' fields. Treatments included farmer's variety (T1), Punjab Suhavani (T2), and Punjab Lalima (T3). Punjab Lalima (T3) produced the highest yield (45.2 q/acre) and earliest harvest (54 days), with a 16.49% yield increase over control. The B:C ratio was also highest for T3 (3.22), indicating it as the best performing variety.
- **Foliar Application of Urea in Cauliflower:** The trial aimed to assess the effectiveness of different urea application methods in cauliflower. Treatments included farmer's practice with nano urea (T1), recommended fertilization (T2), and recommended fertilization plus granular urea foliar spray (T3). T3 gave the highest yield and B:C ratio, followed by T2 and T1, indicating the advantage of

integrated nutrient management.

- **Weed Management in Onion through Herbicides:** To evaluate effective herbicidal weed control in onion, three treatments were tested: farmer’s practice (T1), Goal herbicide alone (T2), and Goal plus Targa Super (T3). The results are currently awaited.
- **Nutritional Intervention to Combat Anaemia in Adolescent Girls:** This trial was conducted to manage anaemia in school-going adolescent girls in SAS Nagar. Treatments included routine diet (T1), iron-folic acid and deworming tablets (T2), and T2 plus amla powder supplementation (T3). The results are awaited to assess the efficacy of these nutritional interventions.

G. KVK, Tarn Taran

- **Crop Residue Management:** Under the project, two villages—Wara Sher Singh and Jhnader Mahapurkhan were adopted during 2023–24 to promote sustainable crop residue management. Significant progress was achieved in reducing stubble burning incidents and enhancing adoption of residue management technologies. Approximately 70% of the cultivated area in Wara Sher Singh and nearly 85% in Jhnader Mahapurkhan were made burning-free, compared to previous fire incidences that affected nearly 90% of fields. Adoption of conservation agriculture practices also led to improved wheat yields, with increases of 2.4%, 4.8%, and 4.8% observed under Happy Seeder, Super Seeder, and Zero-Till Drill methods, respectively, compared to conventional open burning practices.

Research Projects Operational During 2024-25

Sr. No	Funding Agency – Name of the Scheme [Grant Allotted (in Lakhs)]
1	ICAR - Network Project on Buffalo Improvement (Main Unit). [78.50]
2	ICAR - Network Project on buffalo Improvement (Field Unit). [35.00]
3	ICAR - Project Directorate on Cattle Field Progeny Testing Project. [147.33]
4	ICAR - All India Coordinated Research Project on Poultry Breeding. (C: AGB-4) [114.32]
5	ICAR - AICRP on Cattle New Project Sahiwal (Data Recording Unit). [35.67]
6	ICAR - AICRP on Nutritional and Physiological Approaches for Enhancing Reproductive Performance in Animals (Enhancing Reproductive Performance) 75:25. [17.17]
7	ICAR - All India Network Programme on Diagnostic Imaging and Management of Surgical Condition in Animals. [32.67]
8	ICAR - Integrated approaches for livestock development farmers context for implementation under Farmers First Programme. [12.00]
9	ICAR - Network Project on Buffalo improvement center at GADVASU (Nili Ravi) 75:25. [38.00]
10	ICAR - All India Coordinated Research Projects on Pig. [1.32]
11	ICAR - National Animal Disease Epidemiology Network (NADEN). [4.00]
12	ICAR - National surveillance Programme for Aquatic Animal Diseases (NSPAAD)-Phase 2. [12.44]
14	ICAR - AICRP on Goat Improvement. [32.67]
15	ICAR - Livestock and Poultry Product Safety. [7.55]
16	ICAR - All India Network Program on One Health Approach to Zoonotic Diseases (AINP-OH). [13.00]

17	DST-NIDHI - Inclusive Technology Business Incubator (i-TBI) Dairy Innovation & Incubation Centre. [202.90]
18	Wellcon Animal Health Pvt. Ltd., Navi Mumbai - Efficacy of long acting Ceftiofur (Wouter-CF) for treatment of respiratory infections in cattle and buffaloes. [0.19]
19	Swaraj Engines Limited, SAS Nagar, Mohali - Creation and strengthening of Self-Help Groups of District S.A.S. Nagar for Livelihood security. [9.67]
20	Board of Research in Nuclear Sciences (BRNS) Deptt. Of Atomic Energy (DAE) - Development of phage-based strategies for biocontrol of antibiotic resistant Aeromonas species in fishery products. [4.99]
21	S S Wastelink Sustainability Services Pvt. Ltd. - Effect of Supplementary bakery waste to the total mixed ration on milk production, quality and reproduction in dairy animals [4.96]
22	Trouw Nutrition India Pvt. Ltd. - Effects of organic acids on aerobic stability of maize silage. [4.20]
23	Reliance Industries Limited, Mumbai - Exploring potential of RIL plant-based protein biomass (RPPB) as an alternate protein ingredient in pet food. [3.06]
24	National Fisheries Development Board (NFDB) - Demonstration of growth performance, health status and meat quality of Biofloc raised fish in Northern India. [4.13]
25	Punjab State Corporative milk producers federation limited - Effect of feeding paddy straw silage on nutrient utilization and productive performance of lactating buffaloes. [10.30]
26	Sathguru Management Consultants (P) Ltd. - Improving Animal Health Practices if Veterinarians and Livestock Farmers to Contain Antimicrobial Resistance and Promote One Health (Bangladesh, India, Nepal and Srilanka). [10.78]
27	DST - Dairy Innovation and Incubation Centre at Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana- as host institutional share (iTBI Center). [25.00]
28	ICMR - Building a surveillance model for detecting zoonotic spill over in increased animal-human interaction setting using a one health approach: A study at selected slaughter house. [48.98]
29	Indian Oil Corporation Limited, R&D Centre, Faridabad - Evaluation of IOCL-R&D Development Microbial Consortia for in-situ management of paddy straw in post-harvest paddy fields. [20.88]
30	ESDP Division, Ministry of MSME - Entrepreneurship and skill development training programme on scientific dairy farming, value chain addition and marketing to augment farmers income. [18.00]
31	DBT - Establishment of a Consortium for One Health to address zoonotic and transboundary diseases in Indian including the North East Region. [24.19]
32	DBT - Investigating the Role of Adipose Tissue-Derived Stromal Vascular Fractions (SVFs) Combined with Xanthosine in Veterinary Regenerative Medicine. [6.73]
33	DBT - Elucidating Male and Female specific Factors Associated with T-regulatory Cells vis a vis Fertility in Buffalo. [7.14]
34	DBT - A diagnostic tool (Tetra ARMS PCR) to differentiate Porcine Parvovirus types and using computational methods for analysing their emergence. [9.40]
35	DST - Improvement of livelihood status of the Scheduled-Caste (SC) population of Punjab State through Biofloc fish farming and value addition of produced fish. [15.32]

36	SERB - Immunomodulation Potentials of Apoptotic Mesenchymal Stem Cells. [8.89]
37	Department of Rural Development and Panchayats, Govt. of Punjab - Establishment of Instructional Gaushala at Guru Angad Dev Veterinary and Animal Sciences University. [4.38]
38	NABARD - Development of VET MOOCs on Dairy and Goatry farming vis-a-vis Establishment of e-learning centre at GADVASU. [7.24]
39	PLDB - Creation of State of Art Institute for Sahiwal Breeding Farm at RRTC, Kaljharani, Bathinda. [39.31]
40	PSCST - Development of Smart Dairy Farming App. [4.00]
41	PSCST - Development of innovative packaging material substituting synthetic polymer with biodegradable material. [6.00]
42	PSCST - Livelihood Security of SC Beneficiaries using low budget input Livestock and Poultry Technologies. [11.00]
43	NLM - Improvement of rural backyard poultry lines through genetic and managerial interventions under low input system. [34.11]
44	NLM - Technological interventions for Development of Sustainable Kajali Sheep Production Model vis a vis Prevailing intensive Paddy-Wheat Cropping system of Punjab. [49.38]
45	NLM - Development of surveillance and mitigation tools for the management of anthelmintic resistance in small-ruminants. [16.76]
46	NLM - A Multi-omics approach for pig production. [21.67]

New Research Projects Allocated During 2024-25

Sr. No.	Funding Agency – Name of the Scheme [Budget (in Lakhs)]
1.	Asian Development Bank (ADB) in collaboration with Zenex Animal Health India Private Ltd. (Z AHL) - Improving Animal Health Practices if Veterinarians and Livestock Farmers to Contain Antimicrobial Resistance and Promote One Health (Bangladesh, India, Nepal and Srilanka). [10.78]
2.	DST-NIDHI - Inclusive Technology Business Incubator (i-TBI) Dairy Innovation & Incubation Centre. [472.38]
3.	ICMR - Building a surveillance model for detecting zoonotic spill over in increased animal-human interaction setting using a one health approach: A study at selected slaughter houses. [48.98]
4.	Indian Oil Corporation Ltd. - Evaluation of IOC-R&D developed microbial consortia for <i>in-situ</i> decomposition of paddy straw in post harvested paddy fields. [30.98]
5.	Ministry of Micro, Small and Medium Enterprises (MSME), Govt. of India - Entrepreneurship and skill development training programme on scientific dairy farming, value chain addition and marketing to augment farmers income. [18.00]
6.	PSCST - Development of Smart Dairy Manager App. [4.00]
7.	PSCST - Development of innovative packaging material substituting synthetic polymer with biodegradable material. [6.00]
8.	PSCST - Livelihood Security of SC Beneficiaries using Low Input Livestock & Poultry Technologies. [11.00]



9.	DBT - A diagnostic tool (Tetra ARMS PCR) to differentiate Porcine Parvovirus types and using Computational methods for analyzing their emergence. [29.08]
10.	ICAR-IVRI- All India Network Program on One Health Approach to Zoonotic Diseases (AINP-OH). [13.00]
11.	NLM- DAHD - A multiomics approach for Pig Production. [86.45]
12.	SERB - High-End Workshop (Karyashala) on advance techniques for assessment of biomarkers of oxidative stress in clinical samples of animals (779). [5.00]

Research Projects Completed During 2024-25

Sr. No.	Funding Agency – Name of the Scheme [Budget (in Lakhs)]
1.	Board of Research in Nuclear Sciences (BRNS), Department of Atomic Energy, Govt. of India - Development of phage-based strategies for biocontrol of antibiotic resistant <i>Aeromonas</i> species in fishery products. [28.11]
2.	Trouw Nutrition Indian Private limited Hyderabad - Effects of organic acids on aerobic stability of Maize silage. [7.35]
3.	Reliance Industries Limited, Mumbai - exploring potential of RIL plant-based protein biomass (RPPB) as an alternate protein ingredient in pet food. [39.60]
4.	National Fisheries Development Board (NFDB), Hyderabad - Demonstration of growth performance, health status and meat quality of Biofloc raised fish in Northern India. [19.475]
5.	Ministry of Micro, Small and Medium Enterprises (MSME), Govt. of India - Entrepreneurship and skill development training programme on scientific dairy farming, value chain addition and marketing to augment farmers income. [18.00]
6.	PSCST - Development of Smart Dairy Manager App. [4.00]
7.	PSCST - Livelihood Security of SC Beneficiaries using Low Input Livestock & Poultry Technologies. [11.00]
8.	ICAR - All India Coordinated Research Project (AICRP) on Pig. [226.30]
9.	NABARD - Formation of Farmer Producer Organization (FPO) of dairy farmers at district Tarn Taran. [11.44]

EXTENSION

Extramural studies including adult education and continuing education are integral part of Guru Angad Dev Veterinary and Animal Sciences University. Numerous activities have been organized during last academic year on the campus as well as off the campus to fulfil extension related goals of the university. These activities have been enumerated under following sub-heads:

A. Transfer of technologies to different stakeholders

University generates many area specific technologies which are effectively transferred to the end users through the following activities:

1. Pashu Palan Mela, Regional Melas and Other Competitions: One of the most important extension activities organised at the campus is *Pashu Palan Mela*. It is held twice a year in the months of March and September to showcase the most recent advancements in the livestock, poultry, and fishery sectors on a single platform through various formats such as exhibits, models, elite animals of the university, literature, demonstrations, interactions, lectures, etc.

Pashu Palan Mela at Ludhiana (13-14 September, 2024):

This was the 31st Mela organized by the University on September 13-14, 2024. Its theme was “*Uttpadan Ton Utpad Banaiye, Aao Vadh Munafa Paiye*”. The exhibits and demonstrations were directed towards value added products to encourage livestock farmers to indulge in preparing some sort of saleable product from their animal produce. This would definitely improve the profitability of their venture. The Mela was inaugurated by S. Gurmeet Singh Khuddian, Cabinet Minister, Punjab for Agriculture & Farmers Welfare, Animal Husbandry, Dairying & Fisheries, and Food Processing. He hailed the efforts of the university while discussing the importance of livestock farming in daily life as well as in earning the livelihood. He also made the farmers aware of Government schemes meant for their welfare. He motivated farmers to develop their own entrepreneurial ventures of livestock for better income. The university also bestowed Chief Minister Award to three best farmers in cattle farming, poultry farming and value addition categories in the fair.



Pashu Palan Mela at Ludhiana (21-22 March, 2025):

This mela was held on the theme ‘*Nasal Sudhar Hai Pashu Palan Kite Di Jaan, Vadhere Utpaadana Banaiye Kisan Di Shaan*’ and it was inaugurated by Dr Gurdev Singh Khush, Padma Shri, a world-renowned scientist for rice production revolution. Dr. Khush applauded the efforts of Vet Varsity to reach at the doorstep of farmers through extension services. He emphasized that in current era, the focus should be on nutritional value of our diets. He underlined the value of livestock products that can enrich the nutritional value of our foods. Dr. Satbir Singh Gosal, Vice Chancellor, PAU, Sh. Bal Mukand Sharma, Chairman Food Commission, Punjab, Sh. Muhammad Sadiq, Ex MP and noted Punjabi Artist, Sh. Jasvir Singh, Director & Warden, Department of Fishery, Punjab, Sh. Devinder Kumar, DDM, NABARD along with Deans, Directors and Officers also graced the occasion.

In this Mela, university showcased different technologies related to breed improvement of livestock species for more yield with less headcount. The university also bestowed Chief Minister Award to best farmers in Buffalo farming, Fish farming, Pig farming and Goat farming categories in the fair.



Dog Show at Ludhiana (15 December, 2024):

A Dog Show and All Breed Competition was organized on 15th December, 2024 at the university campus. The event was important since the current year has been recognized as ‘World Veterinary Year’. The Dog Show began with the inaugural session, where Dr. Kamal Kumar Garg, IAS, chief guest, inaugurated the show. He spoke about the importance of dogs as pets of choice owing to their co-evolution with society. He expressed his conviction that the dog show would be a valuable platform in promoting canine reproduction, health and societal well-being. Dr. Satbir Singh Gosal, Vice-Chancellor, Punjab Agricultural University was the Chief Guest during the ‘Valedictory Function’. Dr. Gosal said that dogs have proved their vitality and worth over hundreds of years of their co-existence with human society. He said that the show was a great opportunity for pet owners to interact with the veterinarians and industry.

The event included breed competitions, demonstrations (especially of dog training and grooming skills), and exhibitions by pet parlors. There was a special competition for Labrador dogs and an award for the “overall champion”. More than 100 owners showcased their dogs in the competition. The show attracted a large gathering of breeders, pet enthusiasts, and the general public. Dogs from the Indo-Tibetan Border Police (ITBP) also participated, showcasing their skills in tasks like explosives detection and tracking.





Fish Festival at Ludhiana (12 March, 2025):

The Fish Festival was organized on March 12, 2025 by College of Fisheries, Guru Angad Dev Veterinary and Animal Sciences University, to create public awareness for promoting fish consumption in the state. The festival envisaged to promote fish as healthy food, educated the visitors with the health benefits of fish; demonstrated value added ready to cook and ready to eat fish products of regional flavour. The event highlighted fish processing as an entrepreneurial activity for youth and the aspiring farming community. Different ornamental fish species presented eye-catching vibrance for fish hobbyists, especially pet loving kids. Sh. Jitendra Jorwal, IAS, Deputy Commissioner of Ludhiana, the Chief Guest of the Festival was delighted to meet the young fisheries graduates, who had prepared different fish products and fish aquaria under experiential learning programme. While highlighting the health benefits of fish, he stressed upon the need to organize such festivals to educate people, promote entrepreneurship and collect public feedback.



Regional Melas:

Title of the Event	Date(s)	Venue	No. of Beneficiaries	No. of Animals Handled	Salient feature of the event
COVS, Rampura Phul					
1 st Pashu Palan Mela	22.11.2024	COVS, Rampura Phul Campus	>1000	>100	-Awareness lectures delivered; Animal Breed competitions held
KVK, Tarn Taran					
Kisan Mela	24.10.2024	KVK, Booh	800	-	-Awareness regarding CRM (crop residue management) - Felicitation of progressive farmers
KVK, Barnala					
Kisan Mela on Resource Conservation Technologies	30.04.2024	KVK Barnala	528	-	-Awareness regarding CRM -Felicitation of progressive farmers
KVK, Mohali					
Kisan Mela	14.11.2024	Majra	773	-	-Awareness regarding CRM -Felicitation of progressive farmers
Kisan Diwas	23.12.2024	Dulwan	22	-	-Challenges faced by farmers, such as Climate change, financial constraints, and access to technology





Glimpses of Regional Melas

2. Special Awareness Months/Weeks/Special Days


Specific *Awareness Weeks or Days* were celebrated in the university and at its outstations in order to promote certain products and package of practices.

Centre for One Health, COVS, Ludhiana celebrated World Zoonoses Day on July 06, 2024 at two sites i.e. SPK Senior Secondary School, Narangwal, District Ludhiana and Village Mansuran, District Ludhiana. On the occasion, students of 11th and 12th Standard and livestock farmers were made aware of various zoonotic diseases. A quiz competition was also organized for students.



KVKs of the University celebrated different days as follows:

Sr. No.	Name of Activity and Date
KVK, SAS Nagar	
1.	Harvest Day at Gunno Majra on April 12, 2024
2.	World Veterinary Day at Badarpur on April 27, 2024
3.	World Bee Day on May 20, 2024
4.	International Yoga Day on June 21, 2024

5.	Parthenium Awareness Week from August 16-22, 2024	
6.	National Nutrition Month (Poshan Maah), September, 2024	
7.	Swachhta Campaign at Village Hoshiarpur from December 16-31, 2024	
8.	International Women day at village Saini Majra on March 08, 2025	
9.	Canola Day at Village Shahpur on March 25, 2025	
KVK, Barnala		
10.	Parthenium Awareness Week (57 participants) from August 16-22, 2024	
KVK, Tarn Taran		
11.	Partheinium Awareness week at KVK Booh, Dadehar sahib, Booh, Kirtowal, Harike villages (131 participants) from August 16-22, 2024	

3. Animal Health Camps, Animal Welfare Camps etc.

Different departments of the university under the aegis of Directorate of Extension Education organize Animal Welfare/Health Camps/Awareness Camps regularly. These are usually a one-day affair. In these camps, animals are treated for gynecological, medicinal and surgical problems. Poor and marginal farmers get benefitted through participation in these camps.

S. No	Particulars of Animal Welfare/Health Camps	Date	Animals Treated
Department of VAHEE			
1	Animal Welfare Camp at Regional Research Station, Ballawal Saunkhri	06.09.2024	67 Animals
2	Animal Welfare Camp at Regional Research Station, Ballawal Saunkhri	07.03.2025	82 animals
Department of Veterinary Gynaecology & Obstetrics			
3	Infertility Camp at village Kaadian Kalan, District Ludhiana	09.12.2024	17 Animals
4	Infertility Camp at village Machian Khurd, Ludhiana	12.03.2025	22 Animals
5	Animal Treatment Camp at village Khasi Khurd, Ludhiana	13.03.2025	20 Animals
Department of TVCC			
6	Animal Health Camp: Free Anti-Rabies Vaccination and Deworming Camp at Multi-specialty Veterinary Hospital, GADVASU, Ludhiana	27.04.2025	90 Animals
COVS, Rampura Phul			
7	Animal Healthcare Camp at village Jhunir, District Mansa	27.07.2024	70 Animals
8	Anti-Rabies Camp on the Occasion of World Rabies Day	27.09.2024 28.09.2024	154 Animals
RRTC, Talwara			
9	Vaccination Camp for Goats at villages Ghaghwal, Bhatoli, Nathuwal, Narnol and Jugyal	02.05.2024; 26.06.2024	85 Goats
10	Goat Health Camp at villages Ghera and Harse Manesar	13.05.2024 16.12.2024	56 goats

4. Awareness Camps, Training Camps, Field Days:

Another important extension activity of the university is organization of Awareness Camps and Field Days. These camps are helpful in disseminating information related to livestock, fishery and agriculture production. The subject matter specialists from different departments are invited to deliver their lectures on specific topics in these camps. The list of such camps has been given below:

Title of the Event	Date	Place	No. of Beneficiaries	Salient feature of the event
Directorate of Livestock Farms				
Backyard Poultry Farming	19.06.2024	RRTC, Talwara Campus	25	Technical lectures and distribution of poultry birds
College of Dairy and Food Science Technology, Ludhiana				
Milk Adulteration Evaluation and Awareness Camp	03.09.2024 to 02.12.2024	CoDFST Campus	More than 100	More than 100 milk samples evaluated
College of Veterinary Science, Rampura Phul				
Awareness events on 'World Veterinary Day'	26.04.2024 to 30.04.2024	COVS, Rampura Phul campus	300	Quiz, extempore speech for college students, pan India photography competition for UG students and Diploma students
Awareness camp on 'World Zoonoses Day'	06.07.2024	Civil Hospital, Rampura Phul	10	Knowledge exchange about zoonotic diseases with medical professionals
Clinical biosecurity assessment protocols	11.09.2024	COVS, Rampura Phul	7	The faculty were made aware of clinical biosecurity
Awareness camps on 'World Rabies Day'	28.09.2024	1. Government Smart School, Village Lehra Khurd; 2. School of Eminence, Mandi Phool; 3. Civil Hospital, Rampura Phul	1300	Awareness regarding rabies prevention and its control among school students and general patients
Workshop for Paravets and VOs on 'Enhancing Animal Welfare through Veterinary Support'	01.11.2024 to 07.11.2024	COVS, Rampura Phul	20	Organized under National Animal Shelter Appreciation Week



Workshop on 'Profitable Dairy Farming'	21.02.2025	COVS, Rampura Phul	25	Organized under ICAR-08 scheme; Dairy farming inputs were distributed to beneficiaries
Awareness camp on 'Hygienic Meat Production'	18.03.2025	COVS, Rampura Phul	36	Local butchers were made aware of hygienic processing
Workshop on 'Scientific Goat Production'	25.03.2025	COVS, Rampura Phul campus	50	Organized under ICAR-125 scheme; Relevant literature was distributed to beneficiaries
KVK, Mohali				
Awareness camp on 'Importance of Millets'	24.07.2024	Jhande Majra	38	Lectures delivered
Awareness programme on Jal Shakti Abhiyan	07.08.2024	KVK Mohali	32	Lectures delivered
Awareness programme on Crop Residue Management (CRM)	03.09.2024	Village Magar	30	Lectures delivered
Awareness programme on 'Fermented organic manure'	04.09.2024	Village Naggal Faizgarh	30	Lectures delivered
School level activity on CRM	23.10.2024	Village Hoshiarpur	100	Lectures delivered
College level Awareness programme on CRM	24.10.2024	Chandigarh University, Gharuan	117	Lectures delivered
District level awareness programme on CRM	11.11.2024	Lubangarh	191	Lectures delivered
Village level awareness programme on CRM	19.11.2024	Majra	21	Lectures delivered
Awareness programme on animal health	17.01.2025	village Tajpura	35	Lectures delivered
Awareness programme under CFLD Oilseeds Project	05.02.2025 to 06.02.2025	village Tajpura	52	Lectures delivered
Awareness programme on 'Fermented organic manure'	19.02.2025	Village Gharuan	30	Lectures delivered
	24.02.2025	Kurali	30	Lectures delivered
Field day on cultivation & processing of canola sarson	25.02.2025	Boothgarh	47	Group discussion

Awareness programme on CRM	06.03.2025 to 07.03.2025	Saini Majra	47	Lectures delivered
Field day for grass-root innovators of Punjab	17.03.2025	Shahpur	50	Group discussion
KVK, Barnala				
Awareness on FMD	18.04.2024	Ghunus	17	Lectures delivered
Awareness on nutrients in onion cultivation	27.04.2024	KVK Barnala	12	Lectures delivered
Plantation drive 'Ek Ped Ma Ke Naam'	21.08.2024	Pakho Kalan	35	-
Awareness on Agri-Drone	22.08.2024	KVK, Barnala	15	Lectures delivered
Farmers-Scientists Interaction	29.08.2024	KVK, Barnala	45	Group discussion
Awareness on fermented organic manure	19.09.2024	KVK, Barnala	18	Lectures delivered
Village level awareness programme on CRM	29.10.2024; 30.10.2024; 07.11.2024	Villages Dhurkot; Jandsar; Sandhu Kalan	80	Lectures delivered
Block level awareness programme on CRM	21.11.2024	Village Khuddi Khurd	43	Lectures delivered
Awareness programme on 'Fermented Organic Manure'	06.03.2025	Village Kothe Akalgarh, Dhanaula	33	Lectures delivered



KVK, Tarn Taran				
Scientific management of small-scale dairy	03.04.2024	Patti	25	Awareness created through lectures



Cultivation of summer pulses	04.04.2024	Rahal Chahal	20	
Fertilizer application and irrigation in fodder crops	09.04.2024	Warha Sher Singh	41	Group discussed with farmers held
Field day on gobi sarson	13.04.2024; 13.03.2025; 27.03.2025	Kuttiwal, Harike; Booh	123	Performance shown through demonstration
Field day on CRM	10.04.2024	Wara Sher Singh	42	Performance of wheat sown with different CRM technologies demonstrated to the farmers
Preparation of production pond for fish farming	12.04.2024	Goindwal Saheb	8	Awareness created through lectures
Soil and water sampling	07.05.2024	Patti	27	Procedure demonstrated
Importance of fertilization and manuring of pond	10.05.2024	Kulla	5	Demonstrations held
Importance of Mineral mixture in animal feeding	13.05.2024	Booh	25	Lectures delivered
Scientific silage making	17.05.2024	KVK, Campus	41	Lectures delivered
Nutrient management in <i>Kharif</i> crops	22.05.2024	Burj Nathupur	43	Group discussions held
Scientific breeding strategies in dairy animals	12.06.2024	Sohawa	24	Lectures delivered
Cultivation of fodder crops	12.06.2024	KVK Campus	39	Group discussions held
Fish seed quality and its management	12.06.2024	Thatha. Sarhali	5	Group discussions held
Scientific management of goat farm	26.06.2024	Bhuchar Kalan	16	Lectures delivered
Care and management of kids	05.07.2024	Booh Havellian	14	Group discussions held
Identification of nutrient deficiency symptoms and their corrective measures	11.07.2024	KVK Campus	35	Lectures delivered
Basmati rice as an alternative to paddy	23.07.2024	Sabra	13	Lectures delivered
Dissolved oxygen management in fish farming	23.07.2024	KVK Campus	12	Lectures delivered



Concept of clean milk production	12.08.2024	Warha sher singh	18	Lectures delivered
Scientific cultivation of rabi fodders	21.08.2024	Dadehar sahib	12	Lectures delivered
Cultivation of rabi oil seeds	27.08.2024	Dadehar sahib	38	Lectures delivered
Paddy straw management	11.09.2024	Burj Nthuke	26	Group discussion held with the farmers
Awareness on fermented organic manure	19.09.2024; 06.02.2025; 14.02.2025	Burj Nathupur; Sarhali Kalan; Dhunda	135	Group discussion held with the farmers
Scientific cultivation of rabi crops	30.09.2024	Madar Mathra Bhagi	43	Lectures delivered
Awareness on CRM	01.10.2024; 08.10.2024	Rahal Chahal; Marhi Megha	128	Lectures delivered
Integrated weed management in rabi crops	19.11.2024	KVK, Campus	13	Group discussion held with the farmers
Role of mineral mixture in fish pond	09.12.2024	Marhi Kamboke	12	Group discussion held with the farmers
Management of fish during winter	20.12.2024	Gharum	6	Group discussion held with the farmers
Cultivation of spring maize & silage making	11.02.2025	Madar Mathra Bhagi	56	Lectures delivered
Old pond management and rejuvenation	14.02.2025	Goindwal Saheb	4	Group discussion held with the farmers
Heat stress in wheat and foliar application of potassium nitrate	21.02.2025	Booh Havelian	54	Lectures delivered
Pond management in fish farming	11.03.2025	Thatha Sarhali	32	Lectures delivered
Entrepreneur opportunities in fisheries sector	11.03.2025	KVK Campus	29	Lectures delivered
Field day on GSC 7 (Canola Day)	13.03.2025	Harike	67	The performance of improved canola gobi sarson variety demonstrated to the farmers
Field day on CRM	26.03.2025	Booh	43	The performance of wheat sown with different CRM technologies demonstrated to the farmers

	27.03.2025		32	The performance of improved canola gobi sarson variety demonstrated to the farmers
Cultivation practices of Kharif fodder crops	27.03.2025	Burj Nthuke	22	Lectures delivered
VP and RRTC Kaljharani				
Workshop on 'Profitable Dairy farming'	05.03.2025 and 24.03.2025	VP & RRTC, Kaljharani	50	Organized under ICAR-08 scheme; Dairy farming inputs were distributed to beneficiaries
RRTC Talwara				
Awareness on 'biosecurity at dairy farm'	28.05.2024	RRTC, Talwara	12	Lectures delivered
Awareness camp on 'health management of dairy animals'	11.06.2024, 12.06.2024, 13.06.2024	Vill. Ullaha Behmama	31	Lectures delivered
Awareness camp on 'backyard poultry farming'	19.06.2024	RRTC, Talwara	28	Lectures delivered
Awareness camp on 'tick control'	21.06.2024; 26.06.2024; 11.08.2024;	RRTC, Talwara; village Amroh	40	Lectures delivered
Awareness camp on 'goat management'	20.11.2024	DLF, GADVASU	10	Lectures delivered

B. Capacity Building of Livestock Farmers and other Related Personnel

1. Trainings Organized:

Training is one of the powerful tools extension personnel has in empowering skill-oriented education to human resources. The major emphasis of such trainings is to bring a desirable change in the behaviour of different clients. University organized specialized training courses for dairy, poultry, piggery, and fish farming and value addition of livestock products for the farmers, army personnel to transfer new



technologies evolved by the university. Trainings were also organized sponsored by other animal welfare agencies. Following is the list of these trainings.

S. No	Name of the Training Programme	Dates	Duration (days)	No. of Trainings held	No. of Trainees	Summary about training*
College of Veterinary Sciences, Ludhiana						
1	Pig Farming Training (Deptt of VAHEE)	April, Aug, Nov, 2024	05	03	48	Basic practices of pig farming
2	Dairy Farming Training (Deptt of VAHEE)	June, Oct, 2024 Jan, 2025	10	03	112	Basic practices of dairy farming
3	Poultry Farming Training (Deptt of VAHEE)	May, Aug, 2024 &Feb, 2025	10	03	90	Basic practices of poultry farming
4	Goat Farming Training (Deptt of VAHEE)	April, July, Nov, 2024 Feb, 2025	05	05	137	Basic practices of goat farming
5	Recent trends in animal disease diagnosis using imaging and laboratory techniques (ADRC)	Aug and Sept, 2024	05	02	20	Advanced diagnostic techniques were discussed
6	Hands-on-training on laboratory diagnosis of animal diseases (ADRC)	Feb and Mar, 2025	01	03	62	Hands on training was imparted for disease diagnosis
7	Poultry farming and hatchery management (Deptt of AGB)	Feb 24, 2025	01	01	20	Under ICAR-01 Scheme
8	Clean Milk Production Practices at Dairy Farm (Centre for One Health)	Mar, 2025	01	02	40	Under ICAR Project on "Livestock and Poultry Products Safety"
9	Biosecurity measures on a dairy farm (Centre for One Health)	Jan 15, 2025	01	01	15	Funded by Dairy Development Department
10	Poultry farming and hatchery management (DLF)	Sept, 2024 and Mar, 2025	01	02	45	ICAR-7
11	Rearing of poultry birds under backyard system (DLF)	Feb 28, 2025	01	01	25	ICAR-6



12	Hands-on training on 'Development of Value-Added Meat Products' (Deptt of LPT)	Feb and Mar, 2025	03	02	31	ICAR SC-SP
13	Hygienic slaughtering and animal byproducts utilization for entrepreneurship development (Deptt of LPT)	Feb, 2025	03	01	19	ICAR SC-SP
14	Advanced microbiological disease diagnostic techniques (Deptt of Microbiology)	Mar, 2025	05	01	05	Sheep Husbandry Department, Jammu
15	Hands on training on 'Nutritional Technologies for Dairy Farmer' (Deptt of Animal Nutrition)	July, 2024	05	01	03	Self-financed
16	Nutritional perspectives to improve production potential of dairy animals (Deptt of Animal Nutrition)	Mar, 2025	01	02	33	ICAR SC-SP
17	Effective silage preparation and feeding strategies for enhancing dairy animals' productivity at Haryana, district Hoshiarpur (Deptt of Animal Nutrition)	Mar 25, 2025	01	01	15	ICAR SC-SP
18	Short duration course on 'Livestock health, issues and possible solutions' (Department of TVCC)	Aug, 2024 Jan, 2025	04	02	40	National Academy of Veterinary Sciences (NAVS)-India



College of Dairy & food Science Technology						
19	Specialized training on <i>Sterilized Flavoured Milk (SFM) manufacturing</i>	18.04.2024	01	01	01	Self-financed
20	Specialized training on <i>Paneer manufacturing</i>	19.04.2024	01	01	01	-Do-
21	Specialized training on <i>Kulfi manufacturing</i>	26.04.2024	01	01	01	-Do-
22	Specialized training on <i>Dahi manufacturing</i>	07.05.2024	01	01	01	-Do-
23	Training programme on <i>Value addition of milk and milk products</i>	13.05.2024 to 24.05.2024	12	01	16	-Do-
24	Skill Development training on <i>Good Manufacturing Practices (GMP) and personal hygiene in dairy processing plant</i>	26.05.2024 and 31.05.2024	01	02	30	-Do-
25	Specialized training on <i>Paneer manufacturing</i>	12.06.2024	01	01	01	-Do-
26	Specialized training on <i>Standard Milk Preparation and packaging</i>	18.06.2024	01	01	01	-Do-
27	Specialized training on <i>Kulfi manufacturing</i>	25.06.2024	01	01	01	-Do-
28	Specialized training on <i>Milk cake manufacturing</i>	21.08.2024	01	01	01	-Do-
29	Specialized training on <i>Paneer manufacturing</i>	22.08.2024	01	01	01	-Do-
30	Specialized training on <i>Whey drinks manufacturing</i>	30.08.2024	01	01	01	-Do-
31	Specialized training on <i>Burfi manufacturing</i>	05.09.2024	01	01	01	-Do-
32	Specialized training on <i>Paneer manufacturing</i>	26.09.2024	01	01	01	-Do-
College of Fisheries						
33	Fish Farming	Jun, 2024	5	01	12	-

34	Fish Farming	Nov, 2024	3	01	25	State Fisheries Department, Uttarakhand
35	Biofloc, Fish Processing, Fish Farming & Value Addition	Dec, 2024 Feb, Mar, 2025	03	04	70	DST-SEED
36	Skill development Programme on Fish Processing, Value Addition & Marketing Skills	Feb, 2025	03	01	12	(SC-SP Scheme)
37	Advances in Fish Disease Diagnosis	Mar, 2025	02	01	15	(SC-SP Scheme)

Glimpses of training programmes organized by College of Fisheries



Training on 'Biofloc Fish Farming, Fish Processing & Value Addition'



Training on 'Advances in Fish Disease Diagnosis' under ICAR-SC-SP



Training on Fish Farming



KVK, Tarn Taran						
38	Scientific Poultry Farming	Jun, Sept, 2024	05	02	42	ICAR-14
39	Scientific Mushroom Cultivation	Sept, 2024	05	01	22	ICAR-14
40	Value addition of Milk	Sept, 2024	03	01	16	ICAR-14
41	Scientific Goat Farming	Sept, 2024	03	01	34	ICAR-14
42	Scientific Fish Farming	Sept, Nov, 2024	05	01	44	ICAR-14; ICAR-142
43	Value added fermented Dairy products	Oct, 2024	03	01	05	NABARD-10
44	Balance sheet preparation and compliance of FPO	Oct, 2024	05	01	01	NABARD-10
45	New techniques for In-situ management of crop residue	Sept, Nov, 2024	07	03	75	ICAR-74
46	Fish Processing & Value Addition	Dec, 2024	05	01	40	ICAR-142
47	Liquid milk processing & packaging	Dec, 2024	03	01	04	NABARD-10
48	Techno-economic feasibility and commercial viability of Dairy based FPO	Dec, 2024	05	01	01	NABARD-10
KVK, Mohali						
49	Insect pest management in maize crop at Sangatpura	12.04.2024	01	01	20	ICAR-15
50	Training on silage making	08.05.2024 to 09.05.2024	02	01	17	ICAR-15
51	Development of utility articles with crocheting and embroidery	14.05.2024 to 20.05.2024	05	01	19	ICAR-15
52	Scientific management of summer season vegetables	30.05.2024	01	01	10	ICAR-15
53	Nursery management of vegetable crops	03.06.2024 to 04.06.2024	02	01	10	ICAR-15
54	Processing and preservation of fruits and vegetables	27.06.2024 to 28.06.2024	02	01	20	ICAR-15



55	Insect and disease management in basmati rice	27.06.2024 to 28.06.2024	02	01	18	ICAR-15
56	Scientific cultivation of rainy season fruits & vegetables	04.07.2024 to 05.07.2024	02	01	10	ICAR-15
57	Insect pest management in kharif maize and paddy crop	15.07.2024 to 16.07.2024	02	01	16	ICAR-15
58	Scientific poultry farming	17.07.2024 to 23.07.2024	05	01	15	ICAR-15
59	In-service training on Nutritional Importance of Millets	19.07.2024	01	01	18	ICAR-15
60	Integrated farming	24.07.2024 to 30.07.2024	05	01	30	ICAR-15
61	Basics of natural farming	22.08.2024 to 23.08.2024	02	01	40	ICAR-15
62	Vocational training on goat-cum-fish farming	29.08.2024 to 04.09.2024	05	01	26	ICAR-15
63	Fisheries- A fruitful venture	02.09.2024	01	01	14	ICAR-15
64	Integrated farming	06.09.2024 to 12.09.2024	40	01	40	ICAR-15
65	Organic farming of horticultural crops	17.09.2024 to 18.09.2024	02	01	11	ICAR-15
66	Balanced ration in dairy animals	19.09.2024 to 20.09.2024	02	01	40	ICAR-15
67	Nursery management of horticultural crops	20.09.2024 to 26.09.2024	05	01	30	ICAR-15
68	In-situ crop residue management	20.09.2024 to 26.09.2024 29.10.2024 to 05.11.2024	05	02	50	ICAR-15
69	Fish farming systems and practices	23.09.2024	01	01	16	ICAR-15
70	Vocational training on livestock-cum-fish farming	24.09.2024 to 30.09.2024 07.10.2024 to 11.10.2024	05	02	33	ICAR-15
71	Crop production and protection practices in gobhi sarson and chickpea	27.09.2024 to 30.09.2024	04	01	15	ICAR-69



72	Cultivation and protection practices in Gobhisarson	01.10.2024 to 04.10.2024	04	01	34	ICAR-69
73	Pest management in <i>rabi</i> oilseed crops	07.10.2024 to 08.10.2024	02	01	25	ICAR-69
74	Conventional fish feed utilization in fish pond	09.10.2024 to 10.10.2024	02	01	25	ICAR-15
75	Training on CFLD oilseeds	21.10.2024 to 22.10.2024	02	01	50	ICAR-69
76	Polyhouse farming	23.10.2024-24.10.2024	02	01	12	ICAR-15
77	Importance of mineral mixture in dairy animals	29.10.2024 to 30.10.2024	02	01	15	ICAR-15
78	Value addition of farm produce	07.03.2025 to 13.03.2025	05	01	25	Misc.-115
79	Beekeeping	10.03.2025 to 17.03.2025	08	01	08	ICAR-15
80	Integrated farming and value addition	20.03.2025 to 25.03.2025	05	01	20	Misc.-115
81	Backyard poultry farming	25.03.2025 to 27.03.2025	03	01	20	ICAR-01
KVK, Barnala						
82	Preparation of jam, jelly and catch ups from fruits and vegetables	12.04.2024	01	01	10	ICAR-16
83	Vocational training on block printing and tie and dye of fabrics for income generation at household level	15.04.2024 to 15.05.2024	30	01	10	ICAR-16
84	Stitching, tailoring and embroidery for income generation	15.04.2024 to 15.05.2024	30	01	11	ICAR-16
85	Vocational training on scientific goat farming	23.04.2024 to 29.04.2024	05	01	25	ICAR-16
86	Tie and dye work techniques for income generation at household level	29.04.2024	01	01	10	ICAR-16
87	Direct seeded rice production technologies	18.06.2024 to 20.06.2024	03	01	12	ICAR-16



88	Protein and energy rich diet for pregnant women	19.06.2024	01	01	12	ICAR-16
89	Preservation of fruits and vegetables	21.06.2024 to 27.06.2024	05	01	12	ICAR-16
90	Vocational training on scientific bee keeping	24.06.2024 to 28.06.2024	05	01	13	ICAR-16
91	Importance of water quality management in fish farming	14.08.2024	01	01	19	ICAR-16
92	False smut control in rice crop	20.08.2024	01	01	15	ICAR-16
93	Disease management in fish pond	28.08.2024	01	01	12	ICAR-16
94	Improved oat fodder production	30.08.2024	01	01	13	ICAR-16
95	Fodder crop nutrition through foliar nutrient application	04.09.2024	01	01	13	ICAR-16
96	Scientific goat farming	05.09.2024 to 11.09.2024	05	01	70	ICAR-16
97	Application of nano urea and DAP in crop production	09.09.2024	01	01	14	ICAR-16
98	In situ crop residue	10.09.2024 to 16.09.2024	05	01	25	ICAR-76 (CRM)
99	Scientific fish farming	11.09.2024 to 18.09.2024	05	01	30	ICAR-16
100	Protected cultivation technology for vegetable crops	17.09.2024 to 23.09.2024	05	01	50	ICAR-16
101	Irrigation water management in crop production	18.09.2024	01	01	15	ICAR-16
102	Role of potassium nitrate application at boot stage in rice	19.09.2024	01	01	16	ICAR-16
103	Scientific beekeeping	23.09.2024 to 27.09.2024	05	01	0	ARYA (ICAR-87)
104	Management of plant hopper and false smut in rice	24.09.2024	01	01	15	ICAR-16



105	Fish farming: A profitable occupation	16.10.2024	01	01	12	ICAR-16
106	In situ crop residue management	16.10.2024 to 23.10.2024	05	01	25	ICAR-76 (CRM)
107	Scientific backyard poultry farming	21.10.2024 to 25.10.2024	05	01	21	ARYA (ICAR-87)
108	Scientific backyard poultry farming	21.10.2024 to 25.10.2024	5 days	3	21	ARYA (ICAR-87)
109	Insect pest and disease management in potato crop	24.10.2024	01	01	13	ICAR-16
110	Cultural practices in potato crop cultivation	24.10.2024	01	01	15	ICAR-16
111	In situ crop residue management	25.10.2024 to 30.10.2024	05	01	25	ICAR-76 (CRM)
112	Weed management in wheat crop sown under different crop residue techniques	28.10.2024	01	01	13	ICAR-16
113	Work simplification for women in household and agricultural activities	08.11.2024	01	01	10	ICAR-16
114	Gobhi sarson production technologies	12.11.2024; 14.11.2024	01	02	64	ICAR-51 (CFLD Oilseed)
115	Integrated fish farming focusing aquaculture, horticulture and livestock	12.11.2024 to 19.11.2024	05	01	13	ICAR-16
116	In-situ crop residue management	18.11.2024 to 22.11.2024	05	01	25	ICAR-76(CRM)
117	Weed management in wheat crop	22.11.2024	01	01	12	ICAR-16
118	Packaging, branding and marketing of organic produce	25.11.2024 to 28.11.2024	04	01	12	ICAR-16
119	Value addition of agricultural produce for income generation	25.11.2024 to 29.11.2024	05	01	12	ICAR-16
120	Scientific beekeeping	26.11.2024 to 02.12.2024	07	01	25	ARYA (ICAR-87)
121	Mushroom production technologies	28.11.2024 to 04.12.2024	05	01	21	ARYA (ICAR-87)



122	Round the year fodder production and conservation techniques	28.11.2024	01	01	13	ICAR-16
123	Vocational training on mushroom production technologies	28.11.2024 to 04.12.2024	05	01	15	ARYA (ICAR-87)
124	Foliar spray of nutrients in rabi crops	29.11.2024	01	01	11	ICAR-122 (Agri-drone)
125	Milk and milk products processing for income generation	02.12.2024 to 05.12.2024	03	01	10	ARYA (ICAR-87)
126	Contract farming	19.12.2024	01	01	15	ICAR-16
127	Prevention and control of Brucellosis in dairy animals	20.12.2024	01	01	18	ICAR-16
128	Management of young orchards	23.12.2024	01	01	12	ICAR-16
129	Importance of biosecurity measures in Animal farming outbreak	23.12.2024	01	01	12	ICAR-16
130	Preparation of different types of pickles from fruits and vegetables	23.12.2024	01	01	10	ICAR-16
131	Zoonotic disease and their control	24.12.2024	01	01	14	ICAR-16
132	Value addition of fruits and vegetables	24.12.2024	01	01	10	ICAR-16
133	Diseases and insect pest management in berseem crop	26.12.2024	01	01	13	ICAR-16
134	Impact of Antimicrobial resistance in animals	30.12.2024	01	01	12	ICAR-16
135	Agri drone demonstration spray of growth promoter ortho salicylic acid in potato	09.01.2025	01	01	25	ICAR-122 (Agridrone)
136	Heat stress management in wheat crop	13.01.2025	01	01	14	ICAR-16
137	Preparation of different types of pickles from fruits and vegetables	14.01.2025	01	01	10	ICAR-16



138	Scientific backyard poultry farming	14.01.2025 to 16.01.2025	03	01	25	ICAR-01(SCSP)
139	Preparation of immunity booster diet for pregnant women	17.01.2025	01	01	10	ICAR-16
140	Role of nutrients in onion cultivation	17.01.2025	01	01	15	ICAR-16
141	Management of insect pest and diseases in wheat	17.01.2025	01	01	16	ICAR-16
142	Preservation of fruits and vegetables	21.01.2025 to 27.01.2025	05	01	10	ICAR-16
143	Herbicidal weed management in onion	22.01.2025	01	01	8	ICAR-16
144	Management of disease and insect pest in sarson and wheat	30.01.2025	01	01	35	ICAR-51
145	Stitching, tailoring and embroidery for income generation	21.02.2025 to 21.03.2025	30	01	10	ICAR-16
146	Scientific fish farming	05.03.2025 to 12.03.2025	05	01	12	ICAR-16
147	Scientific backyard poultry farming	17.03.2025 to 21.03.2025	05	01	21	ARYA (ICAR-87)
148	Training programme on mushroom cultivation & beekeeping	18.03.2025	01	01	30	ICAR-16
149	Summer green gram production technologies	19.03.2025	01	01	14	ICAR-16
150	Milk quality assessment and value addition	25.03.2025	01	01	30	ICAR-16
151	Milk quality assessment and value addition	27.03.2025	01	01	30	ICAR-16
Regional Research & Training Centre, Talwara						
152	Training on Goat farming	April, Jun, Aug, Dec,	05	04	37	
153		14.11.2024; 26.11.2024;	01	02	30 10	
154	Training on Poultry farming	Jun, Oct, 2024; Feb, 2025	05	03	27	

155		Mar, 2025	01	04	100	
156	Training on dairy farming	07.03.2025	01	03	85	



Glimpses of Training Programmes at KVK Tarn Taran



Glimpses of trainings conducted by KVK, Barnala

2. Webinars/ On-line Trainings Organized:

S No	Title of the Webinar	Date	Name of the Speakers	Participants (No)
1	Panel discussion: Hardware disease in dairy animals	20.05.2024	Dr Arun Anand	More than 100
2	PM-Kisan Samman Nidhi Yojana Webcast	18.06.2024	Dr. Suryendra Singh	65
3	Panel discussion: Control of Ticks & Tick-Borne Diseases in Livestock	04.07.2024	Dr Harkirat Singh	More than 200
4	Panel discussion: Reproductive problems in dairy animals	09.08.2024	M Honaparkhe, Parminder Singh Narinder Singh Harjinder Singh	50
5	Release of biofortified and climate resilient varieties developed by ICAR	11.08.2024	Dr. Suryendra, Dr. Sanjay Kumar	62
6	Rabies Prevention and Control in India	27.09.2024	Dr. Sharada, R., Professor and Quality Manager, KVAFSU-CVA Rabies Diagnostic Laboratory, WOA Reference Laboratory for Rabies, Department of Microbiology, Veterinary College, KVAFSU, Hebbal, Bengaluru	150
7	PM Kisan 18 th Bulk Release programme	05.10.2024	Dr. Suryendra Singh	43
8	Online Collaborative Training Program on “Animal Health and Nutrition based Extension Techniques to boost Livestock Sector”	17.09.2024 to 19.09.2024	Experts from COVS, Rampura Phul and MANAGE, Hyderabad	36

3. Lectures delivered at off-campus trainings

Subject Matter Specialists of the University delivered expert lectures in trainings organized by outstations of GADVASU or various other agencies.

S No	Date	Topic	Organized by
College of Veterinary Science, Ludhiana			
1	27.04.2024	Biosecurity of livestock farms	Animal Husbandry Department, Uttarakhand and CII-Food and Agriculture Centre of Excellence



2	11.06.2024	1. Zoonoses: Introduction, transmission, prevention & control 2. Animal Disease prevention and control and Vaccination	AHD and Centre for One Health at KVK, Booh
3	24.06.2024 to 28.06.2024	Method of preparation of hay and silage and its importance in dairy farms Nutrient requirement of broilers Dudharu pashuan vich leve di soj	KVK, Booh and Jail Authority, Tarn Taran
4	24.06.2024 to 26.06.2024	Optimizing food waste management through innovative animal feeding strategies	RAJUVAS and MANAGE, Chennai
5	24.09.2024 to 26.09.2024	Animal health and nutrition: innovative approaches and future outlook	RAJUVAS and MANAGE, Chennai
6	28.09.2024	Student awareness campaign on rabies	Centre for One Health at Government College for Girls, Ludhiana
7	21.10.2024	General tips for good farm hygiene and clean milk production	Asian Development Bank (ADB), Manila, Philippines and Zenex Animal Health (Z AHL) at Rampura Phul, District Bathinda
8	22.10.2024	Introduction to Zoonoses, its prevention and control	Centre for One Health at COVS, Rampura Phul, District Bathinda
9	22.10.2024	Feed and nutrient management for poultry birds Feed formulation in poultry birds	KVK, Barnala
10	23.10.2024	Nature and scope of antibiotic use in food animals	Centre for One Health at COVS, Rampura Phul, District Bathinda
11	15.11.2024	Desi gayon mai thanaila rog: karan ate nivaran	Kamdheni Gaushala
12	22.11.2024	1. Gavan ate majhan dee nasal sudhar 2. Pashuan dian bimarian da gharelu upchaar 3. Bakri palan lai mahatavpuran nasal-beetal 4. Dudharu pashua de leve di dekhbhal ate bimari tau bachav de nukte	Pashu Palan Mela, COVS, Rampura Phul
13	11.12.2024	Nature and scope of antibiotic use in food animals	Centre for One Health at Kurali under KVK, Mohali
14	12.12.2024	Introduction to Zoonoses, its prevention and control	Centre for One Health at Kurali under KVK, Mohali
15	12.12.2024	General tips for good farm hygiene and clean milk production	Asian Development Bank (ADB), Manila, Philippines and Zenex Animal Health (Z AHL) at Dulbha, District Mohali

16	12.12.2024	Introduction to Zoonoses, its prevention and control	Centre for One Health at Kurali, under KVK, Mohali
17	13.02.2025	General tips for good farm hygiene and clean milk production	Asian Development Bank (ADB), Manila, Philippines and Zenex Animal Health (Z AHL) at Handiya, District Barnala
18	14.02.2025	Nature and scope of antibiotic use in food animals	Centre for One Health at Handiya, District Barnala
19	18.03.2025	Feed and nutrient management for poultry birds at different ages	KVK, Barnala
20	18.03.2025	Dudharu pashuan vich khuraki tattan da mahhataav Pashuan vich Sun Samay dian samasyaawaan	Department of Veterinary Gynaecology and Obstetrics under AICRP-ICAR, organized a training at Sappanwali, Fazilka
College of Veterinary Science, Rampura Phul			
21	11.04.2024	Basics of cell culture, media preparation, sterilization, seeding, techniques of subculture and different assay methods.	Deptt of Veterinary Physiology and Biochemistry, GADVASU Ludhiana
22	01.09.2024 to 07.09.2024	Quality milk production for better human health; Quality control of milk and milk products;	National Nutrition Week celebration at village Dhilwan, Dist. Bathinda
23	09.09.2024	Housing management of breeding stocks, kids, and male goat raised for meat production	KVK, Barnala
24	29.09.2024	Management of dairy animals suffering from mastitis	KVK, Fazilka
25	05.03.2025	Criteria for selection of milch animals for high judging score; Sound and economic sheltering and record keeping for dairy animals	VP & RRTC, Kaljharani
26	07.03.2025	General principle of antimicrobial therapy	GC-Negi COVAS, CSK HPKV Palampur
27	13.03.2025	Collection, processing and preservation of blood in livestock	Deptt of Veterinary Physiology and Biochemistry, GADVASU Ludhiana
28	14.03.2025	General approaches for diagnosis and treatment of poisoning	GC-Negi COVAS, CSK HPKV Palampur
29	24.03.2025	Criteria for selection of milch animals; Sound and economic sheltering for different category of dairy animals	VP & RRTC, Kaljharani



College of Fisheries			
30	10.07.2024	Introduction to vertical fish farming technologies such as RAS and Biofloc technology	Dept of Fisheries, Govt. of Punjab
31	12.07.2024	Aquarium fabrication and its management Ornamental fishes and its scope in Punjab	Government Fish Seed Farm, Mohie (Ludhiana)
32	19.07.2024	Ornamental fishes and its scope in Punjab	Fish Farmers Development Agency (FFDA), Jalandhar
33	18.09.2024	Intensive aquaculture technologies	Department of Fisheries, Govt of Punjab
34	14.10.2024 to 15.10.2024	Feeding Management in RAS and Biofloc	SKUAST, Jammu
35	19.11.2024	Integrated Fish Farming (Three days skill development programme on Fresh Water Aquaculture	FFDA, Patiala
36	24.11.2024	New technologies in inland fisheries	Assistant Director of Fisheries, Amritsar
37	09.12.2024	Fresh water aquaculture: New technologies in fish culture like-RAS and Biofloc and fish diseases	Assistant Director of Fisheries, Jalandhar
38	02.01.2025	Integrated fish farming	Government Fish Seed Farm, Hoshiarpur
39	19.03.2025	Composite carp culture and Integrated fish farming	Skill Development Center, PAU, Ludhiana
40	25.03.2025	Entrepreneurship opportunities in fish processing and value addition Aquapreneurship: Diverse and viable opportunities for youth	GNDU, Amritsar
College of Dairy & Food Science Technology			
41	25.04.2024	Options for value addition in dairy	PAMETI, Ludhiana
42	20.12.2024 to 24.12.2024	1. Various steps for formulation of Detailed Project Report for establishing Dairy Plant 2. The financial aspects of collecting milk from various stakeholders in the context of a Farmer Producer Organization (FPO). 3. Financial aspects while processing of milk from various stakeholders with regard to FPO. 4. Financial viability of Project Report.	KVK, Tarn Taran
KVKs			
43	12.04.2024	Insect pest management in maize crop	KVK, SAS Nagar
44	24.04.2024	Soil sample collection	KVK, SAS Nagar
45	08.05.2024	Training on silage making	KVK, SAS Nagar



46	14.05.2024 to 20.05.2024	Development of utility articles with crocheting and embroidery	KVK, SAS Nagar
47	30.05.2024	Scientific management of summer season vegetables	KVK, SAS Nagar
48	03.06.2024 to 04.06.2024	Nursery management of vegetable crops	KVK, SAS Nagar
49	27-06-2024 to 28-06-2024	Processing and preservation of fruits and vegetables; Insect and disease management in basmati rice	KVK, SAS Nagar
50	04.07.2024	Scientific cultivation of rainy season fruits & vegetables	KVK, SAS Nagar
51	15.07.2024	Insect pest management in kharif maize and paddy crop	KVK, SAS Nagar
52	17.07.2024	Scientific poultry	KVK, SAS Nagar
53	30.07.2024	Integrated farming	KVK, SAS Nagar
54	23.08.2024	Basics of natural farming	KVK, SAS Nagar
55	29.08.2024	Vocational training on goat-cum-fish farming	KVK, SAS Nagar
56	02.09.2024	Fisheries a fruitful venture	KVK, SAS Nagar
57	06.09.2024	Integrated farming	KVK, SAS Nagar
58	17.09.2024	Organic farming of horticultural crops	KVK, SAS Nagar
59	19.09.2024	Balanced ration in dairy animals	KVK, SAS Nagar
60	23.09.2024	Fish farming systems and practices	KVK, SAS Nagar
61	26.09.2024	Nursery management of horticultural crops; In-situ crop residue management	KVK, SAS Nagar
62	27.09.2024	Crop production and protection practices in gobi sarson and chickpea	KVK, SAS Nagar
63	30.09.2024	Vocational training on livestock-cum-fish farming	KVK, SAS Nagar
64	04.10.2024	Cultivation and protection practices in gobi sarson	KVK, SAS Nagar
65	07.10.2024	Pest management in <i>rabi</i> oilseed crops	KVK, SAS Nagar
66	10.10.2024	Conventional fish feed utilization in fish pond	KVK, SAS Nagar
67	11.10.2024	Integrated livestock-cum-fish farming	KVK, SAS Nagar
68	22.10.2024	CFLD oilseeds; Insect pest management in gobi sarson	KVK, SAS Nagar
69	30.10.2024	Importance of mineral mixture in dairy animals	KVK, SAS Nagar
70	05.11.2024	In-situ crop residue management	KVK, SAS Nagar
71	13.03.2025	Value addition of farm produce	KVK, SAS Nagar

72	17.03.2025	Month wise activities in fish farming	KVK, SAS Nagar
73	17.03.2025	Beekeeping	KVK, SAS Nagar
74	18.03.2025	Soilless vegetable cultivation	KVK, SAS Nagar
75	25.03.2025	Importance of oilseed crops and proportionate use of cooking oil	KVK, SAS Nagar
76	25.03.2025	Integrated farming and value addition	KVK, SAS Nagar
77	27.03.2025	Three days training on backyard poultry farming	KVK, SAS Nagar

C. Meetings of Livestock and Fishery Farmers Associations

Name of the Association	Date of Meeting	Title of Lecture(s) and name of Speaker(s)	No. of Participants
Innovative Fish Farmer's Association (IFFA)	22.08.2024	Fish species diversification: Scope and future prospects - Dr. S. N. Datta	16
		Important characteristics of <i>Anabas testudineus</i> - Dr. Khushvir Singh	
	19.12.2024	Fish health Management during winter season - Dr. Naveen Kumar BT	14
		Management of carp culture ponds during winter season - Dr. Khushvir Singh	
Progressive Dairy Farmers Association	11.07.2024	(i) Monsoon stress a its Management- Dr Ravikant (ii) Dry Therapy in Milking Animals- Dr S.T. Singh	58
	08.08.2024	(i) Diseases during Transitional Period -Dr Navdeep Ratta (ii) Feed formulation during Transitional Period -Dr Parminder Singh	226
	14.11.2024	(i) Agronomic practices for Rabi Fodders- Dr Navjot Brar (ii) Ration Balancing- Dr Parminder Singh	43
Punjab Livestock Farmer Association	09.05.2024	(i) Causes of mastitis, its treatment and prevention by Dr Jasnit Singh (ii) Repeat Breeding in Bovines -Dr R.K. Sharma	50
	08.08.2024	Laverean nu soon mauke hon valiyan bimarian, bacha te ilaj by Dr Navdeep Singh	150
Krishi Vigyan kendra, Barnala			
Bee Keepers Association	12.06.2024	Seasonal Management of Honey Bee Boxes, Migration of Honey Bee Hives by Dr. Sanjay Kumar	

Krishi Vigyan Kendra, S.A.S. Nagar (Mohali)			
Self Help Groups	03.04.2024	Interaction regarding formation of SHGs and solutions to their problems held at KVK Campus Dr. B. S. Khadda and Dr. Parul Gupta	28
	29.04.2024	Problem faced by Members of SHGs at Khizrabad Dr. B. S. Khadda and Dr. Parul Gupta	11
	05.07.2024	Interaction with members of SHGs involved in income generating activities related to fabric embellishment at village Kambala	16
	04.12.2024	Interaction with members of SHGs involved in bakery processing unit at village Khizrabad	10
	22.01.2025	Interaction with members of SHGs regarding formation of new SHGs and income generating avenues for them at village Tajpura	10

D. Extension Publications

Books/Booklets published

1. Rajveer, Choudhary, N., Pawan, Khadda, B. S. &, Singh, J. (2024). Modern Agriculture-Innovations and Insights. Akinik Publications, New Delhi. ISBN No. 978-93-5570-898-4. Pp 1-151.
2. Randhawa, S. S. & Preet, G. S. (2024). Training Programme on Hoof Trimming. Department of Teaching Veterinary Clinical Complex, GADVASU, Ludhiana, Punjab, India. Pp 1-12.
3. Vijay, K., Reddy, S. & Siddnath. (2024). Value Added Fish and Shrimp Products. College of Fisheries, GADVASU, Ludhiana, Punjab, India.

Edited Books / e-Books

1. Chadda, A., Singh, J., Phand, S., Das, S., Sharma, R. K. & Brar, P. S. (2024). Value Chain Analysis of Different Livestock Farming: Must-know for Extension Personnel [E-book]. GADVASU, Ludhiana & National Institute of Agricultural Extension Management (MANAGE), Hyderabad, India. Pp-1-106

Book Chapters

1. Bathla, S., Singh, B., Singh, T., Sidhu, J. S. & Kaur, D. (2024). Recent trends in novel food processing technologies: Opportunities for entrepreneurship development and innovation. ISBN No.978-93-5996-047-0.
2. Chandra, S., Kumar, C., Kumar, A., Singh, M. & Singh, S. (2024) Organic Livestock Production in India. In: Innovative strategies in Fodder and Livestock Production in India (Eds: Kumar *et al*). Uttar Pradesh Pt. Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidyalaya Evam Go-Anusandhan Sansthan (DUVASU), Mathura and NADCL, India. ISBN 978-93-91995-29-4, pp 146-155.
3. Khadda, B. S., Brar, N. S. & Brar, P. S. (2024). Current National and International Scenario of Millets Production. In: Millets- A Novel Approach” (Eds. K. Parvin, R. Awasthi & A. Srivastava). ABS Books. New Delhi, India. ISBN 978-93-94424-99-9, Pp 41-48.

4. Khadda, B. S., Brar, N. S., Kaur, H. & Brar, P. S. (2024). Health Benefits of Millets. In: Millets: A Novel Approach. (Eds. K. Parvin, R. Awasthi, & A. Srivastava). ABS Books. Budh Vihar, Phase-2, Delhi, India. ISBN 978-93-94424-99-9, Pp 434-443.
5. Sidhu, J. S., Verma, K., Chahal, U. S., Kaur, D., Sharma, A. & Singh, T. (2024). Poultry Production and Management. First Ed. Choudhary Publishing Media. ISBN 978-81-963487-9-3.
6. Singh, S., Chandra, S. & Elamathi, S. (2024). Integrated Farming System Models for Sustainable Livelihood and Employment Generation. In: Innovative strategies in Fodder and Livestock Production in India (Eds: Kumar *et al*). Uttar Pradesh Pt. Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidyalaya Evam Go-Anusandhan Sansthan (DUVASU), Mathura and NADCL, India. ISBN 978-93-91995-29-4, pp 26-32.
7. Singh, S., Sandhu, R. K., Sharma, Kaur, H. & Khadda, B. S. (2024) Major Insects and Diseases of Black Gram Crop and Their Management. In: ICAAAS: An Initiative Towards Sustainable Agriculture & Allied Sciences. (Vol 3). (Eds. S. P. Singh, *et al*). Meerut, Uttar Pradesh, India. ISBN 978-81-958010-7-7, Pp 65-70.
8. R. K. & Kaur, H. (2024). Ecofriendly Management of Fruit Flies in Fruit Crops. In: Recent Advances in Ecofriendly Management of Crop Pests. (Eds. S. Yadav, D. Kalkal, H. Kumar & V. Saini). Earth Vision Publications, Gurugram, Haryana, India. ISBN 978-93-90670-67-3, Pp 228-237.

Pamphlets/Folders published

1. Bal, M. S. & Mahajan, V. (2024). *Mini Atlas of Vety. Lab. Diagnostics-cum-Table Calendar*. Animal Disease Research Centre, GADVASU, Ludhiana.
2. Dhillon, P. K., Gupta, P., Singh, P. & Kumar, A. (2024). Mullvardhak Bakery: Ikk Safal Uddam. Krishi Vigyan Kendra, Tarn Taran.
3. Dhillon, P. K., Singh, P. & Kumar, A. (2024). *Vigyanik Dairy Processing*. Krishi Vigyan Kendra, Tarn Taran.
4. Grewal, R. S., Singh, J., Kaur, R. & Singh, S. T. (2024). *Jhone Dee Prali Nu Na Jalao, Pashu Prabandh da Hissa Bnao*. Directorate of Livestock Farms, GADVASU, Ludhiana.
5. Sandhu, R. K., Singh, S., Kaur, H. & Pathania, M. (2024). *Amb Di Gudheri (Mealybug) Di Sarabpakhi Roktham*. Krishi Vigyan Kendra, Mohali.
6. Singh, S.T., Singh, N., Chhabra, S. & Singh, B. (2024). *Dudharu Pashuan Da Samei Sir Tikakaran Krao, Janleva Bimarian Ton Nijat Pao*. Directorate of Livestock Farms, GADVASU, Ludhiana.

4. Leaflets/ Compendia published

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2. Gupta, D. K. (2024). Common diseases of dogs. In: Compendium of Short Course on 'Pet Care and Management,' Ludhiana.
3. Poonia, A. & Singh, P. (2024). Compendium on 'Livestock Health, Issues and Possible Solutions'. Aug 5-8, 2024. Department of Teaching Veterinary Clinical Complex, GADVASU, Ludhiana, Punjab, India. Pp 1-124.
4. Chopra, S., Singh, G., Dhaliwal, P. & Singh, B. (2025). 17th Annual Athletic Meet Souvenir, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana.

5. Popular Articles

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E. TV/Radio Talks

Electronic media is very effective for mass delivery of technical output and other extension related information from time to time. University experts usually deliver their talks on different stations of All India Radio, Door Darshan/ Cable networks/ private channels on current & seasonal topics related to livestock, poultry and fish farming. On an average one talk is delivered/broadcast in a week. The comprehensive list of TV/Radio talks has been given below.



S. No.	Name of the Faculty Member	Date of the Talk	Title of the Talk
Directorate of Extension Education			
1	Ashwani Kumar, Arun Anand, D Pathak, M S Bal and A S Pannu	20.05.2024	Panel discussion: Hardware disease in dairy animals; YouTube Channel -GADVASU Extension Services.
2	J S Bedi, S T Singh, C Sarangai, P Dhaka, D S Gill and B Singh	28.05.2024	Panel discussion: Livestock farms biosecurity; YouTube Channel -GADVASU Extension Services.
3	Ashwani Sharma, Harkirat Singh, S T Singh, Mandeep Singh and S S Randhawa	21.06.2024	Panel discussion: Control of Ticks & Tick-Borne Diseases in Livestock; YouTube Channel -GADVASU Extension Services.
4	M Honaparkhe, Parminder Singh Narinder Singh Harjinder Singh	09.08.2024	Panel discussion: Reproductive problems in dairy animals; https://youtu.be/6PmcFVUxGG4?feature=shared
5	Harmeet Kaur	09.07.2024	Integrated pest management in paddy and sarson crops, safe use of insecticides, pest management in pulses and fodder crops; Community Radio, PU, Chandigarh
6	B S Khadda	10.07.2024	Natural farming, management of paddy straw, scientific goat farming, Importance of mineral mixture for dairy animals; Community Radio, PU, Chandigarh
7		30.07.2024	Tick anagement in dairy animals; AIR, Patiala
8	Munish Sharma	23.07.2024	Polyhouse farming of vegetables; Community Radio, PU, Chandigarh
9		24.07.2024	Terrace gardening of vegetables; Community Radio, PU, Chandigarh
10		25.07.2024	Oxygen producing indoor plants; Community Radio, PU, Chandigarh
11		26.07.2024	Micro irrigation; Community Radio, PU, Chandigarh
12		27.07.2024	Hydroponics; Community Radio, PU, Chandigarh
13	Navjot Singh Brar	30.08.2024	Management of paddy straw, integrated nutrient management in field crops and cultivation of rabi fodder crops; Community Radio, PU, Chandigarh
14	B S Khadda Parul Gupta Komal	15.12.2024	Value addition of agricultural produce, Self Help Groups and entrepreneurship development; DD, Kisan
15	B S Khadda Harmeet Kaur Munish Sharma Gulgul Singh	16.12.2024	Crop residue management and integrated crop management; DD Kisan

16	Parul Gupta	22.10.2024	Value addition of fruits and vegetables and women empowerment through SHG; Community Radio PU, Chandigarh
College of Veterinary Science, Ludhiana			
Department of Animal Nutrition			
17	J S Lamba	23.04.2024	Silage feeding for dairy animals; AIR, Jalandhar
18		30.05.2024	Feeding of paddy straw in dairy animals; AIR, Jalandhar
19	J S Hundal	30.10.2024	Feeding of transition animals; AIR, Jalandhar
Department of Animal Genetics and Breeding			
20	Simarjeet Kaur	11.07.2024	Pashuan 'ch nasal sudhar; AIR, Jalandhar
21		18.07.2024	Pashuan 'ch nasal sudhar; AIR, Ludhiana
22		27.02.2025	Pashu kharidan samey sawdhaniyan; AIR, Jalandhar
Directorate of Livestock Farms			
23	Puneet Malhotra	21.05.2024	How to take care of dairy cattle in hot temperature in Punjab; ETV Bharat
24		21.05.2024	Mitigation of heat stress in dairy animals; Dainik Savera
25		21.06.2024	Sardian vich dairy farma te agette parbandh; DD, Jalandhar
26	S T Singh	02.07.2024	Pashuan wich teekakaran; AIR, Ludhiana
27	Narinder Singh	23.08.2024	Dudhaaru pashua vich hehe di pehchaan; DD, Jalandhar.
28	Jasnit Singh	23.09.2024	Tick borne diseases in animals; AIR, Ludhiana
Department of Livestock Production Management			
29	Kulvinder Singh	09.05.2024	Garmian doran sooran de sahi sambhal; AIR, Jalandhar
30		24.05.2024	Manukhan naalon jyada pashua nu jhalni pai rahi garmi de maar (YouTube talk)
31		28.05.2024	Garmian 'ch sooran nu bachaoun lai upa; AIR, Patiala
32	Daljeet Kaur	22.05.2024	Garmiya vich poultry farma di sambh sambhal; AIR, Patiala
33		02.07.2024	Monsoon vich poultry farma de suchajae parbandh lai jaroori nukte; Ludhiana Live
Department of Livestock Product Technology			
34	Nitin Mehta	14.02.2025	Meat de lamme samei tak challan wale uttpad ate kitta; DD Punjabi
Department of Veterinary & Animal Husbandry Extension			
35	R K Sharma	27.07. 2024	Veterinary university naal juran dey madhiam; AIR, Bathinda
36		12.08.2024	Nawan dairy farm kivein shuru kariye; DD, Jalandhar
37		12.12.2024	Pashuan dian bimarian da gharelu upchaar; AIR, Jalandhar

Department of Veterinary Microbiology			
38	Gurpreet Kaur	20.11.2024	Muh khur dey lachan te bachao; AIR, Jalandhar
39	Deepti Narang	21.11.2024	Pashuan wich saah diyan bimariyan; AIR, Jalandhar
Department of Veterinary Parasitology			
40	Harkirat Singh	19.04.2024	Garmi rutt vich bahri parjivian ton pashuan da bacha; DD Punjabi, Jalandhar
41		13.08.2024	Pashuan de parjivi ate roktham; AIR, Ludhiana
42	Paramjit Kaur	08.06.2024	Pashuan vich malapa di roktham; AIR, Bathinda
43		02.01.2025	Dudharo pashuan vich khnooni prajivi; AIR, Jalandhar
44		18.03.2025	Garmian vich pashuan da prajivian ton bachao; AIR, Bathinda
Department of Veterinary Pharmacology and Toxicology			
45	Saloni Singla	21.06.2024	Pashua vich zahirvad dee samasae; AIR, Bathinda
46		04.02.2025	Pashuan ch nitrate da zeharvaad- pachhan ate bachao; AIR, Jalandhar
47	Suresh Kumar Sharma	18.07.2024	Pashua vich davaiya de sanjami varto; AIR, Jalandhar
48	S P S Saini	16.12. 2024	Dhund de mausam vich pashuan nu hon vale zehervaad; AIR, Jalandhar
Department of Veterinary Gynecology and Obstetrics			
49	M Honaparkhe	18.06.2024	Dairy pashuan vich hormone dee varton ate fayidei; AIR, Jalandhar
50	Ashwani Kumar Singh	14.08.2024	Sooriayan ch masnuiyee garbhadan vidhee; AIR, Jalandhar
51	Ajeet Kumar	24.10.2024	Pashuan ch sexed semen varton bare bebuniyadi dharnawan; AIR, Ludhiana
52	Bilawal Singh	31.01.2025	Dairy farming atteh suchaja pashu prajnan praban; DD, Jalandhar
Department of Veterinary Surgery and Radiology			
53	Arun Anand	15.05.2024	Chhotte ate vadde pashuan vich danda di sambhal; DD, Jalandhar
54	Ashwani Kumar	05.06.2024	Pashun dia beemariyan da operation rahin ilaj; AIR, Patiala
55	H S Sodhi	08.08.2024	Pashuan de zakhman da ilaz; AIR, Jalandhar
Department of Veterinary Medicine			
56	D K Gupta	10.07.2024	Leve dee soj; AIR, Ludhiana
Department of Veterinary Pathology			
57	Nittin Dev Singh	16.01.2025	Pashu beemariyan dee pachhan layee testan di lorh ; AIR, Jalandhar
Teaching Veterinary Clinical Complex			
58	Randhir Singh	22.02. 2025	Kidney diseases in dogs; AIR, Bathinda

Centre For One Health			
59	Rajnish Sharma	20.01.2025	Rabies in Animals: Prevention and Control; DD, Jalandhar
60	Simranpreet Kaur	22.08.2024	Saaf suthra dudh utpadan; AIR, Bathinda
61		06.03.2025	Saaf suthra dudh utpadan; AIR, Jalandhar
Department of Veterinary Physiology and Biochemistry			
62	Apoorva Shekhar	06.11.2024	Pashuan lai khanijaan da mehatav; AIR, Jalandhar
College of Veterinary Science, Rampura Phul			
63	Harneet Kour	14.12.2024	Dudharu pashuan vich khuni parjeevi rog- roktham ate ilaj; AIR, Bathinda
College of Animal Biotechnology			
64	B B Singh	13.02.2025	Prevention and control of Rabies; AIR, Jalandhar
College of Dairy and Food Science Technology			
65	Narinder Kumar	15.05.2024	Chhote padhar te milk plant sthapit karna; AIR, Jalandhar
66	Inderpreet Kaur	01.07.2024	Dudh ate dudh padarthan da mandikarn; AIR, Jalandhar
67		20.12.2024	Dairy farming da tikau vikas; DD, Jalandhar
68	Gopika Talwar	23.06. 2023	Dudh di gunvatta te packaging; AIR, Patiala
69		29.07.2024	Majh dey dhudh ton tiar keetey jan vale padarth are rozgar; DD, Jalandhar
70	Nitika Goel	19.09.2024	Dudh ton cheese ate whey banaun dey dhang ate munafa; AIR, Jalandhar
71	Rekha Chawla	23.01.2025	Shudhta bharpur dudh processing ate munafa; AIR, Jalandhar
72	Varinder Pal Singh	05.02.2025	Kisana lai dudh dee munafevand processing; AIR, Ludhiana
College of Fisheries			
73	Khushvir Singh	06.04.2024	Care of fish during summer season; AIR, Bathinda
74	Vaneet Inder Kaur	05.05.2024	Care of fish during summer season; AIR, Jalandhar
75	Sarbjit Kaur	18.07.2024	Care of fish during rainy season; AIR, Patiala
76	Grishma Tewari	20.01.2025	Best management practices in fish farming; AIR, Jalandhar
77	Vaneet Inder Kaur	21.03.2025	Available technologies and utility services of College of Fisheries; DD, Jalandhar
78			From fish to market: The rise of value-added products; The Savera Times
79			Fish production to fish processing for economic benefit; Prp Punjab TV

E. Expert visits

University scientists have undertaken expert visits to various parts of the state on different occasions. These visits have been enumerated below:

S. No.	Date	Department of Visiting Experts	Venue of Visit	Purpose of Visit
1.	28.04.2024	Veterinary Surgery & Radiology	MC Zoological Park Chhatbir Zoo, Chandigarh	-
2.	Six visits during the period	Veterinary Medicine	MCZP Chhatbir Zoo, Chandigarh	-
3.	50 field visits	KVK, Tarn Taran	Different villages of District Tarn Taran	-
4.	07 field visits	KVK, Mohali	Different villages of District SAS, Nagar	-
5.	05 field visits	KVK, Barnala	Different villages of District Barnala	-



Glimpses of Field Visits by University Experts



G. Utility Services provided by university

Various departments and outstations of GADVASU provide following utility services to different categories of livestock, poultry and fish farmers and other stakeholders.

- i. Specialized diagnosis of diseased conditions of various livestock, pet, wild animals and birds.
- ii. Specialized treatment for various livestock, pet, wild animals and birds.
- iii. Provision of veterinary health services in the surrounding villages through ambulatory van.
- iv. Blood transfusion and hemodialysis in small animals.
- v. Sale of mastitis diagnostic reagents, BTB cards and SLS Paddles.
- vi. Sale of area specific mineral mixture, urea molasses multi-nutrient blocks (UMMB), Bypass Fat, eggs, semen straws live germ plasm.
- vii. Sale of germ plasm of Sahiwal and Crossbred Cattle; Murrah and Nili Ravi buffalo; Layer and Broiler birds; Beetal goat, Pig, Rabbit etc.
- viii. Supply of male cow and buffalo calves for breeding purposes.
- ix. Service of Sahiwal cattle embryo transfers at farmers' door step.
- x. Sale of university literature.
- xi. Sale of Azolla inoculums.
- xii. Sale of mastitis detection kits, rumenal magnets, milk adulteration testing kits
- xiii. Sale of vegetable kits, vermicompost, mushroom, vegetables, fruits, seed of different crops, honey, fruit fly traps
- xiv. Testing of faecal, blood, semen samples etc.
- xv. Soil and water testing.

UNIVERSITY LIBRARY AND NETWORKING

The University Library is fully automated to facilitate the academic and research activities of the University. Koha (Open-Source Library Management Software) is used for automating its various in-house operations and user services, viz., circulation, creation of membership cards, database management for books, journals, theses, etc. The library manages its own website i.e. Cyberary, to provide user-friendly access to its various e-resources, services and other important information. List of latest arrivals of books and journals are also regularly uploaded on the Cyberary to facilitate current information to users. The Online Public Access Catalogue (OPAC) of the library can be accessed to search books, journals and theses/dissertations from their gadgets.

The University Library purchased 444 print books and 142 e-books (including the books purchased for various departments/constituent colleges) on various subjects of veterinary science & animal husbandry, dairy science & technology, fisheries and animal biotechnology during the year 2024-25. University Library is a member of Consortium for e-Resources in Agriculture (CeRA). Access to >4000 journals in various disciplines of Agricultural Sciences, including Veterinary Sciences, Animal Husbandry, Livestock Management & Poultry Sciences, Fisheries and Aquaculture, Dairy Technology, Biotechnology, Animal Nutrition and allied subjects was received through CeRA. Now, the University is being provided access to 13000+ journals under the aegis of 'One Nation, One Subscription' by INFLIBNET – a UGC Centre. The library created NDLI Club of the University under National Digital Library of India.

The University Library has developed various 3D models on requirement basis for teaching of students and awareness of farmers on various aspects of veterinary & animal sciences. The library organizes special workshops/orientation programmes to acquaint the users with various Augmented Reality and Virtual Reality modules to provide practical exposure to and to boost their learning in respective fields.

The University Library maintains a stock of publications by the faculty of the University on Digital Repository. Articles published by the faculty are uploaded on the repository, which is customized to retrieve articles by NAAS Rating and Impact Factor. The digital contents available on the repository are accessible to the fraternity of the University. The University Library facilitates the implementation of the Anti-Plagiarism policy in the University. User accounts are created in Turnitin Plagiarism Detection Software and assistance is provided to the faculty in uploading/managing the manuscripts and generation of Similarity Index report.

The University Library produces a quarterly e-Newsletter that serves two main purposes: keeping the academic community informed about the latest library acquisitions and showcasing the university's teaching, research, and extension activities.

Networking

A university campus-wide network connecting more than 800 nodes has been developed and is being maintained by the University Library. The library provides internet services throughout the University via Campus Wide Area Network on Fiber Optic Cable. The internet services are provided through user-based authentication. During the year 2024-25, the library renewed the subscription of an additional leased line of 200 Mbps for providing uninterrupted internet services throughout the Campus. The lease line has been extended to 400 mbps for the year 2025-26. In pursuit of strengthening the information access facilities, network was established for 22 Desktop computers in the Computer Lab of the College of Dairy & Food Science Technology. Similarly, to facilitate access to network-based resources and services on devices other than those connected to optic fibre, the library extended the wireless network to the Administrative Block of the University vis-à-vis Dr. Jasmer Singh Hall. The library hosts an Intranet Web Server to



provide Library Services throughout the Campus from its website, i.e. Cyberary. The optical fibre has also been laid to strengthen CCTV surveillance in the University.

The website of the University has been restructured to present an amicable appearance. The library provides the email services to the staff on the domain @gadvasu.in, which can be accessed worldwide through Google mail server. The Information Technology personnel of the library manage and control the Apache Web-server, Mail Services, Network Management System and Server for Antivirus Software. The library monitors the traffic and security of the Local Area Network through the monitoring software. The facility for managing network switches for the continuous smooth functioning of internet services is also rendered by the library. The library replaced/upgraded the power backup of 6KVA and KVA Online UPS to ensure uninterrupted working of the Desktop computers installed in the library, as well as for the network switches located at various sites in the University. The library also offers remote access to its e-resources through Virtual Private Network (VPN). Users are issued a unique VPN ID and they can access digital resources of the Cyberary by using their electronic gadgets even from their home.

DIRECTORATE OF STUDENTS WELFARE AND ESTATE OFFICE

Sports and Cultural Activities Wing

The University has established comprehensive facilities to promote sports activities among students. A large number of students from constituent colleges, have demonstrated keen interest in various sports activities. The Cultural Activities Wing of the Directorate is responsible for promoting cultural and co-curricular activities among students, helping them develop skills in fine arts, theatre, drama and other creative fields while providing platforms to showcase their talents.

To achieve these objectives, the wing organizes regular camps, seminars, meetings, and interactive sessions with eminent artists and cultural personalities. These initiatives facilitate student participation in cultural programs both within and outside the University.

During the reporting period, students actively participated in cultural activities and won various prizes in competitions. The Cultural Activities Wing also organized special functions to celebrate Independence Day and Republic Day, where students showcased their talents through patriotic songs and theatrical performances.

Fine Arts and Literary Camp

The University organized a comprehensive two-day Fine Arts and Literary Camp on November 9-10, 2024, designed to prepare students for participation in the 13th Inter-College Youth Festival. The camp concentrated on developing skills for off-stage competitive events, encompassing visual arts activities such as rangoli, cartoon making, on-the-spot painting, clay modeling, collage making, and photography, alongside literary pursuits including elocution, debate, poetry, and creative writing. This initiative successfully nurtured students' diverse artistic and literary talents while building their confidence for inter-collegiate competition.

13th Inter-College Youth Festival 2024-25

The festival was held with off-stage events from November 25-28, 2024, and stage events from December 3-5, 2024.

Award Winners:

- **Vice Chancellor's Trophy (Male):** Puneet Rehan from College of Veterinary Science, Ludhiana
- **Vice Chancellor's Trophy (Female):** Anoushka Atri from College of Veterinary Science, Ludhiana
- **Overall Championship Trophy:** College of Veterinary Science, Ludhiana
- **Overall Runner-up Trophy:** College of Veterinary Science, Rampura Phul, Bathinda
- **Category Winners:**
- **Overall Best in Music:** College of Veterinary Science, Ludhiana
- **Overall Best in Theatre:** College of Veterinary Science, Ludhiana
- **Overall Best in Fine Arts:** College of Veterinary Science, Ludhiana
- **Overall Best in Literary:** College of Veterinary Science, Ludhiana
- **Dance Trophy:** Khalsa College of Veterinary and Animal Sciences, Amritsar

Individual Excellence Awards:

- **Best Dancer (Male):** Utkarsh Sharma from College of Veterinary Science, Ludhiana
- **Best Dancer (Female):** Jasnoor Kaur from College of Animal Biotechnology, Ludhiana
- **Best Actor (Male):** Shubham Choubey from College of Dairy and Food Science Technology, Ludhiana
- **Best Actor (Female):** Anoushka Atri from College of Veterinary Science, Ludhiana
- **Best Singer:** Jasleen Johal from Khalsa College of Veterinary and Animal Sciences, Amritsar
- **Best Debater (For):** Anoushka Atri from College of Veterinary Science, Ludhiana
- **Best Debater (Against):** Jeet Verma from College of Veterinary Science, Rampura Phul, Bathinda
- **Best Speaker:** Anoushka Atri from College of Veterinary Science, Ludhiana
- **Best Artist in Fine Arts:** Puneet Rehan from College of Veterinary Science, Ludhiana



Punjab State Inter-University Youth Festival 2024

The Punjab State Inter-University Youth Festival 2024 was held at Punjab Agricultural University, Ludhiana, from November 29 to December 02, 2024. The university team achieved notable success, securing positions in two categories:

- First place in Elocution: Anoushka Atri, College of Veterinary Science, Ludhiana
- Third place in Paranda Banauna: Punit Kaur, College of Veterinary Science, Ludhiana

Participation in the 28th National Youth Festival

- The 28th National Youth Festival was held in New Delhi from January 10-12, 2025. Two participants, Anoushka Atri from College of Veterinary Science, Ludhiana and Jeet Verma from College of Veterinary Science, Rampura Phul, Bathinda represented the institution in the debate event:

38th AIU Inter-University North Zone Youth Festival

The 38th AIU Inter-University North Zone Youth Festival was held at Panjab University, Chandigarh, from February 1-5, 2025. The university contingent demonstrated commendable performance across multiple categories, securing fourth place in Mime, Skit, Collage Making, and Installation, while achieving fifth place in Clay Modeling, On-the-Spot Painting, and Debate.



Participation of Giddha Team in Khed Bharti Punjab

The university's Giddha team participated in Khed Bharti Punjab, held at Amritsar on April 12, 2025, in celebration of Vaisakhi.



National Adventure Camps / National Integration Camps / Pre-RD Parade Camp

1. **Independence Day Function at Red Fort, New Delhi** August 13-16, 2024 Two NSS volunteers: Aman (College of Dairy and Food Science Technology) and Simranjeet Kaur (College of Animal Biotechnology) participated.
2. **NSS Adventure Camp at Pong Dam Centre, Himachal Pradesh** September 13-22, 2024 Two volunteers: Armaanpreet Kaur and Shaik Mohammed Ahamed (both from College of Fisheries) participated.
3. **State Level Selection Trial for NSS Pre-Republic Day Parade Camp, Jalandhar** October 8, 2024 Seven volunteers from Colleges of Animal Biotechnology and Dairy & Food Science Technology participated.
4. **National Integration Camp, Raniganj, West Bengal**, December 16-22, 2024 Two volunteers: Usman Jameel and Prabhleen Kaur (College of Fisheries) participated.
5. **National Integration Camp at Chandigarh University, Gharuan** February 5-11, 2025 Two volunteers: Jitish Pahwa and Ekam Kaur (Khalsa College of Veterinary and Animal Sciences, Amritsar) participated.
6. **Life Skills Education Training, Chandigarh** February 11-14, 2025 Two volunteers: Deepinderdeep Singh and Harsimran Kaur (College of Animal Biotechnology) participated.
7. **Exposure Visit to Jaisalmer** February 24-28, 2025 25 students from all colleges participated in this visit organized by Director Youth Services Punjab.
8. **National Integration Camp at CCS Haryana Agricultural University, Hisar** March 21-27, 2025 | Four volunteers from Colleges of Fisheries and Khalsa College of Veterinary and Animal Sciences, Amritsar participated.
9. **CM Rally on Drug Abuse, Ludhiana** April 2, 2025 | 93 NSS volunteers participated in the district administration-organized rally.



NSS Achievements

1. **Ekam Kaur, NSS volunteer** from Khalsa College of Veterinary and Animal Sciences, Amritsar won the gold medal in debate competition during the National Integration Camp at Chandigarh University, Gharuan (February 5-11, 2025). She competed against 200 participants from ten states and union territories on the topic 'Can Social Media be a Positive Force for National Integration'. The medal was awarded by Chief Guest Ms. Gurpreet Kaur Deo, IPS, ADGP, Government of Punjab during the valedictory function.



2. **Zoraver Singh, NSS volunteer** from Khalsa College of Veterinary and Animal Sciences, Amritsar secured the silver medal in Solo Singing competition on ‘Patriotism’ during the National Integration Camp at CCS Haryana Agricultural University, Hisar (March 21-27, 2025). Dr. S.S. Ghuman, DSW-cum-EO said “throughout the week-long camp, four students representing the university namely Zoraver Singh and Sahilpreet Singh of KCVAS, Amritsar and Jasleen Saini and Rajni of College of Fisheries, Ludhiana, actively engaged in various activities promoting National Integration through their State’s cultural representation including solo and group dance competition, speech competition and sports activities like jogging”



3. **End-Line Survey on Digital Literacy Program** April 3, 2024
4. **7-Day NSS Special Camp on the theme “Cleanliness is Heavenliness”** held from April 02-08, 2024 at College of Dairy and Food Science Technology



5. **7 days special NSS CAMP at KCVAS from April 16 to 22, 2024** during the camp 7th Blood Donation Camp was conducted on April 17, 2024 where 52 units were collected.
6. **World Environment Day Celebrated on June 05, 2024.** Students made posters on the theme of the day.
7. **International Yoga Day Celebration June 21, 2024 |** College of Animal Biotechnology and College of Veterinary Science, Rampura Phul.



8. **Ek Ped Maa Ke Naam Plantation Drive on July 13, 2024.**
9. **Anti-Ragging Pledge August 12, 2024 |** Students took the pledge against ragging.



1. **World Entrepreneurship Day August 30, 2024 |** Khalsa College of Veterinary and Animal Sciences, Amritsar A vibrant two-hour program organized by the NSS Wing featured activities to introduce entrepreneurship concepts, highlight its necessity and benefits, and provide students opportunities to interact with successful entrepreneurs.
2. **Rally on “Nasha Mukta Rashtra, Viksit Rashtra” September 11, 2024**
3. **Jal Seva at Pashu Palan Mela from September 13 – 14, 2024**
4. **Tree Plantation Drive on September 24, 2024**
5. **NSS Day Celebration September 24, 2024 |** Essay writing competition on “As an Educated Citizen, My Responsibilities for Society”.

6. **Cleanliness Drive at Takhat Sri Kesgarh Sahib:** KCVAS NSS team conducted a cleanliness drive during a spiritual tour to Anandpur Sahib, also visiting the Sikh Heritage Museum Virasat-e-Khalsa.
7. **Swachhta Hi Sewa (SHS) Campaign:** Mega Cleanliness event organized on September 30, 2024.
8. **Swachhta Pledge October 2, 2024:** With Bachelor of Veterinary Science and Animal Husbandry students, Ludhiana.
9. **7-Days NSS Special Camp on the theme “Yuva Shakti for Viksit Bharat”** January 06-12, 2025: NSS volunteers of 1st, 2nd, 3rd year attended this NSS Special Camp at Auditorium Silver Jubilee block, GADVASU, Ludhiana.
10. **Interactive Session on Environmental Concerns** January 8, 2025: Theme: “Environmental Concerns and Solutions for Viksit Bharat” Speaker: Col Jagjit Singh Gill, Environmentalist and Ex-Member State Task Force on Buddha Darya Rejuvenation Project and Member Public Action Committee was the expert speaker and deliberated on the latest developments related to the topic.
11. **10th Blood Donation Camp** Khalsa College of Veterinary and Animal Sciences, Amritsar: Over 100 units of blood collected.
12. **Industrial Visit** to ISCON Balaji Foods Ltd, Ladowal on January 10, 2025.
13. **Heartfulness Meditation Sessions** January 11-12, 2025: COABT Auditorium Two sessions with Heartfulness facilitators guided volunteers through meditation and mind-relaxing exercises.
14. **Nasha Mukht Bharat Abhiyan Participation** January 11, 2025: Mela Ground, PAU Participation in the Ministry of Social Welfare and Empowerment’s initiative toward a healthier nation.
15. **Drug Addiction Awareness Session** March 12, 2025: Organized by NSS Wing in association with Red Ribbon Club and Punjab Police Speakers: S. Balwant Singh Bikhi (expert speaker), S. Gurdev Singh ACP (West) on ‘Yudh Nashyaan Virudh’ campaign, Mr. Neeraj Chaudhary (SHO, Sarabha Nagar), and S. Hardyal Singh (SI, Sanjh Kendra).
16. **Poster Making Competition** March 19, 2025: Red Ribbon Club organized competition on blood donation theme.
17. **Blood Donation Drive at Pashu Palan Mela** March 21-22, 2025: Inaugurated by Dr. JPS Gill, Vice Chancellor 80 units of blood collected. The drive included a poster-making competition on “Donate Blood, Save Lives” and continuous ‘chabeel’ service for visitors. Dr. Archu from Civil Hospital, Jagraon emphasized the importance of regular donations due to limited shelf life of collected blood.



18. 7-Day NSS Special Camps - “Youth for Digital Literacy”
 - ◇ March 21-27, 2025 | College of Dairy and Food Science Technology, Ludhiana
 - ◇ March 22-28, 2025 | College of Animal Biotechnology and College of Fisheries
19. **NSS Application Lecture** March 23, 2025 | Silver Jubilee Auditorium Lecture on the role of NSS application for volunteers to strengthen digital literacy.
20. **Digital Literacy and Substance Abuse Session** March 26, 2025 | Speaker: Dr. Atima Gupta, Director of Manas Hospital and De-Addiction Centre and Gupta Medical Lab, Ludhiana.



NCC Training Activities

The following NCC training activities were conducted by cadets of 1 Punjab R&V Squadron, GADVASU, Ludhiana:

Republic Day Camp Participation

Three cadets participated in the Republic Day camp in New Delhi, competing in various equestrian events. Notably, 1 Punjab R&V Squadron achieved first position among all RVC units at the Republic Day Camp.

Individual Cadet Achievements

Cadet Sehajpreet Chahal (BVSc & AH 3rd year):

- Won a Bronze medal in the Novice category of the Dressage event
- Participated in the Horse contingent for the Prime Minister’s Rally

Cadet Gourav Sharma (BVSc & AH 2nd year):

- Won a Bronze medal in the Novice category of Tent Pegging

Annual Training Camp

A total of 100 cadets participated in Annual Training Camp (CATC-54) from June 18-27, 2024, at Amrit Indo-Canadian Academy. During this camp, cadets also participated in International Yoga Day on June 21, 2024.

Community Service and Social Activities



NCC cadets actively engaged in various community service initiatives, including:

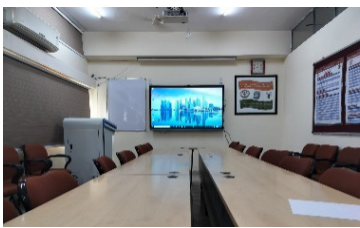
- Water conservation awareness campaigns
- “Run for Fun” events
- Social awareness rallies addressing various community causes
- Multiple Swachhta Abhiyan (cleanliness drives)

These activities demonstrate the cadets' dedication to physical fitness, social responsibility, and skill development. Through their participation in competitive events, training camps, and community service, the cadets have grown into disciplined and socially conscious individuals, embodying the values and mission of the NCC.



Infrastructure developed / & renovated and strengthening of Labs

S. No	New infrastructure/renovation of existing Infrastructure	New Equipment /Infrastructure purchased	Month and Year of Purchase
College of Dairy & Food Science Technology			
1		BOD incubator	March 2024
2		Bakery Oven: Havard industries	June 2024
3		Planetary Mixer	June 2024
4		Digital Dry Bath	March 2025
			
College of Fisheries			
5		Hot Air Oven	November 2024
6		Color meter	December 2024
7		Nitrogen analyzer	March 2025
			

Anotomy			
8	Plastination Lab	Projector for osteology lab	December 2024
9	Museum (work under process)	Camera for digital microscope	March 2025
Surgery & Radiology			
10		Three Units of Air Conditioners	January 2024
11		Re-chargeable Direct Ophthalmoscope	February 2024
12		Handheld Tonometer	March 2024
13		02 Units of Cordless Screw Driver Drill Machines Regular Cordless Drilling Machines	March 2024
14		05 Units of Three Blade Laryngoscope 02 Units of Four Blade Fiber Optic Laryngoscope 02 Units of Plaster Cutter Machines	March 2024
15		02 Units of Wire Cutter Tungsten Carbide	March 2024
16		01 Unit of Artery Forcep	March 2024
17		Cassette for CR system	March 2024
18		General Surgical Instruments Needle Holder, Allis Tissue Forcep 6, Mayo Scissors, Metzenbaum Scissors, Tooth, BP Handle 4 No 01, Towel Clamp	March 2024
19		One Set of Stethoscope	March 2024
Veterinary Parasitology			
20		BOD Incubator	September 2024
Veterinary Gynaecology and Obstetrics			
21		Interactive Panel 	March 2025
Teaching Veterinary Clinical Complex			
22	Primary unit and MSVH	VOLTAS Water Cooler 150/150 FSS (2)	May 2024
23	DBT committee room MSVH	VOLTAS 2 Ton Window Air Conditioner with 5 KVA Stabilizer	June 2024
24	Guest room of auditorium	2.2 Ton Air Conditioner O-General, Non-Inverter 1 year warranty 5 Year Compressor along with stabilizer & Outdoor Stand	October 2024

25	Critical care unit	Infusion Pump 1PO1 (Dr. Diaz)	November 2024
26	Dialysis unit	Ready to refer library in dialysis unit new books (10)	November 2024
27	Critical care unit	Syringe Pump SPo2 (Dr. Diaz)	December 2024
28	Large animal unit	Animal Crush for Bull 74"x79"x30" (M.S. Pipe 65mm)	March 2025
29	Cardiopulmonary unit	VMED VET DOP (BP monitoring machine)	March 2025
30	Dermatology unit	MX 21i -LED Binocular Microscope	March 2025
31	Critical care unit	VET BLOOD Pressure Monitor with all Accessories (Doppler) DS-100	March 2025
32	Critical care unit	Syringe Infusion Pump (Volumetric Pump) Make - MINDRAY, Model BeneFusion UVP	March 2025




Directorate of Livestock Farms

33	Construction of brick on edge floor of buffalo shed	Front Loader with bucket	2024-25
34	Modernization of Goat shed	Self-propelled 4-wheel fodder harvester machine	
35	Cooling system in shed no.2,3,4	Front loader with bucket	
36	Seminar room	Frozen sexed semen straws of progeny tested elite HF bulls	
37	Installation of slurry handling system	Two 5kva inverter alongwith battery	
38		Mini Centrifuge	
39		Sedimentation tank	

Centre One Health

40		Real time PCR machine	June 2024
41		Biosafety Cabinet (class-II, A2)	June 2024
42		Gradient Thermocycler	March 2025
43		Horizontal Electrophoresis (Two) and power pack (one)	March 2025
44		Air conditioner	March 2025
45		Refrigerator	March 2025



Veterinary Medicine			
46	Large Animals	Ultrasound machine	
Veterinary Pathology			
47		Binocular Microscope Led (Model no. MX21i Led) (3)	March 2025
Krishi Vigyan Kendra, Tarn Taran			
48	Demonstration units		
49	Administration Block and Campus maintenance		
50	Establishment & strengthening of Soil Testing Lab at KVK	Milk Adulteration Testing Kits	December 2024
51	Establishment & strengthening of Animal Science Lab at KVK		
52	Farm implements	Bolero Jeep	March 2025
53		LED interactive panel, Heavy duty inverter with two batteries, Paper shredder	March 2025
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Krishi Vigayn Kendra, S.A.S. Nagar (Mohali)			
54	Mango orchard was established at KVK Farm	Samsung Air Conditioner	January 2025
55		Bolero Oil Pump Spray Pump Interactive Flat Panel Transport Box Oil heater Steel Almirah	March 2025
56	Fish Pond	Vacuum Cleaner	March 2025



College of Veterinary Sciences, Rampura Phul

S. No.	New Infrastructure/ Renovation of existing infrastructure	Name of the new instruments/ equipment purchased	Month & year of purchase
1.		Pulverizer	August, 2024
2.		Orbital Shaker	August, 2024
3.		Mixer grinder	August, 2024
4.		Refrigerator	March, 2025
5.		Electronic Balance	March, 2025
6.		Vortex shaker	March, 2025
7.		Immuno electrophoresis assembly	March, 2025
8.		Ophthalmoscope direct	March, 2025
9.	Paddy straw grinding cum pelleting unit		March, 2024
10.	Construction of paddock for animals of Goat Unit		September, 2024
11.	Development of Kajali Sheep Production Unit		
12.	Procurement of elite germplasm of Kajali Sheep from farmers of Punjab to establish a nucleus Kajali Sheep flock at COVS, Rampura Phul		December, 2024
13.	Partition of Chemotherapy lab for the Biosafety cabinet		
14.	Laboratory work station		
15.	Reading Hall		2 Air Conditioners
16.	The laboratory of Livestock Farm Complex has been upgraded as per the MSVE 2016.	Vernier calipers, Screw gauze	February, 2025
17.	Fabrication of Shed	Installation of roof (profile sheet) over the trevis for treatment and demonstration on live animals for practical classes	February, 2025
18.		Burdizzo castrator for large and small animals	February, 2025
19.		Minimum and maximum thermometer	February, 2025
20.		Hot branding set	February, 2025
21.		Tattooing set	February, 2025



Paddock for Goat Unit at LFC, COVS, Rampura Phul



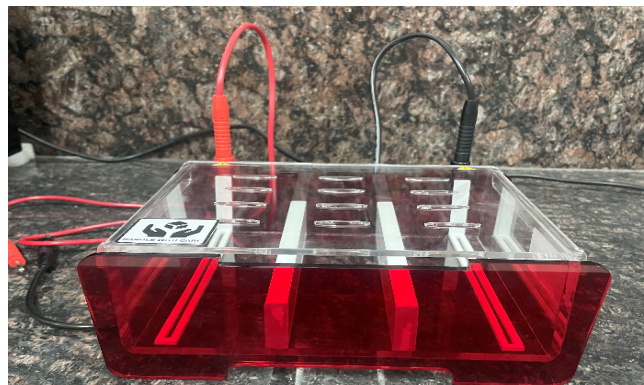
Kajali Sheep Production Unit at COVS, Rampura Phul



Paddy straw grinding cum pelleting unit



Kajali Sheep Production Unit at COVS, Rampura Phul



Immunoelectrophoresis assembly

Awards/Honors/Fellowships by Faculty

a. Awards/Honours/Recognitions

S. No	Name of the Faculty	Detail of the Award/Honour/other Recognitions	Date of the Award
College of Veterinary Science, Ludhiana			
Animal Nutrition			
1	Dr Udeybir Chahal	CLFMA Award 2024	September 20, 2024
2	Dr Sandeep Uniyal	Prof. Purnendu Biwas National young scientist award	April 25, 2024
3	Dr J.S. Hundal	Fellow of Animal Nutrition Association	January 20, 2025
Livestock Product Technology			
4	Dr Rajesh V. Wagh	“Young Scientist Award” during International conferences: CITAAS-2024 Current Innovations and Technological Advances in Agriculture and Allied Sciences	August 29, 2024
		Membership Award of National Academy of Veterinary Sciences, New Delhi	March 08, 2025
		Third Best Poster Presentation Award in IPSACON 2024 and National Symposium on Shaping the Indian Poultry Sector for Sustainable Growth	October 18, 2024
5	Drs Pavan Kumar Nitin Mehta Rajesh V. Wagh	First Best Oral Award: Effect of Papaya Rind on the Quality Characteristics of Functional Restructured Goat Meat Blocks	September 26 – 28, 2024
		Spent Hen Meat Protein Isolate incorporated biscuits: Development, quality evaluation and storage stability	
6	Dr Pavan Kumar	First Best Oral Award: Novel Regulatory Policies for Goat Slaughter on the Basis of Behavioural, Carcass, and Hormonal Parameters for Mitigating Emotional Stress	
Veterinary Anatomy			
7	Dr Kritima Kapoor	Dr K.L Suri Best Poster presentation Award and Medal –Microscopic Analysis in 38 th Annual convention by Indian Association of Veterinary Anatomists held at Mathura	October 24-26, 2024
		International Best Image Award Runner –Up (Scientific Category) by Anatomical Society, London, United Kingdom	November, 2024
Department of Veterinary and Animal Husbandry Extension			
8	Dr Rajesh Kasrija	Token of appreciation at Pashu Palan mela	September 14, 2024

9	Dr Parteek Singh Dhaliwal	Third Best Oral Presentation Award in at 39 th Annual Convention of the Indian society for study of animal reproduction (ISSAR) held at Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana.	December 01, 2024
10	Dr Jaswinder Singh	Dr R K Sharma Memorial award for Excellence in Veterinary Extension Education at XXII NAVS Convocation Cum National Scientific Convention at Veterinary College, Hebbal, Bengaluru Karnataka Veterinary Animal and Fisheries Sciences University, Bidar and National Academy of Veterinary Sciences, India	March 08, 2025
Department of Teaching Veterinary Clinical Complex			
11	Dr Ajeet Kumar	Best paper presentation award in 39 th ISSAR Conference held at Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana	December 01, 2024
12	Dr. Randhir Singh	Best Young Researcher Award in the field of Veterinary Science, IAREA, 2024 during Faculty development program on advanced research methodology & data analytics	October 27, 2024
		ISVM Appreciation Award-2024 during 41 st Annual Convention of ISVM held at SKUAST Jammu	February 17, 2025
		Third award for paper presentation entitled Management of acute pancreatitis induced AKI with IHD in a labrador retriever dog during 41 st Annual Convention of ISVM held at SKUAST, Jammu	February 19, 2025
13	Drs Gurpreet Singh Preet, Randhir Singh, Swaran Singh Randhawa	Third best poster presentation award for Ideathon session in 39 th ISSAR Conference held at Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana	December 01, 2024
14	Drs Gurpreet Singh Preet, Raj Sukhbir Singh, Swaran Singh Randhawa, Kuldip Gupta	Best Oral presentation award for Rectal adenocarcinoma in dogs' successful management using homeopathy medicine in the conference ISVMCON-2025 held at SKAUST, Jammu	February 19, 2025
15	Drs Gurpreet Singh Preet, Jasnit Singh, Swaran Singh Randhawa, Randhir Singh, Raj Sukhbir Singh, N. K. Sood, Kuldip Gupta and Monu Karki	Best Oral presentation award for Rhinoscopy as a diagnostic aid in epistaxis in dogs a retrospective clinical study in the conference ISVMCON-2025 held at SKAUST, Jammu	February 19, 2025

16	Drs Gurpreet Singh Preet, Jasnit Singh, Randhir Singh, Harmanpreet Singh Sodhi	Best Poster presentation award on topic entitled an atypical case of acquired generalized myasthenia gravis in a German shepherd dog: diagnosis and treatment in the conference ISVMCON-2025 held at SKAUST, Jammu	February 19, 2025
17	Dr Khushpreet Singh	Young scientist award for the best clinical case presentation at 39 th ISSAR Conference held at Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana	December 01, 2024
Department of Veterinary Parasitology			
18	Dr L.D. Singla	Appointed Editor, Journal of Parasitic Diseases	2024-25
		Selected Vice President, Indian Society of Parasitology	2024-25
19	Dr Paramjit Kaur	Best oral presentation award in 18 th Conference of Indian Association of Women Veterinarian at DUVASU, Mathura	November 14, 2024
20	Dr Harkirat Singh	Dr. D. P. Banerjee Oration Award 2023, Indian Association for The Advancement of Veterinary Parasitology (IAAVP)	December 17, 2024
Department of Veterinary Pathology			
21	Drs L. Geeta Devi, Omer K Baba, N D Singh, Kuldip Gupta	Best Poster presentation award at 39 th ISSAR Conference held at Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana	December 01, 2024
22	Drs Omer K Baba, L. Geeta Devi, Amarjit singh, Kuldip Gupta, N D Singh, Sidhartha Deshmukh, A.P.S. Brar, Vishal Mahajan	Second best poster presentation award during Veterinary Pathology Congress 2023 held at SKUAST, Jammu by Indian Association of Veterinary Pathologist	November 30, 2024
23	Dr Omer Khalil	Best Researcher Award in the international conference on Agri tech Intelligence and Beyond: Cutting Edge Innovations in Agriculture and Allied Sciences held at SKAUST, Jammu	October 17, 2024
Department of Veterinary Gynaecology and Obstetric			
24	Drs M Honparkhe, Ajeet Kumar, Amarjeet Bisla	R D Sharma Award at 39 th ISSAR Conference held at Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana	November 29, 2024
25	Dr Bilawal Singh	Second and third best poster presentation at 39 th ISSAR Conference held at Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana	December 01, 2024
		Best Young Scientist Award at 39 th ISSAR Conference held at Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana	

26	Dr Amarjeet Bisla	Best Young Scientist Award in Clinical case presentation (Oral Presentation) at 39 th ISSAR Conference held at Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana	December 01, 2024
27	Dr Nakul Gulia	Best Young Scientist Award in Equine, Camel and Wild animal reproduction (Poster Presentation) at 39 th ISSAR Conference held at Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana	December 01, 2024
		First Best poster presentation award in Clinical case presentation (Poster Presentation) at 39 th ISSAR Conference held at Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana	December 01, 2024
28	Dr A K Singh	Best Paper Award in 8 th Annual Convention of Society of Veterinary Biochemists and Biotechnologists of India (SVBBI) organized by U.P. Pandit Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidyalaya Evam Go-Anusandhan Sansthan, Mathura (UP) India	December 21, 2024
Department of Veterinary Surgery & Radiology			
29	Drs Jasmeet Singh Khosa, Arun Anand, J. Mohindroo, N.U. Devi, Nikita Gupta, V Sangwan	Gold medal (Equine surgery session) awarded at 47 th Annual Congress of Indian Society for Veterinary Surgery and National Symposium on Advances in Domestic and Wild Animal Surgery with special reference to Elephants held at Guwahati, Assam	December 20, 2024
30	Drs N Umeshwori Devi, Jasmeet S Khosa, Anju Poonia	Gold medal (small animal surgery poster session) awarded at 47 th Annual Congress of Indian Society for Veterinary Surgery and National Symposium on Advances in Domestic and Wild Animal Surgery with special reference to Elephants held at Guwahati, Assam	December 20, 2024
31	Drs Jasmeet Singh Khosa, N Umeshwori Devi, J Mohindroo, Harmanpreet Singh Sodhi	Appreciation certificate (Equine surgery session) awarded at 47 th Annual Congress of Indian Society for Veterinary Surgery and National Symposium on “Advances in Domestic and Wild Animal Surgery with special reference to Elephants” held at Guwahati, Assam	December 20, 2024

32	Drs Harmanpreet S Sodhi, Jasmeet S Khosa, Tarunbir Singh, J Mohindroo, N Umeshwori Devi	Third best poster award in Equine, camel and wild animal reproduction session at 39 th ISSAR Conference held at Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana	December 01, 2024
33	Dr Ashwani Kumar	Appointed as 'Member Editorial Board' for the Newsletter of the Academy - NAVS News Vibes in January 2024	January, 2024
34	Drs Nikita Gupta, Ashwani Kumar, V Sangwan	Young scientist award for Best Poster in Ideathon session in 39 th ISSAR Conference held at Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana	December 01, 2024
Centre of One Health			
35	Dr Jasbir Singh Bedi	Dr. R.K. Agarwal Food Safety Award in recognition of outstanding academic and research contributions to food safety	November 14, 2024
		Nominated as member of PREZODE; An international organization to strengthen the One Health framework at global level	November 28, 2024
36	Dr Randhir Singh	Associate Fellow, National Academy of Veterinary Science (India)	March 08, 2025
		Best Oral Presentation for the paper at XX Annual Conference of the Indian Association of Veterinary Public Health Specialists (IAVPHS) organized by Krantisinh Nana Patil College of Veterinary Science, Shirwal.	November 15, 2024
37	Dr Deepali G. Kalambhe	Rudolf Virchow One World One Health Award-2024 in All India Article writing competition presented by Pashudhan Praharee	August 06, 2024
		Krantijyoti Savitribai Phule- Women's Achiever's Award-2025 presented by Pashudhan Praharee	January 26, 2025
38	Dr Pankaj Dhaka	Best Oral presentation award at XX Annual Conference of the Indian Association of Veterinary Public Health Specialists (IAVPHS) organized by Krantisinh Nana Patil College of Veterinary Science, Shirwal.	November 15, 2024
Department of Veterinary Medicine			
39	Dr Asmita Narang	Second best poster and third best oral presentation award in 40 th Annual Convention of Indian Society for Veterinary Medicine & National Conference held at Manutthy, Kerala	February 24, 2024



40	Dr Shabnam Sidhu	Second best oral and third best poster presentation award in 40 th Annual Convention of Indian Society for Veterinary Medicine & National Conference held at Manutthy, Kerala	February 24, 2024
Animal Disease Research Centre			
41	Dr. Jagmeet Kaur	Young Scientist Award at 39 th ISSAR Conference held at Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana	December 01, 2024
42	Dr Ashok Kumar	Second prize in Poster Presentation in 41 st Annual convention of Indian Society for Veterinary Medicine & national conferences at BVSc & AH, SKUAST Jammu	February 19, 2025
Directorate of Livestock Farms			
43	Dr Sikh Tejinder Singh	Third best Oral presentation award for paper of his postgraduate student in the Annual Post Graduate Students National Conference organized by College of Veterinary Science, Sri Venkateswara Veterinary University, Tirupati.	December 11-12, 2024
		Invited Expert Panelist in “National Workshop on Artificial Intelligence and Sensors for Efficient Livestock Farming” organized at ICAR - Central Institute for Research on Buffaloes, Hisar on June 10, 2024.	June 10, 2024
44	Dr Ramandeep Kaur Dhaliwal	Third Best Oral Presentation at 39 th ISSAR Conference held at Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana,	December 01, 2024
45	Dr Gurjot Kaur Mavi	Indian Poultry Science Association (IPSA) Young Scientist Award 2024 at the IPSACON-2024 conference organized by MAFSU, Nagpur	October 16-18, 2024
		First Best oral presentation award at 39 th ISSAR Conference held at Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana,	November 29 to December 01, 2024
College of Fisheries			
47	Dr Vijay Kumar Reddy	Best Oral Presentation Award during 8 th Annual Convention of Society of Veterinary Biochemists and Biotechnologists of India and National Symposium (SVBBICON-2024) at College of Veterinary Science and Animal Husbandry, Mathura.	December 20 – 21, 2024

College of Animal Biotechnology			
48	Drs B V Sunil Kumar and Satparkash Singh	Won best poster award as co-authors during 8 th Annual Convention of Society of Veterinary Biochemists and Biotechnologists of India and National Symposium (SVBBICON-2024) at College of Veterinary Science and Animal Husbandry, Mathura.	December 20-21, 2024
49	Dr Kalpana Singh	Won Best oral presentation award at the International Conference on One Health Initiative: Harmonizing Human, Animal and Environmental Health (OHI-2023) held at GLA University, Mathura.	January 18-20, 2024
50	Dr Adarsh Mishra	Two Oral Presentation Awards in two different scientific sessions at 29 th Annual Convention and National Conference of Indian Society for Veterinary Immunology and Biotechnology (ISVIB) held TANUVAS, Chennai	September 26-29, 2024
College of Dairy & Food Science Technology			
51	Dr Anju Boora Khatkar	Best oral Presentation Award at National Symposium on Food Processing 4.0: Innovation and Sustainability organized by Department of Food Science and Technology at PAU, Ludhaina	April 30, 2024
		Excellence in Teaching Award at three-day International Conference on “Global Research Initiatives for Agriculture, Science and Technology” at Indira Gandhi Krishi Vishwavidyalaya (IGKV) Raipur, Chhattisgarh, India	January 22, 2025
52	Drs Pranav Kumar Singh and Ankit Goyal	Best Oral Presentation Award at National Symposium on Food Processing 4.0: Innovation and Sustainability organized by Department of Food Science and Technology at PAU, Ludhaina.	April 30, 2024
53	Dr Narender Kumar Chandla	Young Scientist Award at three-day International Conference on “Global Research Initiatives for Agriculture, Science and Technology” at Indira Gandhi Krishi Vishwavidyalaya (IGKV) Raipur, Chhattisgarh, India	January 22, 2025
54	Dr Inderpreet Kaur & Dr P. K. Singh	First best paper award for article published in the journal <i>Indian Dairyman</i> given by Indian Dairy Association	March 08, 2025



55	Dr Inderpreet Kaur	Certificate of Appreciation at Entrepreneurship Grand Challenge-2024 organized by Vety & Livestock Innovation and Incubation Foundation (VLIIF), Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana	June 28, 2024
College of Veterinary Science Rampura Phul			
56	Dr Swati Agrawal	Young Women Scientist Award at International Conference on Current Innovations and Technological advances in Agriculture and Allied Sciences (CITAAS-2024) at Guru Kashi University, Talwandi saboo.	August 31, 2024
57	Dr Sandeep Kaswan	Middle Career Scientist Award of Indian Society for Sheep and Goat Production and Utilization	April 24, 2024
58	Dr Subhash Chandra	Certificate of appreciation as member of National Organizing Committee, 21-day winter school (November 22- December 12, 2024) by DUVASU Mathura.	December 12, 2024
59	Dr Priya	Young Women Scientist Award during International Conference on Current Innovations & Technological Advances in Agriculture & Allied Sciences at GKU, Talwandi Sabo, Bathinda Punjab	August 29-31, 2024
60	Dr Afroz Jahan	Certificate Of Appreciation by Dean COVS, Rampura Phul, for exceptional commitment, devotion and contribution to the development of the College	August 15, 2024
		Young Fellow award at International Conference on CITAAS-2024 at Guru Kashi University, Talwandi saboo.	August 29, 2024
		Best poster presentation award (First) during 24 th Annual Conference of Indian Society of Veterinary Pharmacology & Toxicology at DUVASU Mathura	November 21, 2024
		NESA Young Scientist of the year Award 2024 at international conference on “Advancements in basic science, Environmental studies and Traditional Medicine for Translational Drug discovery and Development at BHU, Varanasi	November 23, 2024



61	Dr M.K. Lonare	NESA Distinguished Scientist of the Year award-2024 at international conference on “Advancements in basic science, Environmental studies and Traditional Medicine for Translational Drug discovery and Development at BHU, Varanasi.	November 23, 2024
		Best Veterinary Scientist Award at International Conference on CITAAS-2024 at Guru Kashi University, Talwandi saboo.	August 29, 2024
62	Dr Raut Akash	Best Ph.D. Thesis Award in the Category of Paraclinical subject for the Academic year 2024. Awarded in the Annual Convocation meeting organized by DUVASU, Mathura.	February 03, 2025
63	Drs Jay Prakash Yadav and Maninder Singh	Best Poster award at 16 th biennial conference of APHV at SVPUAT, Meerut.	February 21, 2025
64	Dr Priyanka	Young Women Scientist Award at International Conference on CITAAS-2024 at Guru Kashi University, Talwandi saboo.	August 29 -31, 2024
66	Drs Sreekala S. M., Priyanka, Sunil Punia S., and Sharma N.S.	Second Best Poster Presentation Award at 16 th Kerala Veterinary Science Congress & International Seminar 2024 by Indian Veterinary Association Kerala & College of Veterinary and Animal Sciences Mannuthy, Thrissur.	November 08-10, 2024
67	Dr Sreekala S. Mohandas	Best PhD Thesis Award in Veterinary Microbiology for the year 2019 from Indian Veterinary Association (Women Veterinarian Wing).	March, 2025
68	Dr Chetna Mahajan	Emerging Scientist Award at International Conference on CITAAS-2024 at Guru Kashi University, Talwandi saboo.	August 29, 2024
69	Dr Anavil Bhardwaj	Young Scientist Award at International Conference on CITAAS-2024 at Guru Kashi University, Talwandi saboo.	August 29, 2024
70	Dr Harneet Kour	Second Best oral presentation award at 41st Annual Convention of Indian Society for Veterinary Medicine (ISVMCON-2025) held at SKUAST- Jammu.	February 19, 2025
		Award of Honour for attending Animal Health Camp organized by KVK, Fazilka ICAR-CIPHET regional station as expert on 29.09.2024.	September 29, 2024

71	Dr Amit Kumar	Best Veterinary Scientist Award at International Conference on CITAAS-2024 at Guru Kashi University, Talwandi saboo.	August 29-31, 2024
		Second prize for best clinical case paper presentation, 7 th national online clinical case conference organized by PGIVAS, Akola, Maharashtra.	September 04-06, 2024
		Second prize for best oral presentation, National symposium of Indian Society for Buffalo Development on innovative approaches for boosting buffalo productivity; ISBD-2024, organized by Kamdhenu university, Anand.	December 16-18, 2024.
		Young Researcher Award at International Conference on CITAAS-2024 at Guru Kashi University, Talwandi saboo.	August 29-31, 2024
		First prize in Wildlife Science Session and also in Clinical Science Session at 2nd Veterinary and Animal Science Congress & 2nd Annual Convention of Association of Animal Scientists & National Symposium, Apollo College of Veterinary Medicine, Jaipur	February 17-19, 2024
		Second prize and third prize in poster presentation sessions at 24 th Indian Veterinary Congress and 31 st Annual Conference of IAAVR & National Symposium on “Livestock Health and Poultry: A Paradigm Change to Maximize Productivity for Sustainable Farmer’s Livelihood” at LUVAS, Hisar	February 07-08, 2024
		Best oral presentation award at International Conference on CITAAS-2024 at Guru Kashi University, Talwandi saboo.	August 29-31, 2024
72	Dr Jasleen Kaur	Best Oral Presentation Award in Avian Medicine category in 41 st Annual Convention of ISVMCON-2025 organized by SKUAST-Jammu	February 19, 2025
		Second Best Oral Presentation Award in companion animal non-infectious category in 41 st Annual Convention of ISVMCON-2025 organized by SKUAST-Jammu	February 19, 2025
		Best Veterinary Scientist Award at International Conference CITAAS-2024, organized by Guru Kashi University, Talwandi Sabo	August 29, 2024



73	Gitesh Saini	Third best poster presentation award in 39 th Annual Convention & National symposium of ISSAR held at COVS Ludhiana	December 01, 2024
74	Dr Sunil Punia	First and Third Best Oral Presentation awards at 5 th Annual Convention of Veterinary Internal and Preventive Medicine Society and International Symposium at COVS, SVPUAT, Meerut	November 23, 2024
75	Drs R. Ravindran, Varun Bassessar, Priyanka, Syedah Asma Andrabi	Third Best Clinical Case Presentation Award at 7 th National Online clinical case conference on “Pragmatic Clinical approach for Farm animals, companion and wild animals’ health by Department of Village Development and Gram Panchayat in Akola, Maharashtra	September 04-06, 2024
76	Dr Priyanka	Best Thesis Award at International Conference on CITAAS-2024 at Guru Kashi University, Talwandi saboo.	August 29-31, 2024
		Krantijyoti Savitribhai Phule Women’s Achiever Award, 2025 by Pashudhan Praharee on 26 th January, Republic Day, 2025.	January 26, 2025
77	Drs Priyanka, Amit Kumar, Inder Pal Singh and Varun Bassessar	Second Best Clinical Case Presentation Award at 7 th National Online clinical case conference on “Pragmatic Clinical approach for Farm animals, companion and wild animals’ health by Department of Village Development and Gram Panchayat in Akola, Maharashtra.	September 04-06, 2024
78	Dr O.P. Choudhary	Eminent Scientist Award- 2024 at International Conference on CITAAS-2024 at Guru Kashi University, Talwandi saboo.	August 29, 2024
		Dignitary Fellow of the International Organization for Academic and Scientific Development	January 17, 2024
79	Dr Amit Challana	Best Poster Presentation Award at XXXVIII Annual Convention & National Symposium on “Strategic Implementation of Anatomical Facts for Sustainable Livestock Health, Reproduction and Production with Special Emphasis on Biotechnology and Immunology” at DUVASU, Mathura.	October 26, 2024
80	Dr Yashwant Singh	Best Veterinary Scientist Award at International Conference on CITAAS-2024 at Guru Kashi University, Talwandi saboo.	August 31, 2024
81	Dr Vikram Jakhar	Best Vety Scientist Award at Guru Kasi University, Talwandi Sabo (Punjab)	February 31, 2024

82	Dr Shwetambri Jamwal	Best Oral presentation (second) in National Conference on Precision livestock management technology towards strengthening farming efficiency and animal welfare held at MPUAT, Udaipur.	February 28, 2025
83	Dr Gaurav Kumar	Second prize at 24 th Indian Veterinary Congress and 31 st Annual Conference of IAAVR at LUVAS, Hisar	February 07-08, 2024
		First prize in oral presentation session in Clinical Science and second prize in poster session in Wildlife Science at 2 nd Veterinary and Animal Science Congress & 2 nd Annual Convention of Association of Animal Scientists & National Symposium, Apollo College of Veterinary Medicine, Jaipur.	February 17 th -19 th , 2024
		Second prize best article award on the occasion of Rabies Day 2024 (28 th September 2024) by Bio Vet Innovator Magazine	September 28, 2024
		Best Veterinary Scientist Award at International Conference on CITAAS-2024 at Guru Kashi University, Talwandi saboo.	August 29-31, 2024
84	Dr Rabjot Kour, Dr Vikrant Sudan, Dr Deepal Sumbria	3 rd prize in poster presentation in 18 th Conference of Indian Association of Women Veterinarians	November 14, 2024
85	Dr Vikrant Sudan	Admitted as a member of the National Academy of Veterinary Sciences (India)	March 08, 2025
		Admitted as Associate Fellow of the National Academy of Agricultural Sciences, India	January 01, 2025
Library			
86	At University Library level	Certificate of Appreciation for Highest User Profile Creation on CeRA	September 02, 2024
Directorate of Extension Education/KVKs/RRTCs			
87	Dr Balbir Singh Khadda	Fellow Award from Society for Scientific Development in Agriculture and Technology, Meerut (U.P.) India	July 15-20, 2024
		Best Presentation Award in Zonal level workshop held by ICAR-ATARI Zone-1, PAU Campus, Ludhiana, Punjab at Guru Angad Dev Veterinary and Animal Sciences University	September 18-20, 2024
		Best Oral Presentation Award in International conference (Hybrid mode) on “Innovative and current advances in agriculture and allied sciences” (ICAAAS- 2024) at Hanoi, Vietnam	July 15-20, 2024



88	Dr Munish Sharma	Outstanding Achievement Award by Society for Scientific Development in Agriculture and Technology (SSDAT) during international conference on Global research initiatives for sustainable agriculture & allied sciences-GRISAAS-2024 (Hybrid mode), at SKNAU-RARI Jaipur (Rajasthan), India.	December 10-12, 2024
		Best Oral Presentation Award in International conference on Global research initiatives for sustainable agriculture & allied sciences-GRISAAS-2024 (Hybrid mode), at SKNAU-RARI Jaipur (Rajasthan), India.	July 15-20, 2024
		Scientist of the year Award by Astha Foundation, Meerut	December 10-12, 2024
89	Dr Gulgul Singh	Best Women Scientist Award at 8 th International conference on aquaculture and marine biology by society of conference mind in Orrisa	October 25-26, 2024
90	Dr Harmeet Kaur	Performance Excellence Award (Woman) at Foundation Day of ICAR-ATARI Zone-1, PAU Campus, Ludhiana, Punjab	January 11, 2025
91	Dr Anil Kumar	Best Oral Presentation Award (1st Position), presented by Society of Krishi Vigyan during 3 rd National Seminar organized (online)	April 23-24, 2024
92	Dr Navjot Singh Brar	Appreciation certificate for oral presentation of paper in Indian Society of Weed Science Biennial Conference on Climate –Smart Weed Management for Global Food Security, BHU, Varanasi.	November 28-30, 2024
93	Dr Anil Kumar	Certificate of Appreciation’ by District Administration, Tarn Taran	January 26, 2025
94	Dr Navjot Singh Brar	All India Outstanding Extension Worker by Society for Advancement in Human and Nature, Dr YS Parmar University of Horticulture & Forestry, Solan (HP)	February 10, 2025
95	Mr. Sahil	Award of excellence in reviewing by Asian Journal of Fisheries and Aquatic Research	September 17, 2024
96	KVK, Tarn Taran	Best Krishi Vigyan Kendra Award in Punjab by ICAR-Agricultural Technology Application Research Institute Zone I, Ludhiana	September 20, 2024
		Award for Highest Sale of Mineral Mixture to KVK, Tarn Taran at Pashu Palan Mela 2024, September at Ludhiana	September 13-14, 2024
		Award for Highest Sale of Mineral Mixture to KVK, Tarn Taran at Pashu Palan Mela 2025, March at Ludhiana	March 21-22, 2025

**AWARDS AND HONOURS BY STUDENTS (2024-25)**

S. No	Name of the Student	Detail of the Award/Honour	Date of the Awards
College of Veterinary Science			
Animal Genetics & Breeding			
1.	Pallavi Choudhary	Award of University Merit Fellowship	January 15, 2025
Veterinary Anatomy			
2	Samikshya Sarangi	Best Ph. D Thesis Award by Indian Veterinary Association, Women Vet Wing	March 08, 2025
3	Tulumoni Seal	Best Ph. D Thesis Award by Indian Veterinary Association, Women Vet Wing	March 08, 2025
Centre for One Health			
4	Preeti	Best Master's thesis award at XX Annual Conference of the Indian Association of Veterinary Public Health Specialists (IAVPHS) at the Krantisinh Nana Patil College of Veterinary Science, Shirwal, Maharashtra, India	November 15, 2024
5	Gourab Basak	Best Oral presentation award at XX Annual Conference of the Indian Association of Veterinary Public Health Specialists (IAVPHS) at Krantisinh Nana Patil College of Veterinary Science, Shirwal, under the Maharashtra Animal and Fishery Sciences University, Nagpur.	November 15, 2024
6	Deepthi Vijay	Dr. G. Nirmalan Trust Research Award 2023 by the Veterinary Welfare Society, Kerala for best published research article	January 12, 2025
Department of Veterinary Medicine			
7	Habhu Aishwarya Sunder	Best Thesis Award for 2021 awarded by IVA women Vet wing	March 18, 2025
Veterinary Microbiology			
8	Karman Kour	Best Thesis Award 2024 at VI International Conference in hybrid mode on Innovative and Current Advances in Agriculture and Allied Sciences (ICAAS 2024), Vietnam	July 15-20, 2024
9	Bandita Panigrahi	Third best oral presentation award during the Annual Post Graduate Students National Conference on "Milestones in Veterinary Research and their Applications for Improvement of Animal Health and Production organized by COVS, Tirupati, Andhra Pradesh	December 11-12, 2024
10	Shreya Prasher	Second Best Oral Presentation Award at XXVIII Annual Convention of IAVMI and National Conference organized by COVS, Udaipur, RAJUVAS.	June 06-07, 2024



11	Sundus Gazal	“Best PhD Thesis Award” by Society of Agriculture Research and Social development (SARSD) during NAAAS 2024 held at Sampurna International institute of Agri. Science and Horticultural technology, Maddur, in association with University of Mysore, Mysuru.	February 10-11, 2024
Department of Veterinary Pathology			
12	Rajat Sood	Second best overall poster in Veterinary Pathology conference-2024 held at Sher-e- Kashmir University of Agricultural Sciences & Technology-Jammu	November 28-30, 2024
Department of Veterinary Surgery & Radiology			
13	Arshnoor Kaur	Gold medal (Radiology and Imaging Session) awarded at 47 th Annual Congress of Indian Society for Veterinary Surgery and National Symposium on “Advances in Domestic and Wild Animal Surgery with special reference to Elephants” held at Guwahati, Assam	December 20, 2024
14		Gold medal in National Online Clinical Case Conference held at Post Graduate Institute of Veterinary and Animal Sciences, Akola, Maharashtra from 4-6 Sept, 2024	September 06, 2024
Department of Veterinary Animal Husbandry & Extension Education			
15	N. Sai Anjana	UGC – NET (JRF- Junior Research Fellowship)	October 17, 2024
Department of Veterinary Gynaecology and Obstetrics			
16	Harnoor Kaur Dhindsa Reetinder Singh	Best Young Scientist Award in Clinical case presentation (Poster Presentation) at 39 th Annual Convention of the Indian Society for Study of Animal Reproduction (ISSAR) and ISSARCON 2024.	December 01, 2024
17	Reetinder Singh Jay Pancholi	Third best Oral presentation Award in Bovine Gynaecology & Obstetrics session (Oral presentation) at 39 th Annual Convention of the Indian Society for Study of Animal Reproduction (ISSAR) and ISSARCON 2024	
19	Tanvir Singh Sidhu	Second Best Oral Presentation in Clinical case presentation (Oral Presentation) at 39 th Annual Convention of the Indian Society for Study of Animal Reproduction (ISSAR) and ISSARCON 2024	
Livestock Product Technology			
20	Enamika Rani	Best M.V.Sc. Thesis Award by Indian Veterinary Association Women Wing, Chennai, Tamil Nadu	March 05, 2025
21	Ashlesha Sudhir Ranade	Oral presentation Award (Second) in 18 th conference of Indian Association of Women Veterinarians on “Role of Women Veterinarian for Viksit Bharat” at DUVASU, Mathura.	November 14, 2024

22	Abhinandh K Harmanbir Singh Jeyapriya Shanmugam	Second Best Oral Award: Effect of Papaya Rind on the Quality Characteristics of Functional Restructured Goat Meat Blocks in XII Conference of IMSA and National Symposium on “Green and Sustainable Meat Sector: Global Game Changer” by DUVASU, Mathura	September 26-28, 2024
23	Jeyapriya S	Third Best Research Paper award: Spent Hen Meat Protein Isolate incorporated biscuits: Development, quality evaluation and storage stability in XII Conference of IMSA and National Symposium on “Green and Sustainable Meat Sector: Global Game Changer” by DUVASU, Mathura	
24	Shilviya Bhat	Third Best Research Paper Award Combination of Guava pulp powder and Carrot pomace powder as a dietary fibre source in pork nuggets in XII Conference of IMSA and National Symposium on “Green and Sustainable Meat Sector: Global Game Changer” by DUVASU, Mathura	
Livestock Production Management			
25	Gurpreet Kaur	Second prize (e-poster) in international conference of World Veterinary Poultry Association, India Conference at Rajiv Gandhi Institute of Veterinary Education and Research (RIVER) at Puducherry.	February 27-28, 2025
College of Dairy & Food Science Technology			
26	Sapna Tomar Ms. Navjot Kaur & Mr. Hanish Sharma	Second prize in oral presentation at International Conference on Recent Advances in Food Science & Technology: A Way Forward organized by DSLD CHEFT, Devihosur-Haveri and Karnataka Science and Technology Academy, DST, Government of Karnataka. First Best Paper award for the article published in the journal <i>Indian Dairyman</i> , given by the Indian Dairy Association	January 22-24, 2025
27	Shelfali Sirane Sapna Tomar	Best Oral presentation award at 8 th AMIFOST, 2025 on the theme the future of Food Science and Technology: Innovation, sustainability and health hosted by AMITY Institute of Food Technology. Bagged second prize in oral presentation at International Conference on Recent Advances in Food Science & Technology: A Way Forward organized by DSLD CHEFT, Devihosur-Haveri and Karnataka Science and Technology Academy, DST, Government of Karnataka.	March 08, 2025



28	Ms. Navjot Kaur & Mr. Hanish Sharma	Best Paper award for the article published in the journal <i>Indian Dairyman</i> , given by the Indian Dairy Association	March 27-28, 2025
College of Fisheries			
29	Jaspreet Singh	Best Thesis Award during International Conference on Current Innovations and Technological Advances in Agriculture and Allied Sciences (CITAAS) - 2024	August 29-31, 2024
College of Animal Biotechnology			
30	Ms. Himani Gautam	Best poster award at 8th Annual Convention of Society of Veterinary Biochemists and Biotechnologists of India (SVBBI) at U.P. Pandit Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidyalaya Evam Go-Anusandhan Sansthan, Mathura.	December 20-21, 2024
31	Muskan Bhadok	Best Oral Presentation Award at 8th Annual Convention of Society of Veterinary Biochemists and Biotechnologists of India (SVBBI) at U.P. Pandit Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidyalaya Evam Go-Anusandhan Sansthan, Mathura.	

Participation of faculty in Conferences/ Symposia/ Workshop/ Trainings etc. (2024-25)

Sr. No.	Name of the Conference/ Symposium/Workshop/Training	Organizing Agency, Place, and Date	Name of Faculty Member(s)
International Participation (Overseas)			
1	Faculty development program on Academic leadership	University of Calgary, Canada August 07-11, 2024	Dr Arun Anand
2	Korean Society of Veterinary Circulation Conference (KVCC)	Korean Society of Veterinary Clinical Circulation, Seoul November 22-28, 2024	Dr Randhir Singh
3	International Congress of Tropical Medicine and Malaria (ICTMM 2024)	Kuching, Sarawak, Malaysia September 19-23, 2024	Dr L.D. Singla
International Conferences/Workshops attended in India			
1	International Symposium on “Harnessing Genome Editing for Resilient Agriculture”	PAU in collaboration with McGill University, Canada and GADVASU Ludhiana March 03-07, 2025	Drs. Bharti Deshmukh Satparkash Singh, Neeraj Kashyap, Vishal Sharma, Kalpana Singh
2	Online training on “Molecular Techniques to Monitor and investigate Antimicrobial Resistance (AMR)” Credits: 7 (UK CATS)	Department of Veterinary Biotechnology, College of Veterinary Science and Animal Husbandry, Kamdhenu University, Anand, Gujarat, India, in collaboration with Royal Veterinary College, London, UK, and Gujarat Biotechnology Research Centre, Gandhinagar, Gujarat July 01 - August 16, 2024	Dr Pankaj Dhaka
3	Molecular Techniques to Monitor and Investigate Antimicrobial Resistance, as part of the GCRF-OHPH program.	Department of Veterinary Biotechnology, College of Veterinary Science and Animal Husbandry, Kamdhenu University, Anand, Gujarat, India, in collaboration with Royal Veterinary College, London, UK, and Gujarat Biotechnology Research Centre, Gandhinagar, Gujarat. August 22 to 31, 2024	Dr Pankaj Dhaka



Sr. No.	Name of the Conference/Symposium/Workshop/Training	Organizing Agency, Place, and Date	Name of Faculty Member(s)
4	WOAH (OIE) Twinning Project Workshop: Forging a competency-based curriculum for better services in India	Guru Angad Dev Veterinary and Animal Sciences University, India and University of Calgary, Canada November 25-27, 2024	Drs Jagmeet Kaur, Deepti Narang, Harkirat Singh, Ramandeep Kaur Dhaliwal, Yashwant Singh, Rajnish Sharma
5	International Conference and Clinical Conclaves in Veterinary Cardiology and Interventional Medicine	Madras Veterinary College, Chennai October 14-16, 2024.	Dr Tanvika
6	Indian Society for Sheep and Goat Production and Utilization (ISSGPUCON-2024) Recent trends and future perspectives to improve the performance, health and welfare of small ruminants under changing climate scenario	Rajiv Gandhi Institute of Veterinary Education and Research, Puducherry April 24-26, 2024	Dr Sandeep Kaswan
7	Innovative and current advances in agriculture and allied sciences	Society for Scientific Development in Agriculture and Technology, Meerut (U.P.) India, July 15-20, 2024	Drs B.S. Khadda Harmmeet Kaur
8	International conference on Global research initiatives for sustainable agriculture & allied sciences-GRISAAS-2024 (Hybrid mode)	Society for Scientific Development in Agriculture and Technology (SSDAT) RARI Jaipur (Rajasthan), India December 10-12, 2024	Dr Munish Sharma
9	Global conference on smart horticulture for prosperity and nutritional security (GCSH-2025)	University of Horticultural Sciences, Bagalkot (Karnataka) February 12-14, 2025.	Dr Munish Sharma
10	Emerging issues and challenges faced by farmers for sustainability of Farmer Producer Organization (FPO)	Innovative and current advances in agriculture and allied sciences July 15-29, 2024	Dr Parul Gupta
11	International Conference of Agricultural Librarians and User Community	Karnataka Veterinary, Animal and Fisheries Sciences University, Bidar November 22-23, 2024.	Dr Nirmal Singh
12	International training on ovum picks up <i>in vitro</i> embryo production embryo transfer	KALSI, ULDB October 01-09, 2024	Dr Gurjot Kaur Mavi



Sr. No.	Name of the Conference/Symposium/Workshop/Training	Organizing Agency, Place, and Date	Name of Faculty Member(s)
13	International Symposium on Emerging Infectious Diseases and the One Health Approach	Sun Pharma Science Foundation, in collaboration with the National Institute of Animal Biotechnology NIAB, Hyderabad February 03,2025.	Dr Deepali Kalambhe
14	International Symposium and V Annual Convention of Veterinary Internal and Preventive Medicine (VIPM)	CVASc, SVPUAT Meerut, UP November 22-23, 2024	Dr Neetu Saini Dr Sujata
15	WANACON-2025 Newer Vistas to Animal Nutrition Research Towards Climate Resilient Animal Production for Livelihood, Food and Nutritional Security and feed expo	Animal nutrition Association, MAFSU, Nagpur January 20-22, 2025	Dr J.S Hundal Dr Udeybir Singh
16	14 th Asian Fisheries and Aquaculture Forum	Asian Fisheries Society, New Delhi (India) February 12-15, 2025	Drs Meera D. Ansal Vaneet Inder Kaur Amit Mandal S. N. Datta Sarbjee Kaur Vijay Kumar Reddy Vikas Phulia Prabjeet Singh
Participation in National conference/Workshops in India			
17	21 days ICAR sponsored Winter School on “Recent technological advancements in processing, packaging and quality assessment of health foods for fostering safe, improved and sustainable human living”	Department of Food Science and Technology, PAU, Ludhiana January 28-February 17, 2025	Drs Rajesh V. Wagh Pankaj Dhaka
18	Collaborative Online Training Program in “Livelihood Improvement through Value Addition of Animal Source Foods”	MANAGE and ICAR-IVRI September 10-14, 2024	Dr Rajesh V. Wagh
19	One week NEP Orientation & Sensitization Programme (Online mode)	Centre for Professional Development in Higher Education (CPDHE) and UGC - Malaviya Mission Teacher Training Centre (MMTTC) University of Delhi January 21-30, 2025	Drs Rajesh V. Wagh Paramjit Kaur B.B. Singh



Sr. No.	Name of the Conference/Symposium/Workshop/Training	Organizing Agency, Place, and Date	Name of Faculty Member(s)
20	Indian Poultry Science Association Conference (IPSACON 2024) and National Symposium on ‘Shaping the Indian Poultry Sector for Sustainable Growth’	Department of Poultry Science, Nagpur Veterinary College, Nagpur, MAFSU, MH October 16 - 18, 2024	Drs Rajesh V. Wagh Gurjot Kaur Mavi
21	XII Conference of IMSA and National Symposium on “Green and sustainable meat sector: Global game changer”	Department of Livestock Products Technology, College of Veterinary Science & Animal Husbandry, U.P. Pt. Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidyalaya Evam Go-Anusandhan, September 26 - 28, 2024	Drs Nitin Mehta Pavan Kumar
22	Two-Day Workshop on “Writing Winning Research & Grant Proposals”	Human Resource Management Centre, GADVASU December 09-10, 2024	38 Faculty members attended
23	Seminar DDG come and learn more of the “Feed of the Future- for India, By India	All India Distilleries Association and Department of Animal Nutrition August 21, 2024	Drs Nitin Mehta Pavan Kumar Rajesh V. Wagh
24	ISAPM National Conference on Precision Livestock Management Technology towards Strengthening Farming Efficiency and Animal Welfare.	MPUAT, Udaipur February 26-28, 2025	Dr Rajneesh
25	ICAR Sponsored 21-days centre of Advanced Faculty Training (ICAR-CAFT) in veterinary Microbiology on “Modern Diagnostic and control Approaches to safeguard Livestock Health”	LUVAS, Hisar January 04-24, 2025	Dr Ashok Kumar
26	Transforming Small Ruminant Production: Empowering Precision Farming and Genomic Innovations for Enhanced Productivity and Sustainable Development” in collaboration with ‘Indian Society for Sheep and Goat Production and Utilization.	ICAR-CIRG, Makhdoom, Mathura March 05-07, 2025	Dr Simarjeet Kaur
27	One-day workshop on developing a ‘Clinical Biosecurity Assessment Protocol’ for Veterinary Hospitals and Clinics	Centre for One Health, GADVASU, Ludhiana June 07, 2024	Sikh Tejinder Singh



Sr. No.	Name of the Conference/Symposium/Workshop/Training	Organizing Agency, Place, and Date	Name of Faculty Member(s)
28	Grading and Cryopreservation of IVF Embryos	NDDDB, Anand September 23, 2024	Dr Gurjot Kaur Mavi
29	Workshop on Genome Editing for enhancing Health and Welfare in Poultry	Division of Avian Physiology and Reproduction, ICAR-CARI, Bareilly March 03-12, 2025	Dr Gurjot Kaur Mavi
30	21-day Faculty Development Programme on Recent Advances in Agricultural Technology for Sustainable Development of Agriculture, veterinary, fisheries and lied Sectors	National Agriculture development Cooperative Ltd., Baramulla, J&K and ICAR-ATARI, Zone VIII, Pune	Dr Ramandeep Kaur Dhaliwal
31	XXII NAVS Convocation cum National Scientific Convention on “Challenges and Priorities for Optimal Production of Livestock, Poultry, Healthcare and Nutrition of Pets	National Academy of Veterinary Science (NAVS) and Veterinary College, Hebbal, Bengaluru, KVAFSU March 08-09, 2025	Drs Neelam Bansal Jaswinder Singh
32	71 st National conference of Anatomical Society of India (NATCON 71) on Modern Approaches in Anatomy Education	Department of Anatomy, Sri Guru Ram Das Institute of Medical Sciences & Research, Sri Amritsar November 22-24, 2024	Drs Anuradha Gupta Neelam Bansal
33	XXXVIII Annual Convention of Indian association of veterinary Anatomists & National Symposium on “Strategic Implementation of Anatomical Facts for Sustainable Livestock Health, Reproduction and Production with Special Emphasis on Biotechnology and Immunology”	Department of Veterinary Anatomy, DUVASU, Mathura October 24-26, 2024.	Drs Varinder Uppal Devendra Pathak Kritima Kapoor
34	Building a surveillance model for detecting zoonotic spill over in increased animal- human interaction setting using a one health approach: A study at selected slaughterhouses	Indian Council of Medical Research, New Delhi August 01, 2024.	Dr J.S. Bedi
35	Global Food Regulators Summit (GFRS)	Food Safety & Standards Authority of India, Ministry of Health and Family Welfare, Govt. of India, New Delhi September 20-21, 2024.	Dr J.S. Bedi



Sr. No.	Name of the Conference/Symposium/Workshop/Training	Organizing Agency, Place, and Date	Name of Faculty Member(s)
36	Workshop about occupational zoonoses to the slaughterhouse workers under the project entitled “Building a surveillance model for detecting zoonotic spill over in increased animal- human interaction setting using a one health approach: A study at selected slaughter houses”	Municipal Corporation Slaughterhouse, Chandigarh. October 14, 2024	Dr J. S. Bedi
37	Attended PREZODE (Preventing Zoonotic Disease Emergence)- One Health meeting,	French Embassy, India November 28, 2024.	Dr J.S. Bedi
38	XX Annual Conference of the Indian Association of Veterinary Public Health Specialists (IAVPHS) and the National Symposium on “Integrating One Health: Bridging the Gap at human-animal-environment Interfaces.”	Krantisinh Nana Patil College of Veterinary Science, Shirwal, under the Maharashtra Animal and Fishery Sciences University, Nagpur. November 14-15, 2024	Drs Pankaj Dhaka Randhir Singh
39	One-day workshop on “Strengthening Response Capacities: A Workshop on Zoonotic Disease Prevention and Management”	AIIMS Bathinda February 24, 2025,	Dr Pankaj Dhaka
40	Sector Connect “Field Epidemiology Program in One Health (FEP-OH)	National Centre for Disease Control and the Department of Animal Husbandry and Dairying, Jammu December 18 – 20, 2024.	Dr Deepali Kalambhe,
41	Training on “awareness program for slaughterhouse workers, environment sample collection and its diagnosis, data collection portal and the training on animal sample collection and diagnosis”	NMRI Hyderabad and ICMR at Hyderabad September 04-06, 2024	Dr Deepali Kalambhe
42	The 6 th Project Monitoring Committee Meeting of the DBT project	National Institute of Animal Biotechnology at NIAB, Hyderabad. February 04, 2025	Drs Deepali Kalambhe, J.S. Bedi, Pankaj Dhaka

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43	Orientation-cum-Training of Trainers (ToT) Workshop for Master trainers of ISAVET	FAO, India and ICAR-National Institute of Veterinary Epidemiology and Disease Informatics ICAR-NIVEDI, Bengaluru November 02-22, 2024	Dr Deepali Kalambhe
44	21 days ICAR sponsored winter school on “Applied Concepts in One Health to Address Zoonoses, Antimicrobial Resistance and Food Safety”	Centre for One Health, GADVASU, Ludhiana. February 19-March 10, 2024	Dr Deepali Kalambhe
45	21 days CAFT training on Innovative strategies in diagnostics and therapeutics in theriogenology	ICAR-GADVASU January 15- Feb 04, 2025	Dr Abrar ul Haq
46	XX National symposium of Indian Society of advance of canine practice	Indian Society of Advance of Canine Practice, Srinagar, JK April 25-27, 2024	Dr J.S Hundal Dr Sandeep Uniyal
47	65 th National Symposium of CLMA of India	CLMA of India, Goa September 20, 2024	Dr Udeybir Singh
48	Waste to resource: Unlocking the potential of treated wastewater in agriculture	Indian council of social science research, at PAU, Ludhiana February 24, 2025	Dr Amit Sharma
49	32 nd National Congress of Parasitology	ISP, Pune October 3-5, 2024	Dr L.D. Singla
50	18 th Conference of Indian Association of Women Veterinarian	DUVASU, Mathura, November 13-14, 2024	Drs Paramjit Kaur, Priyanka, Rabjot Kaur, Gurpreet Kaur, Paviter Kaur
51	33 rd National Congress of Veterinary Parasitology and National Symposium	IAAVP, PVNR TVU, Hyderabad December 17–19, 2024	Dr N K Singh Dr Harkirat Singh
52	NIRF ranking submission & quality enhancement	Association of Indian Universities, New Delhi January 18, 2025	Dr Paramjit Kaur
53	QS university rankings	Association of Indian Universities, New Delhi February 07, 2025	Dr Paramjit Kaur
54	Refresher Course on One-month Online Internship Summer Training/ Refresher/STC Programme on Data Analysis using R, Excel, Python, SPSS	Dr Shakuntala Misra National Rehabilitation University, UP & Science Tech Institute, Lucknow, UP, India June 20 to July 20, 2024	Dr L. Geeta Devi



Sr. No.	Name of the Conference/Symposium/Workshop/Training	Organizing Agency, Place, and Date	Name of Faculty Member(s)
55	24 th annual conference of Indian Society of Veterinary Pharmacology and Toxicology and National Symposia	Department of Veterinary Pharmacology and Toxicology, UP Pt. Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidyalaya Evam Go-Anusandhan Sansthan. Mathura November 19 to 21, 2024	Drs. Suresh Kumar Sharma, SPS Saini, Afroz Jahan
56	21-day training program under ICAR-CAFT on “Tools and Techniques for Artificial Intelligence-Based Web Application Development in Agriculture”	ICAR-IASRI, New Delhi March 04-24, 2025	Dr. Sasmita Barik
57	8 th Annual Convention of Society of Veterinary Biochemists and Biotechnologists of India and National Symposium on “Unlocking the Potential of Veterinary Biochemistry and Biotechnology for Food and Nutrition Security” (SVBBICON-2024)	College of Veterinary Science and Animal Husbandry, Mathura December 20-21, 2024	Drs Chanchal Singh, AK Singh, Vijay Kumar Reddy
58	39 th Annual Convention of the Indian Society for Study of Animal Reproduction (ISSAR) and National Symposium on Challenging in Enhancing Reproductive Efficiency of Livestock: An Indian Perspective (ISSARCON 2024).	Department of Veterinary Gynaecology and Obstetrics College of Veterinary Science Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana. November 29 to December 01, 2024	31 Faculty member attended
59	Advances in Dairy Animal Production	Directorate of Extension Education, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, Punjab August 20, 2024	Dr Akshita Chadda
60	<i>Conference:</i> 10 th National Veterinary Foundation Indian Vetopia 2025	National Veterinary Foundation Jaipur, Rajasthan February 26-28, 2025	Dr Raj Sukhbir Singh
61	Faculty development program on advanced research methodology & data analytics	DN Post Graduate College & Science Tech Institute, Lucknow (Online Mode) October 21-27, 2024.	Dr Randhir Singh



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62	One week workshop on Biomedical Research	Department of health research-Multidisciplinary Research Unit- Science Tech Institute, Lucknow, UP	Dr Gurpreet Singh Preet
63	ICAR Winter School on Genetic and Genomic Tools for Sustainable Aquaculture and Fisheries Management	ICAR-Central Marine Fisheries Research Institute (CMFRI), Kochi, Kerala January 15- February 04, 2025	Dr Mousumi Bora
64	Training programme on From Reads to Revelation: Transcriptome Data Decoded	ICAR-NAARM, Hyderabad December 09-11, 2024,	Dr Monu Karki
65	47 th Annual Congress of Indian Society for Veterinary Surgery and National Symposium on “ <i>Advances in Domestic and Wild Animal Surgery with special reference to Elephants</i> ”	Indian Society for Veterinary Surgery, <i>Guwahati, Assam</i> 18-20 Dec, 2024	Drs Navdeep Singh, N Umeshwori Devi, Nikita Gupta, Anju Poonia
66	National IVA Conference (IVACON 2024) “One Health Approach for Containment of Antimicrobial Resistance: A Way Forward (Online)”	Lucknow, UP August 17-18, 2024	Dr Ashwani Kumar Dr Vandana Sangwan
67	21 days ICAR sponsored winter school training on Evolving Trends in Veterinary Surgery and Diagnostic Imaging and its implications in management of surgical conditions in farm, food and companion animals”	RAJUVAS, Bikaner 07-27 January, 2025	Dr N Umeshwori Devi
68	Waste management and Standards	Legal metrology, Government of India April 13, 2024	Dr Harmanpreet Singh Sodhi
69	Metrology and sustainable waste management	Legal metrology, Government of India June 01, 2024	Dr Harmanpreet Singh Sodhi
70	How to write a research paper’ (online)	ICAR-IVRI, Pune and ISVS October 18, 2024	Dr Ashwani Kumar Dr Harmanpreet Singh Sodhi
71	28 th Punjab Science Congress - 2025	Faculty of Sciences, Khalsa College, Amritsar (February 07-09, 2025)	Dr Sarbjeet Kaur



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72	ICAR sponsored CAFT training on 'Extension approaches and initiatives for enhancing farmer's income through nutriprenurship	ICAR-Indian Agricultural Research Institute, New Delhi January 03-23, 2025	Drs Amit Mandal, Arunbeer Singh
73	Winter school in 'Geospatial Science & Technology'	Punjab Remote Sensing Centre, Ludhiana January 08-28, 2025	Drs Naveen Kumar B.T. Sarbjeeet Kaur
74	Current approaches and new strategies in aquatic animal disease diagnostics and vaccination	ICAR- Central Institute of Fisheries Education, Mumbai January 08-28, 2025	Drs Khushvir Singh, Adarsh Mishra
75	21-days CAFT training program on Application of Genomic Tools for Augmenting the Livestock Productivity in Farm Animals	IVRI Bareilly February 04-24, 2025.	Dr Ratan Kumar Choudhary
76	National Conference on Current Trends in Translational Research	PGIMER, Chandigarh March 17-19, 2025.	Dr Ratan Kumar Choudhary
77	21-days CAFT training program on "Applying Genomic Models in Prediction of Breeding Value Using BLUPF90 Software"	NDRI-Karnal January 10-30, 2025	Drs Neeraj Kashyap and Vishal Sharma, Vikram Jakhar, Bharti Deshmukh, Hujaz Tariq
78	15 days online UGC-MMTTC refresher course on "Research Methodology in advancing knowledge for a sustainable future"	UGC- Malaviya Mission Teacher Training Centre (MMTTC), National Institute of Educational Planning and Administration (NIEPA), New Delhi & Dayalbagh Educational Institute, Agra. November 11-25, 2024	Dr N Kashyap and Dr Adarsh Mishra,
79	05 days National Training Programme on "Agri startups and Agribusiness Opportunities for Women Entrepreneurs"	Department of Agricultural Extension, University of Agricultural Sciences, Bangalore funded by Department of Science and Technology (DST), GOI. December 02-06, 2024	Dr Kalpana Singh
80	04 days 29 th Annual Convention and National Conference of Indian Society for Veterinary Immunology and Biotechnology (ISVIB)	Tamil Nadu Veterinary and Animal Sciences University TANUVAS, Chennai September 26-29, 2024	Dr Adarsh Mishra



Sr. No.	Name of the Conference/Symposium/Workshop/Training	Organizing Agency, Place, and Date	Name of Faculty Member(s)
81	37 th ICAR-CAFT training on “Emerging Trends in Serological, Molecular and Cell based Diagnostics in Veterinary Sciences” at LUVAS, Hisar	Department of Veterinary Microbiology, LUVAS, Hisar (Haryana) January 22- February 11, 2025	Drs Afroz Jahan Chetna Mahajan Apoorva Shekhar, Manisha
82	16 th biennial conference of APHV at SVPUAT, Meerut	Association of Public Health Veterinarians, SVPUAT, Meerut February 20-21, 2025	Dr Maninder Singh
83	25 th National Conference (Online) On Role of Artificial Intelligence in One Health Theme: Early diagnosis & prevention of Zoonotic Diseases of Public Health Importance	Millennium India Education Foundation, New Delhi in association with Department of Biotechnology, GLA University Mathura on 30.11.2024	Dr Sreekala S. Mohandas
84	Faculty Induction Programme Residential	UGC - Malaviya Mission Teacher Training Centre, Guru Nanak Dev University, Amritsar December 30, 2024 to January 25, 2025	Dr Priyanka
85	Participated in ICAR-CAFT Training On “Innovative Strategies in Diagnostics and Therapeutics in Therogenology	Department Of Veterinary Gynaecology and Obstetrics, College of Veterinary Science (Ludhiana)Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana from January 15 to February 4, 2025	Drs Harneet Kour, Anavil Bharadwaj, Ramandeep Kaur Dhaliwal
86	Participated and presented in 41 st Annual Convention of Indian Society for Veterinary Medicine (ISVMCON-2025) & National Conference on Futuristic Approach In Animal Health Care And Welfare Through Specialty Medicine, Digital Health Technologies and Artificial Intelligence	Department of Veterinary Medicine, SKUAST-Jammu 17-19 February, 2025	Drs Harneet Kour, Jasleen kaur Randhir Singh, Gurpreet Singh Preet, Jasleen Kaur
87	5 th Annual Convention of Veterinary Internal and Preventive Medicine Society and International Symposium on “Headway in Veterinary Medicine: Improving Animal Health and Productivity with respect to Antimicrobial Resistance”	COVS, SVPUAT, Meerut November 22-23, 2024	Dr Ansu Kumari



Sr. No.	Name of the Conference/Symposium/Workshop/Training	Organizing Agency, Place, and Date	Name of Faculty Member(s)
88	Induction Training Programme for newly recruited faculty	Directorate Human Resource Management Centre, GADVASU, Ludhiana (02-13 September, 2024)	18 Faculty members attended
89	39 th Annual Convention & National symposium of ISSAR held at COVS Ludhiana from 29 th November to 1 st December, 2024	ISSAR at COVS Ludhiana from November 29 to December 01, 2024	Gitesh Saini Dawoud Aamir
90	12 th Foundation Course for the Faculty of Agriculture Universities (FOCFAU)	ICAR- National Academy of Agricultural Research Management, Hyderabad September, 23 2024	Dr Gitesh Saini
91	Two Week Online National Training on ‘Innovate and Protect: Mastering Intellectual Property in Veterinary and Agricultural Research’ organized during.	Department of Livestock Products Technology, Nagpur Veterinary College, MAFSU, Nagpur August 19-29, 2024	Dr O.P. Malav
92	21 days Winter School on “Quality assurance for production of wholesome and safe livestock products”	College of Veterinary Science & A.H., DUVASU, Mathura (U.P.) February 07-27, 2025	Dr Mehak Jandyal
93	Participated in National Symposium and 12th Conference of Indian Meat Science Association (IMSACON-XII), on “Green and sustainable meat sector: Global game changer	DUVASU, Mathura, during September 26-28, 2024.	Dr O.P. Malav & Dr Mehak Jandyal
94	Completed MOOC on “Digital Assessment and Evaluation Methodologies (DAEM)”. during	ICAR-National Academy of Agricultural Research Management, Hyderabad September 1-30, 2024	Dr O.P. Malav, Dr Sandeep Singh Dhaliwal & Dr Mehak Jandyal
95	Workshop on ‘Writing and Publishing Bibliometric and Systematic Review Papers’	Thapar Institute of Engineering & Technology, Patiala November 11-13, 2024	Dhiraj Kumar
96	Webinar on “Developing Effective AI Policies in Academic Institutions”	Association of Indian Universities AIU and Turnitin July 16, 2024	Dhiraj Kumar
97	21 days CAFT training Programme on Global Impact and Epidemiological Approaches to Mitigate Parasitic Diseases of Livestock	Department of Veterinary Parasitology, Veterinary College, Hebbal Bengaluru, India on 23 rd Jan to 12 th Feb, 2025.	Drs Varun Bassessar, Deepak Sumbria



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98	One day Workshop titled “Addressing Emerging Zoonoses in India: One Health Approach” under International Network for Government Science Advice (INGSA)-ASIA Project.	Centre for One Health, College of Veterinary Science, Ludhiana, GADVASU January 27, 2025	Dr Priyanka
99	One day Workshop titled “Assessment of Biosecurity Practices in Clinical settings across Veterinary Academic Institutes in Punjab”	Department of Public Health, COVS, Rampura Phul, September 11, 2024	Dr Varun Bassessar
100	21-day ICAR-sponsored Winter School on “Doubling income of dairy farmers by reproductive management of dairy cows and buffaloes”	ICAR-NDRI, Karnal Haryana February 06-26, 2025	Drs Jyoti Saini, Pooja Devi
101	One-Day workshop on “Extension approaches for climate resilient dairy farming”	ICAR-NDRI, Karnal, Haryana February 12, 2024	Dr Jyoti Saini
102	International Conference on “Current Innovation and Technological Advances in Agriculture and allied sciences”	Guru Kashi University, Talwandi Sabo, Bathinda August 29-31, 2024	Dr Yashwant Singh
103	Online ICAR Editor’s workshop -Enabling a Research Ecosystem”	ICAR September 24, 2024	Dr Yashwant Singh
104	Workshop on ‘Natural Behaviours in relation to Production and welfare of Native farm Animals’. Acted as Member, Expert Panel for farmers-Scientist-Industry Interaction and Question-Answer Session.	NDRI Karnal October 25, 2024	Drs Yashwant Singh, Shwetambri Jamwal
105	Online Turnitin’s Exclusive Webinar on Academic Integrity & AI Detection in Education	February 18, 2025	Dr Yashwant Singh
106	National conference on “Precision Livestock Management Technology towards Strengthening Farming Efficiency and Animal Welfare “at Dept. of Animal Production, Rajasthan College of Agriculture, MPUAT, Udaipur from 26-28.2.2025	Dept. of Animal Production, Rajasthan College of Agriculture, MPUAT, Udaipur February 26-28, 2025	Drs Yashwant Singh, Shwetambri Jamwal



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107	Attended online training on 'Climate Resilience Livestock Farming' organized by Training and Education Centre, ICAR-IVRI, via Virtual Mode.	ICAR-IVRI, Pune January 20- 24, 2025	Drs Yashwant Singh, Akshita Chadda
108	24 th Indian Veterinary Congress and 31 st Annual Conference of IAAVR & National Symposium on "Livestock Health and Poultry: A Paradigm Change to Maximize Productivity for Sustainable Farmer's Livelihood	LUVAS and IAAVR, Hisar, Haryana February 07-08, 2024	Drs Gaurav Kumar, Amit Kumar
109	2 nd Veterinary and Animal Science Congress & 2 nd Annual Convention of Association of Animal Scientists & National Symposium,	Apollo College of Veterinary Medicine, Jaipur and Association of Animal Scientists, 17 th -19 th February 2024 at Jaipur, Rajasthan	Dr Amit Kumar
110	7 th National Online Clinical Case Conference	PGIVAS, Akola, Maharashtra September 04-06, 2024	Dr Amit Kumar
111	National symposium of Indian Society for Buffalo Development on Innovative Approaches for Boosting Buffalo Productivity; ISBD-2024,	Kamdhenu University, Anand December 16-18, 2024	Dr Amit Kumar
112	Training on "Global impact and epidemiological approaches to mitigate parasitic diseases of livestock"	veterinary Parasitology, Veterinary College, Hebbal, Bengaluru January 23 to February 12, 2025	Dr Deepak Sumbria
113	Executive meeting of Indian Association of Advancement in Veterinary Pathology	SKUAST, Jammu June 21, 2024	Dr Vikrant Sudan
114	8 th International conference on aquaculture and marine biology	Society of Conference Mind, Telangana October 25-26, 2024	Dr Gulgul Singh
115	National Dialogue on 'Paddy Straw Management Towards Achieving Mission Zero Burning'	ICAR-ATARI, Zone I, ICAR-CSSRI, Karnal, Haryana October 26, 2024	Dr Anil Kumar
116	Zonal Workshop on Crop Residue Management	ICAR-ATARI, Zone I, Ludhiana October 18, 2024	Dr Anil Kumar
117	Training programme on 'Solar power-based technologies including irrigation'	Borloug Institute of South Asia, Ludhiana August 29-31, 2024	Dr Anil Kumar








Sr. No.	Name of the Conference/Symposium/Workshop/Training	Organizing Agency, Place, and Date	Name of Faculty Member(s)
118	Annual Zonal workshop of Krishi Vigyan Kendras (KVKs) of Zone-1	ICAR-ATARI, Zone I, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana September 18-20, 2024	Dr Prabjeet Singh Mr. Sahil
119	Sensitization cum awareness workshop on Carbon Farming & Indian Agriculture	ICAR-ATARI, Zone I, Ludhiana July 03, 2024	Dr Anil Kumar
120	National symposium on Food Processing: 4.0: Innovation and Sustainability	College of Agriculture, PAU, Ludhiana April 30, 2024	Dr Piverjeet Kaur Dhillon
121	One day regional workshop on promotion of Artificial Insemination & Machine wool sheering in sheep in North Temperate states of India	ICAR- Central sheep and wool research Institute, Rajasthan NTRS Kullu June 29, 2024	Dr Prabhjinder Singh
122	Planning workshop on 'Crop residue Management: KVK initiatives and way forward'	ICAR-ATARI, Zone I, Ludhiana April 26, 2024	Dr Anil Kumar
123	ICAR-Bayer Crop Science collaboration for Direct Seeded Rice demonstrations	ICAR-ATARI, Zone I, April 30, 2024	Dr Anil Kumar
124	Workshop on State Level Action plan 2024-25	ICAR-ATARI, Zone I, Ludhiana April 19 & 22, 2024	Drs Prabjeet Singh, Piverjeet Kaur Dhillon, Prabhjinder Singh, Sahil Anil Kumar Navjot Singh Brar
125	Latest technological innovations in community science and their applications in rural families.	Skilled development centre, PAU, Ludhiana December 05, 2024	Dr Parul Gupta
126	Modern breeding approaches for processing, quality, and export in vegetable cops”	ICAR-IIVR, Varanasi February 04-13, 2025	Dr Munish Sharma
127	Crop Residue Management: KVK initiatives & way forward	ICAR-ATARI, Zone-1, Ludhiana, October 19, 2024	Dr Harmeet Kaur
128	Biennial Conference on Climate – Smart Weed Management for Global Food Security,	Indian Society of Weed Science, Banaras Hindu University, Varanasi November 28-30, 2024.	Dr Navjot Singh Brar








Sr. No.	Name of the Conference/ Symposium/Workshop/Training	Organizing Agency, Place, and Date	Name of Faculty Member(s)
129	Frontline Extension system for Young KVK Professionals	ICAR-ATARI, Zone I, Ludhiana January 20-24, 2024	Dr Prabhjinder Singh
130	National seminar on Nutrition, Psychology and Screen Time: Status, Interplay, Challenges and Way Forward	College of Community Science, PAU, Ludhiana January 29, 2025	Dr Piverjeet Kaur Dhillon
131	Five days training program on Nurturing Future Leadership Program	IIM, Jammu February 17-21, 2025.	Dr Gagandeep Singh
132	National Conference on Emerging Library and Information Technologies	NIT Warangal, Telangana April 26-27 2024.	Nirmal Singh
133	Online National Workshop on Library Management System (KOHA)	Poornima College of Engineering, Jaipur May 28, 2024	Sonia Bansal
134	Webinar on Embracing Digital Transformation: The Future of Libraries	Kibo by Trestle Labs August 17, 2024	Sonia Bansal
135	Webinar on designing of KOHA - Web OPAC	CCSHAU, Hisar February 22, 2025	Sonia Bansal




Conferences/symposia/workshops/trainings (other than extension trainings) Organized


S. No.	Name of conference/symposia/workshops/trainings	Organizing/ Funding Agency	Date
College of Veterinary Science			
Veterinary Gynaecology and Obstetrics			
1	<p>39th Annual Convention of the Indian Society for Study of Animal Reproduction (ISSAR) and National Symposium on Challenging in Enhancing Reproductive Efficiency of Livestock: An Indian Perspective (ISSARCON 2024).</p> 	Department of Veterinary Gynaecology and Obstetrics, COVS, GADVASU, Ludhiana	November 29 - December 01, 2024
2	<p>21 days CAFT Training to scientists of other SAUs and ICAR Institutes under the auspices of Center of Advanced Faculty Training on 31st Advanced Training Course on Innovative Strategies in Diagnostics and Therapeutics in Theriogenology</p> 	Department of Veterinary Gynaecology and Obstetrics, COVS, GADVASU, Ludhiana	January 15 - February 04, 2025
3	<p>One day training programme on “Hands on practice on obstetrical procedures”</p> 	Department of Veterinary Gynaecology and Obstetrics, COVS, GADVASU, Ludhiana	January 04, 2025



4	<p>One day training programme on “Semen Analysis and Cryopreservation” for SC students under Strengthening and Development of Higher Agricultural Education in India.</p> 	<p>Department of Veterinary Gynaecology and Obstetrics, COVS, GADVASU, Ludhiana</p>	<p>January 05, 2025</p>
5	<p>Training programme on “Reproductive Ultrasonography in Dairy Animals” for SC students under Strengthening and Development of Higher Agricultural Education in India.</p> 	<p>Department of Veterinary Gynaecology and Obstetrics, COVS, GADVASU, Ludhiana</p>	<p>March 25-26, 2025.</p>
<p>Teaching Veterinary & Clinical Complex</p>			
6	<p>Online post graduate certificate course on Veterinary Homeopathy</p>	<p>Department of Teaching</p>	<p>May 04-October 20, 2024</p>
7	<p>Five days training on veterinary nephrology, dialysis, ultrasound & echocardiography</p>	<p>Veterinary Clinical Complex,</p>	<p>June 24-28, 2024</p>
8	<p>Short duration course on Livestock health, issues and possible solutions</p>	<p>GADVASU, Ludhiana</p>	<p>August 5-8, 2024</p>
9	<p>Training on “ Recent trends in Animal Disease Diagnosis using Imaging and Laboratory Techniques”</p>	<p>ICAR</p>	<p>August 19-23, 2024</p>
10	<p>Training on “ An Introduction to Equine welfare, Behaviour, Handling & Farriery”</p>	<p>Brooke India</p>	<p>September 11-13, 2024</p>
11	<p>Short duration course on Livestock health, issues and possible solutions</p>	<p>Department of Teaching Veterinary Clinical Complex, GADVASU, Ludhiana</p>	<p>January 28-31, 2025</p>


Veterinary Physiology and Biochemistry			
12	<p>High End Workshop project on “Advanced techniques for assessment of biomarkers of oxidative stress in clinical samples of Animals”</p> 	DST-SERB	April 22 - May 03, 2024
13	<p>Hands on Training on “Physio-biochemical Techniques for Evaluation of Disease Conditions in Veterinary Practice”</p> 	ICAR-01 Strengthening & Development of Higher Education in India	March 11-13, 2025
14	<p>01-day Hands on training on “Biochemical Techniques for Molecular Analysis of Biological Samples”</p> 	ICAR-1 Strengthening & Development of Higher Education in India	March 19, 2025
15	<p>02 days Hands on training on “Blood profiling & Semen evaluation of farm animals as valuable tool for assessing health status”</p> 	ICAR-1 Strengthening & Development of Higher Education in India	March 27-28, 2025
Veterinary Pharmacology and Toxicology			
16	<p>Organized Hands-on Training for Undergraduate graduate students on ‘Pharmacy Preparation techniques for entrepreneurship’</p>	ICAR	February 04-14, 2025

Veterinary Pathology			
17	Hands on Training on rabies diagnosis in animal	Strengthening and Development of Higher Education in India under ICAR Sub-component "Schedule Caste-Sub Plan	February 11, 2025
18	Hands on training on Disease Diagnosis in Animals and Poultry	Strengthening and Development of Higher Education in India under ICAR Sub-component "Schedule Caste-Sub Plan	February 13, 2025
19	Hands on Training on Clinico-pathological approaches for diagnosis of diseases in animals	Strengthening and Development of Higher Education in India under ICAR Sub-component "Schedule Caste-Sub Plan	March 12, 2025
20	Hands on Training on diagnosis of tumors through cytology and immunohistochemistry	Strengthening and Development of Higher Education in India under ICAR Sub-component "Schedule Caste-Sub Plan	March 27, 2025
Animal Nutrition			
21	Seminar on DDGS entitled "Feed of the future, For India. By India	AIDA and ANSI	August 21, 2024
Veterinary Microbiology			
22	One-month Advanced Training course for BSc students on "Microbiological & Molecular Biological Techniques" 	ICAR-01 Strengthening & Development of Higher Education in India under Sub-component Scheduled caste-Sub Plan.	June 01-30, 2024

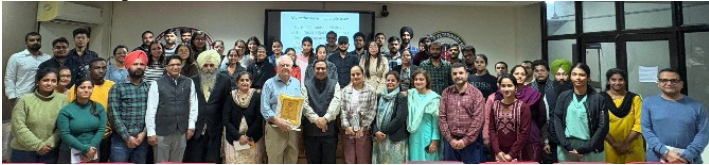

23	Five-day Training Programme on “Advanced Microbiological Disease Diagnostic Techniques” to veterinary Officers from Sheep Husbandry Department, Jammu, Government of Jammu & Kashmir.	ICAR-01 Strengthening & Development of Higher Education in India under	March 03-07, 2025
24	Training on “Isolation and Identification of common bacterial pathogens”	Sub-component Scheduled caste-Sub Plan.	February 20, 2025
25	Training on “PCR and Real Time PCR” 	ICAR-01 Strengthening & Development of Higher Education in India under Sub-component Scheduled caste-Sub Plan.	February 21, 2025
26	Training on Basics of Cell Culture Technique 	ICAR-01 Strengthening & Development of Higher Education in India under Sub-component Scheduled caste-Sub Plan.	March 27, 2025
Veterinary Medicine			
27	Basics of Electrocardiography in Canine Practice	ICAR-01 Strengthening and Development of higher Agricultural Education in India	March 28, 2025
28	Advanced Entrepreneurship skill Development Programme (AESDP) entitled Scientific dairy Farming, Value chain addition and marketing to augment farmers income 	MSME	January 24-31, 2025 February 12-18, 2025

29	<p>Entrepreneurship Awareness Programme (EAP)</p> 		<p>January 17-20, 2025 February 03-05, 2025 February 21-22, 2025 February 24-25, 2025</p>
Directorate Livestock Farm			
30	<p>One day training cum demonstration on ‘Comprehensive Biosecurity Approach for Farm Health and Safety</p> 	ICAR-01	March 27, 2025
31	<p>One day training cum demonstration on ‘Strengthening Farm Biosecurity: Practical Strategies for Disease Control</p> 	ICAR-01	March 28, 2025
32	<p>Training on Ovum Pick Up and In Vitro Embryo Production</p>	AAU, Assam	June 12-23, 2024
33	<p>Hands on training program in ovum pick up and in vitro embryo production in bovines</p>	Guru Angad Dev Veterinary & Animal Sciences University, Ludhiana	July 15-26, 2024
Centre for One Health			
34	<p>Trainings on Improving Animal Health Practices of Veterinarians and Livestock Farmers to Contain Antimicrobial Resistance and Promote</p> 	Asian Development Bank (ADB), Manila, Philippines and Zenex Animal Health (ZAHL)	<p>June 11-14, 2024 October 08, 2024 December 11-12, 2024 February 13-14, 2025</p>

35	Sensitization Workshop on Zoonotic Diseases and Disease Transmission Risks in High-Contact Environments at Municipal Corporation Slaughterhouse, Chandigarh on under the project Building a surveillance model for detecting zoonotic spill over in increased animal- human interaction setting using a one health approach: A study at selected slaughter houses	ICMR, India	October 14, 2024
36	A capacity-building workshop titled Addressing Emerging Zoonoses in India: A One Health Approach” for research scholars 	International Network for Government Science Advice (INGSA)-Asia	March 12, 2025
37	One-day workshop on developing a ‘Clinical Biosecurity Assessment Protocol’ for veterinary hospitals and clinics 	Institutional project “Assessment of Biosecurity Practices in Clinical Settings across Veterinary Institutes in Punjab.”	June 07, 2024
38	Technical Workshop on “Introduction to basic concepts on clinical biosecurity”	Institutional project “Assessment of Biosecurity Practices in Clinical Settings across Veterinary Institutes in Punjab.”	September 11, 2024
39	Hands on Training on “Practical Approach to address Food Safety Challenges”	ICAR-01: Strengthening and Development of Higher Agricultural Education in India	March 10-13, 2025
Veterinary Anatomy			
40	Training on Recent Advances in gross anatomical techniques	ICAR-01	February 04, 2025
41	Training on histological Techniques for entrepreneurs	ICAR-01	February 05, 2025
42	Training on Plastination: Basic principles and methodology	ICAR-01	March 24, 2025

43	Training on Immunohistochemical techniques and applications	ICAR-01	March 27, 2025
44	Hands on training on Diagnostic Histochemistry and Cell Biology	ICAR-01	March, 28, 2025
45	02-day workshop on “Stem Cells and Flow Cytometry” for the students and young faculty to enhance biotechnology skills in stem cell biology and flow cytometry	DBT	September 26-27, 2024.
46	PITCHQUEST, a two-day entrepreneurial workshop	VLIIF – Vety & Livestock	November 25-26, 2024
47	Two days Start-up/ entrepreneurship grand challenge competition	Innovation and Incubation Foundation, GADVASU,	November 27-28, 2024
48	A Hands-on-training on preparation of cookies: Training program	CODFST	March 28, 2025
49	Bake and Learn: A Hands-on-training on preparation of desi ghee atta biscuits		
50	Training Program on Mastering the art of Mysore-Pak		March 27, 2025
51	Training program on Mastering the science and technology of Nutribars		March 27, 2025
52	Training program on Hands on Training on Liquid Milk Processing		March 11, 2025
53	Hands on Training on Ice cream manufacturing		March 12, 2025
54	Hands on Training on Fermented Dairy Products		March 13, 2025
55	One Day Hands on Training on Cheese Manufacturing		March 29, 2025
56	Training program on Handling and maintenance of starter culture		March 31, 2025
57	Training program on Chemical Quality assessment of milk		March 25, 2025
58	Training program on Milk Quality Assessment and Value		March 27, 2025
59	Training program on Capacity Building of SC staff working in the area of milk processing in CODFST	March 29, 2025	
Directorate of Human Resource Management Centre			
60	<p>Guest Lecture on Role of specific Artificial Intelligence (AI) Tools and ChatGPT’s for Office Productivity and Office Management” by Dr. Surjit Singh Makker, Veterinarian, Former Joint Director (AH), Punjab</p> 	Directorate HRMC, GADVASU	April 09, 2024

<p>61</p>	<p>Guest Lecture on “How to crack US and Canadian Veterinary Medical boards with minimal funds” by Dr. Tejinder P. Sharma, Practicing Veterinarian since 2003, Blue Cross Animal Hospital, Royal Oak, MI, USA</p> 	<p>Directorate HRMC</p>	<p>April 29, 2024</p>
<p>62</p>	<p>Three Days Training on Higher Standard Departmental Examination of Accounts and General Services</p> 	<p>Directorate HRMC</p>	<p>August 13-14, 16, 2024</p>
<p>63</p>	<p>Expert lecture on “Animal Cloning: Status and Scope in Indian Livestock Production” by Dr. Prem Singh Yadav, Principal Scientist, ICAR-CIRB, Hisar</p> 	<p>Directorate HRMC</p>	<p>August 23, 2024</p>
<p>64</p>	<p>12-day orientation for newly recruited faculty</p>  	<p>Directorate HRMC</p>	<p>September 2-13, 2024</p>
<p>65</p>	<p>Expert lecture on CPR Training & Heart Health Awareness - Mission Swasth Kawach by Dr. Ankit Gulia, DMC, Ludhiana</p> 	<p>Directorate HRMC</p>	<p>September 27, 2024</p>

66	<p>Expert lecture on Meeting the Challenge of Controlling Pathogens: Immunopathology by Dr. Barry T. Rouse, University of Tennessee, USA</p> 	Directorate HRMC	November 18, 2024
67	<p>Expert lecture on Writing & Research Grant Proposals by Dr. Chander K. Shahi, Dean Graduate Studies, Lakehead University, Ontario, Canada</p> 	Directorate HRMC	December 09-10, 2024
COVS, Rampura Phul			
68	<p>Workshop for Paravets and Veterinary Officers on “Enhancing Animal Welfare Through Veterinary Support”</p>	COVS, Rampura Phul	November 01-07, 2024

Invited Lectures Delivered by Faculty

a) Outside Campuss

S.No.	Name of the Faculty and Detail of the Lectures
1.	<p>Dr. Varinder Uppal: Hair Morphology: As a tool in forensic science.</p> <p>Dr. Devendra Pathak: Subcellular insight: Immuno Electron Microscopy (IEM) in Livestock research.</p> <p>In 38th Annual Convention of IAVA & National Symposium on “Strategic implementation of anatomical facts for sustainable livestock health, reproduction and production with special emphasis on Biotechnology and Immunology” from 24-26, 2024.</p>
2.	<p>Dr. J.S. Bedi:</p> <ul style="list-style-type: none"> Emergence and Impact of Zoonoses: Strategies for Containment within the One Health Framework. In XX Annual Conference of the IAVPH and the National Symposium on scheduled fontegrating One Health: Bridging the Gap at Human-Animal-Environment Interfaces at KNP, Shirwal, Maharashtra from November 14-15 2024. Urban and Rural Biosecurity Strategies in India. CSRD), People’s University, Bhopal, in collaboration with HSC International (USA) on March 12, 2025 (Online).
3.	<p>Dr. Pankaj Dhaka: The One Health Approach: Integrating Human, Animal and Environmental Health. In 7 days, international training cum Workshop on “Cutting Edge Innovations in Veterinary Science for a Sustainable Future” at BAU, Ranchi on March 21, 2025 (Online).</p>
4.	<p>Dr. Rajnish Sharma: “Zoonotic Diseases of Farm Animals” at Lovely Professional University, Phagwara on January 7, 2025.</p>
5.	<p>Dr. Deepali Kalambe: “Introduction to Epidemiology” for field veterinarians, Physicians, food safety officers and wild life officers. NCDC and the Department of Animal Husbandry and Dairying (DAHD), Jammu on December 18, 2024.</p>
6.	<p>Dr. S.T. Singh. Improved techniques of calf rearing and heifer management. Dairy Training and Extension Center, Sangrur, Punjab on September 07, 2024.</p>
7.	<p>Dr. S.T. Singh: Animal Disease prevention and control and Vaccination. 2 days training on Improving Animal Health Practices of Veterinarians and Livestock Farmers to Contain Antimicrobial Resistance and Promote One Health for livestock farmers of Punjab at COVS, Rampura Phul on October 22-23, 2024.</p>
8.	<p>Dr. S.T. Singh: Disease prevention and control including deworming and vaccination in dairy animals. Training programme on Desi Cow Management at Nurmahal, District. Jalandhar November 15-17, 2024.</p>
9.	<p>Dr. Narinder Singh: Application of frozen sexed semen at field level at LPU Phagwara on January 7, 2025.</p>
10	<p>Dr. Daljeet Kaur: Housing management of Layers and broilers & Different Housing systems of Poultry Birds. In training programme of Scientific Backyard Poultry Farming by KVK, Handiaya, Barnala March 18, 2025.</p>
11.	<p>Dr. Rajesh V. Wagh:</p> <ul style="list-style-type: none"> From Ocean to Package: Exploring Seaweed-Based Intelligent Solutions. Two-day International workshop “Seaweed: Sustainable Source for Future Food Systems” organized by School of Biotechnology, Dublin City University, Dublin from September 12-13, 2024 (Online).



	<ul style="list-style-type: none">Innovative food Packaging for Dairy products. In 3 Days, training program on “Dairy Management and Extension” by MANGE, Hyderabad from March 06-08, 2025 (Online).
12.	Dr. Nitin Mehta: Encapsulation of Essential Oils for Quality Control of Livestock Products. In X. II Conference of IMSA and National Symposium on “Green and sustainable meat sector: Globa game changer” at DUVASU, Mathura from September 26-28, 2024.
13.	Dr. D.K. Gupta: Judicious use of antibiotics in the management of mastitis at ICAR- National Research Centre on Camel, Bikaner on February 20, 2025 (Online).
14.	Dr. Ashwani Kumar Sharma: A closer look at Livestock Health: Cattle and Buffalo disease diagnosis in Punjab. In ISVM Conference at Jammu February 2025.
15.	Dr. Sujata Turkar: Utility of ultrasonography in diagnosis of gastrointestinal diseases in bovine. Dr. Neetu Saini: Echocardiographic diagnosis of cardiac diseases in dogs. In International Symposium and V Annual Convention of Veterinary Internal and Preventive Medicine (VIPM) at SVPUAT Meerut, UP from November 22-23, 2024.
16.	Dr. Sushma Chhabra: Diagnosis and Treatment of skin infections of Dogs and Cats with advanced techniques. In Seminar on “Care and Cure of Domestic Animals with Recent Advances” under ASCAD scheme at Mohali March 10, 2025.
17.	Dr. Gurpreet Kaur: Overview of canine Parvovirus. In 8 th conference of Indian Association of Women Veterinarians at DUVASU, Mathura on November 14, 2024.
18.	Dr. Paviter Kaur: Diagnosis of microbial infections at Sant Baba Bhag Singh University, Jalandhar on August 27, 2024.
19.	Dr J.S. Hundal: Enhancing canine well-being with omega-3 fatty acids. In ISACP and SKUAST-Kashmir from April 25-27, 2024.
20.	Dr. Amit Sharma: Nutritional requirements for stress management in livestock. In 21 days, international online training at COVS, Kishanganj BASU Patna, Bihar on March 11, 2025 (online).
21.	Dr N.K. Singh: Veterinarians: An essential health worker for control of parasitic threats. Khalsa College of Veterinary & Animal Sciences, Amritsar; April 18, 2024.
22.	Dr Harkirat Singh <ul style="list-style-type: none">Animal trypanosomosis: Surra on April 18, 2024 (online).“Family Trypanosomatidae Genus: <i>Trypanosoma</i> March 12, 2025 (online) and Leishmania on March 14, 2025 at CSK HPKV, Palampur.
23.	Dr L.D. Singla <ul style="list-style-type: none">Regulatory guidelines of animal care during experimentation at LPU, Jalandhar April 20, 2024.Vector Borne Parasitic Diseases of Public Health Importance at Kasetsart University, Bangkok, Thailand; July 11, 2024.Advances in Diagnosis and Management of Trypanosomiasis in Camels in International Training Programme: “Advances in Camel Health, Production and Technology” at ICAR-National Research Centre on Camel, Bikaner, Rajasthan.Innovating Diagnosis and Overcoming Resistance: Cutting-Edge Approaches for <i>Trypanosoma evansi</i> Management in the Indian Society of Parasitology Conference at the Indian Institute of Science Education and Research, Pune from October 3-5, 2024.

	<ul style="list-style-type: none"> • Transformative advances in diagnostic approaches for vector-borne parasitic infections: current insights and research trends in India in 17th SOMA International Conference of Medical Arthropodology at Khalsa College Amritsar on November 20-21, 2024. • Vector-Borne Parasitic Infections and Climate Change: Current Status, Research Progress, and Educational Implications. In the refresher Course in “Life Sciences” at UGC-Malaviya Mission Teacher Training Centre, Punjabi University Patiala on December 11, 2024. • Current Status and Future Prospects of Protozoan Parasites of Public Health Importance. In CAFT training by Veterinary Parasitology Hebbal, Bangalore on February 03, 2025. • Understanding Parasite Diversity and Their Vital Role in Public Health at a seminar on “Bio-diversity Conservation in a Mega-Diverse Country: Issues, Challenges, and Solutions” at Sanmati Government College of Science, Education and Research, College Development Council, Punjab University Jagraon on March 13, 2025.
24.	Dr. Chanchal Singh: Impact of Heavy Metal Pollution on Animal Health: Insights into Metabolic Disruptions and Strategies for Resilience in Contaminated Environments. In conference of SVBBI and National Symposium on “Unlocking the Potential of Veterinary Biochemistry and Biotechnology for Food and Nutrition Security” at DUVAS, Mathura on December 20-21, 2024.
25.	Dr. Randhir Singh: <ul style="list-style-type: none"> • Current trends in hemodialysis & its applications in companion animals of India, Korean Society of Veterinary Clinical Circulation, Seoul on November 24, 2024. • Advanced insights into hemodialysis therapy for companion animals: Techniques, challenges & outcomes. In conference of ISVM SKUAST-Jammu on February 18, 2025. • Canine kidney disease: Evidence based approach to current diagnostics & long-term management at DGCN, COVAS, CSKHPKV, Palampur on Online Mode on February 11, 2025.
26.	Dr Gurpreet Singh Preet: Management of colic and tetanus in equines at Animal Husbandry Department, Chandigarh, 10.03.2025.
27.	Dr Akshita Chadda: Diffusion of Innovation at CSK HPKV Palampur on March 28, 2025 (Online).
28.	Dr A K Singh: Diagnostic use of USG in post-partum reproductive problems under IDP-NAHEP at SKUAST-J, Jammu on July 23, 2024.
29.	Dr M Honparkhe: Infertility management in large ruminants by USG technique at KNPCVS, Shirwal MAFSU, August 21, 2024 and February 06, 2025 (Online).
30.	<ul style="list-style-type: none"> • Dr M Honparkhe: Therapeutic potential of nanoparticles in conjunction with proteolytic enzymes for uterine infections in dairy animals. • Dr. Amarjeet Bisla: Selection of nanoparticles, their surface functionalization, Bio-conjugation & Characterization for application in Animal Reproduction. • Dr. Nakul Gulia: Various applications of Nanoparticles in the field off Animal Reproduction. In Conference & workshop on “Biomimicry: nature’s perfect innovation system to design a sustainable future” at Jamia Millia Islamia, New Delhi from February 1-7, 2025.
31.	Dr J Mohindroo: <ul style="list-style-type: none"> • Radiologists approach to musculoskeletal diseases in small animals. CVE program organized by Pet Practitioners Association of Bihar and FSAPAI on May 5, 2024.

	<ul style="list-style-type: none"> • Ultrasound of abdomen in small animals - Liver, spleen, GIT, pancreas and Ultrasound of abdomen in small animals - Urogenital, lymph nodes, adrenals. In ICAR sponsored winter school on “Evolving trends in Veterinary Surgery and Diagnostic Imaging and its Implications in Management of Surgical Conditions in Farm Food and Companion Animals’ organized by the VSR, RAJUVAS, Bikaner from January 07-27, 2025 on February 17, 2024. • Radiological interpretation of thorax, abdomen, skull, vertebral column in training on “Basics of Radiology and Radiological interpretation” at Bombay Veterinary College, Mumbai from 21” to 23 June 21-23 2024. Mumbai. • Radiographic and Radiological interpretation of fore limbs, hind limb, thorax and abdomen in small animals. In Department of Surgery & Radiology, Mumbai Veterinary College, Mumbai for Lady Veterinarians from March 6-8, 2025. • Radiographic diagnosis of different orthopedic conditions. in Training on “<i>Advanced Techniques of Internal Fixation of Fractures</i>” by Training and Education Centre, ICAR-IVRI, Pune on 12.12.2024 (online).
32.	Dr. Navdeep Singh: Recent trends in Bovine GIT Surgery.18.12.2024, <i>Guwahati, Assam</i> .
33.	Dr Ashwani Sharma: Diagnostic advancement and treatment of diaphragmatic hernia in farm animals. In 7-day web-workshop on “Advancement in Farm Animal Soft Tissue Surgery” at Bihar Animal Sciences University, Bihar from July 3-9, 2024.
34.	Dr. Sunil Kumar: <ul style="list-style-type: none"> • Milk proteins as attractive candidates for food packaging: Opportunities and challenges. In “51st Indian Dairy Industry Conference” at Samrat Ashoka International Convention Centre, Patna, Bihar, Bihar from March 06-08, 2025. • Competitive insights related to applications of milk solids in Bakery and confectionary products. In 16-day training /workshop program for capacity building of dairy technology students by Sanjay Gandhi Institute of Dairy Technology, Patna from June 20- July 10, 2024.
35.	Dr. Manvesh Kumar Sihag: Ice-cream and its chemistry. In 16 training programmes at Sanjay Gandhi Institute of Dairy Technology, Bihar Animal Sciences University, Patna, Bihar on May 31, 2025 (Online).
36.	Dr. Sonika Choudhary: Chemistry of heat desiccated and fermented milk products. In 16 training programmes at Sanjay Gandhi Institute of Dairy Technology, Bihar Animal Sciences University, Patna, Bihar on May 24, 2024 (Online).
37.	Dr. Narender Kumar Chandla: The Future of Biopolymers and the Impact of Hydrocolloids on their Functional Properties. In International Conference on Polymers and Nanomaterials (ICPN-2025) at Mahatma Gandhi University (MGU), Kottayam, Kerala from March 21-23, 2025.
38.	Dr. Rekha Chawla: Emerging concepts of packaging: biodegradable and edible packaging sponsored by DBT Star college scheme at DAV College, Jalandhar on January 23, 2025.
39.	Dr. Varinder Pal Singh: Statistical quality control in dairy industry and its various techniques at Punjab Institute of Cooperative Training Limited, 49-Industrial Area, Phase-I, Chandigarh on March 25-27, 2025.
40.	Dr Sandeep Kaswan: Extension Tools to Boost Fodder Production & Availability to the Livestock on 30.11.24. In 21 Days, Winter School on “Recent Advances in Agrostology cum Pasture & Forage Research for Doubling Crop & Livestock Production” by DUVASU, Mathura & NADCL, Baramulla November 22 to December 12, 2024 (Online).

41.	Dr O.P. Malav: Meat Processing Sector in India: Growth, Challenges and Opportunities on 18.11.24. “Value Addition in Animal Products: A way towards Nutritional Security and Livestock Economy” for Extension officials by RAJUVAS Bikaner and MANAGE Hyderabad from 18th-20th November 18-20, 2024 (Online).
42.	Dr. O.P. Choudhary: SEM and its applications in biological sciences” in the Workshop on Interpretation of Instrumental Methods (WIIM-2025) at CSIR-National Metallurgical Laboratory, Madras Centre, CSIR Madras Complex, Taramani, Chennai from January 2-7, 2025 (Online).
43.	Dr. Yashwant Singh: <ul style="list-style-type: none"> • Strategies for ameliorating thermal stress in Dairy animals on 24.8 2024. In 21 days of summer school in online mode on ‘Emerging challenges and opportunities in Biotic and Abiotic Stress Management at Astha Foundation, Meerut from August 10-30, 2024. • Transition and dry cow management for Better Reproduction on 14.02.2025. In 21 days, summer school on. “Optimized Reproductive Management of Dairy Animals: Maximizing Profitability” at LPM division ICAR-NDRI, Karnal. • Mitigation strategies for Abiotic and Biotic stress in Dairy Animals of Punjab under the climate change scenarios. In conference at GKU, Talwandi Sabo, Bathinda from August 29-31, 2024. • Integration of Livestock in Natural Farming Perspective. In four-day on “Natural Farming” by PAMETI, Ludhiana & MANAGE Hyderabad on” from March 17-20 & 24-27, 2025.
44.	Dr Amit Sharma: Roles of veterinarians in animal welfare on 13.06.2024 and Importance of animal welfare and the impact on animal health and quality of meat/eggs/milk 13.02.2025 at Centre for One Health, GADVASU, Ludhiana.
45.	Dr Subhash Chandra: 21 Days Winter School On “Recent Advances in Agrostology cum Pasture & Forage Research for Doubling Crop & Livestock Production” at DUVASU, Mathura on November 26, 2024 (online).
46.	Dr. Rajinder Kaur <ul style="list-style-type: none"> • Processing and value addition of fish: Products and by-products at SVPVA&T, Meerut, U.P. September 28, 2024 (online). • Freshwater Aquaculture. In 3 days, training programme on “Fish farming” at Department of Fisheries, Sangrur on November 27, 2024. • Pond construction and management & Economics of 1.0-acre carp fish pond in vocational training on scientific fish farming on November 28, 2024; Zero waste fish processing technology on December 11, 2024. In the Vocational training programme at KVK Tarn Taran. • Disease management in shrimp farming. In 3 days training by Department of Fisheries, Mansa on December 12, 2024.
47.	Mr. Sahil: Hatchery, Nursery, Grow out Management, Disease & Health Management & New Techniques like Bio Floc & RAS at Assistant Director Fisheries, Gurdaspur on January 10, 2025.

b) On Campus

S.No.	Name of the Faculty and Detail of the Lectures
1.	<ul style="list-style-type: none"> • Dr J.S. Bedi: Introduction to the concept of One Health on January 27, 2025. • Dr Simranpreet Kaur: Factors responsible for emergence of zoonotic pathogens in India on January 27, 2025. • Dr Pankaj Dhaka: Understanding the basics of zoonotic diseases: Impact, transmission, and control on January 27, 2025. <p>In the Capacity building workshop for veterinary academicians on “Addressing emerging Zoonoses in India: One Health Approach at Centre for One Health on January 27, 2025.</p>
2.	Dr Simranpreet Kaur: Clean Milk Production Strategies for sustainable livestock industry. Hands on Training on “Practical Approach to address Food Safety Challenges” organized by Center for One Health from March 10-13, 2025.
3.	Dr S.T. Singh: Biosecurity in disease control in 4-day short duration course (continuing veterinary education CVE programme for field Veterinarian) on “Livestock health issues and possible solutions at TVCC, Ludhiana on August 8, 2024.
4.	<ul style="list-style-type: none"> • Dr S.T. Singh: Raising replacement dairy calf and heifer on December 05, 2024. • Dr R.S. Grewal: Silage making for maximum profit on 5December 05, 2024. • Dr Mandeep Singla: Goat rearing on December 05, 2024. • Dr Puneet Malhotra: Dairy animals breed improvement on December 05, 2024. <p>In 5th India Agri Expo at Ludhiana from December 5-8, 2024.</p>
5.	Narinder Singh: Farm Biosecurity. In workshop by PDFA at PAU, Ludhiana, January 11, 2025.
6.	<p>Dr Navdeep Singh:</p> <ul style="list-style-type: none"> • Current updates on diagnosis and therapeutic management of uterine torsion in bovine. In CAFT training organized by Department of Veterinary Gynaecology and Obstetrics from January 15- February 04, 2025. • Hands on practice on bovine reproductive ultrasonography. In 4 days, Short Duration Course on “Livestock health, issues and possible solutions at TVCC on August 07, 2024. • Prepare the cow for obstetrical examination on May 13, 2024 and Perform rectal examination and determine pregnancy status on May 31, 2024. In training on “Advanced Clinical Training on Important Veterinary Procedures” at GADVASU. • Color Doppler reproductive ultrasonography and Hands on practice on Reproductive USG in female dairy animals March 26, 2025. • Emergency Preparedness and Risk Management March 27, 2025. • Animal Health and Disease Prevention on March 28, 2025. <p>In 2 days, hands on practice for SC students on “Reproductive ultrasonography in dairy animals” under ICAR-01 SC-SP.</p>
7.	Dr Ramandeep Kaur Dhaliwal: Farm Biosecurity Assessment on March 27,2025 and Environment and facility biosecurity on March 28,2025. In 2 days, hands on practice for SC students on “Reproductive ultrasonography in dairy animals” under “ICAR-01 SC-SP.
8.	Puneet Malhotra: Precision dairy farming: A way forward at CODFST, GADVASU. In 1 Day, training on the transformative role of IT and Artificial Intelligence in Dairying program on September 21, 2024.

9.	<p>Dr Daljeet Kaur:</p> <ul style="list-style-type: none"> • Debeaking of chickens. In 03 Months, training course on “Integrated Crop Production for Young Farmers of Punjab” organized by PAU, Ludhiana on September 27, 2024. • Summer and Winter Management of Poultry Birds. In 1 day, training on “Poultry farming and hatchery Management” under AICRP at DLF, Ludhiana on September 20, 2024. • Care and management of backyard poultry. Day training on “Rearing of Poultry birds under backyard system” under ICAR-6 at DLF, Ludhiana on February 20, 2025.
10.	<p>Dr. Nitin Mehta: Beyond the Classroom: Cultivating knowledge through experience and inquiry. In Teaching Academy Wrap-up Workshop WOA (OIE) Twinning Project by GADVASU & University of Calgary, Canada from November 24-27, 2024.</p>
11.	<p>Dr. L.D. Singla: Common vector borne diseases of bovines and equines in 4-Days Short Course: “Livestock Health Issues and Solutions” (Two sessions: August 05-08, 2024 & January 28-31, 2025) at TVCC, GADVASU, Ludhiana.</p>
12.	<p>Dr. D.K. Gupta:</p> <ul style="list-style-type: none"> • Approaches towards udder health and judicious use of antibiotics in mastitis. One week training of Veterinaruy Officer at TVCC, Ludhiana on August 07, 2024. • Common diseases of dogs. ecture in a certificate course on canine management at Department of LPM on July 22, 2024. • Overview of Bovine Mastitis. lecture in Diploma course on veterinary homeopathy at TVCC, Ludhiana on September 09, 2024. • Approach towards udder health and judicious use of antibiotics in mastitis. One week training of Veterinaruy Officer at TVCC, Ludhiana on January 29, 2025.
13.	<p>Dr. Abrar Ul Haq: Recognizing the signs of illness in dogs: when to seek veterinary care. Department of LPM on July 23, 2024.</p>
14.	<p>Dr. Deepti Narang: “Control of infectious diseases in bovines and equines and constraints there of”. short duration course on livestock health, issues and possible solutions at TVCC, Ludhiana on January 31, 2025.</p>
15.	<p>Dr. Mudit Chandra: “Control of infectious diseases of bovines and equines and constraints thereof”. In workshop at GADVASU in collaboration with NAVS and Brook India August 08, 2024.</p>
16.	<p>Dr. Udeybir Singh</p> <p>Advancements and future directions in poultry nutrition at GADVASU, Ludhiana on Animal Health and Nutrition: Innovative Approaches and Future Outlook organized by RAJUVAS & MANAGE on September 25, 2024.</p> <p>Nutritional strategies to improve reproductive efficiency in dairy animals. In CAFT training of VGO department Ludhiana on January 12, 2025.</p>
17.	<p>Dr Amit Sharma: Use of DDGS in animal feed organized by CLMFA of India. In One day Seminar at “Feed Ingredients: Supply, Price and Alternatives” at GADVASU Ludhiana on May 11, 2024.</p>
18.	<p>Dr SPS Saini: Judicious use of antibiotics in veterinary surgical patients’ and ‘Practical on use of antibiotics. In 21 days, Refresher Training course on ‘Advances in anesthesia, surgery and imaging in farm and companion animals at Department of Surgery and Radiology, Ludhiana on February 10, 2024.</p>



19.	Dr. Saloni Singla: Different assay methods for cell culture. In workshop (Karyashala): Accelerate Vigyan Schemes at Department of Physiology and Biochemistry, Ludhiana from May 03, 2024.
20.	<ul style="list-style-type: none">• Dr S S Randhawa. Physical examination in a horse.• Dr. Raj Sukhbir Singh. Common clinical procedures in equines (practical). In Short duration course on “Livestock health, issues and possible solutions” organized by Department of TVCC, Ludhiana from January 28-31, 2025.
21.	Dr Khushpreet Singh: Ovum Pick-up in Cattle (Practical), Ultrasonography evaluation of male reproductive tract in farm animals (Practical) & Oocyte quality assessment and in vitro culture and production of bovine embryos (Practical). In CAFT training on “Innovative strategies in diagnostics and therapeutics in theriogenology” at VGO department, Ludhiana from January 15 – February 04, 2025.
22.	Dr Gurpreet Singh Preet: Clean Milk Production at Verka, Pla auditorium Ludhiana on March 19, 2025.
23.	Dr. Rakesh Kumar Sharma <ul style="list-style-type: none">• Ethno veterinary practices for improving udder health at Research Extension Interface funded by ATARI, Ludhiana on August 20, 2024.• Extension Facilities available in GADVASU in FIT at HRMC, Ludhiana on September 02, 2024.
24.	Dr Akshita Chadda: Two days training programme entitled “Improving Animal Health Practices of Veterinarians and Livestock Farmers to Contain Antimicrobial Resistance and Promote One Health” from February 13-14, 2025 for veterinary officers, Deptt. of Animal Husbandry, Punjab under the research project funded by the Asian Development Bank (ADB), Manila, Philippines and Zenex Animal Health (Z AHL).
25.	Dr. Jasmine Kaur: Beyond conventional the Game Changing Role of unconventional feed ingredient in the Value Chain. In workshop by GADVASU& MANAGE Hyderabad on July 09-11, 2024.
26.	<ul style="list-style-type: none">• Dr S P S Ghuman: Effect on climate change on reproduction in farm animals on January 17, 2025.• Dr M Honparkhe: Basics of reproductive ultrasonography and computer assisted image analysis in dairy animals January 15, 2025. Updates on clinical management of cystic ovarian follicles in cattle on January 16, 2025.• Dr Ajeet Kumar: Mechanisms of cryodamage in sperm during freezing and thawing on January 20, 2025; Role of anti-freeze proteins in semen cryopreservation on February 03, 2025.• Dr A K Singh: Reproductive management practices in swine: current trends and future prospects on January 17, 2025; Current updates on the use of additives for enhancing semen quality on February 03, 2025.• Dr Bilawal Singh: Isolation and characterization of stem cells from canine on January 27, 2025; Melatonin implants and seasonal breeding in buffaloes on January 29, 2025.• Dr. Amarjeet Bisla: Canine pyometra: Recent diagnostic markers and therapeutics approaches on February 04, 2025; Nanoparticles: Applications in animal reproduction on January 21, 2025.• Dr. Nakul Gulia: Alternatives to antimicrobials for therapeutics of uterine infections in large animals on January 21, 2025; Endometritis in mare: Recent advancements in diagnostics and therapeutics on January 30, 2025.

	<ul style="list-style-type: none"> • Dr Vinay Yadav. Recent advances in FTAI protocols in dairy animals on January 20, 2024. In CAFT training on “Innovative strategies in diagnostics and therapeutics in theriogenology” at VGO department, Ludhiana from January 15 – February 04, 2025.
27.	<p>Dr M Honparkhe:</p> <p>Recent advances in FTAI protocols in dairy animals. Department of TVCC, Ludhiana on August 5-8, 2024 and January 30, 2025.</p> <p>Recent developments in treatment of subfertility in bovines by DEE, GADVASU, Ludhiana on August 20, 2024.</p>
28.	<p>Dr J Mohindroo:</p> <ul style="list-style-type: none"> • Basics of radiography and radiographic interpretation in bovines on 5th August 2024 7.8th Jan, 2025. In training on livestock health, issues and possible solutions organized by TVCC, Ludhiana, in collaboration with NAVS and Brook India. • Diagnostic imaging for genital tract affections in small animals. In CAFT programme organized by VGO, Ludhiana from January 15 to February 4, 2025. • Demo of abdominal USG in small animals (4 days) 30.7.24 in 05 days training for Veterinary officers of M.P. organized by VSR and ADRC, Ludhiana. • Ultrasonographic evaluation of canine abdomen on February 18, 2025 in training on “Veterinary Diagnostic Imaging” by DIMISCA+GADVASU.
29.	<p>Dr Arun Anand:</p> <ul style="list-style-type: none"> • Equine colic: Surgery judgement and management on March 19, 2025 & Radiographic interpretation of small animal thorax organized by Dimsca on February 20, 2025. • Radiographic interpretation of thoracic disorders (03 Practical’s) in 05 days training for Veterinary officers of M.P. organized by VSR and ADRC, Ludhiana.
30.	<p>Dr Navdeep Singh:</p> <ul style="list-style-type: none"> • Considerations for imparting general anesthesia in surgical emergencies of canine patients 18.3.2025. In training on “Soft tissue surgery” by DIMISCA+ GADVASU. • Basics of interpreting small and large animal radiographs (04 Practical) in 05 days training for Veterinary officers of M.P. organized by VSR and ADRC, Ludhiana.
31.	<p>Dr S.K. Mahajan:</p> <ul style="list-style-type: none"> • Working and knobology of USG machine (04 Practical) in 05 days training for Veterinary officers of M.P. organized by VSR and ADRC, Ludhiana. • Radiographic interpretation of musculoskeletal disorders in small animals on February 20, 2025 in Veterinary Diagnostic Imaging by DIMISCA+GADVASU.
32.	<p>Dr Ashwani Kumar:</p> <ul style="list-style-type: none"> • Diagnosis and surgical management of intestinal affections in bovine on February 18, 2025 in training on “Veterinary Diagnostic Imaging” by DIMISCA+GADVASU. • Ultrasonography of abdomen and thorax in large animals (04 practicals) in 05 days training for Veterinary officers of M.P. organized by VSR and ADRC, Ludhiana. • Pre-medication, IV catheter placement, administration of IV fluids, induction of anesthesia on May 14, 2024 by ACTIVP, GADVASU.
33.	<p>Dr V. Sangwan:</p> <ul style="list-style-type: none"> • Demo of USG in large animals (04 practicals) in 05 days training for Veterinary officers of M.P. organized by VSR and ADRC, Ludhiana. • Radiographic interpretation of thorax and abdomen in large animals on February 19, 2025 in Veterinary Diagnostic Imaging by DIMISCA+GADVASU.

34.	<p>Dr N. Umeshwori Devi:</p> <ul style="list-style-type: none"> Basics of ultrasonography (04 practicals)) and Interpretation of Selected small and large animal radiographs on July 17, 2024. In 05 days, training for Veterinary officers of M.P. organized by VSR and ADRC, Ludhiana. Application of skin flaps for reconstructive surgery on March 19, 2024. In training on “Soft tissue surgery” by DIMSCA+ GADVASU. Basics of ultrasonography and knobology February 18, 2025 in training on “Veterinary Diagnostic Imaging” by DIMISCA+GADVASU.
35.	<p>Dr Jasmeet Singh Khosa: Radiographic evaluation of abdomen in large and small animals (04 practicals). In 05 days, training for Veterinary officers of M.P. organized by VSR and ADRC, Ludhiana.</p>
36.	<p>Dr. Harmanpreet S Sodhi:</p> <ul style="list-style-type: none"> Recent trends in soft tissue surgery in small animals on March 20, 2025 In training on “Soft tissue surgery” by DIMSCA+ GADVASU . Interpretation of selected small and large animal radiographs (04 practicals). In 05 days, training for Veterinary officers of M.P. organized by VSR and ADRC, Ludhiana.
37.	<p>Dr. Nikita Gupta: Basics of Radiographic Interpretation (04 practicals) & Interpretation of Selected small and large animal radiograph (02 practicals) In 05 days training for Veterinary officers of M.P. organized by VSR and ADRC, Ludhiana.</p>
38.	<p>Dr. Anju Poonia: USG of abdomen in small animals (04 practicals) & Interpretation of Selected small and large animal radiograph (02 practicals) In 05 days training for Veterinary officers of M.P. organized by VSR and ADRC, Ludhiana.</p>
39.	<p>Dr. Adarsh Mishra: Pig farming. In “Pig Farmers Training” by DEE, Ludhiana on August 07, 2024.</p>
40.	<p>Dr. Sunil Kumar: Packaging of milk and milk products. In 21 days of winter school on “Technological advances in packaging and storage of fresh and processed agricultural commodities” at ICAR-CIPHET, Ludhiana on February 13, 2025.</p>
41	<p>Dr. Inderpreet Kaur: Carbon Auditing of Agricultural and Allied Systems Activities at ICAR-CIPHET, Ludhiana organized by AICRP on Plastic Engineering in Agriculture Structure and Environment Management on May 22, 2024.</p>
42.	<p>Dr. Inderpreet Kaur: White Gold” from Farm to Fridge, Unravelling Milk Journey. In training programme on “Value Chain Analysis of Different Livestock Farming: A must know for extension personnel from July 7-9, 2024.</p>
43.	<p>Dr. Rajinder Kaur: Demonstration units and Activities undertaken at KVK Barnala at SBS Public School, Barnala on April 22, 2024. Integrated Fish cum Goat Farming at KVK Barnala on September 10, 2024. Economics of 1 acre fish pond & Preventive measures for fish farmers in Carp Polyculture at KVK Barnala on September 28, 2024. Integrated fish cum poultry farming in the vocational training on Backyard poultry farming at KVK Barnala on October 24, 2024.</p>



44.	Dr B.S. Khadda: Scientific management of dairy animals at Kisan Mela organized by Department of Agriculture and Farmers welfare, SAS Nagar, Mohali on July 17, 2024.
45.	Dr. Parul Gupta: <ul style="list-style-type: none">• Value addition of Milk and preparation of Mozzarella cheese at training programme organized by Farm Advisory Service centre, Rupnagar on April 30, 2024.• Processing and value addition of millets at Kisan mela organized by Department of Agriculture and Farmers welfare, SAS Nagar on July 18, 2024.• Processing and preservation of fruits and vegetables at training programme organized by Farm advisory Service Centre, Rupnagar on December 21, 2024.
46.	Dr. Harmeet Kaur: <ul style="list-style-type: none">• Integrated pest in kharif crops; Natural Farming; Organic farming in kitchen gardening at Punjab Institute of cooperative training limited, Chandigarh on July 03, 2024.• Insect pest management in Kharif season crops at Kisan Vikas chamber S.A.S. Nagar July 18, 2024.• Pest management in rabi season crop at Department of Agriculture and farmer welfare, SAS Nagar on January 30, 2025.
47.	Dr. Munish Sharma: <ul style="list-style-type: none">• Scientific cultivation practices of horticultural crops at Kisan Vikas chamber S.A.S. Nagar July 18, 2024.• Recent advanced technologies in horticulture at Chandigarh University, Gharuan, SAS Nagar on February 19, 2025.
48.	Dr. Komal: <ul style="list-style-type: none">• Balanced ration of dairy animal on 04.08.2024 & Balanced feeding of dairy animal on 12.09.2024 at Chatamali, SAS Nagar.• Poultry farming at KVK, Panchmahal on October 18, 2024.• Nutrition of dairy animals at FASC, Ropar January 03, 2025.
49.	Dr. Gulgul Singh: <ul style="list-style-type: none">• Entrepreneurship opportunities in fisheries sector at Rayat Bahara University, Kharar September 23, 2024.• Integrated fish and allied farming sectors at KVK, Ropar on October 29, 2024.• Fish Processing and value-added products at Department of Fisheries, Ropar on February 21, 2025.
50.	Dr Navjot Singh Brar: <ul style="list-style-type: none">• Scientific cultivation of fodder crops and silage by Department of Agriculture and farmers welfare at District Level Kisan Mela, Tarn Taran on June 14, 2024.• Scientific cultivation of direct seeded basmati on July 02, 2024 rice & Use of water saving techniques for cultivation of spring maize and scientific silage making at Farmers awareness camp organized by FASC, Tarn Taran on January 30, 2025.• Hay and silage making&round the year fodder production on July 03, 2024 & Scientific cultivation of fodder crops and silage making at District level farmers awareness camp at PDDDB, Tarn Taran on December 20, 2024.• Integrated nutrient and weed management in rabi crop at District level farmers awareness, Chambal fertilizer Ltd, Dhothian on January 21, 2025.



51.	<p>Dr Anil Kumar:</p> <ul style="list-style-type: none">• Training programmes by PAU- FASC, Tarn Taran at Patti and Naushehra Pannuan on Fertilizer and water management in direct seeded rice at Patti & Soil health management practices at Naushera Pannuan on January 30, 2025 by FASC, Tarn Taran on July 02, 2024.• Crop Seminar by Chambal Fertilizers Company Identification of nutrient deficiency symptoms & their corrective measures at Chambal fertilizer Ltd, Chaubal July 10, 2024.• Input Dealer Workshp by KRIBHCO, Punjab Integration of organic and inorganic sources of nutrients for soil health improvement by KRIBHCO, Tarn Taran at Naushera Pannuan on December 24, 2024.• Kisan Gosthi by IFFCO, Tarn Taran Nutrients supplementation through foliar application of fertilizers in crops at IFFCO, Tarn Taran on December 26, 2024.
52.	<p>Mr. Sahil:</p> <ul style="list-style-type: none">• Culture of Indian Major carps and Exotic carps at Assitant Director Fisheries, Amritsar during Training camp on November 21, 2024 & Hatchery, Nursery and Grow out pond management on November 26, 2024 at Assistant Director Fisheries, Amritsar.• Fisheries and Animal Husbandry at Government College Shahbazpur, Tarn Taran on February 06, 2025 under the program Vocational and Skill orientation organised by Governement college Shahbazpur.
53.	<p>Dr Piverjeet Kaur Dhillon: Paneer and ghee technology June 20, 2024; Flavoured milk Processing on July 05, 2024; Clean milk processing: Importance and Methods on August 20, 2024 & Value-added milk products on August 29, 2024 & November 26, 2024 at PDDB, Tarn Taran.</p>

DISTINGUISHED VISITORS AT GURU ANGAD DEV VETY & ANIMAL SCIENCES UNIVERSITY CAMPUS, LUDHIANA

S. No.	Name and other details about the visitor	Date (s) of the visit
1	Bujar Baruah Kamal Malla DDG, ICAR, Dr. Rameshwar, Dr. Dinakar visited DLF, Ludhiana	13.05.2024
2	Dr. Rakesh Pandey, Chief Technical Officer and Dr. Suman Sen, Senior Technical Office, ICAR-Indian Veterinary Research Institute, Izatnagar	28.05.2024
3	Baran Van Den Berg, Gert Els, David, Sharan Adwanta India Pvt Ltd, Tanzania visited at livestock farm, Ludhiana	13.06.2024
4	Dr. Didier Raboisson, the Attaché for Scientific Cooperation at the French Embassy in India, visited the University and had interactions with the worthy Vice Chancellor and officers of the institute	06.08.2024
5	Sh. Jai Krishan Singh Ruori, Deputy Speaker, Punjab Legislative Assembly, visited the University campus to discuss various issues concerning upliftment of the livestock sector	23.08.2024
6	Prof. HM Park visited Clinical complex at Ludhiana	24-28.06.2024
7	Dr. Jaswant Singh, Professor, Department of Veterinary Biomedical Science, College of Western Veterinary Medicine, University of Saskatchewan, Canada	22.10.2024
8	Dr Dinesh Dadarwal, Associate Professor, Western College of veterinary Medicine, University of Saskatchewan, Canada visited at VGO department	01.11.2024 07.12.2024
9	Dr. Ravinder Singh Dhaliwal, Diplomate ACVIM & ABVP at TVCC, Ludhiana	12.11.2024
10	Dr. Barry T. Rouse, Professor, University of Tennessee, USA Visited the Directorate of Human Resource Management Centre	18.11.2024
11	Sh. Balkar S. Sidhu, MLA inaugurated the Pashu Palan Mela of COVS, Rampura Phul	22.11.2024
12	Dr. Avtar Singh, Assistant Professor and Vice Director, Research & International Affairs, International Centre of Excellence in Seafood Science and Innovation (ICE-SSI), Faculty of Agro-Industry, Prince of Songkla University (PSU), Hat Yai, Songkla, Thailand	23.11.2024- 27.11.2024
13	Prof. Kent Heckler & Jay Willson, during inaugural ceremony of ready to refer library at dialysis unit	24.11.2024
14	Dr. Kuldeep K. Lal Director, Central Institute of Brackishwater Aquaculture (CIBA), Chennai, Dr. Vindhya Mohindra, Principal Scientist and Head, Genomics and Computational Resources Division, ICAR-National Bureau of Fish Genetic Resources, Lucknow	23-24.11.2024
15	Prof. Ahmed and Prof. Uwe Truyen from institute of Animal Hygiene and Veterinary Public Health, University of Leipzig Germany visited at livestock farm, Ludhiana	26.11.2024
16	Rahul Bhandari, IAS, Principal Secretary, Animal Husbandry, Dairy Development and Fisheries, Government of Punjab, visited at COABT, Ludhiana	26.11.2024

17	Dr. Christopher Luby, Associate Professor, Department of Large Animal Clinics, University of Saskatchewan, Canada visited Clinical Complex at Ludhiana	28-30.11.2024
18	Dr. Chander K. Shahi, Dean Graduate Studies, Lakehead University, Ontario, Canada, Visited Directorate Human Resource Management Centre	9-10.12.2024
19	Sh. Rahul Bhandari, IAS, Principal Secretary, Animal Husbandry, Fisheries and Dairy Development, Punjab visited at livestock farm, Ludhiana	13.12.2024
20	Dr. Daniel H Putnam, Prof. Emeritus at University of California, USA, Deputy Vice president at Joint Bio Energy institute visited DLF, Ludhiana	02.01.2025
21	Dr Thirumalla Talluri Rao, Senior Scientist, ICAR-NRCE, Bikaner, Rajasthan at visited at VGO department	23-24.01.2025
22	Dr Amitesh Kumar, Associate Professor, IIT-BHU, Varanasi, UP visited at VGO department	28.01.2025
23	Dr S. Selvaraju, Principal Scientist, ICAR-NIANP, Bangalore visited at VGO department	30.01.2025
24	S. Gurmeet Singh Khuddian, Hon'ble Cabinet Minister, Agriculture, Animal Husbandry, Dairy Development and Food Processing inaugurated the 17th Annual Athletic meet of the University	19.02.2025
25	Dr. A.K Pattanaik, R&D, Head, Godrej Agrovvet Pvt. Ltd, Nasik, Maharashtra	27.02.2025
26	Mr. Jeroen Dijkman, Head of Nestle Institute Agricultural Sciences (Nestle Research), Dr. Lausanne Eric Joannet, Head of the Global Agricultural Science operations, Mr. Naveen Kumar, Manager, R&D Centre, Singapore, Dr. Chetan Sharma, Head FMPDD, Nestle, Moga, Dr. Rajiv Pal Singh Thakur visited DLF	03.03.2025
27	Sh. Jitendra Jorwal, IAS, Deputy Commissioner of Ludhiana, visted as the 'Chief Guest' in Fish Festival	12.03.2025
28	Dr. Showkat Ahmad Parray, IAS, Deputy Commissioner of Bathinda visited COVS, Rampura Phul	18.03.2025
29	Dr. Gurdev Singh Khush, world-renowned scientist, inaugurates Pashu Palan Mela	21.03.2025



Prof. HM Park, visited Clinical complex at Ludhiana



Sh. Rouri Deputy Speaker, Punjab Legislative Assembly



Dr. Jaswant Singh, Professor University of Saskatchewan, Canada at Veterinary Anatomy



Dr. Barry T. Rouse, Professor, University of Tennessee, USA



Sh. Balkar S. Sidhu, MLA with Dr. G.S. Bedi Director Animal Husbandry, Punjab at Rampura Phul campus



Prof. Kent Heckler & Jay Willson, during inaugural ceremony of ready to refer library at dialysis unit



Dr. Kuldeep K. Lal, Director, CIBA, Chennai with Officers of the University & faculty of COF, Ludhiana



Dr. Christopher Luby from University of Saskatchewan, Canada with faculty



Dr Chander K Shahi, Dean, Dr JPS Gill, V.C., with officers of the University at Ludhiana Campus



Sh. Rahul Bhandari, IAS, Principal Secretary, Animal Husbandry, Fisheries and Dairy Development, Punjab visited at livestock farm, Ludhiana



Sh. Gurmeet Singh Khuddian, Hon'ble Cabinet Minister, Agriculture, Animal Husbandry, Dairy Development and Food Processing inaugurated the 17th Annual Athletic meet of the University



Sh. Jitendra Jorwal, IAS, Deputy Commissioner of Ludhiana as the 'Chief Guest' in Fish Festival



Dr. Showkat Ahmad Parray, Deputy Commissioner of Bathinda at COVS, Rampura Phul



Dr. Gurdev Singh Khush, world renowned scientist, inaugurates Pashu Palan Mela at Vet. Varsity

DISTINGUISHED VISITORS AT KRISHI VIGYAN KENDRAS

S. No.	Name and other details about the visitor	Date (s) of the visit
1.	Dr. Ram Chand, Ex. ADG ICAR New Delhi, visited at KVK, Barnala	01.07.2024
2.	Dr. Inderjeet Singh, Ex-Vice Chancellor visited KVK farm at SAS Nagar	July, 2024
3.	Dr. Ram Chandra, Ex ADG, Extension Education ICAR, visited Khizrabad and KVK Farm	July, 2024
4.	Sh. Raghunath B., Regional Manager-, NABARD at KVK Tarn Taran	16.09.2024
5.	Dr. Jatinder Paul Singh Gill, Vice Chancellor, Dr. Parkash Singh Brar Director Research, Dr. Ravinder Singh Grewal Director of Extension Education visited at KVK Tarn Taran	24.10.2024
6.	S. Laljit Singh Bhullar, Cabinet Minister- Government of Punjab visited KVK Tarn Taran	24.10.2024
7.	Dr. Parvinder Sheoran, Director, ICAR-ATARI, Ludhiana visited at KVK, Barnala	04.11.2024
8.	Dr. Digvijay Singh, Dean COVS, Rampura Phul visited at KVK, Barnala	19.12.2024
9.	Dr. Prakash Singh Brar, Director of Research visited KVK Farm of SAS Nagar	21.12.2024
10.	Dr. Parvender Sheoran, Director ATARI, Ludhiana visited at KVK Barnala	28.01.2025
11.	Dr. Jatinder Paul Singh Gill, Vice Chancellor, Dr. Ravinder Singh Grewal, Director of Extension Education visited at KVK Mohali, SAS Nagar	17.02.2025





VISITS ABROAD

S. No.	Name of the Faculty	Purpose of the visit
1.	Dr. Gurjot Kaur Mavi	To attend the training on “Improving import criteria and increased capacity for importing livestock genetics for India” at USA from June 7-23, 2024.
2.	Dr. L.D. Singla	To deliver an invited guest lecture and to discuss the agenda related to academic, research, extension and International Affairs Linkage with Kasetsart University, Bangkok, Thailand from July 10-11, 2024.
3.	Dr. L.D. Singla	As a steering committee member of the Asian Pacific Association of Veterinary Parasitology and chair a session at the International Congress of Tropical Medicine and Malaria held at Kuching, Sarawak, Malaysia from September 19-23, 2024.
4.	Dr. Harkirat Singh	Visiting faculty under WOAHP Twinning Project at University of Calgary & USK, Canada from May 7-16, 2024.
5.	Dr. Randhir Singh	Visiting Instructor at under WOAHP Twinning Project at University of Calgary & USK, Canada from May 7-16, 2024.
6.	Dr. Randhir Singh	Invited Lecture in KVCC conference at Konkuk University, Seoul from November 24-25, 2024.
7.	Dr. Prabjeet Singh	Invited Speaker during 3 rd National & 1 st International Conference on Agricultural Innovation and Natural Resources, 2 nd Aquatic Science Conference at Prince of Songkla University, Hat Yai, Thailand from August 14-16, 2024.
8.	Dr. Piverjeet Kaur Dhillon	As Visiting Research Fellowship at International Center of Excellence for Seafood Science and Innovation, Hat Yai, Thailand from September 19- October 21, 2024.



INTERNATIONAL AND NATIONAL LINKAGES

International Partners

- Department of Veterinary Biomedical Science, College of Western Veterinary Medicine, University of Saskatchewan, Canada
- Asian Development Bank (ADB), Manila, Philippines and Zenex Animal Health (Z AHL) - Network Project
- International Network for Government Science Advice (INGSA), Asia
- Halal Products Research Institute, University Putra Malaysia
- International Centre of Excellence in Seafood Science and Innovation (ICE-SSI), Prince of Songkla University (PSU), Thailand – MoU

National Partners

- NIT Rourkela - submission for ANRF's Partnerships for Accelerated Innovation and Research (PAIR) project.
- ICAR-Central Institute of Brackishwater Aquaculture (CIBA) – MoU for Collaborative Research and Academic Activities
- SHILPMIS TECHNOLOGIES PVT. LTD, Surat, Gujarat - MoU for developing 'Melzo Jeev'- a web application to supplement teaching through AR/VR 3D models.
- SRM Institute of Science & Technology, Chennai Tamil Nadu - PG/Ph.D./Faculty Research
- Chandigarh Group of Colleges, Landran, Mohali – PG/Ph.D./Faculty Research
- Punjab Remote Sensing Centre (PRSC), PAU Campus, Ludhiana - PG/Ph.D./Faculty Research
- Food Microbiology Group, Bhabha Atomic Research Centre (BARC)
- ICAR Fisheries institutes - CIFRI, CIFA, CIBA, DCFR, CIFT, CMFRI, MPEDA – Teaching/Research
- Punjab Agricultural University (PAU) - PG/Ph.D. Research, Teaching
- ICAR-Central Institute of Post-Harvest Engineering & Technology (CIPHET) - Research/Training,
- Centre for Development of Advanced Computing (C-DAC), MeITY, Mohali - Research and Training
- Punjab Agricultural management and Extension Training Institute (PAMETI), PAU, Ludhiana - Collaborative Training Programs for Farmers and Students
- State Department of Fisheries – Collaborative research/developmental projects/extension activities, FLD's
- State Department of Agriculture - Organizing training programmes, Member of Scientific Advisory Committee of KVK
- State Department of Horticulture - Organizing training programmes, Member of Scientific Advisory Committee of KVK
- Department of Soil and Water Conservation - Training programmes, Member of Scientific Advisory Committee of KVK
- ICAR-ATARI, Ludhiana - Financial, Technical, Back Stopping



- Department of Dairy Development - Organizing training programmes, Member of Scientific Advisory Committee of KVK
- Department of Agriculture & Farmers Welfare, Barnala - Training programme
- Department of Animal Husbandry, Barnala - Training programme
- NABARD - Training programme, Advisory services
- Department of Women & Child Development – Trainings/Expert Lectures
- Department of Agriculture and ATMA – Collaborative Training Programmes
- Farm Advisory Service Scheme(FASS) - Trainings, KVK Scientists act as resource person for Kisan Melas, block level camps organized by FASS
- Punjab Dairy Development Board - KVK Scientists act as resource person for various training programmes organized by PDDB, Tarn Taran
- CDPO Tarn Taran - Training for Anganwadi workers
- Agriculture Skill Council of India - Skill Development Training has been provided to farmers/rural youth
- Soil Conservation Department, Tarn Taran - Member of Scientific Advisory Committee of KVK
- Punjab Agriculture University, Ludhiana - Member of Scientific Advisory Committee of KVK's and resource person in training programmes
- ICAR-CIPHET, Ludhiana - Member of Scientific Advisory Committee of KVK's and resource person in training programmes
- IVRI, Izatnagar, RAJUVAS Bikaner, DUVASU Mathura and TANUVAS Chennai -All India Network Program on Diagnostic Imaging and Management of Surgical Conditions in Animals.
- Small Animal Clinician Association (SACA) Chandigarh - Education programs for small animal clinicians.
- National Institute of Technical Teachers Training & Research (NITTTR), Chandigarh
- Carus India Pvt. Ltd. – MoU for giving scholarships to 3 meritorious students in clinical subjects.
- Department of Chemistry, Faculty of Sciences, Jamia Millia Islamia, New Delhi
- NDDB-Milkfed
- AS Cattle Feeds Pvt Ltd, Dhurkot, Faridkot.
- CCRAS, Ministry of Ayush, Govt. of India.

RESEARCH PUBLICATIONS (alongwith NAAS Rating 2024)

Sr. No.	Research Paper	NAAS
1.	Abusalah, M. A. H., Abd Rahman, E. N. S. E., & Choudhary, O. P. (2024). Evolving trends in stem cell therapy: an emerging and promising approach against various diseases. <i>International Journal of Surgery</i> , 110(11), 6862-6868.	18.5
2.	Abusalah, M. A. H., Choudhary, P., Bargui, H., Ahmed, N., Abusalah, M. A. H., & Choudhary, O. P. (2024). A prognostic insight of the mRNA vaccine against antibiotic-resistant bacteria. <i>Annals of Medicine and Surgery</i> , 86(7), 3801-3805.	7.7
3.	Ahmed, O., Gaballa, M. M., Abumandour, M. M., Al-Otaibi, A. M., Choudhary, P., & El-Shafey, A. A. (2024). Morphometric and histopathological evaluation of modified Elnady's plastinated tissue compared to non-plastinated tissue: Highlighting its relevance for teaching and research. <i>Anatomia, Histologia, Embryologia</i> , 53(3), e13046.	6.8
4.	Akhila, D. S., Ashwath, P., Manjunatha, K. G., Akshay, S. D., Surasani, V. K. R., Sofi, F. R., Saba, K., Dara, P. K., Ozogul, Y., & Ozogul, F. (2024). Seafood processing waste as a source of functional components: Extraction and applications for various food and non-food systems. <i>Trends in Food Science & Technology</i> , 145, 104348.	20.0
5.	Al-Owaimer, A. N., Suliman, G. M., Alobre, M. M., Swelum, A. A., Al-Badwi, M. A., Ba-Awadh, H., ... & Kaka, U. (2024). Investigating the impact of preslaughter handling intensity on goats: a study on behaviour, physiology, blood enzymes, and hormonal responses. <i>Frontiers in Veterinary Science</i> , 11, 1381806.	9.20
6.	Andrabi, S. A., Singh, A., & Gupta, K. (2024). Effect of chicken anaemia virus, infectious bursal disease virus and avianreovirus infection on immune status of commercial poultry flocks under field conditions. <i>Haryana Veterinarian</i> , 63(1): 52-56.	4.50
7.	Andrabi, S. A., Bandi, N., Kumar, A., Syal, P., & Amir, D. (2024). A review on immunopathology of sepsis. <i>International Journal of advanced Biochemistry Research</i> ; 8(9): 440-443.	5.29
8.	Awad, A. M., Kumar, P., Ahmed, M. A., Hayat, M. N., Abubakar, A. A., Ismail-Fitry, M. R., Ab Aziz, M. F., Jusoh, S. and Sazili, A. Q. (2024). Effect of moringa oleifera leaves aqueous extract on the physicochemical, color, shear force, and lipid oxidation of various goat muscles. <i>Carpathian Journal of Food Science & Technology</i> , 16(3).102-114.	-
9.	Baba, O. K., Jadhao, A., & Gupta, K. (2024). Cholangiocarcinoma in a male Labrador: A case report. <i>International Journal of Veterinary Sciences and Animal Husbandry</i> , 9(1): 65-67.	4.61
10.	Babu, R. N., Kaur, D., Kaur, P., Kaur, P., Singh, Y., Uniyal, S., & Malik, D. S. (2024). Impact of Reusage of alternative litter treatments on overall growth performance and welfare of broiler chicks. <i>Indian Journal of Poultry Science</i> , 59 (1) 59-64.	5.30
11.	Beg, S., Lonare, M. K., Sharma, M., Singla, S., & Dumka, V. K. (2024). Combinational Toxic Effect of Insecticide and Fungicide on Hematological Indicators in Mice. <i>Toxicology International</i> , 31(2): 295-303.	5.56

12. Benny, L. N., Kaur, G., & Chandra, M. (2024). Typing of Canine Parvovirus using Tetra Primer Amplification Refractory Mutation System Polymerase Chain Reaction (Tetra ARMS PCR). *Journal of Virology Research and Advances in Vaccines*, 3, 101. -
13. Bhadok, M., Mishra, A., Manu, M., Mukhopadhyay, C. S., Kaur, G., & Malik, Y. S. (2024). Specific Glycoprotein E (gE) Gene Based Nested Polymerase Chain Reaction Assay for Detection of Marek's Disease Virus in Chickens. *Agricultural Research*, 1-8. 7.40
14. Bhat, M. A., Kaur, J., Baba, O. K., Singh, S. T., & Grewal, R. S. (2024). A case of meningoencephalitis resembling listeriosis in a Nili Ravi buffalo calf. *Indian Journal of Veterinary Medicine*, 43(1): 115-118. -
15. Bhatt, D., Holeyappa, S. A., Pandey, A., Bansal, N., Hundal, J. S., & Khairnar, S. O. (2024). Growth performance, physiological response, and tissue microarchitecture of the carp *Labeo rohita* challenged with AFB1 are improved by supplementing with turmeric. *Spanish Journal of Agricultural Research*, 22(2), e0501-e0501. 6.90
16. Bhatt, D., Khair, S., & Singh, K. (2024). COVID-19 and its impact on aquaculture sector in Indian context. *e-planet*.22(1): 11-23. 4.73
17. Bisla, A., Gulia, N., Jadhao, A., Deshmukh, S., & Honparkhe, M. (2025). Rare mixed uterine teratoma with ovarian involvement in a Labrador Retriever dog. *Veterinary Record Case Reports*, 13(1), e1086. IF 0.30 (6.30)
18. Biswas, G., Singh, U., & Uniyal, S. (2024). Nutritional and Microbiological Evaluation and in vitro Digestibility of Two In-House Formulated Feed for Adult Dogs. *Indian Journal of Animal Nutrition*, (3), 505-512. 5.19
19. Bouchard, É., Bonin, M., Sharma, R., Hernández-Ortiz, A., Gouin, G. G., Simon, A., & Jenkins, E. (2024). Use of stable isotopes to reveal trophic relationships and transmission of a food-borne pathogen. *Scientific Reports*, 14(1), 2812. 10.60
20. Brar, N. S., Kaur, S., Sandhu, P. S., Hundal, J. S., & Singh, Y. (2024). Agronomic interventions for production and preservation of quality maize (*Zea mays* L) fodder-A review. *MAYDICA*, 67(1). 6.60
21. Brar, S. K., Singla, N., Mandla, D., & Singla, L. D. (2024). Incidence, identification and molecular based characterisation of spiny rat mite, *Echinolaelapsechidnius* (Berlese 1887) (*Dermanysoidea: Laelapidae*) isolated from synanthropic rodents. *International Journal of Tropical Insect Science*, 44(5), 2549-2556. 7.20
22. Buamard, N., Singh, P., Zhou, A., Ma, L., Zhang, B., & Benjakul, S. (2024). Ethanolic duea ching extract in combination with microbial transglutaminase: Strengthening effect on mince gel and cross-linking of myofibrillar proteins from Indian mackerel. *Journal of Agriculture and Food Research*, 18, 101459. -
23. Carlo, A. Q., Pathak, D., Choudhary, R. K., Singh, O., & Bansal, N. 2024. Analysis of OCT4 and PGP 9.5 gene expression in prenatal and postnatal buffalo (*Bubalus bubalis*) testes. *Animal Biotechnology*, 35(1), 2285509. 9.70
24. Choudhary, P., Shafaati, M., Salah, M. A. H. A., Chopra, H., Choudhary, O. P., Silva-Cajaleon, K., Bonilla-Aldana, D., & Rodriguez-Morales, A. J. (2024). Zoonotic diseases in a changing climate scenario: Revisiting the interplay between environmental variables and infectious disease dynamics. *Travel medicine and infectious disease*, 58, 102694. 18.00

25. Das, N., Pawar, P. D., Mhase, P. P., Nimbalkar, V. G., Jadhav, R. V., Dhaygude, V. S., Furtado, G. & Singla, L. D. (2024). Incidence and risk factors associated with parasitic infections in captive wild mammals and birds in Indian zoos. *Journal of Threatened Taxa*, 16(7), 25590–25597. -
26. Dehury, S., Uppal, V., Pathak, D., & Gupta, A. (2024). Exploring the Nexus of Steroidal Hormone Receptor, Uterine VEGF Expression and NADPH-d Interaction in Buffalo Uterus During Oestrous Cycle with Seasonal Variation. *Reproduction in Domestic Animals*, 59(8), e14710. 7.70
27. Dhanalakshmi, M., Dhanze, H., Bhilegaonkar, K. N., Mote, A., Gupta, I., Agri, H., Bari, C. A., & Singh, B. B. (2024). Seroprevalence of Japanese encephalitis virus in pig populations of Tamil Nadu, India: Exploring the tropical endemic link of virus. *Comparative Immunology, Microbiology and Infectious Diseases*, 110, 102189. -
28. Dhanze, H., Singh, B. B., Walsh, M., Kumar, M. S., Kumar, A., Bhilegaonkar, K. N., & Brookes, V. J. (2024). Spatio-temporal epidemiology of Japanese encephalitis virus infection in pig populations of eastern Uttar Pradesh, India, 2013–2022. *Zoonoses and Public Health*, 71(4), 429-441. 8.40
29. Dhatarwal, P., Singla, M., Kaswan, S., Grewal, R. S., Kashyap, N., & Malik, D. S. (2024). Behavioural activity budget of grower Beetal kids offered total mixed ration under stall-fed system. *Turkish Journal of Veterinary & Animal Sciences*, 48(1), 41-50. 6.60
30. Dhatarwal, P., Singla, M., Kaswan, S., Grewal, R. S., Kashyap, N., & Malik, D. S. (2024). Effect of total mixed ration on intake, blood biochemical profile and rumen fermentation in stall-fed Beetal kids. *Animal Nutrition and Feed Technology*, 24(3), 627-643. 5.00
31. Dhatarwal, P., Singla, M., Kaswan, S., Grewal, R. S., Kashyap, N., & Malik, D. S. (2024). Performance and behavioral characteristics of Beetal kids fed Total Mixed Ration under stall-fed conditions. *Ruminant Science*, 13(1):107-112. 4.45
32. Dhebar, M., Mohapatra, S. S., Yadav, N., Ramanarayanan, S., Lonare, M. K., & Saini, S. P. S. Unravelling the antibacterial potential of hydroethanolic bark extract from *Melia azedarach*: In vitro and in silico investigation. *International Journal of Advanced Biochemistry Research*. SP-8(10): 932-943. 5.29
33. Dhillon, P. K., Tanwar, B., & Singla, P. (2024). Process Optimization of Assorted Nutraceutical Biscuits for Improved Protein Accessibility. *Bharatiya Krishi Anusandhan Patrika*. 34(21): 508-514. -
34. Dhillon, P. K., Tanwar, B., Jayprakash, R. P., & Singla, P. (2024). Nutritional Quality Assessment of Noodles with Assorted Nutraceuticals. *International Journal of Food and Fermentation Technology*, 14(2), 665-674. 4.21
35. Dhillon, S. S., Kaur, S., Mukhopadhyay, C. S., & Dash, S. K. (2024). Identification of SNPs in the MAP4K4 Gene Coding Sequence and Their Association with Mastitis Susceptibility/Resistance in Nili Ravi Buffaloes. *Indian Journal of Animal Research*. 10.18805/IJAR.B-5152. 6.50
36. Diksha, Verma, P., Singh, T., Mohindroo, J., Mahajan, S. K., & Singh, N. (2024). Studies on diagnosis and management of teat affections in dairy animals by minimally invasive techniques. *Ruminant Science*, 13(1), 51-56. 4.45

37. Doley, P., Sarma, K., Kalita, P., Talukdar, M., Kalita, A., Sarkar, R. and Choudhary, Priyanka. 2024. Light microscopic morphology of blood cells of non-descript indigenous Zoar chicken of Mizoram, India. *Anatomia, histologia, embryologia* 53(3): e13054. 6.80
38. Dwivedi, P., Sharma, M., Ansari, A., Ghosh, A., Bishwal, S. C., Ray, S. K., ... & Singh, P. (2024). Molecular Characterization and Genomic Surveillance of SARS-CoV-2 Lineages in Central India. *Viruses*, 16(10), 1608. 10.70
39. Einstien, C., Rajak, K. K., Bhatt, M., Yadav, A. K., Rai, V., Karki, M., Kumar, A., Kiran, Thakur, R., Revathi, A., Jogi, H. R., & Singh, R. P. (2024) Virological and molecular characterization of canine distemper virus passaged at high temperature towards development of thermostable vaccine candidate. *International Journal of Advanced Biochemistry Research*, 8(2S):402-409. 5.29
40. Gautam, A. R., Benjakul, S., Mittal, A., Singh, P., & Singh, A. (2024). Ultrasonication-assisted enzymatic hydrolysis of shrimp shell protein isolate: Characterization, antioxidant, and functional properties. *Biomass Conversion and Biorefinery*, 1-14. 10.00
41. Gautam, S., Subedi, N., Dhakal, K., Koirala, P., Acharya, D. R., Malav, O. P., Al-Asmari F., Benjakul S., & Nirmal, N. (2024). Bacterial biofilm formation in seafood: Mechanisms and inhibition through novel non-thermal techniques. *Reviews in Aquaculture*, 16(4), 1840-1857. 14.80
42. Ghuman, S. S., Cheema, R. S., & Honparkhe, M. (2024). Assessment of oxidative stress parameters in summer anestrous buffaloes exhibiting differential fertility following melatonin implants treatment. *Buffalo Bulletin*, 43(1), 85-94. 6.20
43. Grover, P., Singh, A. K., Kumar, A., Honparkhe, M., Singh, N., & Singh, P. (2024). Effect of exogenous melatonin implant on post-thaw semen quality of buffalo bulls. *Reproduction in Domestic Animals*, 59(4), e14562. 7.60
44. Gupta, A., Singh, N. K., Singh, H., & Rath, S. S. (2024). 28 kDa *Fasciola gigantica* cysteine proteinase (fgcl3) based sero-diagnosis of bovine tropical fasciolosis in the dairy animals of punjab, INDIA. *Exploratory Animal & Medical Research*, 14 (S1) 29-33. 6.10
45. Gupta, K. K., Kaur, J., Singh, G., & Mahajan, C. (2024). Clinico-Therapeutic Study of Pyodermadiosis with Underlying Ulcerative Keratitis in a Pug: A Case Report. *The Indian Journal of Veterinary Sciences and Biotechnology*, 20(2), 128-131. 5.25
46. Gupta, K. K., Punia, S., Kour, H., Dutta, N., & Sumbria, S. (2024). Therapeutic management of hemoglobinuria associated with Babesia Bigemmina infection in Holstein Friesian cow – A case report. *Journal of veterinary parasitology*, 38(1)2024:60-62. 5.00
47. Gupta, N., Kaur, K., Sangwan, V., & Kumar, A. (2024). Hospital Occurrence Pattern of Appendicular Fractures in Dogs for 3 consecutive years (2019-2021). *International Journal of Livestock Research*, 14(10), 17-29. 4.31
48. Gupta, N., Mahajan, S. K. & Sangwan, V. (2024). Chest tube placement for management of traumatic pneumothorax in a bully dog. *Indian Journal of Veterinary Surgery*, 45(1), 77. 4.30
49. Hasif, M., Sharma, M., Lonare, M. K., Singh, D. 2024. A comparative analysis of the age-dependent features of mesenchymal stem cells from buffalo adipose tissue. *Indian Journal of Animal Research*. doi: 10.18805/IJAR.B-5346. 6.40

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51. Hundal, J. S., Kumar, P., Brar, N. S., Choudhary, M., Sharma, A., & Rakshit, S. (2024). Quality and production potential of green fodder and silage for kharif maize hybrid under rainy season in Punjab. *Range Management and Agroforestry*, 45(1), 140-147. 6.80
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54. Jain, T., Manisha & Shubham. (2024). Comparative efficacy of two treatment protocols in the management of canine spirocercosis: A randomized trial. *International Journal of Advanced Biochemistry Research*, 8(9): 348-351. 5.29
55. Jakhar, V., Yadav, A. A., Dhaka, S. S., & Sangwan, S. K. (2024). Effect of non-genetic factors on lifetime milk production and productive life of Murrah buffaloes, *International Journal of Advanced Biochemistry Research*, 8(6): 13-16. 5.29
56. Jakhar, V., Yadav, A. A., Dhaka, S. S., & Sangwan, S. K. (2024). Genetic and phenotypic correlation between various production performance and reproduction traits in Murrah buffaloes, *International Journal of Research in Agronomy*, 7(7): 25-27. 5.20
57. Jena, B., Mohindroo, J., Anand, A., & Gupta K. (2024). Diagnosis and management of Canine Renal Cell Carcinoma with special reference to Shear Wave Elastography. *Journal of the Hellenic Veterinary Medical Society*, 75(3), 8125-8134. 6.40
58. Jena, B., Mohindroo, J., Gupta, K., & Singh, N. (2024). Quantitative studies on B-mode ultrasound and point shear wave elastography of kidneys in non-azotemic dogs. *Veterinary Radiology & Ultrasound*, 65(3), 227-237. 7.30
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62. Kapoor, R., Sandal, S. K., Kumar, A., & Kumar, D. (2024). Drip Irrigation uniformity and yield response of capsicum under open field and polyhouse in wet temperate zone of Western Himalayas. *Journal of Agricultural Engineering*. 5.85
63. Karki, M., Bora, M., & Kumar, A. (2025). An updated review on chicken infectious anaemia. *World's Poultry Science Journal*, 81(1), 117-134. 8.70

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65. Katwal, S., Singh, Y., Gupta, R., & Grewal, R. S. (2024). Seasonal dynamics and climatic influences of greenhouse gases (CO₂, CH₄) and ammonia (NH₃) concentrations on loose housing cattle shed. *Indian Journal of Animal Sciences*, 94(7), 646-651. 6.40
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67. Kaur, A., Singh, A., Kaur, H., Gupta, A., Surasani, V. K. R., & Dhaliwal, S. S. (2024). Influence of different processing conditions on nutritional, phytochemical, and physical properties of aquatic fern (*Azolla pinnata*): a sustainable nutrient-rich human food. *ACS Food Science & Technology*, 4(2), 344-354. 8.6
68. Kaur, G., Chandra, M., & Kaur, H. (2024). The Gastroenteritis Virus of Dogs: Canine Parvovirus and Its Diagnosis over the Years. *Asian Journal of Biology*, 20(9):15-29. 4.52
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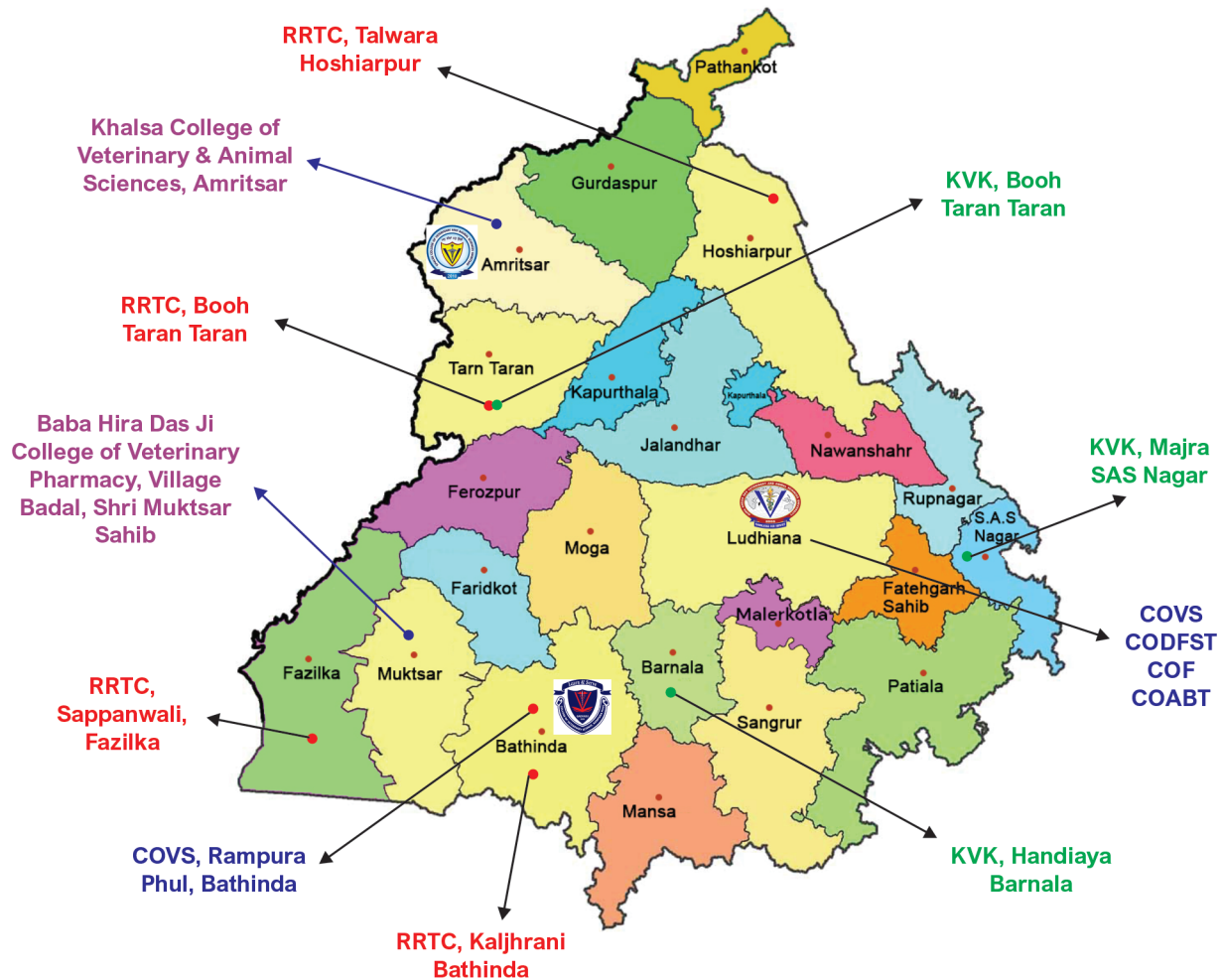
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