वार्षिक प्रतिवेदन

ANNUAL REPORT

2022-2023

उ.प्र. पं. दीनदयाल उपाध्याय
पशु चिकित्सा विज्ञान विश्वविद्यालय
एवं गो अनुसंधान संस्थान, मथुरा–281001 (उ.प्र.)

U.P. Pandit Deen Dayal Upadhyaya Pashu-Chikitsa Vigyan Vishwavidyalaya
Evam Go Anusandhan Sansthan
(DUVASU), Mathura-281001 (U.P.)

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FOREWORD

With the great honour and privilege, I present University Annual Report of U.P. Pandit Deen Dayal Upadhayaya Pashu Chikitsa Vigyan Vishwavidyalaya Evam Go Anusandhan Sansthan (DUVASU), Mathura for the year 2022-23. The report highlights the outstanding achievements of 2022-23 crafted with various international visits by the faculty and students for upliftment of knowledge and skills, and accomplishments in the arena of academic pursuits, research orientation, extension activities and infrastructure growth commenced during the past year. During the reporting year a total of 28 research projects were operational in the university. Out of which eight were funded by RKVY, four by ICAR. Ten projects were University funded while four were funded by different agencies like DRDO, DAHD, DADF-GOI and UPKAR and two projects were sponsored by reputed private agencies.

The University has one of the finest Veterinary Clinical Complex well equipped with state of art equipments and diagnostic laboratory. During the year 2022-23 a total of 13114 clinical cases of small and large animals were presented and a total of Rs. 10,59,325/- (Rupees Ten lacs fifty nine thousand three hundred twenty five only) revenue was generated during the year 2022-2023 by VCC. University is also serving the livestock and pet owners of Mathura and adjoining districts with the upgraded diagnostic and treatment facilities.

DUVASU students participated in various activities including sports meet, cultural activities, youth festivals, NCC and NSS at University and All India level and brought laurels to the University. Many webinars were organized for the students under Interactive Sessions for Students with Industry and Academia of Institutional Development Plan (IDP)-National Agricultural Higher Education Project. Two hundred students were provided with laptops to enable and acquaint them with the digital education. The experiential learning programmes were also undertaken in various departments of College of Veterinary Science and Animal Husbandry, for providing hands on training to the students, farmers, animal owners and unemployed rural youth for their self sustainability. During the year 2022-23, a galaxy of top dignitaries, academicians, scientists and diplomats from India and abroad including from Australia and Russia visited the University and shared their rich experiences.

Department of Veterinary and Animal Husbandry Extension with the support of faculty of Veterinary College and KVK organized several trainings for knowledge up-gradation of farmers/farm women, animal owners, field Veterinarians, para-veterinary professionals of Sashastra Seema Bal and unemployed rural youth. University has successfully organized three National level brain storming sessions, SCSP-ICAR sponsored three hands on training, one International, two National conferences and one ICAR sponsored 21 days training programme, and some expert lectures. In addition to such programs, several trainings and workshops were successfully organized by the University. Academic recruitment procedures and appointments were also planned and undertaken to receive the talented faculty for the diverse and versatile growth of Veterinary professionals. Good quality research publications reflect the research orientation of any academic institute and it is evident from the university publications of more than 105 in peer reviewed journals with good citations and help in increasing the h-index of the university. Several faculty members of the University received numerous prestigious awards, various national and international honours and recognition.

I express my hearty thanks and gratitude to Hon'ble Chancellor of the University and Governor of Uttar Pradesh, Additional Chief Secretary to Hon'ble Governor and Principal Secretary, Animal Husbandry, Govt. of Uttar Pradesh for their support in terms of infrastructure and administrative back up for this Institution. I warmly acknowledge the financial support received time to time from the various financial agencies including UPKAR, Government of Uttar Pradesh, RKVY, ICAR, New Delhi and Government of India (GOI) for collaborative research support to the University.

The future drive would be to make educational experience multifaceted and holistic, impart job-oriented education, to maintain resourcefulness in terms of existing research facilities and resilience to manage the emerging new diseases in animals in the light of climatic change. Focus would be on strengthening the quality education, embracing the possibilities of digital education, demand based research to address the issues of nutritional security, establishing and strengthening close linkages with the stakeholders including livestock and fish farmers for safe milk and meat production in future, and doubling the income of farmers through productivity enhancement, value addition and ensuring quality and safety of animal based food products.

The sincere efforts made by the "Editorial Committee" to bring out this Annual Report depicting various activities and achievements of the University is duly acknowledged and appreciated.

(A.K. Srivastva)

प्राक्कथन

मुझे, यू. पी. पंडित दीन दयाल उपाध्याय पशु चिकित्सा विज्ञान विश्वविद्यालय एवं गो अनुसंधान संस्थान मथुरा की वर्ष 2022-2023 की विश्वविद्यालय वार्षिक रिपोर्ट प्रस्तुत करते हुए अत्यंत खुशी हो रही है। प्रस्तुत रिपोर्ट में, ज्ञान और कौशल के उत्थान के लिए संकाय और विद्यार्थियों द्वारा की गयी विभिन्न अंतर्राष्ट्रीय यात्राओं के साथ, वर्ष 2022-23 की उत्कृष्ट उपलब्धियों और पिछले वर्ष के दौरान शुरू की गई शैक्षणिक गतिविधियों, अनुसंधान अभिविन्यास, प्रसार गतिविधियों और बुनियादी ढांचे के विकास के क्षेत्र में उपलब्धियों पर प्रकाश डाला गया है। रिपोर्टिंग वर्ष के दौरान विश्वविद्यालय में कुल 28 शोध परियोजनाएं चालू थीं। इनमें से 8 आर. के. वी. वाई. द्वारा और 4 आई. सी. ए. आर. द्वारा वित्त पोषित थीं। दस परियोजनाओं को विश्वविद्यालय मद से वित्त पोषित किया गया था, जबकि चार को डी. आर. डी. ओ., डी. ए. एच. डी., डी. ए. डी. एफ.-जी. ओ. आई. और यू. पी. के. ए. आर. जैसी विभिन्न एजेंसियों द्वारा वित्त पोषित किया गया था और 02 परियोजनाओं को प्रतिष्ठित निजी एजेंसियों द्वारा प्रायोजित किया गया था।

विश्वविद्यालय के पास अत्याधुनिक उपकरणों और नैदानिक प्रयोगशाला से सुसज्जित बेहतरीन पशु चिकित्सा क्लिनिकल परिसर है। वर्ष 2022-23 के दौरान छोटे और बड़े जानवरों के कुल 13114 नैदानिक मामले प्रस्तुत किए गए और वी. सी. सी. द्वारा वर्ष 2022-2023 के दौरान कुल दस लाख उनसठ हजार तीन सौ पच्चीस रुपये का राजस्व उत्पन्न किया गया। विश्वविद्यालय उन्नत नैदानिक और उपचार सुविधाओं के साथ मथुरा और आसपास के जिलों के पशुधन की भी सेवा कर रहा है।

दुवासु के छात्रों ने विश्वविद्यालय और अखिल भारतीय स्तर पर खेल प्रतियोगिता, सांस्कृतिक गतिविधियों, युवा समारोहों, एनसीसी और एनएसएस सहित विभिन्न गतिविधियों में भाग लिया और विश्वविद्यालय का नाम रोशन किया। राष्ट्रीय कृषि उच्च शिक्षा परियोजना के अंतर्गत संस्थागत विकास योजना (आई. डी. पी.) के तहत छात्रों के लिए उद्योग और शिक्षाविदों के साथ संवादात्मक सत्रों के कई वेबिनार आयोजित किए गए। छात्रों को डिजिटल शिक्षा से परिचित कराने हेतु दो सौ छात्रों को लैपटॉप प्रदान किए गए। छात्रों, किसानों, पशु मालिकों और बेरोजगार ग्रामीण युवाओं को आत्मनिर्भर बनाने के लिए व्यावहारिक प्रशिक्षण प्रदान करने हेतु पशु चिकित्सा विज्ञान और पशुपालन महाविद्यालय के विभिन्न विभागों में अनुभवात्मक शिक्षण कार्यक्रम भी शुरू किए गए। वर्ष 2022-23 के दौरान, ऑस्ट्रेलिया और रूस सहित भारत और विदेशों के शीर्ष गणमान्य व्यक्तियों, शिक्षाविदों, वैज्ञानिकों और राजनयिकों ने विश्वविद्यालय का दौरा किया और अपने समृद्ध अनुभवों को साझा किया।

पशु चिकित्सा और पशुपालन प्रसार विभाग ने पशु चिकित्सा महाविद्यालय और कृषि विज्ञान केंद्र के संकाय के सहयोग से किसानों/कृषि महिलाओं, पशु मालिकों, पशु चिकित्सकों, सशस्त्र सीमा बल के परा-पशु चिकित्सा पेशेवरों और बेरोजगार ग्रामीण युवाओं के ज्ञान उन्नयन के लिए कई प्रशिक्षणों का आयोजन किया। विश्वविद्यालय ने तीन राष्ट्रीय स्तर के विचार-मंथन सत्रों, एससीएसपी-आईसीएआर द्वारा प्रायोजित तीन व्यावहारिक प्रशिक्षण कार्यक्रमों, एक अंतर्राष्ट्रीय, दो राष्ट्रीय सम्मेलन और आईसीएआर द्वारा प्रायोजित एक 21 दिवसीय प्रशिक्षण कार्यक्रम और कुछ विशेषज्ञ व्याख्यानों का सफलतापूर्वक आयोजन किया है। इस के अलावा, पशु चिकित्सकों के विविध और बहुमुखी विकास के लिए विश्वविद्यालय द्वारा कई प्रशिक्षण और कार्यशालाओं का सफलतापूर्वक आयोजन किया गया। प्रतिभाशाली संकाय में विस्तार करने के लिए शैक्षणिक भर्ती प्रक्रियाओं और नियुक्तियों की भी योजना बनाई गई। अच्छी गुणवत्ता वाले शोध प्रकाशन किसी भी शैक्षणिक संस्थान के शोध अभिविन्यास को दर्शाते हैं और यह विश्वविद्यालय के 105 से अधिक प्रकाशनों से स्पष्ट है जो अच्छे उद्धरणों के साथ समीक्षा पत्रिकाओं में हैं और विश्वविद्यालय के एच-इंडेक्स को बढ़ाने में मदद करते हैं। विश्वविद्यालय के कई संकाय सदस्यों ने विभिन्न राष्ट्रीय और अंतर्राष्ट्रीय स्तर पर, कई प्रतिष्ठित पुरस्कार, सम्मान और मान्यता प्राप्त की है ।

मैं विश्वविद्यालय की माननीय कुलाधिपति और उत्तर प्रदेश की राज्यपाल, माननीय राज्यपाल के अतिरिक्त मुख्य सचिव और प्रधान सचिव, पशुपालन, उत्तर प्रदेश सरकार को इस संस्थान के लिए बुनियादी ढांचे और प्रशासनिक विषयों में उनके समर्थन एवं सहयोग के लिए अपना हार्दिक धन्यवाद और आभार व्यक्त करता हूँ। मैं विश्वविद्यालय को सहयोगात्मक अनुसंधान सहायता के लिए, यू. पी. के. ए. आर., उत्तर प्रदेश सरकार, आर. के. वी. वाई., आई. सी. ए. आर., नई दिल्ली और भारत सरकार सहित विभिन्न वित्तीय एजेंसियों से समय-समय पर प्राप्त वित्तीय सहायता की हार्दिक सराहना करता हूँ।

विश्वविद्यालय निकट भविष्य में शैक्षणिक अनुभव को बहुआयामी और समग्र बनाने के लिए, नौकरी-उन्मुख शिक्षा प्रदान कराने, जलवायु परिवर्तन के परिदृश्य में पशुओं में उभरती नई बीमारियों के प्रबंधन के लिए मौजूदा अनुसंधान सुविधाओं को उपलब्ध कराने की दिशा में कार्य करेगा। गुणवत्तापूर्ण शिक्षा को मजबूत करने, डिजिटल शिक्षा की संभावनाओं को अपनाने, पोषण सुरक्षा के मुद्दों को संबोधित करने के लिए माँग आधारित अनुसंधान, भविष्य में सुरक्षित दूध और मांस उत्पादन के लिए पशुधन और मछली सहित किसानों- पशुपालकों के साथ घनिष्ठ संबंध स्थापित करने और उत्पादकता बढ़ाने व मूल्यवर्धन और पशु आधारित खाद्य उत्पादों की गुणवत्ता और सुरक्षा सुनिश्चित करके किसानों की आय को दोगुना करने पर ध्यान केंद्रित किया जाएगा।

मैं विश्वविद्यालय की विभिन्न गतिविधियों और उपलब्धियों को दर्शाने वाली इस वार्षिक रिपोर्ट को प्रकाशित करने के लिए, 'संपादकीय समिति' द्वारा किए गए ईमानदार प्रयासों को विधिवत स्वीकार और उनकी सराहना करता हूँ।

Srivastava

(डा. ए. के. श्रीवास्तव)

CONTENTS

EXECUTIVE SUMMARY

TEACHING

- During 2022-23, College of Veterinary Science and Animal husbandry admitted 89 students in B.V.Sc. & AH programme out of which 24.72% were girls. In M.V.Sc. and PhD programmes,63 and 11 students, respectively, were admitted.
- During the same year, 03 students received their PhD and 20 their M.V.Sc. degree and 78 students their B.V.Sc. & A.H. from College of Veterinary Science and Animal husbandry.
- During the year, College of Biotechnology admitted 27 and 03 students to B. Sc. Biotechnology and B.Sc. Industrial Microbiology programmes respectively and 05 were admitted in M.Sc.- Biotechnology. 30 Students received their B.Sc. degree from College of Biotechnology.
- During 2022-23, 60 and 60 students were admitted to Diploma in Veterinary Pharmacy (DVP) and Diploma in Livestock extension (DLE) programmes, respectively and 61 and 59 Students completed their DVP and DLE programmes, respectively.
- Veterinary Clinical complex (VCC) is well equipped with modern facilities which include small and large animal operation theatres, two ICU for pets, C-arm image intensifier, digital X –ray machine, CCTV camera, USG machine, laproscopy set, mobile X-ray machine, small animal anesthesia machine, loading and unloading platform and indoor unit for small and large animals. During 2022-23 a total of 13114 clinical cases were handled. The total revenue generated during the year 2022-2023 by VCC was Rs. 10, 59,325 /- (Rs Ten lacs fifty nine thousand three hundred twenty five only).
- Disease diagnostic laboratory of VCC is equipped with digital microscope, dry chemistry analyzer, hematology analyzer electrolyte analyzer. During 2022-23, the laboratory analyzed various samples comprising of blood samples for various blood parameters, serum samples for biochemical analysis, milk and urine samples for culture sensitivity and histopathology tests.
- During the year under report, the clinical services were provided by the faculty members of clinics and post graduate students at farmer's doorstep through clinical camps organized at nearby villages of Mathura district.
- The breeder farm, layer farm and hatchery established under Experiential Learning Unit in Poultry Science Department (ELU) served as models for U.G., P.G. and Ph.D. teaching and also served as models for internship students to train them regarding poultry farming and entrepreneurship. Students were trained in various farm activities pertaining to feeding, watering, hatchery operations and management.
- The resources of ELU *viz*. dead birds and embryonated eggs of different stages of development were used to cater the educational and research needs of students and staff of Anatomy, Pathology, Biotechnology and Microbiology departments.
- Department of LPT is running a Revolving Project on “Processing of milk, meat and eggs for value added products”. Experiential Learning Programme on “Milk & meat processing and livestock product manufacturing” in Department of Livestock Products Technology imparted practical trainings on preparation of different milk and meat products to undergraduate and post-graduate students, which are made available to employees of the University at nominal rates approved by the competent authority of the University.
- During the reporting year, 152 liters of surplus milk from Livestock Farm Complex was processed into 11.75 kg paneer, 5.78 kg cream and 78.2 l lassi. In addition, 16.3 kg of meat nuggets and patties were also prepared. The total sale by the Department for the financial year 2022-23 was Rs. 13568.20/- (Rs thirteen thousand five hundred sixty eight only)
- University Library has 35885 books of various streams like Veterinary Science, Animal Husbandry and Biotechnology, 13 journals including online journals www.cera.jccc.in and various hindi and English news papers. The various facilities of the library includes: Circulation service, Reference service, Computer/Internet service, thesis reading service etc. CD-ROM = VET CD 1973 to Aug., 2004, CAB CD 1972 to May 2005, CAB Abstract 1990 to Dec., 2005. In order to meet the demands of students and faculty a good photostat facility is also available on payment basis @ Rs. 0.50 per page.

- Feed production and processing project under Department of Animal Nutrition has a feed processing unit and one Urea molasses mineral block unit. Since the inception of this feed processing unit, a total of 43775.0 quintal concentrate feed of about Rs 8.0 crore values was prepared during July 2012-March 2023 and more than 1100 students has been given hands on training to formulate compounded feed as per the nutrient requirement of livestock. Feeds and UMMB produced from these units are available to the University and also to farmers and goshala during Kisan melas and farmers training. During financial year 2022-23, Departmental sale of mineral mixture was about 100 quintal costing Rs 6 lacs.

RESEARCH

- During the reporting year, 18 externally funded projects were running in various departments of College of Veterinary Science and Animal Husbandry. Out of these, 08 projects were funded by RKVY, 04 projects by ICAR, 01 project funded by DADF, Ministry of Agriculture and Farmers Welfare, GOI, 01 project by DAHD, GOI, 01 project by DRDO-INMAS, 01 project by Avitech Nutrition, Gurgaon, Hariana, 01 projects by Ayurvet Limited, Baddi, Solan, H.P. and 01 project was funded by UPKAR respectively.
- During the same year 06 and 04 intramural university funded projects were running in various departments of College of Veterinary Science and Animal Husbandry and College of Biotechnology respectively.
- During 2022-23, 17 M.V.Sc. thesis in Veterinary and Animal Sciences subjects was submitted as per academic research in various departments.
- During the year under report, University published 103 research publications and two review articles.

EXTENSION

- During 2022-23, Department of Veterinary and Animal Husbandry Extension organized ten specialized/short trainings on the campus benefitting 403 participants, 3 demonstrations at kisan melas, 24 exposure visits of farmers, animal owners, students and others in Pashu Gyan Chaupal, Dairy Farm and Goat Unit.
- Poultry farm was open to 35 exposure visits by students, farmers and dignitaries from various parts of the country by a total of 895 visitors including faculty from Charles Sturt University, Australia and Russian delegates during the reporting year.
- Two Training manuals, 78 leaflets / lectures / popular articles and 28 book chapters / books in the form of booklets were developed by Directorate of Extension for the benefit of farmers and animal owners and keepers.
- Department of Veterinary and Animal Husbandry Extension also conducted 03 MAITRI trainings for 146 farmers/livestock owners/ Multi Purpose Artificial Insemination Technicians in Rural India (MAITRI) trainees, two training for 38 Para-Veterinary Professional's of Sashastra Seema Bal, Ministry of Home Affairs, New Delhi, and five for 200 farmers under SC-SP Plan during the reporting period and exhibited latest technologies in animal husbandry practices. 11 exposure visit for students and 14 for farmers from different districts of Uttar Pradesh and Chhattisgarh was also conducted.
- During this year, various extension trainings were organized by different departments of College of Veterinary Science and Animal Husbandry which included 01 for students and 2 for farmers by Department of Pharmacology & Toxicology, 10 training/workshops/public awareness programs for rural youth by Department of Animal Nutrition under RKVY project, and 05 training program for Veterinary officers, one for AI Worker's and one for farmers by Department of Veterinary Physiology.
- During this year, total of 135 trainings were conducted by KVK scientists for 4504 participants. Out of these, 115 trainings were for farmers and farm women, 08 for rural youth, and 12 for extension functionaries through which 3791 farmers and farm women, 161 rural youth and 552 extension functionaries were trained.
- To demonstrate the production potential of various proven technologies, the frontline demonstrations on farmers field were conducted for 2486 farmers and livestock owners.
- Under the technology assessment and refinement, technology assessed for crops and Nutrition Food Security were 13 and 1, respectively with 85 number of trials wherein 85 farmers were benefitted. Total 125 extension activities were conducted by KVK for 12300 participants. KVK provided 550 mobile advisory services to serve the farmers of the adjoining districts.

- In year 2022-23, KVK produced 650 quintal seeds, 46000 planting material and 715 kg. bio-products and generated total revenue of Rs. 24.70 lac, 2834/- and Rs. 3575/- respectively through these products.
- Gosthies, Diagnostic visits, Kisan Melas, Kisan Samman Diwas were organized for improving connectivity with farmers. During this year, Soil and Water Testing Laboratory of KVK analyzed 1300 soil and 76 water samples and on the basis of result recommendations for balance fertilization and watering were given to 960 beneficiaries and generated a revenue of Rs 9100/-only (Nine thousand one hundred only).

UNIVERSITY FARMS

- During 2022-23, total milk production at LFC was 1,61,189 liters, out of which, the production of cow milk was 1,29,184.50 liters and that of buffalo milk was 33,004.50 liters. The total revenue generated during this period was 55,74,860/- (Fifty five lac seventy four thousand eight hundred sixty only).
- Poultry farm of Veterinary College maintained variety of species and breeds including layers, Chabro, Aseel, Kadaknath, Naked neck, Japanese quail, Turkey, Guinea fowl and Emu. During FY 2022-23, the farm generated a revenue of Rs. 8,58,775/- (Rs eight lac fifty eight thousand seven hundred seventy five) from sale of different birds and eggs.
- A sum of Rs. 9,92,327/- (Rs nine lac ninety two thousand three hundred twenty seven) and 4,37,357/- (Rs four lac thirty seven thousand threee hundred fifty seven) was generated from sales of poultry products under Experiential Learning Unit (ELU) and revolving funds in Poultry Science Department respectively.
- The revenue generated during financial year 2022-23 from Wheat seeds, Straw (bhoosa), Barley seeds and oat seeds, green fodder was Rs. 50, 89, 228/- (Fifty lakh eighty nine thousand two hundred twenty eight only).

HUMAN RESOURCE DEVELOPMENT

- DUVASU, Mathura, in collaboration with Indian Agricultural Universities Association (IAUA) organized 46th Annual Convention of Vice-Chancellors of Agriculture Universities on the topic "National Education Policy 2020: Implementation in Agricultural Universities" on 26th-27th December, 2022.
- Department of Livestock Products Technology organized Two Days Training Programme, on "Hygienic milk production and adding value to milk for entrepreneurship promotion under ICAR SCSP head on 27th-28th March, 2023.
- The Department of Medicine organized 1st National Conference of Association of Mastitis (National Conference of AOM) on "Implications of Mastitis" on 19-20 October 2022 and a workshop under R.K.V.Y. on "पशु रोग उपचार: जड़ी बुटियों का महत्व" on 21st March, 2023.
- Department of Veterinary Pharmacology and Toxicology organized Hands on Training on "Analytical and Molecular Techniques to Decipher the Role of Phyto-biomolecules in Veterinary Therapeutics" under SCSP of ICAR All India Network Programme on Ethno-Veterinary Medicine from 18th – 27th Oct., 2022.
- The Department of Pharmacology and Toxicology organized a 10 days Hands on Training programme on "Practical Approaches to mitigate the challenges of Antimicrobial Resistance through Phytoremediation" from 19th-28th January, 2023 for development of skill and practical adaptability to the students of SC category under SCSP plan of ICAR-funded All India Network Program on Ethno-Veterinary Medicine.
- Department of Poultry Science, organized XXXVII Indian Poultry Science Association Conference (IPSACON 2022) and National Symposium on "Recent Advances in Sustainable Poultry Production for Livelihood and Nutritional Security" from 4th to 6th November, 2022.
- Department of Veterinary Anatomy organized an ICAR sponsored 21 days Winter School on "Recent advances in knowledge of structural dynamics and their applications to improve animal health, production and reproduction" from 10th to 30th January, 2023.
- Department of Veterinary Microbiology in association with ICAR-National Institute of Veterinary Epidemiology and Disease Informatics, Bengaluru, Karnataka organized "Expert Talk on diagnostic sampling procedures, control strategy, and clinical management of Lumpy skin disease" for sensitizing field animal husbandry heath officials through online mode on 31st September 2022. They have also organized One day Brainstorming Session on "Brucellosis and Policy Intervention for its Control" on12th December, 2022.

- Department of Veterinary Physiology successfully organized One Brainstorming session on "Host-microbiome interaction in augmenting productivity of ruminants" on 24th August 2022.
- Department of Animal Nutrition organized one day Brain storming on Feeding strategies in ruminants for health milk and green environment on September 03, 2022. The department have also organized XII Biennial Conference of Animal Nutrition Association of India on "New Horizons of Animal Nutrition Research: Combating the Challenges of Productivity, Health and Welfare of Animals" on 16th-18th February, 2023.
- World Egg Day 2022' was celebrated by College of Veterinary Science and Animal Husbandry, DUVASU, Mathura on 14th October, 2022.
- Department of Veterinary Public Health organized a Scientific lecture on change of WHO guidelines on rabies post exposure prophylaxis- experience sharing from local to global on World Rabies Day" under NAHEP, on 28th September, 2022
- Department of Animal Genetics and Breeding, College of Veterinary Sciences and Animal Husbandry, DUVASU, Mathura, in collaboration with Indian Society of Genetics, Biotechnology Research and Development (ISGBRD) organized Two Days International conference on "Wildlife - Bioscience, Biotechnological Innovations and Avant-garde Genetic Technologies" (WBBIAGT 2023) from 20th-21st February, 2023.
- Department of Veterinary Surgery and Radiology, College of Veterinary Science and Animal Husbandry Mathura organized two Six-Days short training; (i) Six-Days short training on "Technological Advances in Diagnosis and Management of Surgical Cases" was organized from 19th-24th December, 2022, while (ii) Six Days short training on "Recent Advances in Diagnosis and Management of Surgical Conditions in Veterinary Practice" from 06th-11th February, 2023 under the aegis of the ICAR-All India Network Programme on Diagnostic Imaging and Management of Surgical Conditions in Animals at DUVASU, Mathura.

STUDENTS' WELFARE

- During 2022-23, 38 and 36 cadets appeared in 'B' and 'C' certificate examination respectively. Thirteen students participated in NCC CATC-34 camp, 18 students in Army attachment Camp at RVC Centre & College, Meerut, 27 NCC students in Army attachment camp at Military Hospital Mathura Cantt. and Six NCC students participated in CATC-51 camp. Along with Captain Rajneesh Sirohi ANO, registered NCC students participated in blood donation camp organised at Kisan Bhawan, DUVASU, Mathura on 26th Nov., 2022. Captain Rajneesh Sirohi ANO participated in one month RDC-2023 at DG NCC Parade Ground, New Delhi.
- The 8th international yoga day on 21st June, 2022 was organized on the theme of 2022-"Yoga for Humanity".
- District Administration, Mathura distributed tablet to 200 students of College of Veterinary science and Animal Husbandry, College of Biotechnology and Institute of Para-Veterinary Sciences and post graduate studies on 24th April, 2022 in Nand Bhawan of DUVASU University Mathura.
- DUVASU T10 Cricket Tournament-2022 was initiated from the year 2022 in DUVASU, Mathura, where a total of ten teams of students of Veterinary College, Biotechnology College, Diploma Institute and Teachers and staff participated.
- Welcome party of first year students, Annual Sports Day, distribution of scholarship to the university students, Har Ghar Tiranga Abhiyan Program, Tennis Ball Cricket Tournament DUVASU Premier League-2022 (DPL-2022) and DUVASU Volleyball League-2022 (DVL-2022) were organized in the reporting year.
- Webinars were organized by the office of Dean Students Welfare, DUVASU, Mathura on various relevant topics for the students of the University under Interactive Sessions for Students with Industry and Academia of Institutional Development Plan (IDP)-National Agricultural Higher Education Project granted to this University.
- A total of 22 students from the university participated in All India Agricultural Universities Youth Festival at University of Agricultural Sciences, Bangaluru from 13th-17th March 2023.

OTHER HIGHLIGHTS AND ACTIVITIES

- University successfully conducted the Pre-Veterinary Test (PVT-2021) Pre-Diploma Entrance Examinations (PDT-2020) and Postgraduate (M.V.Sc. and Ph.D.) Entrance Examinations (PGT-2020) during the year 2022-2023.

- The 12th convocation of DUVASU, Mathura was held on 3rd March, 2023. Convocation function was presided over by Hon'ble Governor of Uttar Pradesh and Chancellor of U.P. Pt. Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidyalaya Evam Go Anusandhan Sansthan, Mathura, Smt. Anandi Ben Patel Ji graced the auspicious occasion as chief guest.
- Aditya Maheshwari won the Best Content Award in Hindi Debate competition during Yuva-2023 celebration event conducted at GBPUAT, Pantnagar on the theme "Youth of India is capable to empower the nation to be global power in 20th century".
- Blood donation camp was successfully organized on 27th November 2022 and 26th March 2023 at University campus.
- Saraswati poojan was performed to celebrate the Basant Panchami on 05-02-2022 at University Library.
- University celebrated Ambedkar Jayanti, Independence Day, Pt. Deen Dayal Upadhyaya Birth anniversary, Gandhi Jayanti, Constitution Day and Republic Day during 2022-23
- DUVASU celebrated its 20th Foundation Day on 25th October 2021 in which a workshop was organized in morning session on "understanding mind" followed by cultural program in the evening.
- On the occasion of World Tuberculosis Day, a program was organized on "Eradication of Tuberculosis" on 24th March 2023 in the University.

AWARDS AND HONOUR / ACHIEVEMENTS

- Prof. Vikas Pathak was awarded Fellow of National Academy of Veterinary Science on 20th - 21st June, 2022 at XX NAVS (I) at Convocation – cum – scientific convention organized by Nagpur Veterinary College, Maharashtra Animal and Fishery Sciences University, Nagpur & National Academy of Veterinary Sciences (India) New Delhi and Fellow of National Academy of Dairy Science (India) on 29th October, 2022 at VII Convocation of NADS(I) at U.P. Pt. Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidyalaya Evam Go Anusandhan Sansthan (DUVASU), Mathura. Prof. Vikas Pathak also chaired the technical session and acted as invited speaker in an International Conference on Food Microbiology and Food Safety (ICFMFS) held in Phuket, Thailand in online mode on 06th -07th December, 2022 and won best Paper award for presenting "Comparative Product Profile Analysis of Health Promoting Indian Cheese (Paneer) Prepared from Milk of Different Indigenous Milch Animals".
- Dr. Meena Goswami Awasthi chaired the technical session and delivered talk as invited speaker in International Conference on Food Microbiology and Food Safety (ICFMFS) held in Phuket, Thailand. She also received Dr. C M Singh Veterinary Science Excellence Award 2022 by Pashudhan Praharee.
- Dr. S.K. Bharti received 1st prize for paper presentation in XXXVII Indian Poultry Science Association Conference (IPSACON 2022).
- Dr. Varsha Gupta received K.L. Suri Best Poster presentation Award and Medal in XXXVI Annual convention of Indian Association of Veterinary Anatomist.
- Dr. Shriprakash Singh received Best poster Award (2022) in XXXV Annual Conference of Indian Poultry Science Association.
- Dr. Abhinov Verma got best PhD Thesis Award-2022 in Basic Science Category in 12th Convocation of DUVASU, Mathura on 3rd March, 2023 and Dr..C.Vijayaragavan Memorial Silver Jubilee Medal and Best Paper Award in XXXVI Annual Convention of Indian Association of Veterinary Anatomists and National Symposium organized at Department of veterinary Anatomy, College of Veterinary Science, Udaipur Rajasthan on 20th-22nd December, 2022.
- Dr. Vijay Pandey was awarded with Fellow Membership of National Academy of Veterinary Science (India) in April, 2022.
- Dr. Pawanjit Singh received Best Oral Presentation Award and Certificate of Appreciation in International Conference on Wildlife - Bioscience, Biotechnological Innovations and Avant - garde Genetic Technologies (WBBIAGT), also acted as Co-Chairperson and Session Rapporteur in the same conference. Dr. Singh also received Certificate of Appreciation and also served as Session Rapporteur in New Horizons of Animal Nutrition Research: Combating the Challenges of Productivity, Health and Welfare of Animals. He received 2nd Best Oral Paper Presentation Award and worked as Session Rapporteur in the Association of Mastitis (AOMCONF) in 2022.

- Dr. Ambika Sharma received Best Oral Paper award in 1st National Conference of Association of Mastitis on "Implication of Mastitis" (AOMCONF - 2022) and Louis Pasteur Award on the occasion of World Rabies Day 2022 by Pashudhan Prahree in September 2022.
- Dr. Neeraj Kumar Gangwar was elected as zonal secretary of North zone of the IAVP society, India and Member of IAEC at DUVASU, Mathura in 2022 and received Certificate of Appreciation in 8th International conference on Wildlife-Bioscience, Biotechnological innovations and Avant-garde Genetic Technologies.
- Dr. Renu Singh received 2nd Best poster award in NCAM, Implications of Mastitis-2022 and received Certificate of Appreciation in 8th International conference on Wildlife-Bioscience, Biotechnological innovations and Avant-garde Genetic Technologies.
- Prof. Sanjay Purohit received Gaon Gyan Paritoshik Award-2023 by Indian Association of the Advancement of Veterinary Research (IAAVR). He also received Pashudhan Samridhi India Gaurav Ratna Award-2022 for recognition of outstanding professional work and significant contribution for the advancement of Livestock Sector in India by Pashudhan Praharee.
- Dr. Deepak Sharma received Eminent Professor Award-2023 by Indian Society of Genetics, Biotechnology Research and Development (ISGBRD), Agra, (UP).
- Shri Rakesh Goel got Excellent Research / Teaching award-2023 by Indian Society of Genetics, Biotechnology Research and Development (ISGBRD), Agra, (UP).
- Dr. S. P. Singh received Excellence Research Award -2023 by Indian Society of Genetics, Biotechnology Research and Development (ISGBRD)
- Dr. Avneesh Kumar received Innovative Biotechnologist Award -2023 by Indian Society of Genetics, Biotechnology Research and Development (ISGBRD), Agra, UP. He also received Young Scientist Award in IVth International Conference in Hybrid mode on "Innovative and Current Advances in Agriculture & Allied sciences (ICAAAS-2022)".
- Dr. Udit Jain & Dr. Parul received Best Oral presentation Award-Ist position award in 8th International conference on "Wildlife bioscience, Biotechnological innovations and AGT (WBBIAGT-2023) at DUVASU, Mathura organized by ISGBR&D, Agra and DUVASU, Mathura; and Best Oral presentation Award-IInd position in 2nd Annual convention of VIPM and National symposium on "Innovations in veterinary medicine: present status and futuristic implications" organized by COVSc & AH, ANDUAT, Kumarganj, Ayodhya on 06th-07th May, 2022; and Dr. S.P. Singh best research paper award 2019 in XVIII Annual conference of IAVPHS organized by ICAR Research complex for NEH region Umiam, Meghalaya.
- Dr. Udit Jain become Member of Executive Committee of "Indian Association of Veterinary Public Health Specialists in XVIIIth Annual conference of IAVPHS.
- Dr. Vikas Sachan received Best PhD thesis award (Veterinary clinical subjects) in 12th Convocation of DUVASU, Mathura.
- Anuj Kumar received best paper award in National symposium and XXXVII Annual convention of the Indian Society for study of Animal Reproduction on "optimizing animal reproduction through recent techniques of biotechnology, nutraceuticals and alternative medicine" at NDVSU, Jabalpur.
- Dr. Ajay Kumar received Young Scientist Award-2022 in GRISAAS-2022.
- Dr. D.N. Singh, Dr.. Ajay Kumar, Dr.. Mamta received Dr.. C.M. Singh Veterinary Science Excellence award- 2022 by Pashudhan Prahari in 2022. Dr. D.N. Singh also received Dr. V. Kurrien Award of Excellence- 2022 by Pashudhan Prahari in 2022.
- Dr. P N Panigrahi and Dr. A K Tripathi received Best oral presentation award (1st) in AOMCONF-2022 held on 19th-20th October 2022.
- Dr. A K Tripathi received Best poster presentation award (3rd), Dr. A K Tripathi and Dr. P N Panigrahi received Best poster presentation award (1st) and Dr. A K Tripathi, Dr. M K Srivastava, Dr. A Srivastava, Dr. A Chaudhury, Dr. P N Panigrahi received Best oral presentation award (3rd) in AOMCONF-2022.
- Dr. P N Panigrahi and Dr. A K Tripathi received Best oral presentation award (1st) in AOMCONF-2022 on 19th-20th October 2022.
- Dr. P N Panigrahi, Dr. A K Tripathi, Dr. M K Srivastava, Dr. A Srivastava, received Best oral presentation award (1st) in AOMCONF-2022 on 19-20 October 2022.

- Dr. A K Tripathi received Best poster presentation award (1st) in AOMCONF-2022
- Dr. M K Srivastava, Dr. A Srivastava, Dr. A K Tripathi received Best oral presentation award (3rd) in AOMCONF-2022 on 19-20 October 2022.
- Dr. Ajay Pratap Singh received Best Oral Presentation award in 8th International Conference of Indian Society of Genetics, Biotechnology Research and Development on Wildlife-Bioscience, Biotechnological Innovations and Avant Garde Genetic Technologies Organized by Department of AGB, CoVSc&AH, DUVASU, Mathura on February, 20-21,2023. He also received Best Oral Presentation award in 1st National Conference of Association of Mastitis, organized by Department of Veterinary Medicine, CoVSc&AH, DUVASU, Mathura held on October 19-20, 2022.
- Dr. Vinod Kumar Singh received Dr. C.M. Singh Best Ph.D Scholar Award in Dr. C.M. Singh Birth Centenary Year Celebrations & National Webinar on Advances of Veterinary Sciences during 75 Years of Indian Independence (1947-2022) organized by Dr. C.M. Singh Endowment Trust, Bareilly, UP on 30th November, 2022. Dr.. Vinod Kumar Singh also received Registration sponsorship to participate in 8th Annual Conference of Asian Council of Science Editors by Science Alert (UAE) under the Science Alert Capacity Building Program. Dr. Singh also received Best oral presentation award (Team) during XXXVII annual conference of IPSACON; Best oral presentation award (Ist) in Technical Session-I and Best oral presentation award (Ist) in Technical Session-III during 8th International Conference of Indian Society of Genetics, Biotechnology Research and Development (WBBIAGT 2023).
- Dr. Ruchi Tiwari received Young Researcher of the Year Award-2022 in IVth National Education Excellence Conclave Cum VIth National Excellence Award Ceremony by Integrated Chambers of Commerce and Industry and Highly Cited Researchers (HCR) 2022 Award by ClarivateTM (Clarivate Analytics, Thomson Reuters, Web of Science) https://recognition.webofscience.com/awards/highly-cited/2022/ in 2022.
- Dr. Amit Shukla received Best Oral Presentation Award in 8th Annual Conference of Wildlife - Bioscience, Biotechnological Innovations and Avant-garde Genetic Technologies" (WBBIAGT 2023); Second Prize in Poster Presentation by IPSACON-2022 and First Prize in Poster Presentation in 1st National Conference of Association of Mastitis entitled "Implications of Mastitis".
- Dr. Soumen Choudhury received Best Oral Presentation Award in WBBIAGT-2023.
- Dr. Rajkumar Singh Yadav received First Prize in Poster Presentation in 1st National Conference of Association of Mastitis entitled "Implications of Mastitis".
- Dr. Mukul Anand received India Animal Health Award by India Animal Health Summit & Awards 2022 on 6th-7th July 2022; Young Scientist Award by Indian Animal Health Submit (Agriculture Today) on 5 July 2022; Distinguished Scientist Award by Indian Society of Genetics, Biotechnological Research and Development on 20-21 Feb 2023; Best poster award in 1st National Conference of Association of Mastitis held at DUVASU, Mathura. Dr.. Mukul Anand become member of National advisory board for Sheep and Goat by National Advisory Committee for Animal Husbandry and Dairying, Government of India.
- Dr. Dilip Kumar Swain received Prof. S.S. Guraya Young Scientist Award by Indian Society for the study of Reproduction and Fertility, Dr. D.N. Mulick Award 2023 by Society of Animal Physiologists of India in 2023 and Distinguished Scientist Award by Indian Society of Genetics, Biotechnology Research and Development, Agra UP in 2023.
- Dr. Brijesh Yadav received National Environmental Academic Scientist of the year award by National Environmental Science Academy on 31-12-2022; Nominated as Nominee of CPCSEA in the IAEC by Ajmal Khan Tibbiya College., AMU, Aligarh and The National *JALMA* Institute for Leprosy & Other Mycobacterial Diseases, Agra; Acted as panelist in Brainstorming Session on "Host-microbiome interaction in augmenting productivity of ruminants" on 24th August 2022; Brainstorming Session on "Feeding Strategies in Ruminants for Healthy Milk and Green Environment" at Veterinary University, Mathura on 3rd September 2022; on National Dialogue on Semen Biology for enhancing fertility on Veterinary University, Mathura; on Brainstorming under the aegis of National Academy of Agricultural Sciences on Milk vs Plant based dairy Analogues on Veterinary University, Mathura.

- Dr. Rashmi received Best PhD Thesis award on 8th International Conference on Wildlife - Bioscience, Biotechnological Innovations and Avant-garde Genetic Technologies (WBBIAGT) Organized by Indian Society of Genetics, Biotechnology Research and Development, Agra.

FINANCE AND BUDGET

- During the financial year 2022-23, University received Rs. 5317.64 lacs and Rs. 2932.19 lacs under salary and contingency heads, respectively from Govt. of U.P.
- Rs 557.08 lacs were received by various financial agencies for the extramural projects.
- Under ICAR SC-SP development subplans the university received Rs 87.08 lacs.
- During the year, total receipt generated by the University was Rs 890.74 lacs.

ESTATE AND MAINTAINNANCE ORGANIZATION

- During the financial year 2022-23, Estate has utilized Rs 92.54 lacs for the repair and renovation work, fencing, construction of Platinum Jubilee monument and civil work etc of the University

RIGHT TO INFORMATION ACT

- In compliance of the order of Govt. of Uttar Pradesh and provision of RTI Act, 2005, PIO received 60 applications out of which 44 applications were cleared and 16 are under consideration.

NCC Cadets Escorting Hon'ble Vice Chancellor

कार्यकारी सारांश

पाठयक्रम

- वर्ष 2022-23 के दौरान पशु चिकित्सा विज्ञान एवं पशुपालन स्नातक कार्यक्रम में 89 विद्यर्थियों ने प्रवेश लिया जिसमें 24.72% छात्राएं हैं। पशु चिकित्सा विज्ञान स्नातकोत्तर तथा विद्या वाचस्पति कार्यक्रम में क्रमश: 63 एवं 11 विद्यर्थियों ने प्रवेश प्राप्त किया।
- इसी सत्र में पशु चिकित्सा विज्ञान स्नातकोत्तर तथा विद्या वाचस्पति कार्यक्रम में क्रमश: 3 और 20 विद्यर्थियों ने विभिन्न विषयों में उपाधि प्राप्त की, साथ ही पशु चिकित्सा विज्ञान एवं पशुपालन स्नातक कार्यक्रम में 78 विद्यर्थियों ने स्नातक की उपाधि प्राप्त की ।
- वर्ष 2022-23 में जैव प्रौद्योगिकी महाविद्यालय में 27 विद्यर्थियों ने जैव प्रौद्योगिकी स्नातक कार्यक्रम तथा 3 विद्यर्थियों ने औद्योगिकी सूक्ष्मजीव विज्ञान स्नातक कार्यक्रम में प्रवेश प्राप्त किया, इसी सत्र में जैव प्रौद्योगिकी में स्नातकोत्तर कार्यक्रम में 5 विद्यर्थियों ने प्रवेश प्राप्त किया, साथ ही 30 विद्यर्थियों ने जैव प्रौद्योगिकी में स्नातक की उपाधि प्राप्त की ।
- वर्ष 2022-23 में वेटरनरी फार्मेसी एवं पशुधन प्रसार में डिप्लोमा के लिए क्रमश: 60 एवं 60 विद्यर्थियों ने प्रवेश लिया तथा 61 विद्यर्थियों ने वेटरनरी फार्मासिस्ट डिप्लोमा तथा 59 विद्यर्थियों ने पशुधन प्रसार में डिप्लोमा प्राप्त किया।
- वी सी सी आधुनिक रोग निदान की सभी सुविधाओं से सुसज्जित है तथा इसमें छोटे तथा बड़े पशुओं की शल्य क्रिया हेतु शल्य कक्ष, पालतू पशु हेतु दो आईसीयू कक्ष, सी-आर्म इमेज इंटेंसिफायर, डिजिटल एक्स-रे मशीन, सीसीटीवी कैमरा, अल्ट्रासोनोग्राफी मशीन, लेप्रोस्कोपी सेट, चलायमान एक्स-रे मशीन, छोटे पशुओं के लिए एनेस्थीसिया मशीन, छोटे व बड़े पशुओं हेतु को चढ़ाने व उतारने के लिए प्लेटफॉर्म तथा उन्हें रखने के लिए आंतरिक यूनिट की सुविधा भी उपलब्ध है। वर्ष 2022-23 में रोग से संबंधित 13,114 नमूनों की जांच की गई तथा वर्ष 2022-23 में वीसीसी द्वारा इन सेवाओं के माध्यम से रुपए 10,59,325/- (दस लाख उनसठ हजार तीन सौ पच्चीस) का राजस्व प्राप्त हुआ ।
- वीसीसी की रोग निदान प्रयोगशाला डिजिटल सूक्ष्मदर्शी, रक्त के नमूनों से संबंधित जांच हेतु हेमेटोलॉजी एनालाइजर, इलेक्ट्रोलाइट एनालाइजर तथा बायोकेमिकल एनालाइजर से सुसज्जित है, वर्ष 2022-23 के दौरान इस प्रयोगशाला के द्वारा विभिन्न नमूनों जैसे की रक्त के नमूने, सीरम, दुग्ध तथा मूत्र के नमूनों की जांच की गई ।
- वर्ष 2022-23 में पशु चिकित्सा संकाय के शिक्षकों एवं स्नातकोत्तर विद्यर्थियों के द्वारा मथुरा जिले के विभिन्न गांवों में जाकर पशुओं की चिकित्सा हेतु चिकित्सा शिविरों का आयोजन किया गया ।
- कुक्कुट विभाग की प्रायोगिक प्रशिक्षण यूनिट के अंतर्गत विकसित किए गए पोल्ट्री ब्रीडर फॉर्म, लेयर फार्म तथा हैचरी फार्म द्वारा स्नातक, स्नातकोत्तर व विद्या वाचस्पति के विद्यर्थियों के शिक्षण एवं कौशल विकास हेतु तथा इंटर्नशिप के विद्यर्थियों को पोल्ट्री फार्म में मुर्गी पालन प्रबंधन व अंडों के सेने से संबंधित व्यवहारिक ज्ञान प्रदान करने में महत्वपूर्ण भूमिका निभाई गई। छात्रों को फार्म से संबंधित विभिन्न गतिविधियों जैसे की पक्षियों को दाना डालना, पानी पिलाना, हैचरी के विभिन्न क्रियाकलाप व उनके प्रबंधन के संबंध में प्रशिक्षित किया गया।
- ई.एल.यू. के संसाधनों जैसे की मृत पक्षियों और जीवन के विकास के विभिन्न चरणों वाले भ्रूण युक्त अंडों का प्रयोग शरीर रचना विभाग, विकृति विज्ञान विभाग, जैव प्रौद्योगिकी विभाग, सूक्ष्मजीव विज्ञान विभाग के छात्रों व कर्मचारियों के शैक्षणिक और अनुसंधान की आवश्यकताओं को पूरा करने के लिए किया गया ।
- एल.पी.टी. विभाग द्वारा दूध मांस और अंडों के प्रसंस्करण द्वारा संवर्धन मूल्य के उत्पादों के उत्पादन हेतु एक परियोजना चलाई जा रही है। पशुधन उत्पाद प्रौद्योगिकी विभाग द्वारा दूध और मांस के प्रसंस्करण तथा पशुधन उत्पाद के निर्माण से संबंधित अनुभवात्मक प्रशिक्षण कार्यक्रम स्नातक व स्नातकोत्तर छात्रों हेतु चलाया जा रहा है

जो छात्रों को दूध और मांस के विभिन्न उत्पादों के उत्पादन से संबंधित जानकारियां उपलब्ध कराने के साथ-साथ विश्वविद्यालय के कर्मचारी को विश्वविद्यालय के सक्षम अधिकारी द्वारा अनुमोदित की गई दरों पर उपलब्ध कराए जाते हैं ।

- रिपोर्टिंग वर्ष के दौरान पशुधन फॉर्म परिसर से 152 लीटर अतिरिक्त दूध का प्रयोग करके 11.75 किलोग्राम पनीर, 5.78 किलोग्राम क्रीम व 78.2 लीटर लस्सी का उत्पादन किया गया । इसके अलावा 16.3 किलोग्राम मीट नगेट्स और पेटीज भी तैयार किए गए । वित्तीय वर्ष 2022- 23 के लिए विभाग द्वारा कुल राशि 13568/- (तेरह हजार पांच सौ अड़सठ रुपए) का विक्रय किया गया ।
- विश्वविद्यालय के पुस्तकालय में पशु चिकित्सा विज्ञान पशुपालन व जैव प्रौद्योगिकी विभाग से संबंधित 35885 पुस्तकें,13 ऑनलाइन जर्नल्स जिनमें CERA की वेबसाइट भी शामिल है तथा विभिन्न प्रकार के हिंदी व अंग्रेजी के समाचार पत्र हैं । पुस्तकालय में उपलब्ध अन्य सुविधाओं में सर्कुलेशन सेवा, संदर्भ सेवा, कंप्यूटर / इंटरनेट सेवा, शोध ग्रंथ पढ़ने की सुविधा, सीडी रोम=वेटसीडी 1973 से अगस्त 2004, सीएबी सीडी 1972 से मई 2005, CAB एब्स्ट्रेक्ट 1990 से दिसंबर 2005 तक शामिल हैं । छात्रों व शिक्षकों की आवश्यकताओं के अनुसार 50 पैसे प्रति पृष्ठ के भुगतान के उपरांत फोटो स्टेट की सुविधा भी उपलब्ध है।
- पशु पोषण विभाग में फीड उत्पादन और प्रसंस्करण परियोजना के अंतर्गत एक फीड प्रसंस्करण इकाई तथा एक यूरिया मोलासेस खनिज ब्लॉक इकाई भी उपलब्ध है । इस फीड प्रसंस्करण इकाई की स्थापना के बाद से जुलाई 2012 से मार्च 2023 के मध्य लगभग 8 करोड़ रुपए मूल्य की लागत का 43775 क्विंटल फीड तैयार किया गया तथा 1100 से अधिक छात्रों को पशुओं के पोषक तत्वों की आवश्यकतानुसार फीड तैयार करने हेतु प्रशिक्षण दिया गया । इन इकाइयों से उत्पादित फीड व यू एम एम बी हमारे विश्वविद्यालय के साथ-साथ किसान मेलों व कृषकों के प्रशिक्षण हेतु भी उपलब्ध है । वित्तीय वर्ष 2022-23 के दौरान खनिज मिश्रण की विभागीय बिक्री 100 क्विंटल की थी जिसकी अनुमानित लागत रू. 6 लाख थी।

अनुसंधान

- रिपोर्टिंग वर्ष के दौरान विश्वविद्यालय के पशु चिकित्सा विज्ञान एवं पशुपालन महाविद्यालय के विभिन्न विभागों में 18 बाह्य वित्त पोषित परियोजनाएं चल रही हैं। जिनमें से आठ परियोजनाएं राष्ट्रीय कृषि विकास योजना द्वारा, 04 भारतीय कृषि अनुसंधान परिषद द्वारा, 01 डी ए डी एफ, कृषि और किसान कल्याण मंत्रालय, भारत सरकार द्वारा, 01 डी ए एच डी, भारत सरकार द्वारा, 01 डी आर डी ओ -इनमास द्वारा, 01 एविटेक न्यूट्रीशन, गुड़गांव, हरियाणा द्वारा, 01 आयुर्वेट लिमिटेड, सोलन, हिमाचल प्रदेश द्वारा एवं 01 उपकार द्वारा वित्त पोषित हैं।
- वर्ष 2022-23 में विश्वविद्यालय में पशु चिकित्सा विज्ञान व पशुपालन महाविद्यालय के विभिन्न विभागों तथा जैव प्रौद्योगिकी महाविद्यालय में क्रमशः 06 तथा 04 अंतर विश्वविद्यालय पोषित परियोजनाएं चल रही थीं।
- इसी वर्ष पशु चिकित्सा विज्ञान व पशुपालन विषयों से संबंधित 17 शोध ग्रंथ विभिन्न विभागों में शैक्षिक अनुसंधान के अंतर्गत पूरे किए गये।
- रिपोर्टिंग वर्ष में विश्वविद्यालय द्वारा 103 शोध पत्रों व 02 समीक्षा लेखों का प्रकाशन किया गया ।

प्रसार गतिविधियाँ

- वर्ष 2022-23 में पशु चिकित्सा और पशुपालन प्रसार विभाग ने विश्वविद्यालय के परिसर में 403 प्रतिभागियों को लाभान्वित करने हेतु 10 विशेष लघु प्रशिक्षण कार्यक्रम, किसान मेलों में 03 प्रदर्शन, व पशु ज्ञान चौपाल, डेरी फार्म और बकरी प्रक्षेत्र में किसानों, पशुपालकों, छात्रों व आगंतुकों के 24 भ्रमण कार्यक्रमों का आयोजन किया ।
- रिपोर्टिंग वर्ष के दौरान चार्ल्स स्टुअर्ट विश्वविद्यालय, ऑस्ट्रेलिया व रूसी प्रतिनिधियों सहित कुल 895 आगंतुकों के साथ-साथ देश के विभिन्न भागों से आए हुए किसानों, विद्यर्थियों व गणमान्य व्यक्तियों द्वारा 35 बार कुक्कुट प्रक्षेत्र में भ्रमण किया गया ।
- प्रसार निदेशालय द्वारा पशुपालकों व किसानों के लाभार्थ, दो प्रशिक्षण पुस्तिका, 78 लीफलेट्स/ सामान्य लेख व 28 पुस्तक लेखों का प्रकाशन किया गया ।

- पशु चिकित्सा एवं पशुपालन प्रसार विभाग ने रिपोर्टिंग अवधि के दौरान 146 किसानों/ पशुपालकों व ग्रामीण परिवेश के बहुउद्देशीय कृत्रिम गर्भाधान टेक्निशियनों के लिए तीन मैत्री प्रशिक्षण कार्यक्रम, सशस्त्र सीमा बल, नई दिल्ली के 38 पैरा वेटरनरी प्रशिक्षणर्थियों हेतु 02 मैत्री प्रशिक्षण, एससी-एसपी योजना के अंतर्गत 200 किसानों के लिए 05 प्रशिक्षणों के माध्यम से नवीनतम तकनीकियों व उद्यमों का प्रशिक्षण दिया गया । उत्तर प्रदेश व छत्तीसगढ़ के विभिन्न जिलों के छात्रों हेतु 11 व किसानों के लिए 14 प्रदर्शन दौरों का भी आयोजन किया गया ।
- इस वर्ष के दौरान पशु चिकित्सा विज्ञान और पशुपालन महाविद्यालय के विभिन्न विभागों द्वारा विभिन्न प्रसार संबंधी प्रशिक्षणों का आयोजन किया गया, जिसमें पशु औषधि एवं विष विज्ञान विभाग द्वारा विद्यर्थियों के लिए 01 व किसानों के लिए 02 प्रशिक्षण कार्यक्रम, पशु पोषण विभाग द्वारा राष्ट्रीय कृषि विकास योजना के अंतर्गत ग्रामीण युवाओं के लिए 10 प्रशिक्षणों / कार्यशालाओं / जन- जागरूकता कार्यक्रमों का तथा शरीर क्रिया विज्ञान विभाग द्वारा पशु चिकित्सा अधिकारियों के लिए 05 प्रशिक्षण कार्यक्रम, कृत्रिम गर्भाधान करने वाले सहायकों के लिए 01 व किसानों के लिए 01 प्रशिक्षण का आयोजन किया गया ।
- इस वर्ष के दौरान कृषि विज्ञान केंद्र के वैज्ञानिकों द्वारा 4504 प्रतिभागियों के लिए कुल 135 प्रशिक्षणों का आयोजन किया गया, जिनमें से 115 प्रशिक्षण किसानों और कृषक महिलाओं के लिए, 08 ग्रामीण युवाओं के लिए और 112 प्रसार कार्यकर्ताओं के लिए थे, जिनके माध्यम से 3791 किसानों व कृषक महिलाओं, 161 ग्रामीण युवाओं और 552 प्रसार कार्यकर्ताओं को प्रशिक्षित किया गया ।
- विभिन्न सिद्ध तकनीकियों द्वारा उत्पादन क्षमता में वृद्धि को दर्शाने हेतु 2486 किसानों और पशुपालकों के लिए प्रदर्शन किए गए ।
- प्रौद्योगिकी मूल्यांकन और शुद्धिकरण के अंतर्गत फसलों के लिए 13 और पोषण खाद्य सुरक्षा के लिए 01 प्रौद्योगिकी के कुल 85 परीक्षण किए गए जिनमें से 85 किसान लाभान्वित हुए। कृषि विज्ञान केंद्र द्वारा 12300 प्रतिभागियों के लिए कुल 125 प्रसार गतिविधियों का आयोजन किया गया । के वी के द्वारा आसपास के जनपदों के किसानों को दूरभाष द्वारा 550 परामर्श सेवाएं प्रदान की गईं।
- वर्ष 2022-23 में के वी के ने 650 क्विंटल बीज, 46000 रोपण हेतु पौधे एवं 715 किलोग्राम जैव उत्पादों का उत्पादन किया जिनसे कुल मिलाकर क्रमशः रुपए 24.70 लाख, 2834/- और रुपए 3575/- का राजस्व प्राप्त हुआ।
- किसानों के साथ संपर्क सुधार द्वारा उनसे जुड़े रहने के लिए गोष्ठियों, नैदानिक भ्रमणों, किसान मेलों व किसान सम्मान दिवस का आयोजन किया गया । इस वर्ष के दौरान कृषि विज्ञान केंद्र की प्रयोगशाला ने 1300 मृदा तथा 76 जल के नमूनों का विश्लेषण किया व परिणाम के आधार पर 960 लाभर्थियों को संतुलित रूप से खाद और पानी डालने की क्रिया बताई गई जिसके माध्यम से कुल 9100/- रुपए का राजस्व अर्जित किया गया।

विश्वविद्यालय प्रक्षेत्र

- वर्ष 2022-23 के दौरान एल.एफ.सी. में कुल दूध का उत्पादन 1,61,189 लीटर था जिसमें से गाय के दूध का उत्पादन 1,29,184 लीटर और भैंस के दूध का उत्पादन 33,004.50 लीटर था । इस अवधि के दौरान एल एफ सी फॉर्म को कुल 55,74,860 रुपए का राजस्व प्राप्त हुआ।
- पशु चिकित्सा महाविद्यालय के कुक्कुट फार्म पर विभिन्न प्रकार की प्रजातियों की मुर्गियों जैसे चाबरों, असील, कड़कनाथ, नेकेड नेक, जापानी बटेर, टर्की, गिनी पिग और इमू का पालन व उनकी नस्लों का रखरखाव किया जाता है। वित्तीय वर्ष 2022-23 के दौरान इनके अंडों तथा कुक्कुट इत्यादि की बिक्री से कुल 8,58,775 रूपयों का राजस्व प्राप्त हुआ।
- इसके अतिरिक्त प्रायोगिक शिक्षा इकाई एलयू के तहत कुक्कुट उत्पादन की बिक्री और कुक्कुट विज्ञान विभाग में चल रही रिवाल्विंग निधि के माध्यम से क्रमशः 9,92,327/- रुपये तथा 4,37,357/-रुपये भी प्राप्त किए गए।
- वित्तीय वर्ष 2022-23 के दौरान गेहूं के बीज, भूसे/भूसा, जौ के बीज, बाजरे के बीच व हरे चारे के माध्यम से 50,89,228/- रुपए का कुल राजस्व प्राप्त हुआ ।

मानव संसाधन विकास

- भारतीय कृषि विश्वविद्यालय संघ (आई.ए.यू.ए.) के सहयोग से विश्वविद्यालय ने कृषि विश्वविद्यालय के कुलपतियों का 46वां वार्षिक सम्मेलन 'राष्ट्रीय शिक्षा नीति 2020: कृषि विश्वविद्यालय में कार्यान्वयन' विषय पर 26-27 दिसंबर 2020 को दुवासू मथुरा में आयोजित किया ।
- पशुधन उत्पादन प्रौद्योगिकी विभाग ने आई सी ए आर की एससी-एसपी योजना के तहत 'उद्यमिता संवर्धन हेतु स्वच्छ दुग्ध का उत्पादन व दूध का मूल्य संवर्धन' विषय पर 27-28 मार्च, 2023 को दो दिवसीय प्रशिक्षण कार्यक्रम का आयोजन किया ।
- औषधि विज्ञान विभाग ने 19-20 अक्टूबर, 2022 को 'मैस्टाइटिस के प्रभाव' विषय पर मैस्टाइटिस संगठन (ए ओ एम का राष्ट्रीय सम्मेलन) का पहला राष्ट्रीय सम्मेलन और राष्ट्रीय कृषि विकास योजना के अंतर्गत 21 मार्च 2023 को 'पशु रोग उपचार: जड़ी बूटियां का महत्व' विषय पर एक कार्यशाला का आयोजन किया ।
- पशु औषधि और विष विज्ञान विभाग द्वारा भारतीय कृषि अनुसंधान परिषद के एस सी एस पी के अंतर्गत 'पशु चिकित्सा विज्ञान में फाइटो- बायोमालीक्यूल्स की भूमिका को समझने के लिए विश्लेषणात्मक और आणविक तकनीक) पर हैंड्स आन ट्रेनिंग का आयोजन 18-27 अक्टूबर 2022 को किया गया।
- पशु औषधि एवं विष विज्ञान विभाग द्वारा आई सी ए आर के अंतर्गत इथ्नो-वेटरिनरी मेडिसिन पर आधारित अखिल भारतीय नेटवर्क कार्यक्रम की एससी-एसपी योजना के तहत अनुसूचित जाति की श्रेणी के छात्रों के कौशल व व्यवहारिक क्षमता के विकास हेतु 19 से 28 जनवरी 2023 से ' फाइटोरिमेडियेशन के माध्यम से प्रति जैविक प्रतिरोध की चुनौतियों को कम करने के लिए व्यवहारिक दृष्टिकोण' विषय पर 10 दिवसीय हैंड्स आन ट्रेनिंग कार्यक्रम का आयोजन किया गया ।
- कुक्कुट विज्ञान विभाग ने 'आजीविका और पोषण सुरक्षा हेतु सतत कुक्कुट उत्पादन में वर्तमान प्रगति' विषय पर XXXVII भारतीय कुक्कुट विज्ञान संघ सम्मेलन (इप्साकान- 2022) एवं राष्ट्रीय संगोष्ठी का आयोजन 4-6 नवंबर, 2022 में किया ।
- पशु शरीर रचना विज्ञान विभाग ने भा.कृ.अनु.प. द्वारा प्रायोजित 21 दिनों के शीतकालीन स्कूल का 'संरचनात्मक विविधता के ज्ञान में वर्तमान प्रगति और पशु स्वास्थ्य उत्पादन और प्रजनन में सुधार के लिए उनके अनुप्रयोग' विषय पर 10 से 30 जनवरी 2023 तक आयोजित किया।
- पशु सूक्ष्म जीव विज्ञान विभाग द्वारा भा.कृ.अनु.प.- राष्ट्रीय पशु चिकित्सा महामारी विज्ञान और रोग सूचना विज्ञान विभाग, बेंगलुरु, कर्नाटक के सहयोग से पशुपालन स्वास्थ्य अधिकारियों को लंपी त्वचा रोग के संबंध में जागरूक करने के लिए 31 सितंबर 2022 को 'लंपी त्वचा रोग के निदान हेतु नमूने एकत्रीकरण की प्रक्रियाओं, नियंत्रण की तकनीकियों और रोग के नैदानिक प्रबंधन' विषय पर विशेषज्ञ वार्ता का आयोजन किया गया । साथ ही ब्रुसलोसिस और उसके नियंत्रण के लिए नीतिगत हस्तक्षेप की विधियों पर एक दिवसीय विचार मंथन सत्र का भी आयोजन 12 दिसंबर 2022 को किया गया।
- पशु शरीर क्रिया विज्ञान विभाग ने 24 अगस्त 2022 को 'जुगाली करने वाले पशुओं की उत्पादकता बढ़ाने में शरीर के जीवाणुओं व माइक्रोबायोम के वापस के संपर्क' विषय पर एक विचार मंथन सत्र का सफलतापूर्वक आयोजन किया।
- पशु पोषण विभाग ने 'जुगाली करने वाले पशुओं में स्वस्थ दुग्ध उत्पादन हेतू पोषण की नवीन रणनीतियों' विषय पर एक दिवसीय विचार मंथन सत्र का आयोजन 3 सितंबर 2022 को किया। साथ ही विभाग ने 16-18 फरवरी 2023 को 'पशु पोषण अनुसंधान के नए आयाम: उत्पादकता, स्वास्थ्य और पशु कल्याण चुनौतियों का मुकाबला' विषय पर भारतीय पशु पोषण संघ के 12वें द्विवार्षिक सम्मेलन का आयोजन किया।
- पशु चिकित्सा विज्ञान और पशुपालन महाविद्यालय, दुवासु, मथुरा द्वारा 12 अक्टूबर 2022 को 'विश्व अंडा दिवस- 2022' का आयोजन किया।
- पशु सार्वजनिक स्वास्थ्य एवं महामारी विभाग ने NAHEP के तहत विश्व रेबीज दिवस पर रेबीज के संपर्क में आने के उपरांत रोग निरोधकों के प्रयोग पर स्थानीय से वैश्विक

अनुभव साझा करने पर WHO के दिशा निर्देशों में बदलाव विषय पर एक वैज्ञानिक व्याख्यान का आयोजन किया ।

- पशु अनुवांशिकी और प्रजनन विभाग, पशु चिकित्सा विज्ञान और पशुपालन महाविद्यालय दुवासु मथुरा ने इंडियन सोसाइटी ऑफ जेनेटिक्स, बायोटेक्नोलॉजी रिसर्च एंड डेवलपमेंट (आई एस जी बी आर डी) के सहयोग से 'वन्यजीव -जैव विज्ञान, जैव प्रौद्योगिकी नवाचार और अवंत गार्ड अनुवांशिक प्रौद्योगिकी' विषय पर 20-21 फरवरी 2023 को दो दिवसीय अंतरराष्ट्रीय सम्मेलन का आयोजन किया ।
- पशु शल्य चिकित्सा और रेडियोलॉजी विभाग, पशु चिकित्सा विज्ञान और पशुपालन महाविद्यालय मथुरा ने भा.कृ.अनु.प. - अखिल भारतीय नेटवर्क कार्यक्रम के तत्वाधान में 'पशु चिकित्सा अभ्यास में शल्य चिकित्सा की स्थितियों के निदान व प्रबंधन में उन्नति' विषय पर दो 6 दिवसीय लघु प्रशिक्षण कार्यक्रमों का आयोजन किया, जिनमें से एक का आयोजन 'सर्जिकल मामलों के निदान और प्रबंधन में तकनीकी प्रगति' विषय पर 19 से 24 दिसंबर 2022 तक तथा दूसरे छह दिवसीय लघु प्रशिक्षण कार्यक्रम का आयोजन 6-11 फरवरी 2023 तक दुवासु मथुरा में किया गया।

छात्र कल्याण

- वर्ष 2022 के दौरान, 38 और 36 कैडेट्स क्रमशः 'बी' और 'सी' प्रमाण पत्र परीक्षा में उपस्थित हुए। एनसीसी सीएटीसी-34 शिविर में 13 विद्यर्थियों ने, आर वी सी सेंटर एवं कॉलेज, मेरठ में आर्मी अटैचमेंट शिविर में 18 विद्यर्थियों ने, सैनिक अस्पताल, मथुरा कैंट में आर्मी अटैचमेंट शिविर में 27 एनसीसी छात्रों ने और सीएटीसी-51 शिविर में 6 एनसीसी विद्यर्थियों ने भाग लिया। कैप्टन रजनीश सिरोही के साथ पंजीकृत एनसीसी छात्रों ने 26 नवंबर 2022 को किसान भवन, दुवासु मथुरा में आयोजित रक्तदान शिविर में भाग लिया। कैप्टन रजनीश सिरोही एएनओ ने नई दिल्ली में परेड ग्राउंड में एक महीने के RDC-2023 में भाग लिया।
- आठवें अंतरराष्ट्रीय योग दिवस -2022 का आयोजन 21 जून 2022 को 'मानवता के लिए योग' विषय पर किया गया ।
- जिला प्रशासन, मथुरा द्वारा पशु चिकित्सा विज्ञान और पशुपालन महाविद्यालय, जैव प्रौद्योगिकी महाविद्यालय और पैरा-पशु चिकित्सा विज्ञान संस्थान और स्नातकोत्तर शिक्षा के 200 छात्रों को 24 अप्रैल 2022 को दुवासु विश्वविद्यालय मथुरा के नंद भवन में टैबलेट वितरित किए गए।
- दुवासु टी-10 क्रिकेट टूर्नामेंट 2022 की शुरुआत वर्ष 2022 से दुवासु मथुरा में की गई जिसमे पशु चिकित्सा महाविद्यालय, जैव प्रौद्योगिकी महाविद्यालय, डिप्लोमा संस्थान के छात्रों, शिक्षकों व कर्मचारियों की कुल दस टीमों ने भाग लिया।
- रिपोर्टिंग वर्ष में प्रथम वर्ष के छात्रों की वेलकम पार्टी, वार्षिक खेलकूद दिवस, विश्वविद्यालय के छात्रों को छात्रवृत्ति का वितरण, हर घर तिरंगा अभियान कार्यक्रम, टेनिस बॉल क्रिकेट टूर्नामेंट दुवासु प्रीमियर लीग -2022 (डी पी एल-2022) और दुवासु वालीबाल -2022 (डी वी एल-2022) का आयोजन किया गया।
- विश्वविद्यालय के अधिष्ठाता छात्र कल्याण, कार्यालय द्वारा विश्वविद्यालय के छात्रों के लिए राष्ट्रीय कृषि उच्च शिक्षा परियोजना की संस्थागत विकास योजना के तहत उद्योग और शिक्षाविदों के साथ छात्रों के लिए संवादात्मक सत्रों के तहत विभिन्न प्रासंगिक विषयों पर वेबिनार आयोजित कराए गए।
- कृषि विज्ञान विश्वविद्यालय, बंगलोर में अखिल भारतीय कृषि विश्वविद्यालय युवा महोत्सव में 13-17 मार्च 2023 तक कुल 22 छात्रों ने प्रतिभाग किया।

अन्य झलकियाँ एवं कार्यकलाप

- वर्ष 2022-2023 के दौरान, विश्वविद्यालय ने सफलतापूर्वक प्री-वेटरनरी टेस्ट (पी. वी. टी.-2021), प्री-डिप्लोमा प्रवेश परीक्षा (पी. डी. टी.-2020) और स्नातकोत्तर (M.V.Sc और Ph.D.) प्रवेश परीक्षा (पीजीटी-2020) का आयोजन किया।
- दुवासु विश्वविद्यालय, मथुरा का 12वां दीक्षांत समारोह 3 मार्च, 2023 को आयोजित किया गया । दीक्षांत समारोह में मुख्य अतिथि के रूप में उत्तर प्रदेश की माननीय राज्यपाल और यू. पी. पं. दीन दयाल उपाध्याय पशु चिकित्सा विज्ञान

विश्वविद्यालय एवं गो अनुसंधान संस्थान, मथुरा, की कुलाधिपति श्रीमती आनंदी बेन पटेल जी ने इस शुभ अवसर पर दीक्षांत समारोह की अध्यक्षता की।

- आदित्य माहेश्वरी ने जी. बी. पी. यू. ए. टी., पंतनगर में आयोजित 'युवा-2023 समारोह' कार्यक्रम के दौरान हिंदी वाद-विवाद प्रतियोगिता जिसका विषय था (भारत का युवा 20वीं सदी में राष्ट्र को वैश्विक शक्ति बनने के लिए सशक्त बनाने में सक्षम है' में सर्वश्रेष्ठ विषय वस्तु का पुरस्कार जीता ।
- 27 नवंबर 2022 और 26 मार्च 2023 को विश्वविद्यालय परिसर में रक्तदान शिविर का सफलतापूर्वक आयोजन किया गया।
- विश्वविद्यालय पुस्तकालय में बसंत पंचमी मनाने के लिए 05-02-2022 को सरस्वती पूजा की गई।
- वर्ष 2022-2023 के दौरान, विश्वविद्यालय ने अंबेडकर जयंती, स्वतंत्रता दिवस, पं. दीन दयाल उपाध्याय जयंती, गांधी जयंती, संविधान दिवस और गणतंत्र दिवस का आयोजन किया।
- दुवासु विश्वविद्यालय ने 25 अक्टूबर 2021 को अपना 20वां स्थापना दिवस मनाया, जिसमें सुबह के सत्र में 'दिमाग को समझने' विषय पर एक कार्यशाला का आयोजन किया गया और उसके बाद शाम को सांस्कृतिक कार्यक्रम का आयोजन किया गया।
- विश्व तपेदिक दिवस के अवसर पर 24 मार्च 2023 को विश्वविद्यालय में 'तपेदिक उन्मूलन' विषय पर एक कार्यक्रम का आयोजन किया गया।

पुरस्कार एवं सम्मान/उपलब्धियाँ

- प्रो. विकास पाठक को 20-21 जून, 2022 को नागपुर पशु चिकित्सा महाविद्यालय, नागपुर महाराष्ट्र पशु और मत्स्य विज्ञान विश्वविद्यालय, नागपुर और राष्ट्रीय पशु चिकित्सा विज्ञान अकादमी (भारत) नई दिल्ली द्वारा आयोजित ग्ग छ।टै द्धप्) दीक्षांत-सह-वैज्ञानिक सम्मेलन में राष्ट्रीय पशु चिकित्सा विज्ञान अकादमी के फेलो से एवं 29 अक्टूबर, 2022 को एन. ए. डी. एस. (आई) के सातवें दीक्षांत समारोह में राष्ट्रीय दुग्ध विज्ञान अकादमी (भारत) के फेलो से पं. दीन दयाल उपाध्याय पशु चिकित्सा विज्ञान विश्वविद्यालय एवं गो अनुसंधान संस्थान (दुवासु), मथुरा यू. पी. में सम्मानित किया गया । प्रो. विकास पाठक ने 06-07 दिसंबर, 2022 को ऑनलाइन मोड में थाईलैंड के फुकेट में आयोजित खाद्य सूक्ष्म जीव विज्ञान और खाद्य सुरक्षा (आई. सी. एफ. एम. एफ. एस.) पर एक अंतर्राष्ट्रीय सम्मेलन में तकनीकी सत्र की अध्यक्षता की और आमंत्रित वक्ता के रूप में भी कार्य किया । प्रो. विकास पाठक ने उसी अंतर्राष्ट्रीय सम्मेलन में 'विभिन्न स्वदेशी दूध देने वाले जानवरों के दूध से तैयार भारतीय चीज़ (पनीर) को बढ़ावा देने वाले स्वास्थ्य के तुलनात्मक उत्पाद प्रोफ़ाइल विश्लेषण' प्रस्तुत करने के लिए सर्वश्रेष्ठ पेपर पुरस्कार जीता।
- डॉ. मीना गोस्वामी अवस्थी ने थाईलैंड के फुकेट में आयोजित खाद्य सूक्ष्म जीव विज्ञान और खाद्य सुरक्षा (आईसीएफएमएफएस) पर अंतर्राष्ट्रीय सम्मेलन में तकनीकी सत्र की अध्यक्षता की और आमंत्रित वक्ता के रूप में व्याख्यान दिया। उन्होंने पशुधन प्रहरी द्वारा डॉ. सी. एम. सिंह पशु चिकित्सा विज्ञान उत्कृष्टता पुरस्कार 2022 भी प्राप्त किया।
- डॉ. संजय कुमार भारती को ग्ग्टप्ट इंडियन पोल्ट्री साइंस एसोसिएशन कॉन्फ्रेंस (आईपीएसएसीओएन 2022) में पेपर प्रस्तुत करने के लिए पहला पुरस्कार मिला।
- डॉ. वर्षा गुप्ता को इंडियन एसोसिएशन ऑफ वेटरनरी एनाटमिस्ट के ग्ग्टप् वार्षिक सम्मेलन में के. एल. सूरी सर्वश्रेष्ठ पोस्टर प्रस्तुति पुरस्कार और पदक मिला।
- डॉ. श्री प्रकाश सिंह को इंडियन पोल्ट्री साइंस एसोसिएशन प्रोसीडिंग्स ऑफ इंडियन पोल्ट्री साइंस एसोसिएशन कॉन्फ्रेंस (आईपीएसएसीओएन-2022) के ग्ग्ट वार्षिक सम्मेलन में सर्वश्रेष्ठ पोस्टर पुरस्कार (2022) मिला।
- डॉ. अभिनव वर्मा को 3 मार्च, 2023 को दुवासु विश्वविद्यालय के 12वें दीक्षांत समारोह में ठेंपबै बपमदबम श्रेणी में सर्वश्रेष्ठ पीएचडी थीसिस पुरस्कार-2022 और क्तण. ब टपरंलंतंहंअंद डमउवतपंस सिल्वर जुबली मेडल और सर्वश्रेष्ठ पेपर पुरस्कार इंडियन एसोसिएशन ऑफ वेटरनरी एनाटॉमिस्ट्स एंड नेशनल सिम्पोजियम के ग्ग्टप् वार्षिक सम्मेलन में उदयपुर राजस्थान में 20-22 दिसंबर 2022 को मिला ।

- डॉ. विजय पांडे को अप्रैल, 2022 में राष्ट्रीय पशु चिकित्सा विज्ञान अकादमी (भारत) की फेलो सदस्यता से सम्मानित किया गया ।
- डॉ. रश्मि को इंडियन सोसाइटी ऑफ जेनेटिक्स, बायोटेक्नोलॉजी रिसर्च एंड डेवलपमेंट, आगरा द्वारा आयोजित वन्यजीव-जैव विज्ञान, जैव प्रौद्योगिकी नवाचार और अवंत-गार्ड आनुवंशिक प्रौद्योगिकी (डब्ल्यू. बी. बी. आई. ए. जी. टी.) पर 8वें अंतर्राष्ट्रीय सम्मेलन में सर्वश्रेष्ठ पी. एच. डी. थीसिस का पुरस्कार मिला।

वित्त एवं बजट

- वित्तीय वर्ष 2022-23 के दौरान विश्वविद्यालय को उत्तर प्रदेश शासन से वेतन मद में रुपए 5317.64 लाख एवं कंटीन्जेंसी मद में रुपए 2932.19 लाख का बजट प्राप्त हुआ।
- विभिन्न वित्तीय एजेंसियों द्वारा बाह्य वित्त पोषित परियोजनाओं हेतु 557.08 लाख रुपए प्राप्त हुए।
- आई. सी. ए. आर.-एस. सी.-एस. पी. विकास उप-योजनाओं के तहत विश्वविद्यालय को 87.08 लाख रुपये प्राप्त हुए।
- रिपोर्टिंग वर्ष के दौरान, विश्वविद्यालय द्वारा उत्पन्न कुल रसीद 890.74 लाख रुपये थी।

निर्माण एवं अनुरक्षण

- वित्तीय वर्ष 2022-23 के दौरान, अनुरक्षण विभाग ने विश्वविद्यालय के मरम्मत और नवीनीकरण कार्य, बाड़ लगाने, प्लेटिनम जुबली स्मारक के निर्माण और सिविल कार्य आदि के लिए 92.54 लाख रुपये का उपयोग किया।

सूचना का अधिकार अधिनियम

- उत्तर प्रदेश सरकार के निर्देशों और आर. टी. आई. अधिनियम, 2005 के प्रावधानों के अनुपालन के क्रम में, 60 आवेदन पत्र प्राप्त हुए जिनमें से 44 आवेदनों का निस्तारण किया गया।

MISSION

University was established by U.P. Govt. in 2001 with the basic objective of imparting quality veterinary and allied education, undertake need-based and basic research, integrate education and research and offer efficient extension services for the farmers and livestock owners.

VISION

- Produce competent and skilled human resource in the field of animal health and production and allied sectors who are socially sensitive and responsible professionals;
- Undertake region-based, need-based and basic research for improving animal health and productivity adopting modern technology;
- Validate indigenous traditional knowledge (ITK) on scientific basis;
- Provide efficient extension services at the doorstep of poor and marginal farmers and livestock owners and motivating them to adopt animal husbandry, poultry, fishery and related vocations as an engine of economic growth and social empowerment ;
- Social empowerment of women to become "knowledgeable stake holders" and giving them economic identity;
- Interface Industry and stakeholders in the newer perspectives of open global market;
- Ensure enhanced production from rural and urban livestock through effective disease surveillance and diagnosis, health care and vaccination programmes; and
- Empower rural youth for self-employment adopting integrated farming practices.

MANDATE

University is the premier Veterinary and Animal Science Institution and is known for quality education and research on various aspects of animal health including disease diagnosis and providing advisory and extension services through scientific knowledge and expertise for:

- Strengthening hands on training of students with special emphasis on capacity building;
- Providing opportunity to faculty and staff to improve their scientific and working capacity and capability to make the University a vibrant organization;
- Undertaking need-based, applied and basic research;
- Bringing livestock owners, poor and marginal farmers and rural women to the Center of Technology Information System and catalyze them for continuous improvement in production and productivity of their livestock and economy;
- Collaborate with State Agriculture and Animal Husbandry functionaries, SAU's, Indian Council of Agricultural Research Institutes related to animal health and production, Livestock Industry and NGO's in an attempt to develop resurgent, sustainable, profit oriented market based production system for livestock, poultry, fishery and allied sectors.

CHALLENGES

Concept of integrated farming which includes agriculture, livestock, poultry and fishery has been recognized as "high power engine" for sustainable agricultural and rural economy. Therefore, to translate the idea into reality, it is imperative:

- To produce Veterinarians and other technocrats related to animal health and allied sectors who become "Job providers" not the "Job seekers";
- To substantially improve the faculty strength to a level which not only commensurates with the minimum requirements as per the specifications of Veterinary Council of India for under-graduate teaching; but also to meet the growing demand of faculty for PG teaching;
- To improve laboratory facilities for imparting quality education including training of post-graduate and doctoral degree programme students in an attempt to make them capable enough to meet the current and emerging challenges;
- To re-establish and achieve at par research excellence through optimized internal and external research fund support from the State and Central Govt. agencies; and
- To muster sufficient financial support in conformity to what a Veterinary University needs under resurgent economy and global education and trade scenario; and
- Challenges enumerated above have to be faced through concerted efforts of University Academia with full support from Government of U.P., ICAR and Central Government.

UNIVERSITY TARGETS

- Revamp teaching programmes and "Teaching Methodologies", set up e-learning class-rooms, introduce net-based "virtual class-rooms" and promote e-teaching and learning;
- Set up "State of the Art" Instructional Livestock Farms, Demonstration Units, Veterinary Clinical Complex, Disease Investigation and Research Laboratories;
- To achieve at least 15 per cent increase per annum in the number of University graduate and postgraduate students qualifying for national competitive examinations;
- To produce competent and skilled clinicians, entrepreneurs and livestock business managers and team leaders;
- Faculty up-gradation, filling vacant teaching posts and creating faculty positions in newer proposed faculties in the University;
- Encourage faculty members to garner more financial assistance from outside agencies through externally funded research projects and support atleast one University funded research project in each department to give impetus to research;
- As per University Act, to obtain state support for generating trained and competent human resource in fisheries, biotechnology, livestock products technologies and industry and business management through designated colleges/faculties;
- To augment University receipts.

INTRODUCTION

U.P. Pandit Deen Dayal Upadhyaya Pashu-Chikitsa Vigyan Vishwavidyalaya Evam Go Anusandhan Sansthan Mathura, first of its kind in the State and fourth in the Country, was established vide Act. No. 27 of 2001 on 25.10.2001 by Govt. of U.P. with the erstwhile U.P. Veterinary College, Mathura as its main constituent College with its all the movable and immovable assets. University is having 782.34 acres prime land in Mathura, which includes all the buildings of Veterinary College, residential complex, hostels, Dairy Farm, Poultry Farm and agriculture land and another agriculture farm of around 1400 acres at Madhurikund, about 25 Km from the main campus.

After establishment of the University in 2001, initially the University offices were located in the Administrative block of Veterinary College, however, after inauguration of the Administrative Block of University by His Excellency Shri T.V. Rajeshwar, Hon'ble Chancellor and Governor of U.P. on February 24, 2009, all the central offices of University were shifted to new campus. The employees and teachers have also occupied the newly constructed houses in new campus. The newly constructed College of Biotechnology building was inaugurated by John George, Advisor DBT, Ministry of Science and Technology, Government of India in the august presence of Prof. M.L. Madan, the Hon'ble Vice Chancellor, Dr.. Lal Krishna, ADG (Animal Health) ICAR, New Delhi and other officers of the University on September 25, 2009.

The Act of University envisages opening of four more colleges, namely - College of Biotechnology, College of Fisheries, College of Livestock Products Technology and College of Animal Industries and Business Management. However, these colleges could not be started in spite of the best efforts of University due to financial constraints and non- sanction of any teaching or other positions by the Govt. During the year 2009, Government permuted the University to start College of Biotechnology under self-finance scheme. University started the College of Biotechnology from the academic session 2010-11. In an endeavor to augment research and extension activities, Directorate of Research and Directorate of Extension have also been created to coordinate research and extension activities, respectively.

University started two Diploma programmes viz; Diploma in Livestock Extension (DLE) and Diploma in Veterinary Pharmacy (DVP) in 2013-14 under College of Veterinary Science & A.H. Later in 2017 these diploma programmes were strengthened by creation of Institute of Paraveterinary Science.

Hon'ble Vice Chancellor addressing the gathering on Independance Day

ORGANIZATIONAL SET-UP

The organizational set-up of the University (Flow Chart 1) is in almost conformity with other state agricultural, veterinary and academic universities. Various bodies and authorities of the University exercise their powers at various levels to coordinate and regulate administration, education, research and extension activities.

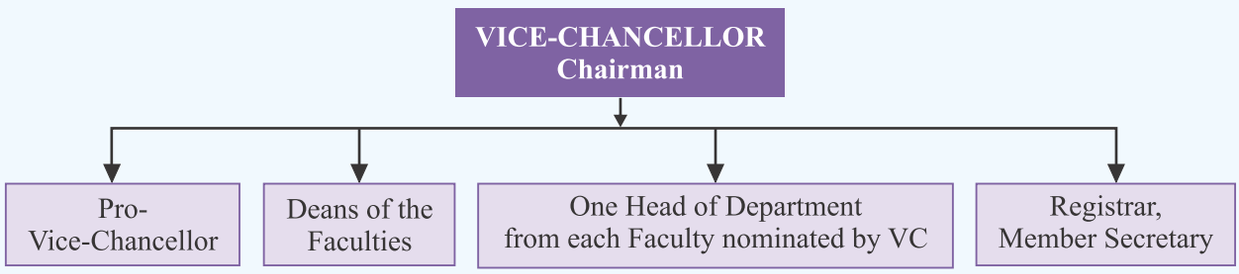
A. AUTHORITIES OF THE UNIVERSITY

1. Executive Council

Executive Council (EC) of the University is the main executive body empowered to monitor, supervise and control the affairs of University. Vice Chancellor is the Chairman of EC and other members of the EC are Principal Secretary Animal Husbandry, Principal Secretary Finance, Principal Secretary Higher Education, Govt. of U.P., Director of Animal Husbandry U.P., one reputed Industrialist nominated by Govt. of U.P., two eminent Veterinarians nominated by the Chancellor on the recommendation of U.P. Govt., two livestock farmers/breeders nominated by U.P. Govt. and one social worker nominated by Govt. of U.P.

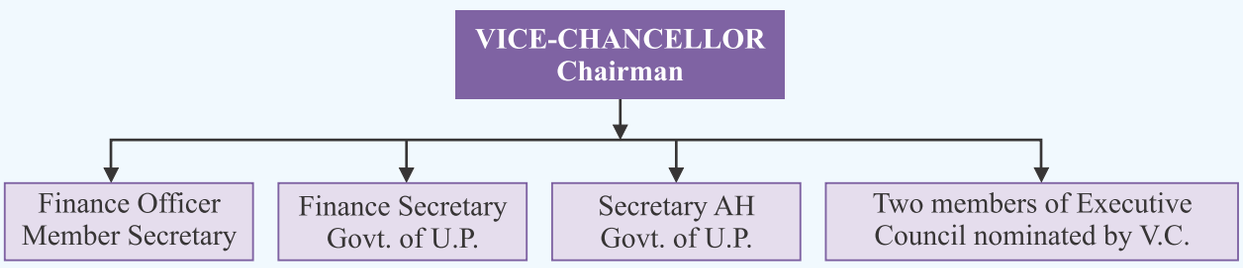
2. Academic Council

Academic Council of the University is the principal academic body which controls and frames all the academic regulations and is responsible for maintenance of standards of instruction, education and examination in the University. The flow chart of Academic Council composition is presented below:



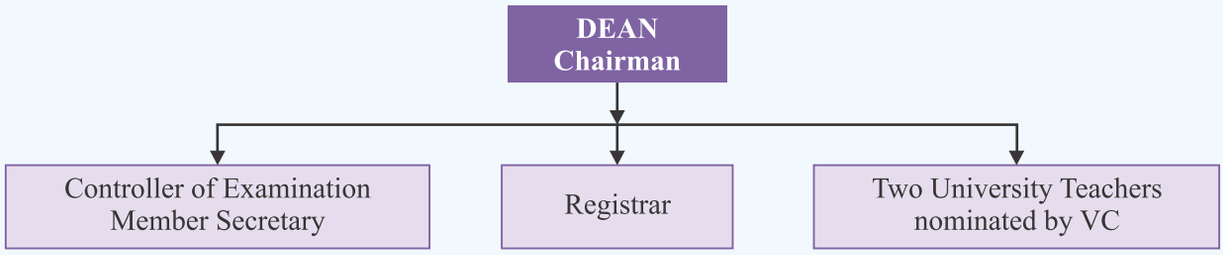
3. Finance Committee

Finance Committee of the University advises the Executive Council on matters relating to administration of property and funds of the University. The flow chart of Finance Committee composition is presented below:



4. Examination Committee

Examination Committee of the University coordinates and supervises all the examinations of the University including Pre Veterinary Test (PVT), appointment of examiners, tabulation and moderation of results and make recommendations to the Academic Council for improvement in examination system. The flow chart of the composition of the Examination Committee is presented below:

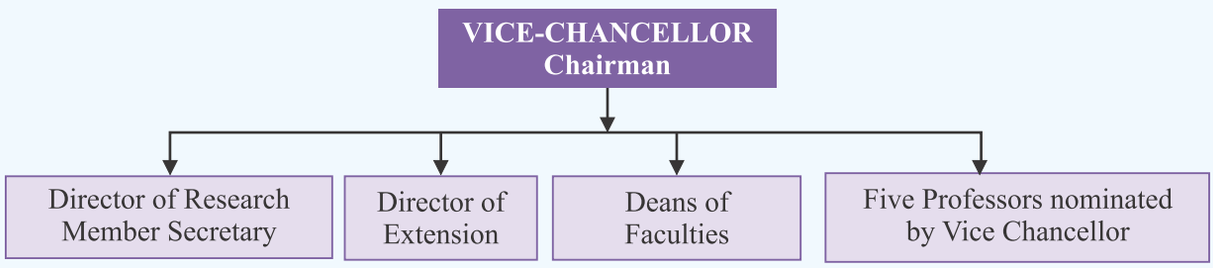


5. Board of Faculty

Board of Faculty is for framing the curricula for undergraduate and post graduate programmes and to make recommendations to the Academic Council for the establishment of new departments, abolition / subdivision / or otherwise reconstitution of the existing departments. Dean of the Faculty is the Ex- Officio Chairman of Board of Faculty, and Faculty Secretary is elected on the basis of consensus amongst the faculty members. All Professors, Associate Professors and Assistant Professors of the faculty are the members of Board of Faculty.

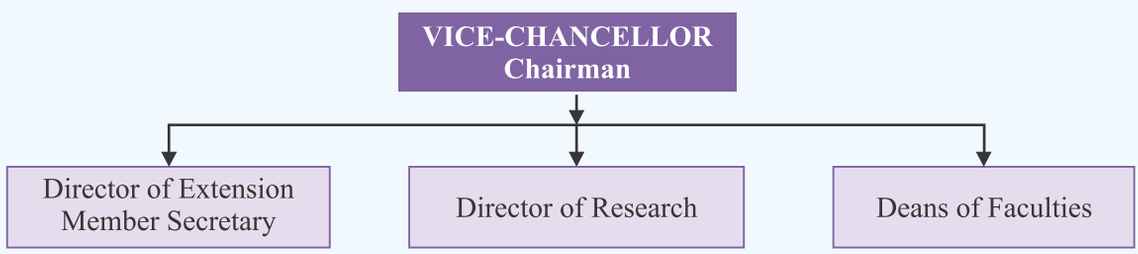
6. Research Advisory Committee

Research Advisory Committee is the policy making body on research activities of the University with Vice Chancellor as its Chairman and Director of Research as the Member Secretary. The set up of this Committee is shown below:



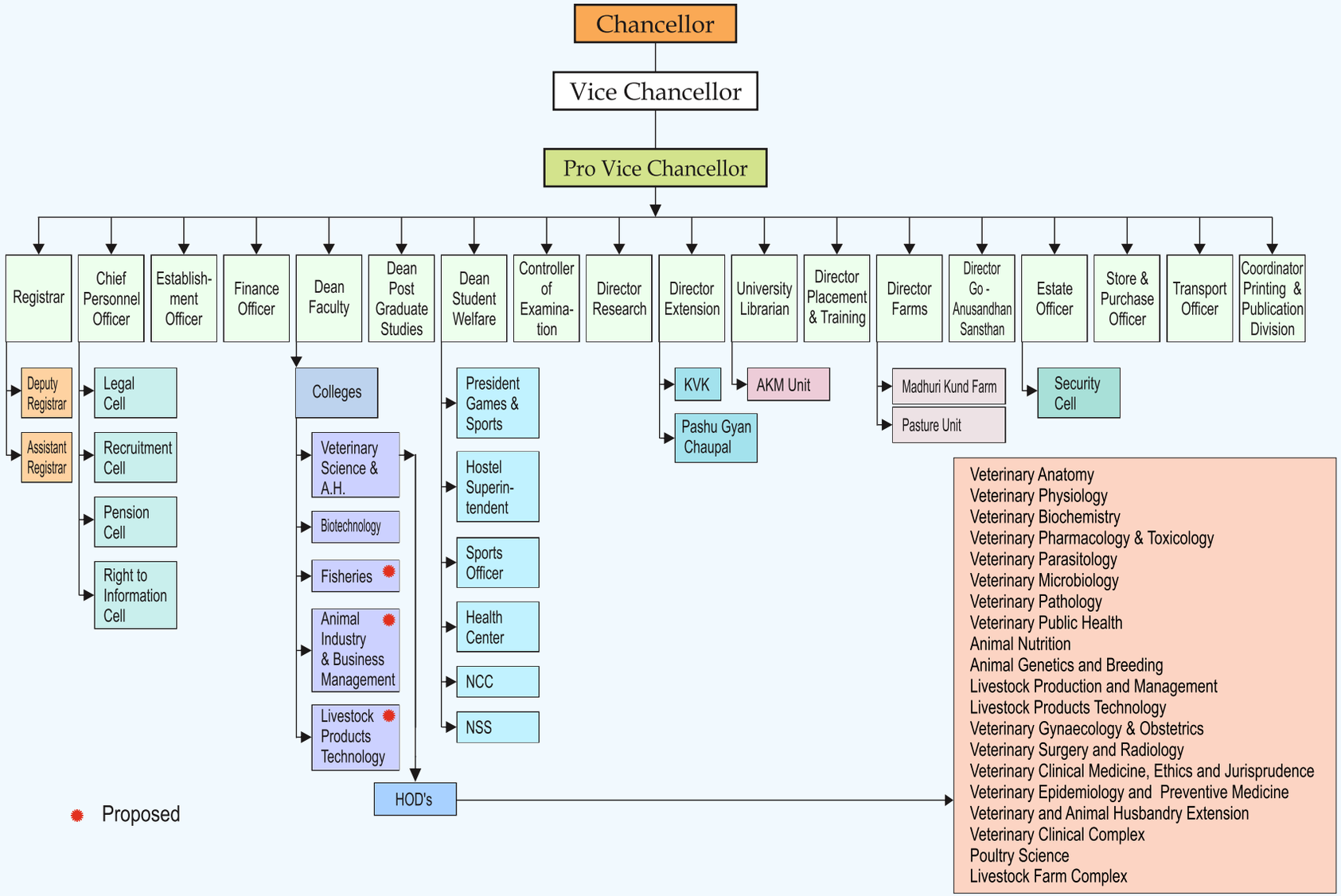
7. Extension Advisory Committee

The Extension Advisory Committee is the policy making body on extension activities of the University with Vice Chancellor as its Chairman and Director of Extension as the Member Secretary. The set-up of this committee is as shown here:



Organizational Structure

U.P. Pandit Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidyalya Evam Go-Anusandhan Sansthan (DUVASU), Mathura



B. Organizational Meetings

Executive Council

S. No.	Meeting No.	Date	Venue
1.	43rd	15.10.2022	DUVASU, Mathura
2.	44th	02.03.2023	

Academic Council

S.No.	Meeting No.	Date	Venue
1.	87th	28.07.2022	DUVASU, Mathura
2.	88th	20.09.2022	
3.	89th	28-10-2022	
4.	90th	21.01.2023	
5.	91st	22.02.2023	

Research Advisory Committee

S.No.	Date of Meeting	Venue
1.	1st and 2nd Aug., 2022	DUVASU, Mathura
2.	13th Feb., 2023	

Extension Advisory Committee

S.No.	Date of Meeting	Venue
1.	**8th Aug., 2022**	DUVASU, Mathura

C. Officers of the University

S. No.	Designation/Post	Name of the Officer	Date From	Date To
1.	Chancellor	Hon'ble Smt. Anandi Ben Patelji, Governor of U.P.		
2.	Vice Chancellor	Prof. G. K. Singh	Mar. 02, 2019	June 03, 2022
		Prof. Anil Kumar Srivastva	June 03, 2022	Continuing
3.	Registrar	Prof. P. K. Shukla	Jul. 05, 2016	Nov. 28, 2022
		Prof. Arun Kumar Madan	Nov. 29, 2022	Continuing
4.	Deputy Registrar	Dr. BrijeshYadav	Jun. 21, 2014	Jan. 31, 2023
		Dr. Raju Kushwaha	Feb. 01, 2023	Continuing
5.	Finance Officer	Shri Sushil Kumar	Jun. 02, 2018	July 8, 2022
		Shri Santosh Kumar Kushwah	July 8, 2022	Continuing
6.	Controller of Examination	Prof. A.K. Madan	Jun. 25, 2021	Nov. 28, 2022
		Dr. Amit Singh	Nov. 28, 2022	Continuing
7.	Dean, C.V.Sc. & A.H.	Prof. P. K. Shukla	Sep.14,2020	Continuing
8.	Dean, College of Biotechnology	Prof. Daya Shanker	Dec. 06, 2021	Feb. 28, 2022
		Prof. Sharad Kumar Yadav	Mar. 01, 2022	Continuing

9.	Dean, PGS	Prof. Ajay Prakash	Dec. 03, 2021	Continuing
10.	Dean, Student Welfare	Prof. Vikas Pathak	Nov.14, 2018	Nov. 30, 2022
	Incharge, Student Welfare	Dr. Rajneesh Sirohi	Dec. 01, 2022	Continuing
11.	Director Clinics	Prof. R. P. Pandey	Sep. 18, 2010	Continuing
12.	Director Research	Prof. Atul Saxena	Nov.24, 2009	Nov.29, 2022
		Prof. Vikas Pathak	Nov.30, 2022	Continuing
13.	Director Extension	Prof. SarvajeetYadav	Nov. 24, 2009	Dec. 04, 2022
		Prof. Atul Saxena	Dec. 05, 2022	Continuing
14.	Director Gau-Anusandhan	Prof. Vikas Pathak	Jan. 03, 2018	Oct. 31, 2022
		Prof. Deepak Sharma	Nov. 01, 2022	Continuing
15.	Director, Farms	Prof. Vinod Sidhu	Jun. 24, 2021	Continuing
16.	University Librarian	Dr. S.P. Singh	Jun. 22, 2021	Continuing

TEACHING & EDUCATION

In Mathura, under the aegis of U. P. Pt. Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidhyalaya Evam Go Anusandhan Sansthan (DUVASU), Mathura University, there are two colleges, namely College of Veterinary Science and Animal Husbandry and College of Biotechnology. Both colleges are regularly conducting their degree Programmes. DUVASU University also offers diploma courses in two disciplines; Diploma in Veterinary Pharmacy and Diploma in Livestock extension in the Institute of Para veterinary Sciences.

A. College of Veterinary Science and Animal Husbandry

College of Veterinary science & Animal Husbandry, established in 1947 as U.P. Veterinary College became the constituent college of DUVASU, Mathura in the year 2001. The aim of this College is to generate qualified and well trained Veterinarians and address Veterinary health and animal husbandry issue in the state, undertake research and ensure extension services to the society mainly the rural areas of the state and country with the kind service of qualified budding Veterinarians.

The college is running its undergraduate programme as Bachelor of Veterinary Science and Animal Husbandry (B.V.Sc. & A.H.) as per VCI regulations, Master's programme as Masters of Veterinary science (M.V.Sc.) in eighteen disciplines and Doctor of Philosophy (Ph.D.) in fifteen disciplines as per ICAR academic regulations for higher agricultural education with a strong faculty strength of 72 during the year 2022-2023. Besides performing the teaching, faculty members are engaged in teaching, research and extension activities. Apart from these, many faculty members are involved in administrative responsibilities of the University.

Details of students admitted & pass out during 2022-23

S. No.	Academic programme	Intake capacity	Students admitted			Passout details		
			Male	Female	Total	Male	Female	Total
1.	B.V.Sc. & A.H.	100	67	22	89	53	25	78
2.	M.V.Sc.	53+18	41	22	63	06	14	20
3.	Ph.D	26+14	03	08	11	01	02	03

B. College of Biotechnology

There are two undergraduate academic programmes in the College of Biotechnology viz; B.Sc. (Biotechnology) and B.Sc. (Industrial Microbiology). Classes are regularly conducted by Teaching Associates on contractual basis.

Details of students admitted & pass out during 2022-23

S. No.	Academic programme	Intake capacity	Students admitted			Passout details		
			Male	Female	Total	Male	Female	Total
1.	B.Sc. (H) Biotechnology	45	09	18	27	14	16	30
2.	B.Sc. (H) Industrial Microbiology	15	01	02	03			
3.	M.Sc./M.V.Sc. Biotechnology	20	01	04	05	0	0	0
4.	Ph.D. Biotechnology	08	0	0	0	0	0	0

C. Institute of Paraveterinary Science

The Institute of Para Veterinary Science earlier initiated as Diploma programmes in Veterinary Pharmacy (DVP) and Livestock Extension (DLE) by College of Veterinary Science and A.H. in 2013-14 with the financial assistance of R.K.V.Y were further strengthened in the year 2017 and renamed as Institute of Para Veterinary Science. The teaching is taken care of by the qualified Veterinary post graduate contractual staff appointed by the University administration..

Details of students admitted & pass out during 2022-23

S. No.	Academic programme	Intake capacity	Students admitted			Pass out details		
			Male	Female	Total	Male	Female	Total
1.	Diploma in Livestock Extension (DLE)	60	56	04	60	55	04	59
2.	Diploma in Veterinary Pharmacy (DVP)	60	51	09	60	52	09	61

D. Activities of College of Veterinary Science and Animal Husbandry

1. Veterinary Clinical Complex (VCC)

Veterinary Clinical Complex, the erstwhile Kothari veterinary hospital, is a multi-specialty veterinary clinic. It imparts practical teaching to the students of the college of Veterinary Science and A.H. in terms of diagnosis, its interpretation and line of treatment of various animals coming to the clinical complex. It has different units for surgery, gynecology and medicine with round the clock learned and experienced faculty. Further, VCC is well equipped with C-Arm image intensifier, digital x-ray machine, CCTV camera, USG machine, Laparoscopy set, mobile X-ray unit and small animal anesthesia machine. In addition to these facilities, there are well-equipped operation theatres for small and large animal surgery, well equipped two small animals ICU for dogs, loading and unloading platform and indoor units for small and large animals. A total of 13114 clinical cases were presented during the year 2022-2023 and the total revenue generated during this year was Rs. 10,59,325 /- (Rupees Ten lacs fifty nine thousand three hundred twenty five only). Final year students undergo a rotatory internship programme in the VCC.

2. Diagnostic Laboratory

VCC has a very well equipped Veterinary Diagnostics laboratory to provide diagnostic facilities to serve the animal owners having advance instrumentation for proper diagnosis of diseases on no-profit-no-loss basis and serve as important learning unit for students. The laboratory is having Digital microscope, Dry chemistry analyzer, Hematology analyzer and Electrolyte analyzer.

3. Ambulatory Services and Clinical Camps

Apart from this, ambulatory clinical services are also provided by DUVASU, Mathura at the doorstep of animal owner to the nearby villages of Mathura district by the clinics faculty and students through clinical camps.

E. Experiential Learning

Different departments of College of Veterinary Science and A.H. impart hands on experiential learning programme to the students.

1. Poultry production and management

The Department of Poultry science

a. The breeder farm, layer farm and hatchery of Experiential Learning Unit in Poultry (ELU) served as models for U.G, P.G and PhD students to train them on the activities in these subunits.

b. The above sub units also served as models for internship students to train them on the activities in these subunits. The students were trained on the various farm activities pertaining to feeding, watering and management. Further, they were also imparted hands on training on rearing of Chabro birds and layers in the sub units of ELU during the internship training. In addition, the students were also trained on the hatchery operations.

c. The sub units have also been used to cater the training needs of the army persons during their training courses on poultry conducted by Department of Extension.

d. The resources of ELU *viz*. dead birds and embryonated eggs of different stages of development were used to cater the educational and research needs of students and staff of Anatomy, Pathology, Bio-technology and Microbiology departments.

2. Milk and meat processing Unit

The department is running a Revolving Project on "Processing of milk, meat and eggs for value added products". The under-graduate students of 3rd Professional B.V.Sc. & A.H. and post-graduate students of the Department are imparted practical training for preparation of different milk and meat products which are made available to employees of the University at nominal rates approved by the competent authority of the University. During the reporting year, 152.0 liters of surplus milk from Livestock Farm Complex was processed into 11.75 kg paneer, 5.78 kg cream and 78.2 l lassi. In addition, 16.3 kg of meat nuggets and patties were also prepared. The products were sold to university employees and students at approved rates. The total sale by the Department for the financial year 2021-22 was Rs. 13568.20/-.

3. Feed production and processing

a. Experiential learning on "Feed production and Processing" project sanctioned in budget session 2010-11 by ICAR, New Delhi. Under this project a total of Rs 55.6 lacs were sanctioned. A feed processing unit and one Urea molasses mineral block unit were installed. Since the inception of this feed processing unit, a total of 43775.0 quintal concentrate feed of about Rs 8.0 crore values was prepared from July 2012-March 2023 and more than 1100 students has been given hands on training to formulate compounded feed as per the nutrient requirement of livestock. Since the installation of unit, University has not procured compounded feed for its farm animals from outside. Feeds produce from this unit is also available to farmers and goshala during Kisan melas and farmers training. Practical training of students make them self reliant and it can serve as microenterprise for student to starts their ventures after B.V.Sc. & A.H. Experiential learning on feed production and processing is very successful asset with University. Unit also prepared area specific mineral mixture about 100 quintal/yr and provided to farmers on nominal cost. During financial year 2022-23, Departmental sale of mineral mixture was about 100 quintal cost Rs 6 lacs.

b. Construction of Laboratory, Feed unit, Mineral mixture and UMMB unit at Livestock farm complex and at main campus is now completed.

F. Other Academic Activities

1. Library

DUVASU has a well organized 18 X 25 square meter double storey library with good repository of books for students and faculty with a seating capacity of 100 persons at a time. Opening timings of the University library is10.00 AM to 5.00 PM every working days. At present, there are 35885 books of various streams like Veterinary science, Animal Husbandry and Biotechnology, 13 journals including online journals www.cera.jccc.in. University library procure seven newspapers regularly. These are; DanikJagran, Amar Ujjala, Hindustan (Hindi), Times of India, Hindustan Times, The Hindu, Indian Express. The various facilities of the library includes Circulation service, Reference service, Reading facility, Journal reading, News paper reading facility, over night Issue service, Computer/Internet service. Thesis reading service online e-books reading service etc. CD-ROM = VET CD 1973 to Ag., 2004, CAB CD 1972 to May 2005, CAB Abstract 1990 to Dec., 2005. In order to meet the demands of students and faculty a good photostat facility is also available on payment basis @ Rs. 0.50 per page.

2. Training and Placement cell

To enhance competitive environment and encourage career opportunities for veterinary science students, university has training and placement cell wherein various activities took place during the year 2022-23.

a. JRF classes conducted for B.V.Sc.& A.H students (Animal Science & Veterinary Science) from 25-07-2022 to 18-09-2022.

b. 67 students of our University finally selected as Veterinary Medical Officer (VMO) UPPSC Allahabad.

c. Conducted English (Non –Credit course) personality development classes for B.V.Sc & AH 1st Year students.

d. Students were awared about job vacancies in 17 Companies (National & MNC) from 01-04-2022 to 31-03-2023.

e. Visit to 02 Companies for Campus Placement from 01-04-2022 to 31-03-2023.

f. 02 students of our University Dr. Kavisha Gangwar & Dr. Sanju Kumari, qualified UGC NET 2022.

g. 05 Students of our University qualified JRF examination 2022.

S.No.	Name of Students	JRF (Up to All India rank- 100)
01	Neha Chaudhary	JRF (Animal Science) AIR-17
02	Shruti Gupta	JRF (Animal Science) AIR-44
03	Simran Josan	JRF (Veterinary Science) AIR-18
04	Ravi Dabas	JRF (Veterinary Science) AIR-36 EWS-04
05	Subham Nayak	JRF (Veterinary Science) AIR-83

RESEARCH

A. Extra-mural Projects

College of Veterinary Science and Animal Husbandry

S. No.	Name of the Project	Name of PI and Co-PI	Funding Agency	Total Budget (Rs in lacs)
A1	Entrepreneurial promotion by preparation of specimens from fallen animals A1	Prof. Archana Pathak Prof. Ajay Prakash Prof. MM Farooqui Dr. Abhinov Verma Dr. Neeraj Gangwar	RKVY	59.50
A2	Establishment of referral laboratory for quality evaluation of milk and milk products	Prof. Vikas Pathak Dr. Meena Goswami Awasthi Dr. S. K. Bharti	RKVY	183.40
A3	Nutritional & Physiological Approaches for Enhancing Reproductive Performances in Cattle & Buffalo	Dr. Atul Saxena	ICAR	5.15
A4	Strengthening of clinical diagnostic and therapeutic facilities at university referral hospital for benefit of farmers and livestock owners.	Prof. Sanjay Purohit Dr. Mukesh Srivastava Dr. Sankar Kumar Singh Dr. Vikash Sachan	RKVY	223.20
A5	All India Network Programme on Diagnostic Imagining and Management of Surgical Conditions in Animals (AINP-DIMSCA)- ICAR	Dr. Sanjay Purohit Dr. Gulshan Kumar	ICAR	6.25 Lacs for year 2022-2023.
A6	Establishment of A2 genotype testing laboratory for cattle of Uttar Pradesh	Prof. Deepak Sharma Dr. Mukul Anand Dr. Satyendra Pal Singh Dr. Madhu Tiwari Dr. Avneesh Kumar Prof. Sanjeev Kumar Singh	RKVY – RAFTAAR	99.95
A7	Demonstration unit for silage making and popularization of low cost silage technology for year round fodder availability for small-scale farmers	Dr. Shalini Vaswani	RKVY	90.91
A8	Establishment of small-scale feed processing demonstration unit to promote rural youth entrepreneurship	Dr. Shalini Vaswani	RKVY	Part I-236.27 Part II-90.27

A9	Pharmacological studies and development of polyherbal formulation for reproductive disorders in animals	Dr. Soumen Choudhury Dr. Amit Shukla	ICAR	98.80
A10	Integrated indigenous cattle centre for conservation and improvement of indigenous milch breeds of cows (Gokul Gram Project)	Dr. Yajuvendra Singh	DADF, Ministry of Agriculture and Farmers Welfare, GOI	421.00
A11	Livestock Health and Disease Control Program on FMD	Dr. Ajay Pratap Singh	DAHD, GoI	10.00
A12	Establishment of Laboratory to evaluate therapeutic potential of various Indian herbs for betterment of health and productivity of indigenous cattle	Dr. P N Panigrahi	RKVY	31.00
A13	Efficacy evaluation of Alginate based haemostatic formulations on large animals (Goat/Pig)	Dr. Amit Shukla Dr. Soumen Choudhury Dr. Mukul Anand	INMAS-DRDO	8.8
A14	Establishment of Modern Referral Veterinary Disease Diagnostic laboratory with special reference to animal tumours	Dr. Neeraj Kumar Gangwar Dr. Shankar Kr. Singh and others	RKVY	124.10 (Sanctioned)
A15	Efficacy of Poly Herbal Formulation on Immunity and GutDevelopment In Broiler Chicks	Dr. Neeraj K Gangwar Dr. Ajay Pratap Singh Dr. Amitabh Bhattacharya Dr. Abhinov Verma	Avitech Nutrition, Gurgaon	6.79
A16	Evaluation of the Efficacy of a Polyherbal Immunomodulator at Improving the Response to Foot-and-Mouth Disease and Hemorrhagic Septicemia Vaccination in Cattle	Prof. Rashmi Singh Dr. Rajneesh Sirohi	Ayurvet Limited, Baddi, Solan, H.P.	4.00
A17	Boosting feeding value of paddy straw as animal fodder by means of different treatments	Dr. Muneendra Kumar	UPKAR	16.1 (Sanctioned)
A18	National Agricultural Higher Education Project-Institutional development plan (NAHEP–IDP).	Prof. Atul Saxena	ICAR	2375.28

B. Intra-mural Research Projects

College of Veterinary Science and Animal Husbandry

S.No.	Name of the Project	Name of PI and Co-PI	Funding Agency	Total Budget (Rs in lacs)
B1	Effect of increasing THI on physiological acclimatization in Sahiwal calves	Dr. Brijesh Yadav Dr. Arun Kumar Madan Dr. Rajneesh Sirohi	DUVASU, Mathura	2.00
B2	Phytochemical screening and evaluation of antibacterial activities of Plumeria	Dr. Rajkumar Singh Yadav Dr. Ajay Pratap Singh	DUVASU, Mathura	1.947
B3	Investigation on serum and milk biomarkers for subclinical mastitis in goats and cows during summer and winter seasons	Dr. Pawanjit Singh Dr. Mukul Anand Dr. Vijay Pandey	DUVASU, Mathura	2.00
B4	Analysis of the canine tumor proteome as an exploratory study for future implication in tumor biomarker discovery	Dr. Vijay Pandey Dr. Neeraj Gangwar Dr. BrijeshYadav	DUVASU, Mathura	2.08
B5	Differential pattern in milk somatic cell count and composition of Sahiwal and Hariana cows during different stages of lactation	Dr. Yajuvendra Singh Dr. Rajneesh Sirohi Dr. Muneendra Kumar	DUVASU, Mathura	0.95
B6	Clinico-pathological and Immuno-biochemical Study on the Expression of biomarkers of canine mammary tumors	Dr. Neeraj Gangwar Dr. Vijay Pandey	DUVASU, Mathura	2.12

College of Biotechnology

S.No.	Name of the Project	Name of PI and Co-PI	Funding Agency	Total Budget (Rs in lacs)
B7	Demonstration unit of Mushroom farming to promote entrepreneurship.	Dr. Vijay Laxmi Tripathi Dr. Priyambada Singh Mr. Faizan ul Haque Nagrami.	DUVASU, Mathura	3.68
B8	Demonstration unit of Spirulina cultivation	Ms. Shweta Sharma Ms. Parul Singh	DUVASU, Mathura	0.45839
B9	Bioremediation of waste water using Effective Microorganisms Technology.	Dr. Nupur Raghav Dr. Vijay Laxmi Tripathi	DUVASU, Mathura	1.50
B10	Demonstration unit of plant tissue culture and green house.	Ms. Uma Sharma Mr. Faizan ul Haque Nagrami	DUVASU, Mathura	1.59910

PROJECT REPORT

A. Extra-mural Projects

College of Veterinary Science and Animal Husbandry

Project A1. Entrepreneurial promotion by preparation of specimens from fallen animals

In R.K.V.Y project, During 2022-23, different types of dry, wet and plastinated specimens were prepared.

Project A2. Establishment of referral laboratory for quality evaluation of milk and milk products

Compositional and quality characteristics of milk and milk products from different breeds of cattle, goat and buffalo were evaluated under RKVY scheme on "Establishment of referral laboratory for quality evaluation of milk and milk products.

Project A3. Nutritional & Physiological Approaches for Enhancing Reproductive Performances in Cattle & Buffalo

Project A4. Strengthening of clinical diagnostic and therapeutic facilities at university referral hospital for benefit of farmers and livestock owners

RKVY Project on Strengthening of clinical diagnostic and therapeutic facilities at university referral hospital for benefit of farmers and livestock owners.-out of Total budget of RKVY Rs 223.20 Lakh.

Project A5. All India Network Programme on Diagnostic Imagining and Management of Surgical Conditions in Animals (AINP-DIMSCA)- ICAR

During 2022-23, Total budget Rs 6.25 lakhs was received from ICAR. Two trainigs were organised. First training was on "Technological Advances in Diagnosis and Management of Surgical Cases" December 19–24, 2022 was attended by 06 Veterinaru Officers and second training was on "Recent Advances in Diagnosis and Management of Surgical Conditions in Veterinary Practice" from 06th February to 11th February, 2023 was attended by 10 Veterinary Officers. Total 8 theory lectures and 12 Hands on training were conducted. The training was highly fruitful to veterinary officers and they further recommend specialized training of orthopedic and ophthalmic affections.

Project A6. Establishment of A2 Genotype Testing Laboratory for Cattle of Uttar Pradesh

A total budget of Rs. 99.95 Lakh was released by RKVY for project entitled "Establishment of A2 Genotype Testing Laboratory for Cattle of Uttar Pradesh". The proposed lab under project is under construction during this financial year. The purchase and installation of all proposed instruments and equipments are under process. A total 172 samples which includes 121 samples of DUVASU LFC dairy farm as well 51 samples from goshala situated in and around Mathura was analyzed and one sample out of total sample showed A1A2 (Heterozygous) genotype, rest all were A2-A3.

Project A7. Demonstration unit for silage making and Popularization of low cost silage technology for year round fodder availability for small-scale farmers

The inauguration of "Silage Production Unit" under the RKVY funded project was held on 06/10/2018 by Hon'ble Minister of Agriculture, Agriculture Education and Agriculture Research, Government of UP Shri Surya Pratap Shahi Ji at LFC, DUVASU, Mathura. Under the project two bunker silos along with the store unit has been constructed. About 40 tonnes silage of sorghum and 250 tonnes silage of maize was prepared in the bunkers and about 5 tonnes of bag silo were prepared and distributed to farmers. Research trials of six MVSC scholars in Department of Animal Nutrition were conducted from the prepared silage. The silage preparation technique using silo pack machine was also demonstrated to about 5000 farmers and livestock owners at Krishi Kumbh Lucknow. Presently we are also receiving the demand for silage from the near by areas. In view, of that reasonable price was fixed for the purchase of quality silage by the livestock owners: Rs 8.0/kg for bunker silo silage and Rs 8.5/kg for bag silo. Till now silage amounting of Rs 5.20 lac has been given to Goat unit of university. Three one-day Public Awareness activity were organized on silage technology, in which about 200 farmers, women, livestock owners participated

and were given hand-on training on silage making. Three One-day workshop on silage was also conducted and about 600 farmers participated and were trained. Under the project various instruments were purchased that are now utilized for sample analysis by the faculty and students of the university. The silage samples are also received from various farmers, private andgovernment organization for detailed quality analysis. The silage preparation technique using silo pack machine was also demonstrated to about 5000 farmers and livestock owners at Krishi Kumbh Lucknow. Bunkers are regularly being utilized for silage preparation and various locally available non-conventional feeds are utilized for silage making. Various workshops and public awareness activities were conducted under this project in this financial year.

Project A8. Establishment of small-scale feed processing demonstration unit to promote rural youth entrepreneurship (Part-I and Part-II)

The established Feed Analytical Laboratory, Feed Processing Unit and Mineral Mixture and feed block Unit established under RKVY funded project on "Establishment of small-scale feed processing Demonstration unit to promote rural youth entrepreneurship" PI-Dr. Shalini Vaswani are fully functional and are operating. Inauguration of Feed Analytical Laboratory was held on 23/07/2021 by Hon'ble APC, Govt. of UP Shri Alok Sinha, in the gracious presence of Hon'ble Principal Secretary, Animal Husbandry, Fisheries and Dairy Development Shri Sudhir Garg and Hon'ble Vice Chancellor, DUVASU, Mathura Prof. G.K. Singh. The laboratory is well equipped with advanced instruments like ICP-OES, GC FID, HPLC, Microwave digester and have facilities to conduct macro and micro minerals estimation, fatty acids composition, Microwave digestion of samples, gross energy, blood biochemical analysis, milk composition, Somatic cell count, estimation of enzymes and hormones through ELISA, Laboratory analysis of silage samples etc in the samples of feed, urine, faeces, blood, serum, milk, water, silage. The students and scientist from various departments of university are utilizing the facilities in their researches. Currently the rates of mineral analysis through ICP-OES and fatty acid analysis through GC have been fixed and samples are obtained for the analysis of same from various central institutes like CIRG, IVRI, State Agricultural Universities like LUVAS, GBPUAT and from other non-government institutes. The revenue of about Rs. 9,00,000.00 (Nine Lakhs Only) was generated in about eight months period (04-08-21 to 07-04-22). Inauguration of Mineral Mixture and feed block Unit was held on08/01/2022 by Hon'ble Union Cabinet Minister of Fisheries, Animal Husbandry and Dairying- Govt. of India, Shri Parshottam Rupala in the gracious presence of Hon'ble Cabinet Minister. Dairy Development, Animal Husbandry, Fisheries., Govt. of UPShri Laxmi Narayan Chaudhary and Hon'ble Vice Chancellor, DUVASU, Mathura Prof. G.K.Singh. The Feed Processing Unit and Mineral Mixture and feed block Unit established are producing concentrate feed as mash, pellets, Mineral Mixture, UMMB, fodder blocks for large and small ruminants. The produce is being made available to the beneficiaries at fixed price. The quality product at reasonable rate is purchased by nearby Gaushalas, dairy farms, farmers, livestock owners. The revenue of about Rs. 12,00,000.00 (Twelve lakhs only) was generated in about eleven months period (13-05-21 to 07-04-22). Products are supplied to Gaushalas, Dairy farms, farmers and Livestock owner. Two one-day workshop, two one-day Public awareness activity, four- Three days training program for rural youth, one-Three days training program for veterinary officers UP, and one-one-day workshop for target group were organized. About 500 farmers, rural youth, students, drop-outs, women farmers and veterinary officers participated and were imparted technical know-hows and hands-on training on feed processing techniques. Various workshops, trainings and public awareness activities were conducted under this project in this financial year.

Project A9. Pharmacological studies and development of polyherbal formulation for reproductive disorders in animals

- Uterine discharges from the cows and buffaloes having history of uterine infection and/or endometritis were collected. Out of total 42 samples (23 cows and 19 buffaloes), 23 samples were found to be positive for *E. coli.* Based on the morphological and cultural characteristics. However, based on the presence of virulence gene and ability to produce biofilm, two samples (S4 and S21) were selected for further study.
- Compared to S4 isolate (0.04 µg/ml) and ATCC strain of *E. coli* (0.04 µg/ml), the MIC value of cefotaxime against S21 clinical isolate of *E. coli* was found to be much higher (32.00 µg/ml). This may be due to presence of some additional virulence factor(s) in S21 isolate. Thus, we focused on evaluating the efficacy of *Prosopis*

juliflora leaves (PJ) extract against this isolate (S21).

- S21 clinical isolate was found to exhibit strong biofilm producing ability and PJ extract produced 54.55 % inhibition of biofilm production by this isolate. Further, *in situ* visualization of biofilm production by scanning electron microscopy revealed that PJ extract decreased the multilayer growth of biofilms and free living cells by influencing the integrity of cell wall. Additionally, it was also observed that the disturbed cell wall of the bacterium led to failure in the emergence of cluster and incapable of maintaining their typical morphology in presence of the extract.
- PJ extract significantly down-regulated mRNA expression of acrA and acrB efflux pump genes in S4 clinical isolate of *E. coli* at 12 h post-exposure. However, it did not produce any significant effect on mRNA expression of outer membrane protein related genes (OMPF and OMPC).

Project A10. Integrated indigenous cattle centre for conservation and improvement of indigenous milch breeds of cows (Gokul Gram Project)

This DADF, GOI sponsored project is running on at LFC, DUVASU, Mathura. As per mandate of the project nucleus herds of Sahiwal and Hariana breeds of cows were established at our farm. Under this project Sahiwal and Hariana breeds of cows are being conserved and their elite germplasm is being distributed to different institutions, farmers, goshalas, NGOs which are engaged in animal husbandry practices. Till date more than 100 cows, calves and heifers of both breeds of cows have been distributed to husbandry people and institutions.

Project A11. Livestock Health and Disease Control Program on FMD (DAHD, GOI funded national project)

A total of 1554 pre-vaccination and 2240 post-vaccination bovine serum samples sent by Animal Husbandry Department, Govt. of Uttar Pradesh were processed at FMD-CP Laboratory, DFMD, IVRI Campus, Bengaluru for FMD vaccine seromonitoring.2. The pre-vaccination serum antibody titre was observed to be 30.24%, 24.19 % and 18.85% for FMD-virus serotype O, A and Asia 1 respectively. The post vaccination serum antibody titre showed significant upward trend with 54.55 %, 57.05% and 45.3 % of vaccine animals protected against FMD-virus serotype O, A and Asia 1 respectively. During the assessment year a total of 3328 serum samples comprising of 1338 and 1990 sera samples of Cow and buffaloes respectively, were analyzed for FMD NSP serosurveillance. Overall NSP reactivity was 7.812 % whereas, NSP reactivity was higher in cow (13.30%) compared to buffaloes (4.12%).

Collaborative Centre Mathura has organized weeklong activity under "National FMD Control Awareness Week "from 12-17th September 2022 under the guidance of ICAR-National Institute of Foot and Mouth Disease. During this week long programmes several activities viz. Farmers interaction cum pamphlet distribution, Poster making, One minute video and E poster by NSS students, Awareness lecture for students of Institute of Para veterinary Sciences, Speech completion for B.V.Sc & AH and Postgraduate students, National quiz completion for B.V.Sc & AH and Postgraduate students and, Expert Talk on FMD were organized.

Organization of National FMD Control Awareness Week

Participants showing their activities during FMD Awareness Week

Project A12. Establishment of Laboratory to evaluate therapeutic potential of various Indian herbs for betterment of health and productivity of indigenous cattle

The project was proposed under RKVY to establish ethno-veterinary medicine laboratory and to transfer the scientific knowledge to farmers and livestock owners. Under this project Rs 30 Lacks was sanctioned for purchasing of instruments for strengthening of ethno-veterinary medicine laboratory and Rs 1 Lacks was sanctioned for one day workshop of farmers/livestock owners. A one day workshop on 'पशु रोग उपचार: जड़ी बूटियों का महत्व' was conducted under this project on Date 21.03.2023. Total fifty three farmers/ animal handlers were participated in this workshop out of which forty eight were female and five were male. In this workshop farmers/ animal handlers were trained about importance of local medicinal herbs against various important diseases of animal by experts from Department of Veterinary Medicine, Department of Animal Nutrition, Department of Veterinary Gynecology and Obstetrics and Department of Parasitology. A total of five lectures, one group discussion and one brain storming session were organized in this workshop. Prof. (Dr) A.K. Srivastava, Vice Chancellor, DUVASU, Mathura; Prof. (Dr) P.K. Shukla, Dean, CoVSc&AH, DUVASU, Mathura; Prof. (Dr) Vikas Pathak, Director Research, DUVASU, Mathura; Dr A.K. Tripathi, Head, Department of Veterinary Medicine, DUVASU, Mathura and Dr P.N. Panigrahi, Principal Investigator of this project, Department of Veterinary Medicine, DUVASU, Mathura addressed the farmers in this workshop and also distributed the study materials and certificates to the farmers.

Project A13. Efficacy evaluation of Alginate based haemostatic formulations on large animals (Goat/Pig)

Advent of biomedical research has widened the horizon for better and scar free healing. Cost effectiveness and ease of availability should be considered as modern insight to formulate new therapeutic interventions in wound healing. Present study was done to evaluate the role of certain inflammatory cytokines and vasculogenic markers following application of ascorbate in excisional wound in goat model. Eighteen female goats were randomly and equally divided into three groups of four animals each i.e. group I (sham operated), group II (Ascorbate formulation treated) and group III (Nitrofurazone treated). Present study was approved by CPCSEA with the permission number V-11011(13)/4/2020-21 CPCSEA- DADF dated 5th March, 2021. Following infliction of full thickness skin wound, planimetric analysis, histopathological examination (H & E and Masson Trichome staining), biochemical analysis for hydroxyproline, lipid peroxidation and collagen assay were performed to ascertain the healing efficacy of ascorbate formulation in goats on weekly interval till day 28th of experiment. Further, proinflammatory (TNF-α, IL-1β) and anti-inflammatory (IL-10) cytokine assay was done to delineate the role of cytokines in molecular dynamics of healing through ascorbate formulation. Immuno-histochemistry for expression of VEGF protein was

done to determine posttreatment angiogenesis in the inflicted wound following 28th day of experimental trial. In silico study was performed to undermine the role of eight primary protein targets to find out the molecular action of ascorbate formulation (API) during wound healing process. Application of ascorbate significantly improved the wound closure that was reflected with significant improvement in hydroxyproline and collagen level as well as reduction in lipid peroxidation levels. Significant reduction in proinflammatory cytokines and significant increment in anti inflammatory cytokine at inflammatory phase showed role of these cytokine in ascorbate induced healing. Further, very strong signal density and intensity of VEGF in ascorbate formulation revealed role of this angiogenic marker in molecular dynamics. Histopathological examination showed improved epithelization and hair follicles along with blood vessels in ascorbate treated animals advocating healing potential of ascorbate in large animals too. Eight targeted proteins were identified through computational biology as target for ascorbate induced molecular healing dynamics. Ascorbate formulation has a promising role as wound healing agent as evident by early closure of wound and involvement with all three overlapping phases of healing through modulation of cytokines and angiogenic markers and improved extracellular matrix through increment in hydroxyproline and collagen.

Project A14. Establishment of Modern Referral Veterinary Disease Diagnostic laboratory with special reference to animal tumours

The said project has been sanctioned but the financial assistance has not been received.

Project A15. Efficacy of Poly Herbal Formulation on Immmunity and Gut development in Broiler Chicks

The objective of this study was to analyze the effects of a polyherbal formulation from Avitech Nutrition Pvt. Ltd. on the growth and immune system of broiler birds at Veterinary University, DUVASU, Mathura. The study was conducted according to an agreed-upon plan, with five groups of 60 birds each - three of which were treatment groups, the first group was a control and the fifth group was a positive control group. The test item was administered to the broiler birds for a total of 42 days, and various parameters were analyzed.

The test item exhibited good progression in terms of growth and immunomodulation throughout the study duration without any adverse effects. The polyherbal-fed group exhibited consistent and significant growth and immune modulation throughout the study, without any negative effects. The immunohistological score was better in the polyherbal-fed group than in the control group. Additionally, the qPCR analysis revealed that the polyherbal-fed groups had no expression of pro-inflammatory genes, whereas the antibiotic and control groups showed an increase or decrease in these cytokines - possibly due to the stress caused by these items.

Overall, the test item treated showed normal growth as compared to the control group. This could be due to its potency. In conclusion, the results of the present study revealed that the test item can accelerate gut growth and improve immune modulation in broiler chickens.

Project A16. Evaluation of the Efficacy of a Polyherbal Immunomodulator at Improving the Response to Foot-and-Mouth Disease and Hemorrhagic Septicemia Vaccination in Cattle

The project aims at studying the effect of herbal preparation as immunomodulator in FMD and HS - vaccinated lactating cows in dairy farm, DUVASU. The project grant has been received and the project is initiated in March 2021.

Project A17. Boosting feeding value of paddy straw as animal fodder by means of different treatments

The said project has been sanctioned but the financial assistance has not been received.

Project A18. National Agricultural Higher Education Project-Institutional development plan (NAHEP–IDP)

During FY 2022-2023 a sum of Rs 375.03 lakhs was approved, towards revenue only. Against the approved budget, the released buget was Rs Rs 484.25 lakhs under revenue head only. With the released amount of Rs 1607.67 lakhs, the cumulative utilization was of Rs 1128.17 lakhs corresponding to 70.17 % utilization. A total of 82.5% of the procurement plan has been completed. University have dedicated one building for the work of IDP and majority of the activities are concentrated in the building itself. Presently,

digital classroom, virtual classroom, language lab, incubation center, conference rooms, skill center, student activity room, alumni centre, IIIC, cafeteria for students and faculty are housed in the building. Rooms are also for all the nodal officers related to IDP work. The entire building is supported with roof-top 50KW solar system. Besides, two green toilets and rain water harvesting system is established in the building. All major lecture halls in the University have been covered with digital / smart class rooms and five major classrooms were made air-conditioned.

One RFID system in university library, three (03) virtual skills has been established. They are in the subject of Pharmacology, Physiology and Gynaecology. A system of artificial intelligence in farm animals has been also established.

(a) With respect to the capacity building of students and faculty, sixteen (16) students are undergoing International training in the area of Radio-imaging diagnosis, first batch of fifteen (15) students completed his/her international training from International Training Center on Pig Husbandry, P.O. Box 1, Lipa City, Batangas, 4217 Phillipines, second batch training from same institute is going on, sixty one (61) students completed his/her industrial training at feed, food and hatchery industry, thirty two (32) lecture sessions has been conducted with different industries, ninety-nine (99) remedial classes were held for 1st to 5th professional students (all lectures were conducted by renowned faculties across the country. All lectures were focused with UG teaching and eminent professors who have their interest in teaching were selected for such deliberations), fifty one (51) guest lecturers were held on different topics of concern for the benefit of students. Eleven (11) activities related to soft skills including one (01) French language course, four (04) certificate courses were conducted. For faculty seventeen (17) meeting and workshop/ brainstorming session were conducted moreover, our three (03) faculties were completed his/her International Training and other eleven (11) selected faculty have been complete training till September. There were two (02) Alumni meet also conducted, one in online and another in offline mode. Besides, nineteen (19) MOU were signed with different industries and Institutions in order to promote teaching, research and extension activities.

Toward improvement in academics and administrative system, University has implemented AMS and PIMS system of NAHEP component 2. Further, digitalization of key working areas with support from U.P Govt initiative for digitalization has been completed and momentum towards digitalization has started.

All these efforts in terms of infrastructure development and drive towards innovation and skill development have created an atmosphere of teaching and learning in the campus. Further, use of digital means in day to day working has hastened the process of work culture. These initiatives will certainly bring changes in the focused area of the project in times to come.

(b) Students and faculties received international training and exposure under NAHEP with their hands on training in different areas. Salient learnings of faculties received in ongoing international training leading to NAHEP outcomes-

Analysis of adenoviral (AdV) genome; Use of CloneManager to work with gene sequences; Construction of full-length genomic clones of AdV; Isolation and identification of recombinant AdV; Construction and evaluation of recombinant AdV containing deletions/insertions; FACS; ELISpot; bioinformatic tools in reverse vaccinology (Dr. Rashmi Singh, Microbiology).

Micro-sensititre assay for *Campylobacter, E. coli, Salmonella, Staphylococcus aureus,* Embryo Lethality Assay, LAMP assay, Retail meat surveillance laboratory protocol, PCR, Sequencing technique through Illumina-Mi Sequencer, Campylobacter-biofilm assay (Dr. Ruchi Tiwari, Microbiology)

The objective of the training was to work on rumen mircobiota to control and analyze methane production. The training involved collection and culturing of biota, use of ANKOM system for analyzing methane production data, quantification analysis of methane, carbon dioxide and hydrogen using Gas Chromatography at School of Veterinary Medicine, University of Pennsylvania, USA (Dr. Brijesh Yadav, Physiology).

Undergone training at Dermatology Section of Department of Clinical Medicine, at University of Illinois, Urbana-Champaign, USA. Also, learning super specialty services in Cardiology and Internal Medicine at Clinical Medicine Department (Dr. Shanker Singh)

Worked on evaluation of synthetic compounds and its

derivatives against Cryptosporidium, Toxoplasma and Neospora. The present study would be helpful to develop an effective therapeutic agent for these parasites (Dr. Amit Jaiswal)

(c) Salient learnings of students received international training-

Training aimed with acquaintance of clinical hands-on on digital imaging techniques. Learnt basic of the techniques, exposed to vast number of clinical cases radiographs, sonographs etc in understanding, diagnosing and enhancing clinical skill. All sixteen students cleared the online examination. (Students Internships)

Training aimed with learning pig husbandry with the intention of developing pig farm. Learned – farm management, semen processing, artificial insemination, castration, meat processing, project writing etc. (Students 6th Semester)

Entrepreneurship undertaken-

Two days sensitization program on entrepreneurship development was organized highlighting Startups and processing of Incubation, skill sets for entrepreneurship, opportunities and avenues in veterinary sector, preparation of business plan and sharing experiences of successful startups.

Aimed with the objective of leaning of commercial hatchery, production of layer and broiler. Training was imparted on hatchery management including vaccination of DOCs, breeder and parent stock management, working and function of feed plant.

On completion of 75 years of College of Veterinary Science, University organized an Alumni Meet on foundation day where 153 alumni across the country joined and various program were organized.

B. Intra-mural Research Projects

College of Veterinary Science and Animal Husbandry

Project B1. Effect of increasing THI on physiological acclimatization in Sahiwal calves.

Six Sahiwal calves were exposed to seven different increasing THIs between 67 and 93 and changes in different heat stress parameters were recorded.HSP70, TNFα, Pulse rate, Pulse rate, Triglyceride and urea did not change appreciably during progressively increasing heat stress whereas ALT, Rectal Temperature, Respiratory Rate, Total White Blood Cells, Total Red Blood Cells, Hemoglobin and PCV began to change at a THI of 82.35. Cortisol showed an increase at a THI of 84.29, whereas IL6 changed at a THI of 85.67. HSP90, granulocyte and lymphocyte changed at a THI of 86.94. AST activity changed only at a THI of 88.98. On the basis of results it can be concluded that upper critical THI for Sahiwal calves may be 82.35.

Six Sahiwal calves were exposed to six different decreasing temperatures between 24 and 9 °C and changes in different stress parameters were recorded. Total Red Blood Cells, Hemoglobin, PCV and TNFα did not show any change in different parameters during progressively decreasing temperature. A non-significant change in HSP70 and significant change in granulocyte % was recorded at a temperature of 18.5 °C. A non-significant change in pulse rate was observed at 15.5 and significant change in lymphocyte % and respiratory Rate was recorded at a temperature of 15.15 °C and 13.65 °C, respectively. Total White Blood Cells, ALTand AST showed a change at 12.30 °C. Similarly, rectal temperature, IL6, HSP90 and triglyceride exhibited a change at 12.15°C. Cortisol and urea showed a change only at a temperature of 9.15°C. It can be concluded that lower critical temperature may be 18.5°C in Sahiwal calves.

Recommendations

1. The Sahiwal calves are not comfortable above a THI of 82.35 which corresponds to 30°C temperature and 75% humidity in this study.
2. The Sahiwal calves are not comfortable below a temperature of 18.5°C and therefore different managemental strategies should be applied once the environmental temperature is below 18.5°C.
3. Sahiwal calves experience minimal environmental stress between 18.5°C and 30°C.

Project B2. Phytochemical screening and evaluation of antibacterial activities of Plumeria

After collection and shade drying of leaves and flowers of Plumeria alba, different type (Aqueous, Alcoholic, Hydroalcoholic etc) of extract of leaves and flowers were prepared. Alcoholic extract of flowers of Plumeria alba showed antibacterial activity against both gram +Ve and gram –Ve bacteria and it was found more effective against gram +Ve bacteria (Staphylococcus sp) compared to gram –Ve bacteria (E. coli). Phytochemical analysis of the extract showed presence of alkaloids, carbohydrates, tannins, xanthoproteins and resins etc in the extract. GC-MS analysis of the alcoholic extract of flowers revealed

the presence of Diethyl Phthalate and Phthalic acid compound in the extract and HPTLC result showed presence of six peaks of different compounds in the extract at 254 nm wavelength. Alcoholic extract of flowers of Plumeria alba showed antagonistic action with amoxicillin antibiotic against the staphylococcus as shown in the FIC test (Checker boards assay).

Project B3. Investigation on serum and milk biomarkers for subclinical mastitis in goats and cows during summer and winter seasons

This study was carried out on lactating Barbari and Jamunapari goats reared at goat farm along with Sahiwal and Hariana cows maintained at ILFC of College of Veterinary Science, DUVASU Mathura. The milk and serum samples were collected from goats along with milk samples of cows. Samples were stored at -20°C prior to analysis. The animals were divided into four groups according to breeds two of each goat and cows. The samples are collected in two different seasons namely summer and winter. Total 360 samples of milk and 200 samples of serum were collected. Now the milk and serum samples were further be divided in to two subgroups, namely control/healthy group, subclinical mastitic group on the basis of screening by using somatic cell count (SCC) , Electrical Conduction and pH on the milk samples. 1) Milk metabolic profile of healthy Sahiwal cows and found significant difference in Ph values during summer and winter season. Milk metabolic profile of healthy and subclinical mastitic Sahiwal cows found significant difference in SCC & AST values during summer season and SCC, pH & AST during winter season. 2) Milk metabolic profile of subclinical mastitic Hariana cows and found significant difference in A/G ratio values. Milk metabolic profile of healthy and subclinical mastitic Hariana cows and found significant difference in AST values during summer season. 3) Milk metabolic profile of healthy Barbari goats and found significant difference in A/G ratio values during summer and winter season. Milk metabolic profile of healthy and subclinical mastitic Barbari goats and found significant difference in SCC, ECT, K and AST values during summer and winter season. 4) Serum metabolic profile of healthy & subclinical mastitic Barbari goats respectively. Serum metabolic profile of healthy and subclinical mastitic Barbari goats and found significant difference in Total protein, Albumin, A/G ratio, AST, LDH and ALP values during summer and winter season respectively. 5) Milk metabolic profile of healthy Jamunapari goats and found significant difference in A/G ratio during summer and winter season. Milk metabolic profile of healthy and subclinical mastitic Jamunapari goats and found significant difference in SCC, ECT, K and AST values during summer and winter season respectively.

6) Serum metabolic profile of healthy Jamunapari goats and found significant difference in A/G ratio during summer and winter season. Serum metabolic profile of healthy and subclinical mastitic Jamunapari goats and found significant difference in Total protein, Albumin, AST & ALP values during summer and winter season respectively.

Project B4. Analysis of the canine tumor proteome as an exploratory study for future implication in tumor biomarker discovery

For the SDS-PAGE analysis of serum proteins and tumor tissue proteins from healthy and tumor affected animals, total 07 canine mammary tissue samples and 07 serum samples were collected from mammary tumor affected dogs. For extraction ofproteins from mammary tissue samples, approximately 100 mg of mammary tissue sample was homogenized in 2 ml of RIPA buffer with protease inhibitor cocktail at 4°C. Then homogenate was centrifuged at 15000g for 20 minutes at 4°C and the supernatant was collected in separate vialand stored at -20°C. The proteins extracted from tissues and the serum protein was estimated by Bradford method and concentration of the protein in the sample was determined. The recovery of the protein was 25.64, 18.75, 21.34, 22.43, 18.94, 20.24 and 19.86 in 7 tissue samples.

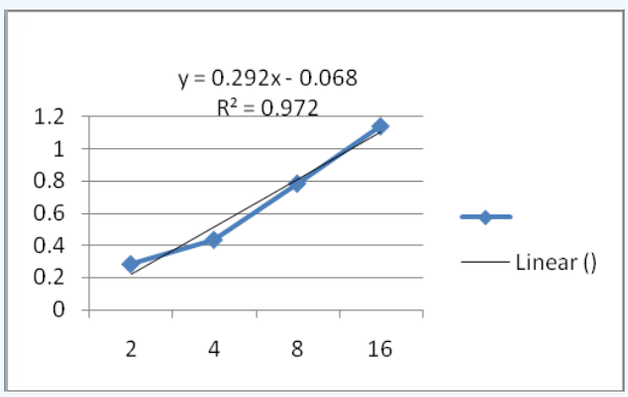


Figure : Protein standard curve (Bradford method)

Then proteins samples were electrophoresed on 10% polyacrylamide gel (Laemelli 1970) using vertical slab gel assembly. Electrophoresis was run at constant voltage of 80V at room temperature for 30 minutes through the stacking gel and at voltage 100V through the separating gel till tracking dye front reached close

to the bottom of gel slab.At the end of electrophoresis, the gels were stained with 0.1% Coomassie Brilliant blue-R solution for 20 minutes and then de-stained with three changes of de-staining solution (water: methanol: acetic acid) at room temperature. SDS-PAGE of serum proteins revealed 18 bands in 10% polyacrylamide gel (Fig 02). However there is appearance of broad band of most abundant protein albumin that appears to mask the smaller proteins on the gel. For getting clear gel electrophoretogram, further procedures for depletion of high abundant protein need to be followed to get the smaller proteins visible.

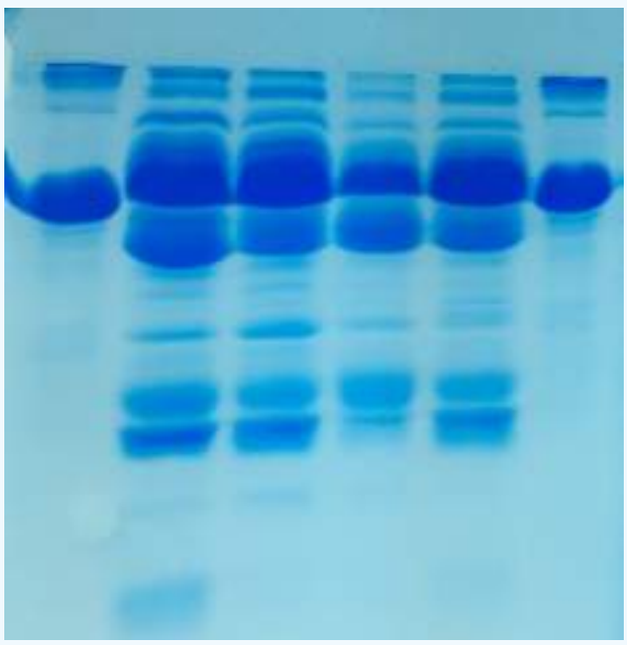


Figure: SDS-PAGE of serum proteins

Project B5. Differential pattern in milk somatic cell count and composition of Sahiwal and Hariana cows during different stages of lactation

The present study was conducted with the hypothesis that the milk SCC is a good indicator of clinical and sub clinical mastitis in cows. Any of the milk constituent or attribute having strong correlation with the milk SCC throughout the various stages of lactation, may be used as an alternative indicator in detection of mastitis. The present study was conducted at LFC, department of Livestock Production Management, Livestock Product Technology and Veterinary Public Health. A total of twenty four (24) post-parturient, healthy Sahiwal and Hariana cows (Twelve of each breed) were selected as experimental animal. The feeding, housing, milking, cleaning etc. management practices for these experimental animals remained same as was practiced normally for other animals at LFC, DUVASU, Mathura. These cows were separated but remained in the group of their herd mates in loose housing system. 100 ml of milk samples were collected in sterilized milk sample collection bottles at 0^{th}, 10^{th}, 30^{th}, 60^{th}, 90^{th}, 120^{th}, 150^{th} and 180^{th} days of post-parturition from experimental cows. The milk samples were analyzed for SCC and various constituents or attributes using auto analyzers. Before collection of milk samples they were tested for mastitis using CMT. None of the milk sample from either Sahiwal or Hariana cows were found to be positive for mastitis even though the milk SCC in many samples were observed to be even much higher than critical level for mastitis ($500X10^3$). It revealed that every time higher values of milk SCC are not an indicator of mastitis but during mastitis the values of milk SCC may essentially be higher. Moreover, many milk constituents and attributes were having medium to higher positive or negative correlation with milk SCC but the correlation did not persist the same throughout the various stages of lactation, therefore, none of the milk constituent or attribute was considered to be a good enough alternative of milk SCC in detection of mastitis.

Project B6. Clinico-pathological and Immunohistochemical Study on the expression of biomarkers of canine mammary tumors

The present study was under taken to know the occurrence of canine mammary tumours, to classify and study their gross and microscopic lesions, evaluate different tumour markers by IHC and to determine the prognostic significance of the presence and absence of markers. In the present study, the animals having mammary tumours ranged from 2 to 12 years of age with highest occurrence in 7-10 years age group and noticed mainly in female animals, with one male dog. Highest occurrence of canine mammary tumours was recorded in German shepherd dogs followed by Labrador and Spitz. The highest occurrence was recorded in intact bitches when compared to spayed dogs. Out of 37 cases presented, 22 having single mammary gland affected whereas 15 cases have tumours in multiple glands. The highest occurrence was recorded in inguinal (37.09%) followed by caudal abdominal (27.41%) gland. Majority of the cases showed TNM stage III (80.48%) followed by stage II (9.75%) and stage IV (4.87%) and stage I (4.87%). Overall, the cytological diagnosis had 75%correlation to histopathological diagnosis. The cytologic diagnosis correlated with histologic

diagnosis for benign and malignant tumours in 60% and 75% of cases respectively. Grossly, the size of tumours ranged from 1.5 to 20 cm in diameter approximately with different shapes and consistencies. Out of 37 cases presented samples were possibly obtained from 20 cases and out of these 20 cases, fourteen cases (70%) hadmalignant tumours while 06 cases (30%) showed benign tumours. Histologically they were classified into 17 major subtypes and among themintraductal papillary carcinoma had highest frequency followed by ductal carcinoma among malignantand fibroadenoma followed by benign mixed mammary tumour among benign tumours. In present study metastasis of CMTs to lymaphatics, lymph nodes and visceral organs were recorded in 02 cases. Maximum no. of carcinoma was of grade II (55%) followed by grade Iand grade III. Of the 20 canine mammary tumours samples subjected to immunostaining of different tumour markers, 55% of tumours showed p53 expression, 30% showed ER, 35% showed PR and 50% of cases showed HER expression. In the present study, various factors such as tumour stage, histological grade and features, expression of different tumour markers along with epidemiological data were evaluated in CMTs. It was revealed that the factors like TNM stage and expression of tumour markers have significant prognostic value and can influence clinical outcome of canine mammary tumours.

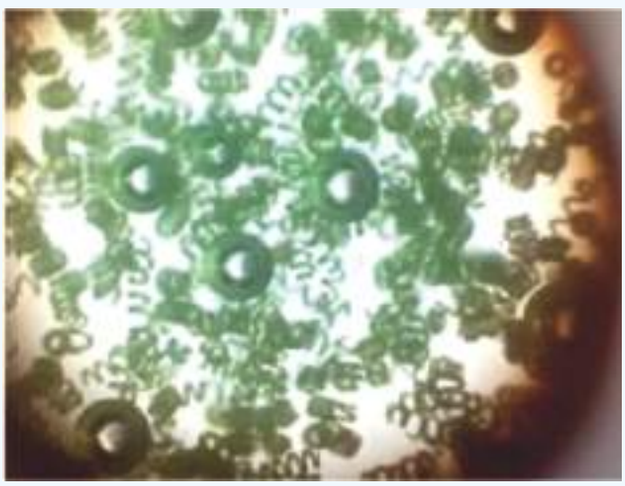
College of Biotechnology

Project B7. Demonstration unit of Mushroom farming to promote entre-preneurship

The establishment of a demonstration unit of mushroom cultivation aimed to encourage and promote small scale entrepreneurship among students which will enhance their skills and get trained simultaneously during their undergraduate study programme of B.Sc. (H) Biotechnology/Industrial Microbiology. In India the mushroom cultivation is of mixed type i.e seasonal farming as well as high-tech-Industry. It can help to reduce vulnerability to poverty and strengthens livelihoods through the generation of a fast yielding and nutritious source of food and a reliable source of income. As it does not require access to land, its cultivation is a viable and attractive for both rural and urban farmers. They can be cultivated on a part-time basis, and require little maintenance. Indirectly, mushroom cultivation also provides opportunities for improving the sustainability of small farming systems through the recycling of organic matter, which can be used as a growing substrate, and then returned to the land as fertilizer. Through the provision of income and improved nutrition, successful cultivation and trade in mushrooms can strengthen livelihood assets, which can not only reduce vulnerability to sudden losses, but also enhance an individual's and a community's capacity to act upon other economic opportunities. Therefore, mushroom cultivation is not only of economic importance but also has important role to promote small scale entrepreneurship in integrated rural development programme by increasing income and self-employment opportunities for village youths, students who wants to earn for their livelihood, woman folk and housewives to make them financially independent. This project got sanctioned on 23/10/2021 having total estimated budget of Rs. 3,68,600/- only funded by college of biotechnology, DUVASU, Mathura. Presently the project is in very early stage and expected completion to take at least 12-15 months from now. This demonstration unit is established at ground floor of College of biotechnology having two air conditioned rooms along with other facilities and equipments required for the establishment of demonstration unit.

Project B8. Demonstration unit of Spirulina cultivation

Development of Bio-entrepreneurs has become very essential so as to bring employment and utilize their theoretical knowledge and develop different programmes. In lieu of it we are initiating this project so that we can promote our students in this manner so that they can lead their success. Spirulina is economically important as it can be grown easily on an industrial scale on cheap material like waste water from potato processing plant, molasses etc. However, we are initiating this at lab scale and with chemical aids. Spirulina has effectively shown some crucial health benefits and thus can be considered a Superfood. Indian Ocean commission report on Spirulina – a Livelihood and a Business Venture, March 2011 has also mentioned its nutritional role as it is composed of 60% highly digestible vegetable protein, has extremely high concentrations of beta carotene, vitamin B-12, iron and trace minerals. This project is running in its initial stage in order to collect all the prerequisite materials required for the main experimental work. The duration it may require is approximately 12 months.



Microscopic image of spirulina

Image of cultured spirulina in cement tub

Project B9. Bioremediation of waste water using Effective Microorganisms Technology

Water purification technology is often complicated and requires sophisticated equipment. It is also expensive to run and maintain. The Effective microbe technology could prove a simple answer to the problem. Effective microbes could be used to remove toxic chemicals, bacteria, viruses and other hazardous materials from water much more effectively and at lower cost than other conventional water purification methods. Organic pollutants from industrial waste water from pulp and paper mills textiles and leather factories, steel foundries and petrochemical refineries are a major cause of illness in parts of the world where regulations do not necessarily protect the people from such industrial outflows. The Effective microbes approach to water purification could help in preventing diseases and poisoning for potentially millions of people. Biological degradation is environmentally friendly and cost-effective; but it is usually time-consuming. Use of EM also saves land and capital required for setting up a tertiary plant for cleaning the effluent in some cases. It also helps to reduce pollution caused by crude oil. EM also converts hydrocarbon sulphide and oxide compounds into amino acids, organic oxygen and sugars that fertilize the soil. EM technology is not only environmental friendly, but goes a step forward too actually protect the environment. EM technology is best and cheapest technology for treatment of waste water. The treated waste water can be used in agriculture and irrigation process. Effective microorganisms convert a degraded ecosystem to one that is productive and contains useful microorganisms. Bacterial cultures for the preparation of Effective microorganism solution has been ordered from MTCC, Chandigarh. Bioremediation is considered to be an attractive option for minimizing the pollution load from contaminated water due to its high efficiency and economical impact than chemical remediation. Thus the current study clearly states that, application of bacterial consortia can be used for the treatment of toxic effluents from waste water.

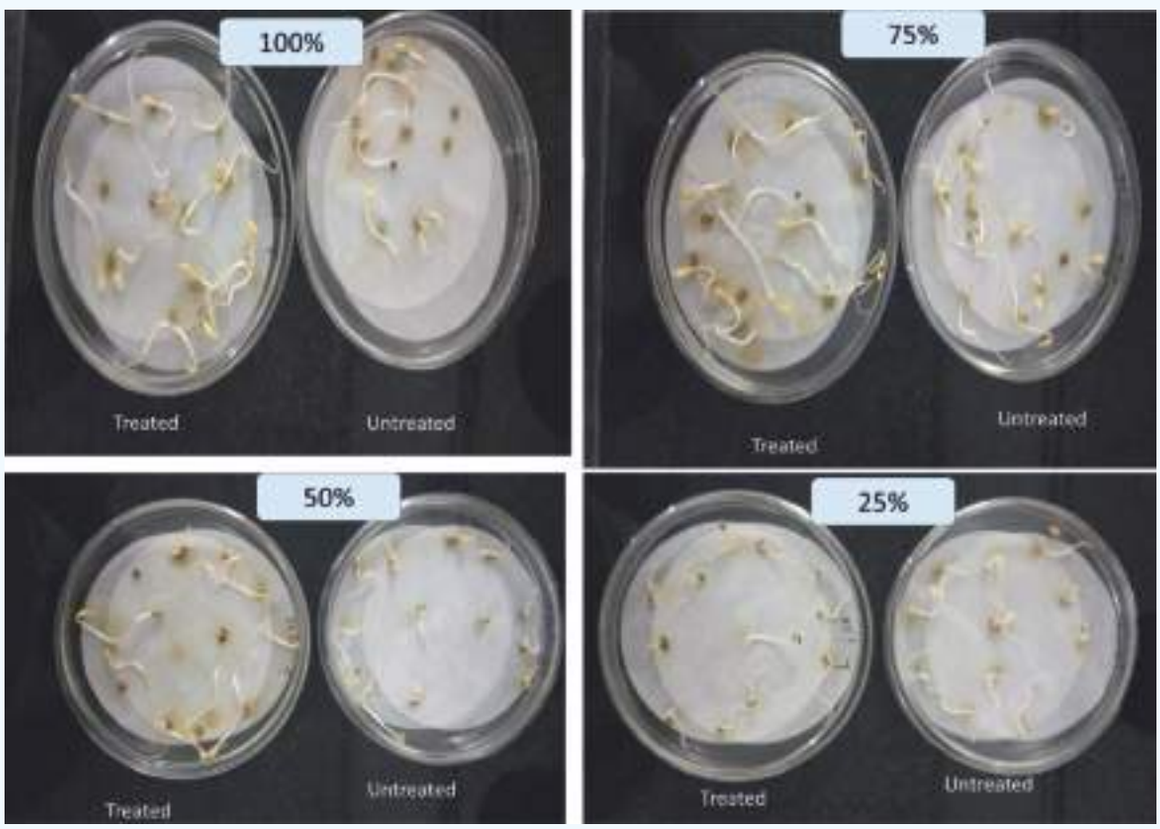
Bioremediation of waste water using effective microorganisms technology

Sampling sites

Formulation of EM solution

Bacterial consortium treated water

Effect of untreated water and bacterial consortium treated water on seed germination *in vitro*



Project B10. Demonstration unit of plant tissue culture and green house

Plant Tissue culture (PTC) is the cultivation of plant cells, tissues, or organs on specially formulated nutrient media. Under the aseptic conditions, an entire plant can be regenerated from a single cell. The controlled conditions provide the culture an environment conducive for their growth and multiplication. These conditions include proper supply of nutrients, pH medium, adequate temperature and proper gaseous and liquid environment. Plant tissue culture is a technique that has been around for more than 30 years. Tissue culture is seen as an important technology for developing countries for the production of disease-free, high quality planting material and the rapid production of many uniform plants.Plant tissue cultures offers remarkable opportunities in in-vitro propagations, plant quality improvement and production of plants with desirable agronomical quality and quantity. It's now possible to develop virus-free plant regeneration, herbicide resistance, salinity tolerance, disease resistance, incorporation of high protein content and genetically engineered plants for desirable traits. Micro propagated plant cells and tissues have been widely used for the production of secondary metabolites, which are the rich source of many pharmaceutical and industrial products (eg.Shikonin from *Lithospermum erythrorhizon*,Taxol from *Taxus* sp).

PROJECTS COMPLETED DURING 2022-23

List of M.V.Sc. Theses completed

College of Veterinary Science and Animal Husbandry

S. No.	Title of Thesis	Name of the Student	Name of the Guide	Subject
1)	Doppler sonographic study of carotid artery and jugular vein of Labrador dogs	Dr. Vikash	Prof. R.P. Pandey	Veterinary Surgery and Radiology
2)	Studies on thoracic radiography, electrocardiography and echocardiography in small breed dogs	Dr. Harshita Singh	Dr. Gulshan Kumar	Veterinary Surgery and Radiology
3)	Mechanistic Study on Antibacterial Efficacy of Babool Leaves Extract against *E coli* Isolated from Clinical Cases of Uterine Infections in Bovines	Dr. Rajneesh Singh	Dr. Soumen Choudhury	Veterinary Pharmacology and Toxicology
4)	Studies on the effect of doxycycline and doramectin in male rats	Dr. Aashi Singh	Dr. Rajkumar Singh Yadav	Veterinary Pharmacology and Toxicology
5)	Effect of supplementation of copper and zinc nano particles on the performance of dairy calf.	Dr. Pooja Pandey	Dr. Muneendra Kumar	Animal Nutrition
6)	Effect of nano zinc supplementation on performance of bucks	Dr. Saurabh Pratap Singh	Dr. Shalini Vaswani	Animal Nutrition
7)	Effect of Oral L-Glutamine as an Adjunctive Therapy in Canine Parvovirus Enteritis	Dr.Divya Chauhan	Dr. A Srivastava	Veterinary Medicine
8)	Evaluation of Therapeutic potential of *Terminalia chebula* on large colon Impaction in equines	Dr. Shubhasini Dhuriya	Dr. A K Tripathi	Veterinary Medicine
9)	Study on the efficacy of a polyherbal immunomodulator in foot-and-mouth disease and haemorrhagic septicaemia vaccinated cattle	Dr. Nidhi Mishra	Prof. Rashmi Singh	Veterinary Microbiology
10)	Study on phenotypic and genotypic characterization of multidrug resistant bacteria recovered from animal wounds.	Dr. Prachi Singh	Dr. Sharad Kumar Yadav	Veterinary Microbiology
11)	Molecular detection of Virulence genes of Salmonella fields isolates from poultry	Dr. Gunjan Sahu	Dr. Sharad Kumar Yadav	Veterinary Microbiology
12)	Studies on Phenotypic and Genotypic Evaluation of Biofilm Production and Antimicrobial Resistance in *Staphyloccocus aureus* Isolated from Milk	Dr. Shikhar Kiran Verma	Dr. Parul	Veterinary Public Health
13)	Pathological study and assessment of prognostic biomarkers in canine mammary gland tumors	Dr. Kavisha Gangwar	Dr. Neeraj Kumar Gangwar	Veterinary Pathology

14)	An epidemiological study of canine cutaneous round cell tumors and their characterization based on cytomorphology and immunophenotyping	Dr. Avantika Srivastav	Dr. Shyama N. Prabhu	Veterinary Pathology
15)	Study on effect of number of follicular waves on the fertility of Sahiwal cattle	Dr Gaurav Tiwari	Dr. Jitendra Kumar Agrawal	Veterinary Gynecology and Obstetrics
16)	"Studies on effect of certain drugs on treatment of pyometra in bitches"	Dr Neha Saraswat	Dr. Anuj Kumar	Veterinary Gynecology and Obstetrics
17)	Effect of feeding green berseem on the performance of coloured chicken	Dr Himanshu Raghav	Dr. Amitav Bhattacharyya	Poultry Science

STUDENTS' RESEARCH

M.V.Sc.

College of Veterinary Science and Animal Husbandry

1. Doppler sonographic study of carotid artery and jugular vein of Labrador dogs

The dogs included in the study consisted of adult normal healthy dogs and those having some kind of neurological disorders reporting to TVCC, DUVASU, Mathura during the period of the study. The current study was divided into two parts: Part I of the study was undertaken to standardize the procedure for B-mode and Doppler ultrasonography of the common carotid artery and external jugular vein in 12 apparently healthy adult Labrador dogs of either sex in two groups (group I age 2-6 years; group II age 6-10 years). Doppler ultrasound was performed in all animals without sedation in lateral decubitus position using 7.5 MHz linear transducer. The mean values of left CCA were D (0.39 ± 0.01, 0.49 ± 0.01), PSV (54.12 ± 2.56 & 80.88 ± 0.69), EDV (13.50 ± 0.58 & 15.53 ± 0.85), PI (1.85 ± 0.22 & 1.83 ± 0.33), RI (0.78 ± 0.03 & 0.82 ± 0.02) in the dogs of group '! and a! respectively. The mean values of right CCA were D (0.37 ± 0.01 & 0.48 ± 0.01), PSV (57.93 ± 0.91 & 72.37 ± 1.41), EDV (14.08 ± 0.92 & 15.63 ± 0.79), PI (2.12 ± 0.22 & 2.24 ± 0.19), RI (0.80 ± 0.01 & 0.84 ± 0.01) in the dogs of group '! and a! respectively. The mean values of left EJV were D (0.42 ± 0.03 & 0.72 ± 0.02), V (12.47 ± 0.58 & 17.92 ± 0.96), PI (0.32 ± 0.01 & 0.56 ± 0.01) in the dogs of group '! and a! respectively. The mean values of right EJV were D (0.40 ± 0.01 & 0.73 ± 0.01), V (11.75 ± 0.46 & 18.00 ± 0.69), PI (0.34 ± 0.01 & 0.52 ± 0.02) in the dogs of group '! and a! respectively. The mean values of D, PSV, EDV, PI, RI, V and PI differed significantly between group I and group II dogs. No statistical differences were found between genders or vessel sides of same age groups in this study. In the second part of the study, a total of 5 dogs showing variable neurologic signs were included. On the basis of dopplersonographic examination in part II study, the neurological conditions were broadly categorized into inflammatory conditions PSV, EDV, PI values were > mean PSV, EDV, PI values of group 1 and V and PI values were > mean of respective sides V and PI of group 1, upstream stenosis of CCA as PSV, EDV, PI values were < mean PSV, EDV, PI values of group 2 and RI value was > mean RI in group 2, downstream stenosis of CCA as PSV, PI, RI values were< mean PSV, PI, RI values of group 2 and EDV value was > mean EDV in group 2 and jugular venous reflux as V and PI values were > mean V and PI values of group II and Vrev was observed here.

Fig. Transducer fixed in longitudinal section with notch towards head

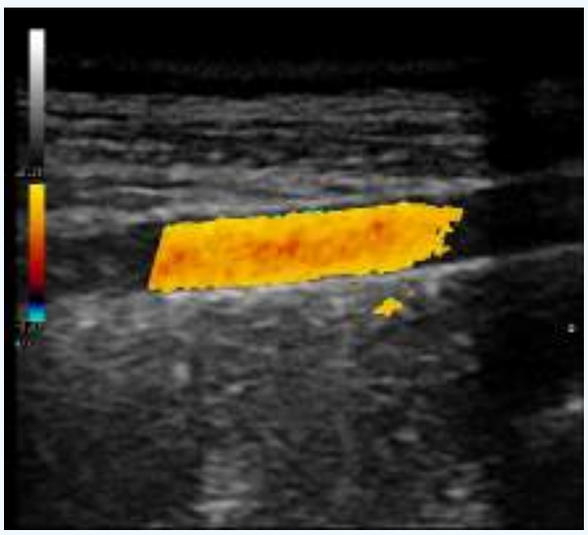


Fig. Color flow mode switched on to visualize the proper flow of blood within the vessel lumen

2. Studies on thoracic radiography, electro-cardiography and echocardiography in small breed dogs

This study was conducted on 18 apparently healthy Sahiwal calves of either sex which were divided into three groups of six animals each. Group I comprised of calves up to 4 months of age, Group II comprised of calves more than 4 months but not more than 8 months and the Group III comprised of the calves more than 8 months and up to 12 months of age. A thorough clinical examination of all the Sahiwal calves was performed

before including them into the study. Ultrasound was performed in all animals in standing position with minimal restraint, without the use of any sedative or general anaesthesia. The B-mode ultrasonographic study was done for liver and spleen and Doppler mode ultrasonographic study was done for portal vein (PV) and caudal vena cava (CVC).

The dorsal margin of liver and spleen was obscured by ventral margin of lung. The liver was imaged from right side from 12th to 5th intercostal spaces and was easily accessible from 12th to 8th intercostal spaces. The spleen was imaged from left side from 12th to 5th intercostal spaces and was easily accessible from 12th to 7th intercostal spaces. The distance of dorsal visible margin (cm) and ventral visible margin (cm) for the liver and spleen from the dorsal midline was shortest at 12th intercostal space and longest at 5th intercostal space among all groups. The visible size of liver largest at 11th intercostal space and visible size of spleen was largest at 8 intercostal space. The parenchyma consisted of numerous fine echoes homogeneously distributed over the entire organ. The portal vein was scanned from 12th to 8th intercostal spaces in most of the animals and appeared as stellate, branching, anechoic structure with a hyperechoic wall. The caudal vena cava was visualised in at least one of the 12th to 9th intercostal space in most of the cases and appeared triangular in cross section with less echogenic wall as compared to the PV. The CVC was visualised in fewer intercostal spaces as compared to PV and was not visible in cranial ICS because of the superimposition of the ventral border of the lung. The PV was always more ventral as compared to the CVC and was closer to the diaphragmatic surface of the liver. The gall bladder was visible at 10th to 9th intercostal spaces in most of the animals and was pear shaped non-echogenic structure having a hyperechoic wall. The size of gall bladder depended upon the accumulation of bile.

The size of liver at 11th ICS was 9.67± 0.33cm, 11.16± 0.70cm and 12 ± 0.68cm in group-I,II and III, respectively. The diameter of PV at 10th ICS was 1.46 ± 0.13cm, 1.61 ± 0.14cm and 1.66 ± 0.19cm in group-I,II and III, respectively. The circumference of CVC at 10th ICS was 3.19 ± 0.09cm, 3.94 ± 0.28cm and 5.03 ± 0.39cm in group-I,II and III, respectively. The mean velocity of PV was 25.97 ± 3.20 cm/s, 20.53 ± 1.02 cm/s and 24.17 ± 2.42 cm/s in group-I,II and III, respectively. The mean velocity of CVC was 22.98 ± 5.27 cm/s, 24.07 ± 4.90 cm/s and 25.87 ± 3.05 cm/s in group-I,II and III, respectively. The size of spleen at 8th ICS was 7.17 ±0.48cm, 7.83 ± 0.48cm and 7.83 ± 0.48cm in group-I,II and III, respectively.

The liver and spleen of Sahiwal calves could be scanned without any sedative or anaesthetic agent in a standing position. Echo-morphometric measurements can be used as a tool for diagnosis of various hepatic and splenic affections.

Fig. The animals were restrained in a cattle chute in standing position without using any anaesthetic or sedative.

Fig. B mode ultrasonogram of Caudal Vena Cava as a triangular anechogenic structure of calf no.-4 (Group-III)

Fig. Doppler measurements of Caudal Vena Cava

3. Mechanistic Study on Antibacterial Efficacy of Babool Leaves Extract against E coli Isolated from Clinical Cases of Uterine Infections in Bovines

Endometritis is one of the leading causes of reproductive inefficiency, infertility and decreased milk yield in high yielding dairy cows and buffaloes as well as in other species of animals and are associate with severe economic loss. Indiscriminate use of antimicrobial agents has resulted in development of resistance to the synthetic antimicrobials. Plant-derived active principles have promising potential to act as an alternative to conventional antimicrobial agents. In the present study, an attempt was made to investigate the mechanism of action of Prosopis juliflora leaves (PJ) extract against clinical isolates of E. coli.. Out of 42 clinical samples of uterine discharges and 23 isolates from cattle and buffaloes having history of uterine infection, we identified two isolates as virulent E. coli based on the cultural, biochemical and genotypic characterization. Ethanolic PJ extract showed presence of large quantity of total phenolic acid and flavonoid contents as well as promising in vitro antioxidant and radical scavenging activity. PJ extract exhibited a marked in vitro antibacterial effect against S4 isolate and reference strain (ATCC 25922) as evidenced by agar well diffusion test with MIC value of 0.39 mg/ml. This antibacterial action of PJ extract was shown to initiate at 6 h post-exposure while the complete bactericidal action was achieved at 12 h post-exposure. Additionally, the electron microscopy and fluorescent microscopy studies revealed that PJ extract produced damage to the bacterial cell wall and caused loss of cell membrane integrity leading to release of the intra-cytoplasmic contents and formation of vacuole resulting in cell death. Moreover, 12 h post-exposure to PJ extract significantly down-regulated mRNA expression of acrA and acrB efflux pump genes in clinical isolate of E. coli (S4). The cultural characteristic and crystal violet assays evidently suggested the strong biofilm producing ability of S21 isolate, and PJ extract was exhibited to cause 54.55 % inhibition of biofilm production by this isolate. Further, in situ visualization of biofilm production by scanning electron microscopy revealed that PJ extract decreased the multilayer growth of biofilms and free living cells by influencing the integrity of cell wall. Additionally, it was also observed that the disturbed cell wall of the bacterium led to failure in the emergence of cluster and incapable of maintaining their typical morphology in presence of the extract. Based on these above findings, it may be concluded that PJ extract have promising antimicrobial activity against clinical isolates of E. coli and the bactericidal action of the extract was possibly mediated by disruption of cell wall and cell membrane, attenuating the expression of efflux pump related genes as well as by inhibiting the bacterial biofilm production. Thus it may be inferred that PJ extract can be used as an alternative to conventional antimicrobials against uterine infection in large animals, however, in vivo efficacy testing warrants further investigation.

4. Studies on the effect of doxycycline and doramectin in male rats

Present work was undertaken to study the effect of doxycycline and doramectin in malerats. Following exposure to doxycycline hyclate orally for 28 days at dose rate of 10, 16.50 and 33 mg/kg, rats of any doxycycline treated groups did not show any clinical signs, mortality or abnormal behaviour. Percent body weight gain was significantly reduced in rats of group treated with doxycycline (16.50 and 33 mg/kg). A significant increase in relative weight of left and right testes was found in rats exposed to doxycycline (33 mg/kg). Doxycycline did not produce any change in haematological parameters in rats of doxycycline treated groups. Blood glucose level, total cholesterol, LDL cholesterol and BUN levels was significantly increased in rats of group exposed to doxycycline (33 mg/kg). Rats of group treated with doxycycline (16.50 mg/kg) exhibited a significant decrease in blood HDL cholesterol level. Hepatic SOD level was significantly increased in rats of group treated with doxycycline (33 mg/kg). Moreover, rats of groups treated with doxycycline (16.50 and 33 mg/kg) showed a significant increase in hepatic catalase and GSH levels. Doxycycline produced a non-significant increase in testicular MDA level and non-significant decrease in testicular GSH level in exposed rats. Significant increase in testicular ACP and LDH was found in rats of doxycycline treated groups. Plasma testosterone level was found to be significantly decreased in doxycycline (33 mg/kg) treated rats. No gross changes were observed in any studied organs but various histopathological changes were found in liver, lungs, kidney, heart, testes, spleen and brain of rats of doxycycline treated groups. mRNA expression of HSP-70 gene in testicular tissue was increased in rats of group exposed to doxycycline (16.50 mg/kg). Doxycycline produced a non-significant decrease in sperm concentration while a significant decrease was found in per cent live sperm, HOST positive sperm, sperm having intact acrosome and sperm high MTP in

rats of doxycycline (16.50 and 33 mg/kg) treated groups. Doramectin when given to rats once in a week subcutaneously for 28 days at dose rate of 0.4 and 0.6 mg/kg, caused no mortality and visible change in behaviour of rats. Doramectin did not produce any significant change in percent body weight gain, absolute organ weight and relative weight of various organs. Furthermore, haematological parameters also remained unchanged in doramectin treated groups. Rats of group treated with doramectin (0.6 mg/kg) showed a significant increase in blood bilirubin and calcium levels while, blood AST level was significantly increased at both dose of doramectin (0.4 and 0.6 mg/kg). Hepatic MDA level showed a non-significant increase in rats of doramectin (0.4 and 0.6 mg/kg) treated groups. Moreover, hepatic GST, CAT and GSH level also exhibited an increase in rats exposed to doramectin. There was a significant increase in testicular MDA and decrease in testicular GST level following exposure to doramectin. Testicular LDH activity was significantly increased in rats exposed to doramectin (0.6 mg/kg). On gross examination, lungs of doramectin treated groups exhibited oedema and emphysema. Liver, lungs, kidney, heart, testes, spleen and brain of rats showed various histopathological changesfollowing exposure to doramectin. mRNA expression of testicular HSP-70 gene was found to be increase in rats exposed to doramectin (0.6 mg/kg). There was significant reduction in per cent live sperm and sperm having intact acrosome while a non-significant decrease was found in per cent HOST positive sperm and sperm having high MTP in rats of doramectin treated groups. Based on results of present study, it may be inferred that both doxycycline and doramectin produce adverse effect on male reproductive system.

5. Effect of supplementation of copper and zinc nano particles on the performance of dairy calf

The aim of this study was to determine the effect of dietary supplementation of nano copper (Cu) or nano zinc (Zn) alone or in combination on the growth performance, nutrient utilization, blood metabolites and biomarkers of immunity and antioxidant status and health status in young calves. Twenty-four young cattle calves were randomly assigned into four groups (6 calves per group) on body weight and age basis for a period of 120 days. Experimental calves were either received a basal diet devoid of supplemental Cu (control) or were supplemented with 10 ppm nano Cu ($_{nano}Cu_{10}$), 32 ppm nano Zn ($_{nano}Zn_{32}$) or combination of nano Cu and nano Zn ($_{nano}Cu_{10}+_{nano}Zn_{32}$). Milk and calf starter were offered at the rates of 10% and 1% of the body weight, respectively. Green fodder and wheat straw were available *ad libitum*. Experimental calves were monitored fortnightly for body weight change and BCS. At the end of the study, a digestion trial was conducted to study the effect of treatment on nutrient utilization and mineral absorption. Blood was sampled on the days 0, 30, 60, 90 and 120 post-nano Cu and nano Zn supplementation and analyzed for haematological attributes, blood metabolites, biomarkers of immunity and antioxidant status and plasma mineral levels. The experimental calves were also monitored for health conditions like body condition score (BCS), frequency of diarrhea, incidence of diarrhea, faecal consistency score (FCS), attitude score, pneumonia occurrence, joint ill and navel ill and mortality. Dietary supplementation of either nano Cu or nano Zn alone or in combination did not exert any effect on growth performance, apparent nutrient digestibility. Even though, the nano Cu and nano Zn supplementation exert a positive effect on its absorption in respective groups, there was no effect on the absorption of other studied minerals. Similarly, there was no effect of treatments on the haematological attributes and most of the blood metabolites. However, the mean plasma albumin concentrations were lower and plasma globulin concentrations was higher in the $_{nano}Cu_{10}+_{nano}Zn_{32}$ group across 120 days study. Supplementation of nano Cu along with nano Zn improves immune response which was evidenced from higher immunoglobulin G (IgG), immunoglobulin M (IgM), immunoglobulin A (IgA), total immunoglobulin (TIg) and Zn sulphate turbidity (ZST) units and lower plasma concentrations of tumour necrosis factor-α (TNF-α) and cortisol in $_{nano}Cu_{10}+_{nano}Zn_{32}$ group. There were no effect of treatment on the plasma concentrations of immunoglobulin E (IgE) and interferon gamma (IFN-γ). Antioxidant status was also better in the $_{nano}Cu_{10}+_{nano}Zn_{32}$ group as evidenced from lower concentrations of malondialdehyde (MDA) and higher activity of superoxide dismutase (SOD), glutathione peroxidase (GSH-Px), ceruloplasmin (Cp) and total antioxidant status (TAS). However, treatment did not exert any effect on catalase (CAT) activity. Although, the treatment had significant effect on the plasma levels of Cu and Zn but no effect on plasma levels of other minerals was observed. Plasma Cu concentrations were higher in $_{nano}Cu_{10}$ and $_{nano}Cu_{10}+_{nano}Zn_{32}$ groups while plasma levels of Zn were higher in $_{nano}Zn_{32}$ and $_{nano}Cu_{10}+_{nano}Zn_{32}$ groups. Although the nano Cu or nano Zn supplementation, either alone or in combination, did not exert any effect on BCS but

other health status attributes (frequency of diarrhea, incidence of diarrhea, FCS and attitude score) were better in the $_{nano}Cu_{10}+_{nano}Zn_{32}$ groups. In conclusion, dietary supplementation of nano Cu along with nano Zn improved the health status of young dairy calves by improving immunity and antioxidant status.

6. Effect of nano zinc supplementation on performance of bucks

The present study was designed to evaluate the effect of dietary supplementation of nano zinc on growth performance, nutrient utilization, seminal attributes, immunity, antioxidant, mineral and hormonal profile of bucks. For this study, 24 experimental bucks were selected and equally divided into four groups (n=6) on body weight basis. The animals in control group were fed on basal diet i.e., concentrate mixture, gram straw and corn silage as per NRC (2007) feeding standard whereas, the groups T1, T2 and T3 were fed basal diet along with supplementation of 20mg/kg DM inorganic Zinc (IZn20), 20mg/kg DM nano Zinc (NZn20) and 10mg/kg DM nano Zinc (NZn10). The experimental feeding was done for 90 days and a digestion trial of seven days was conducted to appraise the nutrient utilization. Blood sample were collected at day 0 followed by monthly interval. Semen from each buck in a group was collected and pooled, a total of six pooled ejaculates from each group were evaluated at start and end of experimental feeding. The results revealed dietary supplementation of Zn from either source have no significant ($P<0.05$) effect on BW, ADG, FCR, feed intake and digestibility of nutrients. All haemato-biochemical parameters monitored like Glucose. Cholesterol, Triglyceride, Total protein, albumin, globulin, AST, ALT and ALP were under normal physiological range. Significant ($P<0.05$) increase in plasma SOD activity with concomitant decrease in ROS and LPO levels was found in treatment groups. However, on comparing within the groups, NZn20 group seems to be more effective in enhancing antioxidant status. Plasma Zn concentration significantly ($P<0.05$) increased with Zn supplementation irrespective of the treatment, however, NZn20 group exhibited highest plasma Zn concentration. The assay of Testosterone significantly ($P<0.05$) increased in treatment groups with highest concentration in NZn20 group. Semen analysis showed significant ($P<0.05$) improvement in progressive motility, viability, Acrosomal integrity, ROS, membrane fluidity and HOST values in treatment groups compared to control with best results in T2 group. So, it can be concluded that incorporation of Zn (IZn20, NZn20, NZn10) in diet increased plasma Zn concentration, improved antioxidant, immunity, seminal attributes and reproductive hormones status. Moreover, NZn20 seems to be more effective in improving fertility through enhancement of seminal attributes, antioxidant, immunity and Zn status in bucks.

7. Effect of Effect of Oral L-Glutamine as an Adjunctive Therapy in Canine Parvovirus Enteritis

Canine parvovirus enteritis is one of the most common life-threatening diseases in dogs. Due to the immense immunosuppression and damage to the intestinal barrier occurring in the disease, canine parvovirus enteritis is a predisposing factor for sepsis and affected dogs serves as a suitable population to study sepsis. Various studies have been done to ameliorate the viral load but few studies focuses on the therapeutic reduction of sepsis. One such adjunctive therapy tried to reduce sepsis in human medicine is L-glutamine. The present study focuses on the occurrence of sepsis in CPV positive dogs and use of oral L-glutamine as an adjunctive therapy in canine parvovirus enteritis in general and gut origin sepsis in particular.Diagnosis of parvovirus was done using clinical signs with leucopenia tentatively and confirmation was done by Snap® parvo antigen test kit and PCR using faecal samples.Total 29 dogs between 6 weeks to 1 year of age were included in the 5 day study comprising 6 healthy dogs and 23 nonvaccinated canine parvovirus (CPV) positive dogs (10 undergoing standard treatment, 9 dogs who received oral L- glutamine in addition to standard treatment). 4 CPV-positive dogs died before day 3 were excluded from the therapeutic trial but were included in the sepsis study. The present study reveals that the overall occurrence of Systemic Inflammatory Response Syndrome (SIRS) in CPV dogs was 60.8% and survivability with SIRS was 71.43%.There was an increase in the procalcitonin concentration in CPV positive dogs. Blood culture showed *Staphylococcus spp.* on day 0. Therapeutic trial lasted for 5 days and CPV positive dogs were comprehensively evaluated for selected clinical and hematobiochemical parameters to generate the modified PIRO (Predisposition, Infection, Response, Organ dysfunction) score (sepsis scoring system).Modified PIRO score showed a significant variation between diseased, healthy and non survivors and has proved to be a successful predictor of outcome. The percent decline in the modified PIRO score was $19.67 \pm 2.98\%$in standard group and $31.25 \pm 5.6\%$in glutamine group.Glutamine supplemented group showed higher L-lactate clearance than the

standard treatment alone. There was a 10% difference in the decline of SIRS between both the treatment groups. D-lactate concentrations were higher in standard group than glutamine group indicating contribution of L-glutamine inreduction of gut origin sepsis. This study concludes that L-glutamine was successful in reducing sepsis as evident by theprocalcitonin concentrations and Modified PIRO score. D- lactate concentrations as a marker for intestinal permeability indicates that L-glutamine was successful in reducing gut origin sepsis and thus maintaining the intestinal barrier.

8. Evaluation of Therapeutic potential of Terminalia chebula on large colon Impaction in equines

In the present case study, a total of 18 animals, ages 3 to 12 years, were screened for large colon Impaction in equines based on observation of all the clinical symptoms of colic. The selection was done as per the history of colicky signs, based on a positive finding of the obstructed lumen of the left ventral large colon or pelvic flexure on rectal examination, a pulse rate <60 was selected for the evaluation of the therapeutic study. Out of 18, a total of 12 animals were selected for the study. A part of 18, 6 animals were kept as control (healthy), and 12 animals were of large colon Impaction. The present investigation was undertaken to evaluate the therapeutic efficacy of *Terminaliachebula* powder on large colon Impaction in equines. The indigenous preparation comprised the seed of *Terminaliachebula* which was sun-dried and grind to a fine powder. The Impaction colic cases were divided into two treatment groups, T1 and T2, and one healthy control group (Hc). Both therapeutic groups T1 and T2 were given the following standard treatment along with 2 litres of enteral liquid paraffin via a nasogastric tube. Standard treatment includes parenteral fluid therapy (RL and DNS @ 20ml/ kg b.wt. BD IV), Ceftriaxone (10mg/kg b.wt. OD IV for 3 days), Flunixinmeglumine (1.1mg/kg b.wt., BD IV for 3 days), Ascorbic acid (20ml OD IV), Vitamin B-complex (10ml OD IM for 3 days), Antihistamines (10 ml OD IM). For therapeutic evaluation, *Terminaliachebula* powder was administered @ 10 gm/30 kg body weight orally once daily for three days in T2 groups. The therapeutic efficacy of the above therapeutic regimens was evaluated based on clinical recovery in terms of the time of defecation (hrs.) after treatment and improvement in the altered values of the clinical score, hemato-biochemical alterations, and electrolyte values towards normalcy (at par to the values in healthy control equines) on day 3rd after treatment. Complete Clinical examination of all affected large colon Impaction cases was made. The blood sample was collected on the day of occurrence of Impaction on day 0 (pre-treatment) and day 3rd (post-treatment) after recovery. The hematology analyzer is used to perform a complete blood count (CBC). Hematological parameters such as hemoglobin (Hb) concentration, total erythrocyte count (TEC), total leukocyte count (TLC), differential leukocyte count (DLC), and packed cell volume (PCV) are significantly higher in animals with large colon Impaction than in animals in the healthy animal group. A total of 5 ml of blood was taken from individual animals for biochemical evaluation. Large colon Impaction cases had significantly lower levels of sodium, potassium, chloride, and ionized calcium (Ca) than the healthy animal group, whereas serum glucose, urea, creatinine, total protein, albumin, alanine aminotransferase (ALT), alkaline Phosphatase (ALP), aspartate aminotransferase (AST), LDH, GGT, TNF-α, and procalcitonin, found significantly higher levels in Large colon Impaction cases. The therapeutic regimen adopted was found to be effective as evidenced by alteration in various parameters on day 3rd post-treatment. Therapeutic regimen adopted in the treatment of large colon Impaction cases under treatment groups T2 in which *Terminaliachebula* powder (act as prokinetic) was given found to be most efficacious as evident by the Improvement in clinical score in terms of the reduced colic sign, hemato-biochemical alteration and improvement in defecation time and gastrointestinal motility.

9. Study on the efficacy of a polyherbal immunomodulator in foot-and-mouth disease and haemorrhagic septicaemia vaccinated cattle

The present study was undertaken to study the effect of a polyherbalimmunomodulator at improving the immune response to FMD and HS vaccination in dairy cattle. The animals were orally fed restobal from day 0 to day 10 and received vaccination on day 5 of treatment. Different parameters, viz: milk, blood, cortisol, serum antibody, cytokine and gene expression studies of different cytokines were undertaken in vaccinated animals with and without the restobal as immunomodulator. SNF, total solids and milk yield in milk samples from day 0 to day 35 of treatment did not show any significant difference suggesting that restobal is not having any positive effect on and vaccination is not having any negative impact on the production parameters of milch animals. On haematological analysis, the vaccination

significantly increased ($p< 0.05$) WBC, lymphocyte, monocyte, platelet count and NLR. Treatment of restobal was found to have positive effect on WBC and monocytes as compared to control group. In relative mRNA expression studies, mean fold change increase was observed in *IL-2, IFN-^", IL-4, IL-10* and *IL-12* genes after vaccination with FMD vaccine in control animals on day 7 and day 12 of vaccination and then declined on day 21 of vaccination. No such change was observed for *IL-6*. However, in FMD vaccinated treatment animals there was no mean fold change in gene expression and it declined after vaccination. In FMD + HS vaccinated animals in control and treatment animals mean fold change increase in gene expression of *IL-2, IFN-^", IL-4* was observed on day 21 of vaccination. Concentration of cytokines in serum measured by ELISA showed significant decrease only for IL-1, IL-2 and IFN-^" in treatment animals as compared to control animals. Salivary cortisol level increased significantly after vaccination with FMD + HS vaccine in both control and treatment animals. However, after FMD vaccination no significant increase was observed and treatment group showed significant less level on 6^{th} day evening. FMDV titre for all three serotypes increased to 2.4 $\log_{10}$ by day 21 of vaccination and were not different significantly in both control and treatment group. In estimation of antibody titre for HS the animals were partially protected on day of vaccination and were fully protected on 90 day of vaccination in both control and treatment group. As no difference in antibody response for FMDV was observed for Monovac and Triovac vaccinated cattle, combined vaccines may be used as a cost-effective measure to control FMD and HS.

10. Study on phenotypic and genotypic characterization of multidrug resistant bacteria recovered from animal wounds

Wound infections management need a rationale approach because of the bacterial adaptation against various antimicrobial drugs. The present study was planned to identify the different bacteria involved in the skin and soft tissue infection of domestic animals in the Braj region along with assessment of the biofilm formation ability with the determination of antimicrobial susceptibility pattern and the associated antimicrobial resistance genes. A total of 150 samples were collected from clinical wound cases of different species of animals irrespective of age and gender from Mathura and adjoining region.Out of them, the most prevalent bacteria recovered was *Staphylococcus aureus* (25.33%) followed by *Escherichia coli* (24%), *Klebsiella* spp. (14.67%) and *Pseudomonas* spp. (6%) on the basis of cultural, morphological, and biochemical analysis. In phenotypic analysis of biofilm production, 55.26% *S.aureus* isolates were found positive for Congo red agar method, 63.16% for tube method and 55.2% for micro titre plate method. Similarly, out of 67 Gram-negative isolates -89.39% isolates were biofilm producers consisting of 86.1% *E. coli,* 63.6% *Klebsiella* spp. and 55.5% *Pseudomonas* spp. as high biofilm producers by TCP method. Antibiogram profiling of *S. aureus* isolates showed their high resistance to beta lactam antibiotics and Gram-negative organisms to tetracycline group of antibiotic class. In MIC determination test, almost around 32% *S. aureus* isolates were found resistant to vancomycin at 6 µg/ml concentration when tested by vancomycin screen agar test. 86.7% isolates had MIC value of 1 µg/ml and 7.8% had 32 µg/ml when tested with Broth microdilution test. Out of 38 total isolates, D-test was performed on 13 isolates showing erythromycin resistance and clindamycin susceptibility. Among them, 7 isolates showed the flattening of clindamycin zone of inhibition. Phenotypic detection of ESBL gene in this study was performed by double disc synergy test, where a total of 80.83% isolates were found positive for ESBL gene including *E. coli* (33.3%), *Klebsiella* spp. (22.7%) and *Pseudomonas* spp. (13.6%). PCR amplification of virulence and associated genes in S. *aureus* showed variable percentage of positive isolates for different genes such as 76.31% isolates were found positive for *nuc* gene, 50% for *sea* gene while none for *pvl* gene. The percent positivity of virulence genes of *E. coli* isolates was- *stx1*(5.55%), *stx2*(5.55%), *eaeA* (11.1%), *hlyA* (5.55%). It was found that 86.87% of the isolates were detected with the presence of *mecA* gene and none with *vanA* gene sequence. Genotypically, 25.37% were positive for CTX-M beta-lactamase and SHV beta-lactamase, 50.74% for *bla*-TEM and 20.89% for *bla*-NDM-1 gene. No isolate was found positive for *bla*-OXA-1 gene. Co-existence of two of the genes was observed at the highest range with *bla*-TEM and *bla* CTX-M in 25.37 % isolates followed by *bla*-TEM and *bla*-NDM in twelve (17.91%) isolates. Horizontal gene transfer was studied by conjugative experiment where 2 isolates were found positive with *bla*-CTX-M gene, 3 positives for *bla*-TEM and no isolate transferred *bla*-NDM. Serotyping of *E.coli* isolates showed the high prevalence of virulent serotypes.

11. Molecular detection of Virulence genes of Salmonella fields isolates from poultry

Salmonella is one of the most important zoonotic pathogens responsible for Salmonellosis in poultry birds. Salmonellosis is identified as an important health issue among poultry birds worldwide. This study aimed at evaluating the prevalence of Salmonella among poultry birds and chicken meat samples in the Mathura region, serotype distribution, biofilm formation, antimicrobial susceptibility pattern and prevalence of virulence and antibiotic resistance genes of Salmonella recovered from poultry birds and chicken meat samples. Out of 340 clinical samples (240 cloacal swabs and 100 chicken meat samples), 9 isolates were positive for Salmonella with 2.64% prevalence rate. The rate of recovery of Salmonella from different clinical sample showed that the cloaca is the most predicted site, followed by chicken meat samples with a prevalence rate of 3.33% and 2%, respectively. Geographically, the highest prevalence was observed in Aurangabad (3.24%) followed by DUVASU poultry farm(1.53%). The isolates were serotyped at the National Salmonella and Escherichia Centre (NSEC),Central Research Institute (CRI), Kasauli (Himachal Pradesh), India. The results of serotyping revealed the prevalence rate of S. Choleraesuis (2/9;22.22%), S. Tennessee (2/9; 22.22%) and S. Typhimurium (1/9; 11.11%), suggesting that S.Choleraesuis and S.Tennessee were more prevalent in the area of the study. All 9 Salmonella isolates (100%) were multidrug resistant (MDR). Highest resistance was observed against tetracycline (100%), ulfamethoxazole (100%) and nitrofurantoin (100%) followed by nalidixic acid (77.77%), ceftazidime (88.8%), ertapenem (33.33%). 100% MDR isolates possessed tetA and sul-1 antibiotic resistance genes, while 66.66% of MDR isolates possessed tetB and sul2 gene. Overall, this study detected a high prevalence of multidrug resistant Salmonella in poultry farm and chicken meat shops environments. Higher resistance to important antibiotics noticed in Salmonella of poultry origin causes serious concern for public health due to irrational use of antimicrobials in poultry production. Quantification of biofilm formation was performed in 96 well microtiter plate and reveal that 33.33 % of Salmonella isolates were strong biofilm producers, while 55.55 % and 11.11& moderate and weak biofilm producers. All 9 isolates screened for the presence of virulence genes (invA, iroB, stn, sdiA, spvC) using PCR. A total of 9 isolates harbour invA (100%), iroB(100%) and stn (100%) virulence genes followed by sdiA (44.44%) gene whereas no isolate possessed spvC gene. In this study, we report the prevalence of some important virulence genes (invA, iroB, sdiA) present in those Salmonella isolates which were positive for all the antimicrobial resistant genes (tatA. tatB, sul-1, sul2) tested in my study.

12. Studies on Phenotypic and Genotypic Evaluation of Biofilm Production and Antimicrobial Resistance in Staphylo-ccocus aureus Isolated from Milk.

The present research work was conducted to investigate the phenotypic and genotypic evaluation of biofilm production and antimicrobial resistance in *Staphyloccocus aureus* isolated from milk. The *S. aureus* were detected by phenotypic and genotypic methods and biofilm formation capability was evaluated by three different assays viz. Tissue Culture Plate Assay, Tube Method and Congo Red Agar Assay. Antimicrobial resistance was observed by Antibiotic sensitivity test and Minimum inhibitory concentration was evaluated by E test. Biofilm forming (*bap* and *ica*A) and resistance (*mec* and *van*A) genes were screened by simplex PCR. In this investigation, a total of 378 samples comprising of 252 raw milk, 40 pooled raw milk, 56 mastitic milk and 30 pasteurised milk were collected over a period of one year from dairy farms, gaushalas, local milk shops, vendors and grocery shops from Mathura district of U.P. Samples were screened for the isolation of *S. aureus* and total of 121 *Staphylococcus spp and* 106 *S. aureus* were obtained that confirmed biochemically and with prevalence of *S. aureus* in raw, pooled raw, mastitis and pasteurized milk was 18.65%, 57.5%, 51.78% and 23.33% with overall prevalence of 28.04%. In the milk of local milk shops, vendors and grocery shops (pasteurized milk) prevalence of *S. aureus* 70.0%, 45.0% and 23.33%, respectively and it was found that *S. aureus* was more prevalent in milk collected from local shops as comparison to vendors and pasteurised milk. All the phenotypically confirmed *S. aureus* isolates were *nuc* gene bearers with prevalence of *nuc* gene in raw milk, pooled raw milk, mastitic raw milk and pasteurized milk were18.65%, 57.50%, 51.78% and 23.33%, respectively. Confirmed *S. aureus* isolates (106) were analyzed for biofilm formation by three different methods CRA, TM and TCP. In CRA assay 17.92% isolates were biofilm former and 82.07% non-biofilm former. In TM, overall, 39.62%, 31.13% and 29.25% *S. aureus* were strong, moderate and weak biofilm producer. In TCP assay, overall, 46.23%, 31.13% and 22.64% *S. aureus* were found to be strong, moderate and weak biofilm producer. Among all three assays highest number of biofilm

forming *S. aureus* were revealed by TCP (77.36%), in comparison to TM (70.75%) and CRA assay (17.92%) and also TCP assay was proved to be the golden standard method for the screening of biofilm forming isolates. Prevalence of biofilm former *S. aureus* was highest in mastitic milk followed by pooled raw milk, raw milk, and pasteurized milk which was 96.55%, 82.60%, 70.21% and 28.57%. Isolates were screened for biofilm genes *bap* and *ica*A but none of the isolate possessed *bap* gene (0%) and the percent positivity of *icaA* gene was 81.13%. All the 49 strong biofilm forming *S. aureus* were subjected to antimicrobial sensitivity testing against 18 antibiotics with the range of resistance from 10.20-69.38%. Isolates were found sensitive towards the antibiotics Cefoxitin, Ceftriaxone, Vancomycin 95.91%, 95.91% and 85.71%, respectively. It was also observed that 20 isolates were resistant to more than 3 classes of antibiotics and 40.81% (20/49) biofilm forming *S. aureus* isolates were multi drug resistant (MDR). The percent positivity of *mec*A and *van* A gene was 22.64% and zero % in *S. aureus*. This study revealed that biofilm forming *S. aureus* were obtained from raw milk of animals and may be a sustainable source of contamination of dairy products with this pathogen. So, there is need of paying more attention to the cleaning and sanitizing processes of food contact surfaces to ensure the public health.

13. Pathological study and assessment of prognostic biomarkers in canine mammary gland tumors

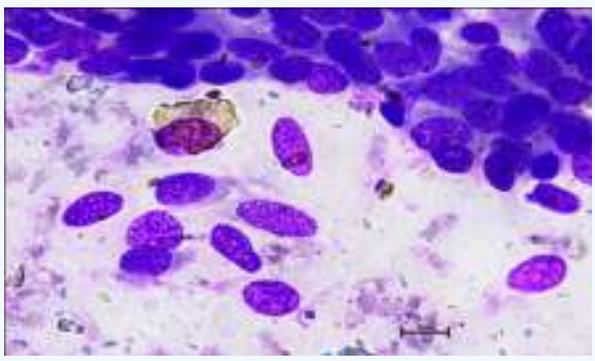
The present study was conducted to correlate different criteria of diagnosis of canine mammary tumours by haemato-biochemical, cytological, histopathological examination and biomarkers assessment by immunohistochemistry expression. The research study was carried out at Department of Veterinary Pathology, College of Veterinary Science and Animal Husbandry, DUVASU, Mathura, U.P. The samples of canine mammary tumours for the research work were collected from Teaching Veterinary Clinical Complex TVCC, DUVASU, Mathura. During the period of study from January 2021 to April 2022, total 53 cases suspected for canine mammary tumour were presented at TVCC, DUVASU, Mathura, out of which 42 were neoplastic, while 11 were non- neoplastic. Total 33 blood samples, 21 serum samples, 39 FNAC samples and 24 tissue samples were collected out of total 42 neoplastic cases. On ultrasonographic examination, metastases was observed in 2 cases out of total 42 neoplastic cases. The post mortem examination of one mammary gland tumour affected case revealed multiple semi-hard to gritty nodules of variable size on the lung parenchyma and samples were collected from these nodules which revealed ductal carcinoma (cystic type) canine mammary tumour.

Most of the canine mammary tumours occurred in females mainly intact females (41/42) while only one case was observed in male dog. The elderly bitches of > 6 years old age were greatly affected with maximum occurrence in 7 to 12 years age (32/42). Purebred mainly German shepherd (12/42) showed higher occurrence as compared to non-descript and cross bred. The incidence was higher in posterior mammary glands, mainly inguinal (35.29%) as compared to anterior glands. In haemato-biochemical findings there was marked increase in total leucocyte count mainly neutrophils, while the number of lymphocytes and monocytes significantly decreased. There was mild decrease in platelet count, total erythrocyte count and Haemoglobin concentration (normocytic normochromic anaemia). In serum mineral estimation, there was significant increase in serum calcium and significant decrease in serum iron level.

On the basis of TNM staging most of the tumours were of stage 3 category (32/42; 76.19%) and showed poor prognosis. On the basis of cytological grading system, most of the tumours were of grade 2 category (22/39; 56.41%). On histopathological examination, most of the tumours were malignant with highest occurrence of carcinoma solid (12.9%) and tubulo-papillary carcinoma (12.9%), among benign tumours, the highest occurrence was of fibroadenoma (9.6%). On the basis of histopathological classification, total 16 different types of tumours were identified out of total 24 samples, most of the tumours were of grade 2 category on the basis of grading system. The cytology showed higher correlation (79.16%) with histo-pathological findings. Immunohistochemistry examination of biomarkers for canine mammary tumour revealed that expression of ER and PR was lower in malignant tumours while HER-2 and P-53 expression was higher in malignant tumours. Most of the cases showed triple negative with positive P-53 immunohistochemistry expression (8/24 or 33.34%) and were related to high grade of malignancy and poor prognosis. AgNOR count was observed higher in case of malignant tumours as compared to benign tumours.

Fig. Ulcerated mammary tumour in bitch.

Fig. Cyst with purulent fluid and hard mass.



Cytology- clusters of mildly pleomorphic epithelial cells admixed with myoepithelial cells having clumped chromatin (Grade – 1).1000X. Wright's stain.

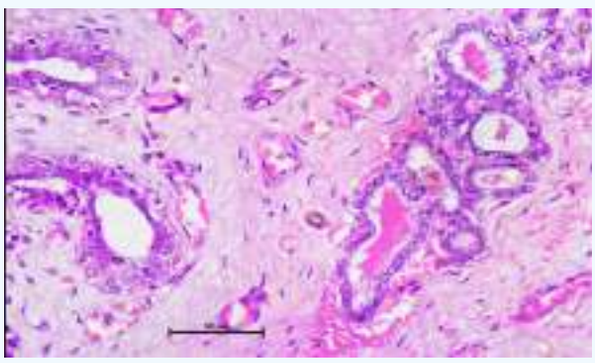


Fig. Inactive alveolar duct without secretions blood vessel Active alveolar duct with secretion interlobular connective tissue (400X. HE)

14. An epidemiological study of canine cutaneous round cell tumors and their characterization based on cytomorphology and immunophenotyping

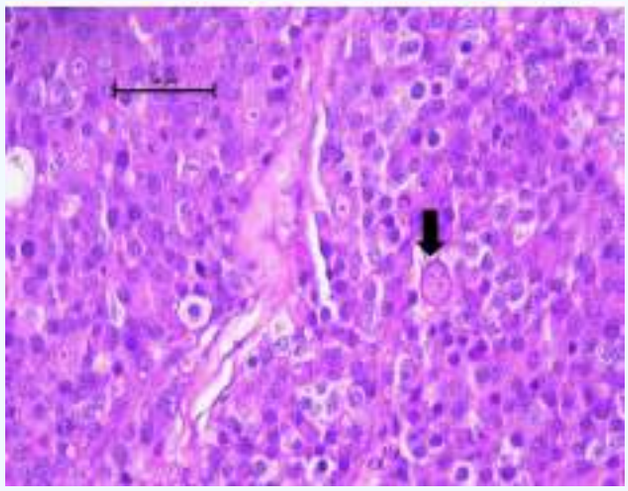
Canine cutaneous round cell tumors (CCRCTs) are one of the major skin neoplasms in dogs. The name "round cell" is given to these tumors because of their round appearance. The lack of intracellular junction and individual arrangement of cells in RCTs facilitates the presence of more cells in fine needle aspiration. Their early diagnosis increases the chances for better clinical response and a favourable prognosis. This study was done to know the prevalence of various CCRCTs with their characterization based on their cytomorphology and immunophenotyping. 118 FNAC samples were collected from the cutaneous mass/ swelling in dogs from veterinary clinical complex COVSc & AH, DUVASU Mathura and the study was performed in the Department of Veterinary Pathology, DUVASU Mathura. The study showed 38.13% CTVT and 12.7% MCT of all cutaneous tumors in dogs. Gender predilection was observed in CTVT with more females affected than males whereas the almost equal occurrence of MCT was observed in males and females. Non-descript breeds and Labrador retrievers were found to be majorly affected by CTVT and MCT respectively. Older aged dogs were found to be most affected by MCT whereas CTVT was present most commonly in dogs with sexual maturity mainly 2-8 years of age. Based on anatomical locations, CTVT was found more in genital regions than extragenital regions. MCTs were more common in the hind limbs and trunk regions of dogs. On the basis of cytomorphological details in cytology different forms of CTVT were observed namely, lymphocytoid, plasmacytoid and mixed forms. All the lyphocytoid forms were found in genital locations. Most of the extragenital CTVT were diagnosed as plasmacytoid form recorded in dogs above 7 years of age. All the CTVT cells were positive for vimentin and about 64.4% of CTVT showed infiltration of CD3+ cells. HE staining of CTVT tissue sections revealed the presence of sheets of round to ovoid tumorous cells, mitotic figures, and large hyperchromatic nucleus with scarce fibrous stroma. ICC and IHC of MCT revealed positive immunostaining for c-kit and vimentin. IHC of the MCT showed weak, focal, and diffuse cytoplasmic staining of c-kit. All the high-grade tumors showed focal and diffuse cytoplasmic staining patterns whereas low-grade tumor showed a weak staining pattern of c-kit. Cytology and immunocytochemistry act as a useful diagnostic aid in the diagnosis of CCRCTs and in many instances where

tissue sample is unavailable for additional investigation, ICC provides minimum invasive but fully reproducible results as compared to IHC

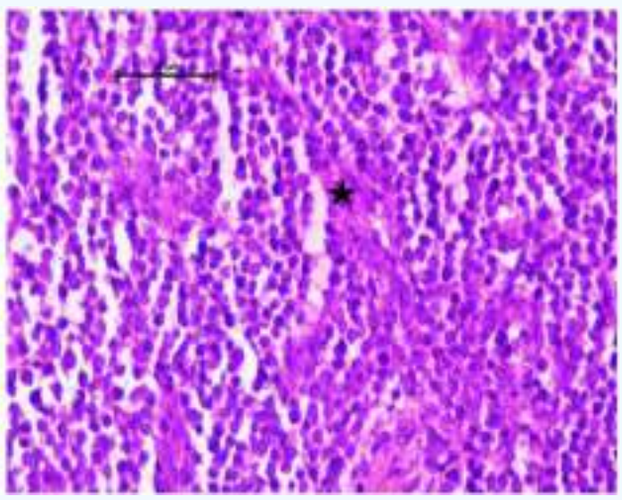
GROSS FINDINGS

A. A hairless raised nonulcerated mass of about 2 cm diameter is seen on the dorso-lateral aspect of nasal ridge in a Labrador dog.

B. CTVT in a female dog showing the irregular, cauliflower like reddish colour tumour mass of 7.2 cm in diameter on the vestibule and vaginal junction with highly inflamed and ulcerated surface.



A. Histopathological section of a high grade MCT with poorly granulated and pleomorphic tumor cells. A binucleated cell (arrow) is also seen. H&E stain, 400X.



B. Histopathological section of CTVT showing the presence of the large number of round to polyhedral CTVT cells arranged in sheet like pattern with scarce fibrous tissue (star). The nuclei have coarse chromatin and increased nucleus cytoplasm ratio. H & E, 400X.

15. Study on effect of number of follicular waves on the fertility of Sahiwal cattle

Total 21 animals were examined ultra-sonographically for two successive IOI (inter ovulatory intervals) for the characterization of follicular wave pattern followed in their estrous cycle. Animals were first synchronized for estrous using double prostaglandin injections at 11 days interval, and then from the next day of the second PGF2α injection, the ultrasonography examinations were started. The

recorded data was analyzed to determine the repeatability of a particular wave pattern in successive IOI and the follicular and luteal characteristics of the animals. These characteristics were compared on various basis viz. between two wave and three wave animals, and among one, two and three wave cycles. 15 animals out of 21 showed repeatability of follicular wave pattern. 10 animals repeated two wave pattern in their successive IOI and were defined as two wave animals, whereas 5 animals showed repeatability of three wave pattern and were defined as three wave animals. IOI was significantly lower ($P<0.01$) for two wave animals than three wave animals. Significant difference ($P<0.01$) was found between two wave and three wave animals when compared for duration for attaining maximum diameter of DF, growth rate of DF, duration for attaining maximum diameter of CL, duration of presence of CL over ovary, and for appearance and disappearance characteristics of the CL. Out of total 46 IOI recorded 8 cycles were one wave, 25 cycles followed two wave pattern and 11 cycles had three follicular waves. One cycle consisted of six follicular waves. IOI was least for one wave cycles followed by two wave cycles and then maximum for three wave cycles ($P<0.01$). Significant difference ($P<0.01$) was observed among these groups when compared for duration for attaining maximum diameter of DF, duration for attaining maximum diameter of CL, duration of presence of CL over ovary, and for appearance and disappearance characteristics of the CL. Maximum diameter of CL in once wave cycle is significantly ($P<0.01$) smaller than both two wave and three wave cycle. The conception rate was significantly higher in three wave animals as compared to two wave animals. The progesterone assay was performed to correlate progesterone concentration with the cycle characteristics. Maximum progesterone concentration was found at the mid of the cycle and minimum at the both ends of the estrous cycle. Mean plasma progesterone concentration at day 30 post AI was significantly lower ($P<0.05$) in non-pregnant animals as compared to pregnant animals.

16. Studies on effect of certain drugs on treatment of pyometra in bitches

The present study was designed to determine the effect of certain drugs on treatment of pyometra in bitches. The study evaluated haemato-biochemical alteration in canine pyometra and therapeutic effects of PGF2α, prolactin inhibitor and anti-progesterone agents in canine pyometra. Total 39 cases included in the present study which were selected for medicinal treatment and randomly allocates in 3 groups. Group II, III & IV having 13,14, & 12 animals, respectively and those animals that were not responded to medical treatment in above mentioned three groups were transferred to Group V, which included 6 animals, where OH was performed. Group I contain healthy vaccinated dogs as healthy control. The medicinal treatment protocol included antibiosis (Non nephrotoxic agents)-amoxicillin-clavulanic acid 25 mg/kg b.wt./day)/12 mg/kg b.wt./day BID via intravenous route and intrauterine for 5-7 days along with Fluid therapy (60 ml/kg b.wt. +% dehydration x body weight/100) intravenously.Pre-treatment with Atropine at the dose rate of 0.025 mg/kg b.wt.via intramuscular route and Ondensetron@0.5 mg/kgb.wt.viaintramuscular route in medicinally treated groups. Injcloprostenol- 5µg/kg b.wt.on day 1,3,5,7 (subcut route in Group II & IV and intravaginal route (submucosal) in Group III), tab mifepristone- 2.5 mg/kg b.wt. on day 2,4,6 orally and tab cabergoline-5µg/kg b.wt. on day 1,2,3,4,5,6,7 orally provided in all treatment groups i.e., Groups II, III & IV. Nephroprotective drug was provided in Group V which includeTaurine and N-Acetyl cysteine at the dose rate of 150 mg up to 20 kg b.wt. and 300 mg above 20 kg b.wt. for 14 day. Mean age of occurrence of pyometra was 4.63±0.38 years. Which ranges from 1 to 10 years of age. The occurrence of pyometra was maximum in nulliparous female dogs (72%). Uterine wall thickness and mean uterine horn diameter were significantly higher in the pyometra group as compared to the healthy control group. Marked leucocytosis, neutrophilia, lymphopaenia, thrombocytopaenia,normocytic normochromic anaemia, increased creatinine, increased liver enzymes, acute phase proteins were seen in canine pyometra. In the present study, response to treatment was 84.61%, 78.58%, 91.67% & 66.67% in Groups II, III, IV & V, respectively. Out of 6 cases that failed to respond to medicinal treatment,4 cases (66.67%) were found positive for CEH-Pyometra complex which was confirmed by histopathology. 72% of presented cases were found positive for SIRS. Staphylococcus (88.89%) was a prominent pathogen isolated from the uterine pus sample, followed by Inactive E. coli (33.33%), Proteus (50%) and 11.11% were sterile samples.

17. Effect of feeding green berseem on the performance of coloured chicken

A study was carried out to evaluate the effect of utilization of green berseem meal vis-a-vis green berseem as choice feeding for coloured chicken

(Chabro) under intensive system with the objectives- to study the effect of feeding green berseem on growth performance, immune competence, blood biochemical attributes and carcass quality of coloured chicken. One hundred and twenty day old straight run coloured chicken (Chabro) were divided into four treatment groups, having three replicates of 10 birds each. The birds of the control group (T1) were fed with basal diet(BIS, 2007; broiler starter diet till 4 weeks and there after broiler finisher diet till eight weeks), while in T2 group 5% of the basal diet was replaced with green berseem meal on dry matter basis, T3 group was fed with basal diet for 4 weeks, thereafter the chicks got the access to *ad lib* green berseem along with basal diet and in T4 group initial 4 weeks were same as T2, thereafter, the chicks got the access to *ad lib* green berseem along with basal diet.Phase wise feed intake during 4-8 weeks was significantly higher ($P<0.001$) in T1 than T2, T3 and T4. In addition, feed intake was significantly higher ($P<0.001$) in T2 and T3 than T4 birds. Further, during 0-8 weeks of age, phase wise feed intake was significantly higher ($P<0.001$) in T1 than T2, T3 and T4. In addition, feed intake was significantly higher ($P<0.001$) in T2 and T3 than T4 birds.Phase wise FCR on total DM intake basis during 4-8 weeks and 0-8 weeks was significantly better ($P<0.01$) in T2 than T1, T3 and T4. Phase wise feed cost (Rs.) per kg live weight gain was significantly lower ($P<0.001$) in T2 and T4 than T1 and T3 during 0-4 weeks, 4-8 weeks and 0-8 weeks of age respectively.T1 birds had significantly higher ($P<0.05$) plasma cholesterol and LPO values as compared to T4 birds.Small intestine weight, length of the large intestine and caecum was significantly higher ($P<0.032$) in T2 birds as compared to other treatment groups.There was significantly higher ($P<0.002$) percent polyunsaturated fatty acid (PUFA) and the percent omega 6 fatty acids ($P<0.001$) in breast muscle of T2 and T4 as compared to T1 and T3.T3 and T4 group birds had significantly higher percent polyunsaturated fatty acid, percent omega 6 fatty acids and percent omega 3 fatty acids in thigh meat as compared to T1.Thus, it may be concluded that average feed intake and feed cost per kg live weight gainwas significantly lower in T4 as compared to control during the experiment. Further, T4 birds had significantly lower plasma cholesterol and LPO as compared to control after 8 weeks of age. In addition, the percent poly unsaturated fatty acids of breast and thigh meat were significantly higher in T4 as compared to control.

EXTENSION

1. DEPARTMENT OF VETERINARY AND ANIMAL HUSBANDRY EXTENSION

The mandate of this department is to provide livestock owners with information and innovative knowledge by adopting improved technologies that may enhance their skills, increase their productivity, provides more employment opportunities and thereby making them economically sound. The department also provides under-graduate and post-graduate teaching to the students to equip them with methodologies to diffuse innovative researches among livestock owners in order to make them economically viable.

Lecture delivered in specialized training /short duration training courses

S. N.	Title	Training	Date	No. of Participants
1.	Importance of Livestock Insurance: Comparative View of various companies	Multi Purpose Artificial Insemination Technician in Rural India (MATRI) Health and AI management in animal	08.12.2022	53
2.	Various government schemes in Dairy sector: DEDS, NPBBD and NDP	Multi Purpose Artificial Insemination Technician in Rural India (MATRI) Health and AI management in animal	09.12.2022	53
3.	Case study of impact of good AI Technician Vs inefficient AI Technician and superstitious believes Vs Scientific method of breeding	Multi Purpose Artificial Insemination Technician in Rural India (MATRI) Health and AI management in animal	14.12.2022	53
4.	Social and economic indicators; Importance in selection of goat breeders. Affairs, New Delhi	Animal Management, Disease Diagnosis & Emergency Care of Livestock and Companion Animals for Para-Veterinary Professional's of Sashastra Seema Bal, Ministry of Home Affairs, New Delhi	14.03.2023	30
5.	Integrated farm management with goat rearing as central activity, dung management, poultry and fish production.	Animal Management, Disease Diagnosis & Emergency Care of Livestock and Companion Animals for Para-Veterinary Professional's of Sashastra Seema Bal, Ministry of Home Affairs, New Delhi	17.03.2023	30
6.	State government initiatives' for entrepreneurship activities in dairy sector	Strengthening & Development of Agricultural Education in India" Sub-Component- Schedule Caste-Sub-Plan (SC-SP) during financial year 2022-23.	23.03.2023 and 24.03.2023	40
7.	Clean milk production	Strengthening & Development of Agricultural Education in India" Sub-Component- Schedule Caste-Sub-Plan (SC-SP) during financial year 2022-23.	25.03.2023	40
8.	Importance of integrated farming system	Strengthening & Development of Agricultural Education in India" Sub-Component- Schedule Caste-Sub-Plan (SC-SP) during financial year 2022-23.	26.03.2023	40

9.	Importance of colostrums feeding in new born calves	Strengthening & Development of Agricultural Education in India" Sub-Component- Schedule Caste-Sub-Plan (SC-SP) during financial year 2022-23.	27.03.2023	40
10.	Clean Milk production	Delivered a lecture to the farmer under Jan Jyoti Sewa Sansthan Fatehpur, U.P. (09-11, November, 2022)	11/11/2023	24

Activities organized by the department

S. No.	Title	Number of participant	Duration and Place
1.	Multi Purpose Artificial Insemination Technician in Rural India (MATRI)	45	19/09/2022 - 18/10/2022
2.	Multi Purpose Artificial Insemination Technician in Rural India (MATRI)	53	21/11/2022 - 20/12/2022
3.	Multi Purpose Artificial Insemination Technician in Rural India (MATRI)	48	18/01/2023 - 16/02/2023
4.	Animal Management, Disease Diagnosis & Emergency Care of Livestock and Campanion Animals for Para-Veterinary Professional's of Sashastra Seema Bal, Ministry of Home Affairs, New Delhi	30	20.02.2023 to 18.03.2023.
5.	Advancement of veterinary Surgery, Diagnostics & Medicine'' for Veterinary officer of Shasastra Seem BAL (SSB) Ministry of Home Affairs, New Delhi	08	20.03.2023 to 29.03.2023.
6.	Strengthening & Development of Agricultural Education in India" Sub-Component- Schedule Caste-Sub-Plan (SC-SP) during financial year 2022-23.	40	23.03.2023
7.	Strengthening & Development of Agricultural Education in India" Sub-Component- Schedule Caste-Sub-Plan (SC-SP) during financial year 2022-23	40	24.03.2023
8.	Strengthening & Development of Agricultural Education in India" Sub-Component- Schedule Caste-Sub-Plan (SC-SP) during financial year 2022-23	40	25.03.2023
9.	Strengthening & Development of Agricultural Education in India" Sub-Component- Schedule Caste-Sub-Plan (SC-SP) during financial year 2022-23	40	26.03.2023
10.	Strengthening & Development of Agricultural Education in India" Sub-Component- Schedule Caste-Sub-Plan (SC-SP) during financial year 2022-23	40	27.03.2023

Demonstration at Kisan Melas

S.No.	Name	Name of Kisan Melas	Date and Place
1.	Dr Rashmi	Four days Pandit Deen Dayal Upadhyaya Mela Mahotsav	22th September 2022 at Deen Dayal Daam, Farah, Mathura, U.P.
2.	Dr Rashmi	Four days Pandit Deen Dayal Upadhyaya Mela Mahotsav	25th September 2022 at Deen Dayal Daam, Farah, Mathura, U.P.
3.	Dr Rashmi	Vrahad Kisan Mela, Pradarshni evam Kisan Gosthi	26 April 2022 at DUVASU, Mathura, U.P.

Training manual

S. No	Title of Manual	Year	Author/Editors
1.	Pashupalan Vyavsaya ke Aadharbhut Sidhant, DUVASU Publication No. 279	2023	Dr Ajay Kumar, Dr. Rashmi, Dr. Sanjeev Kumar Singh, Dr Rajneesh Sirohi, Dr. Amit Singh and Dr Muneendra Kumar
2.	Animal Management, Disease Diagnosis & Emergency Care of Livestock and Campanion Animals for Para-Veterinary Professional's of Sashastra Seema Bal, Ministry of Home Affairs, New Delhi DUVASU publication no. 278	2023	Dr. Sanjeev Kumar Singh, Dr. Amit Singh and Dr. Rashmi

Exposure visit of the farmers/students conducted

i.) Exposure visit of students

S. No.	Organization/ Institution Name	Date	Number	
			Male	Female
a	College of Agriculture Rani Lakshmi Bai Central Agricultural University	01/04/2022	17	14
b	College of Veterinary and Animal Sciences, G.B. Pant University of Agriculture and Technology, Pantnagar	21/04/2022	25	40
c	Post Graduate Institute of Veterinary Education and Research (PGIVER)	21/09/2022	35	
d	CHSM, Bhuta, Bareilly	24/09/2022	73	00
e	Pandit Deen Dayal Rajkiya Modal Inter College, Mathura	07/01/2023	30	25
f	College of Agriculture Anand Agriculture University	09/01/2023	26	40
g	Rajkiya Kanya Inter College Parkham, Mathura	13/01/2023	00	80
h	Rajkiya Uchchtar Madhyamik Vidyalaya Jhhudavadi, Farah, Mathura	13/01/2023	14	29
i	Rajkiya Kanya Inter College, Baldeo, Mathura	01/02/2023	01	58
j	Rajkiya Uchhtar MadhyamikVidyalaya, Fainchari, Mathura	04/01/2023	40	00
k	Rajkiya Uchhtar MadhyamikVidyalaya, Bachgaon, Mathura	04/01/2023	50	00

ii) Exposure visit of farmers

S. No.	Department/Agency	Date	Number	
			Male	Female
1	Animal Husbandry Deptt. Chhattisgarh	16/08/2022	12	00
2	Animal Husbandry Deptt. Chhattisgarh	16/08/2022	22	00
3	Jan Jyoti Vikash Seva Sansthan, Fatehpur, U.P.	09/11/2022 – 11/11/2022	24	00
4	Atal Vabhen Evapar Khand Rural Development Socirty, Etawah, Mainpuri	08/12/2022	25	00
5	Bhawana Seva Sansthan , Lucknow	02/01/2023	25	35
6	Veterinary Hospital Nalkedha sakti, Chhattisgarh	10/01/2023	11	00
7	Veterinary Department Sakti Gabel, Chhattisgarh	03/02/2023	14	00
8	Bhawana Seva Sansthan, Lucknow	08/02/2023	49	00
9	Pashuchikitsa Vibhag, Chhattisgarh	15/02/2023	14	00
10	Pashudhan Vikash Vibhag, Block Jaijepur Chhattisgarh	24/02/2023	17	00
11	Veterinary Department,Block Badla Chhattisgarh	27/02/2023	30	00
12	Veterinary Department,Dabhara, Chhattisgarh	15/03/2023	17	00
13	Veterinary Department, Block Singa distt Badla, Chhattisgarh	16/03/2023	15	00
14	Veterinary Department, Block Durg, Chhattisgarh	16/03/2023	15	00

2. OTHER EXTENSION ACTIVITIES ORGANISED BY VARIOUS DEPARTMENTS OF COLLEGE OF VETERINARY SCIENCE AND ANIMAL HUSBANDRY

Extension Activities organised by the Department of Veterinary Physiology for stakeholders in Goat farming have been organized under RKVY Projects.

S. No.	Training name	Trainees	Training duration	Date	
				From	To
1	Veterinary Officer's Training in AI- Govt. of UP	19	5 days	15-10-2022	17-10-2023
2	Veterinary Officer's Training in AI- Govt. of UP	15	5 days	12-11-2022	14-11-2022
3	Veterinary Officer's Training in AI- Govt. of UP	13	5 days	28-11-2022	30-11-2022
4	Veterinary Officer's Training in AI- Govt. of Chhattisgarh Govt. of Leh Govt. of Rajasthan	 25 02 01	5 days	04-12-2022	09-12-2022
5	Veterinary Officer's Training in AI- Govt. of UP	18	5 days	12-12-2022	14-12-2022
6	AI Worker's Training in AI- Govt. of UP	21	3 days	28-12-2022	30-12-2022
7	Farmers Training in Modernized Goat Farming-NGO (PRADAN)	17	5 days	04-07-2022	08-07-2022

Training Programme, Workshop and Public awareness activity held under RKVY funded project in Department of Animal Nutrition

Date	Activity	Title	No. of participants
14.03.2022	One-day Workshop	Uttam Utpadan hetu dhudharoo pashuon ki poshan vyavastha	70
15.03.2022	One-day Workshop	Hands on Training on Silage Making	70
11.11.2022	One-day Training	Hands on Training on Silage Making	20
12.01.2023	One-day Training	Hands on Training on Feed Formulation	30

Extension activities under SCSP of ICAR-EVM organized by the Department of Pharmacology and Toxicology

Training Programme for students

The centre has organized a 10 days Hands on Training programme on "Practical Approaches to mitigate the challenges of Antimicrobial Resistance through Phytoremediation" w.e.f. 19th – 28th January, 2023 for development of skill and practical adaptability to the students of SC category under SCSP plan of ICAR-funded All India Network Program on Ethno-Veterinary Medicine. This training programme was organized at Department of Veterinary Pharmacology & Toxicology, COVSc & AH, DUVASU, Mathura. This training mainly focuses on intensive practical exposure to participants along with theory lecture to understand the basic principles of different analytical and molecular techniques viz. Extraction of plant-based active principles, screening by UV-VIS spectroscopy, GC-MS to identify the active principle, ICP-OES to determine metallic pollutants, organ bath study, target identification by qPCR and Western Blot etc. In total 12 students from Mathura and adjoining area participated in this training programme. In total 17 theory lectures and 14 practical demonstrations were scheduled during this ten days training programme. The feedback of the participants was graded as 'excellent and useful'. Further most of them recommended organizing such training programme with more duration at regular basis.

A book entitled 'Biophysical Chemistry Principles & Techniques, 2022 edition, Upadhyay, Upadhyay&Nath, Himalya Publishing House along with the Training Manual were also distributed to all the participants of the training programme.

Workshop cum Ghosthi for farmers

One day Workshop cum Ghosthi 'Improvement of Animal Health and Productivity by Indegenous medicine: A Scientific step towards Self-dependent India" was organized on 25th March, 2023 under SCSP of ICAR-EVM to educate the farmers about the use of indigenous herbal drugs on 25th March, 2023. Twenty six (26) farmers belonging to SC category were participated in the workshop which was organized at farmers door step (Chaumuhan village, Mathura). Three lectures by the experts (Dr Soumen Choudhury, Dr Amit Shukla and Dr Sanjay Mishra, Veterinary Officer, Chaumuhan) were given in the workshop to educate the farmers about the use of herbal medicine in improvement of animal health and productivity. Further, herbal medicines (anthelmintics, mineral mixture, galactogogue, appetizers etc.) were distributed among these farmers for use of their animals.

Training Programme for Farmers

Two Days Training Programme on "पशु स्वास्थ्य एवं उत्पादकता पर भारतीय पारंपरिक ज्ञान का वैज्ञानिक मूल्यांकन" under ICAR-SCSP scheme, organized by Department of Veterinary Pharmacology and Toxicology, College of Veterinary Science and Animal Husbandry, U.P. Veterinary University, Mathura (27-28 March 2023). The training was aimed to educate the farmers about use of different household and Ethnoveterinary practices for the management of common illness of livestock and improvement of animal health and productivity with an aim to double farmers' income. A total of twenty farmers participated in the said programme from different districts (Fatehpur, Bareilly, Badaun, Moradabad etc.)

Exposure Visits of Dignitaries, Veterinary Officers, Students and Farmers

Following dignitaries, Veterinary officers, students and farmers visited Poultry farm of the University. They were apprised with the various activities of the farm.

- Dr. V. K. Singh (I/c Dean) and Dr. Dinesh Kumar (Assistant Professor - LPM), College of Agriculture, Tikamgarh) along with his college staff members (2 numbers) visited Department of Poultry Science on 14/05/22.
- Mr. Bipin Kumar (H. J. S. Apar Jila Evam Satra Nyayadhish, Mathura) along with his family members (4 numbers) visited Department of Poultry Science on 30/05/22.
- Dr. Pankaj L. Jani (OSD to Honorable Chancellor) and Dr. A. K. Srivastava (Honorable VC) along with Dr. P. K. Shukla (Dean-Veterinary Faculty) visited Department of Poultry Science on 11/06/22.
- Dr. P. K. Chaudhary (Assistant Professor - Veterinary Physiology) and Dr. Mukesh Kumar & Dr. K. N. Singh (Assistant Professor – Veterinary Anatomy) along with students of NDUAT, Ayodhya (65 numbers) visited Department of Poultry Science on 13/06/22.
- Dr. S. V. Singh (Professor – GLA University, Mathura) and along with his wife and daughter visited Department of Poultry Science on 17/07/22.
- Drs. A. S. Ranade, D. Kannan, Sanjeev Kumar, Jeetendra Verma, J. S. Tyagi and Jaydip Rokade (from IPSA Secretariat) along with Dr. P. K. Shukla (Dean Veterinary Faculty) visited Department of Poultry Science on 24/07/22 for pre-conference meeting of IPSACON 2022.
- Thirty seven (37) nos. of farmers of Agriculture Skill Development Programme organized by Animal Husbandry Department Balrampur district vikaskhand - Ramchandrapur (Chhattisgarh) along with Dr. Vikas Jaiswal (VAS) and Dr. B. Bahadur (VAS), visited the Department of Poultry Science on 16/08/2022.
- Branch Manager Aryavart Bank along with his staff (3 nos.) visited Department of Poultry Science on 28/08/22.
- Thirteen (13) nos. of farmers of Agriculture Skill Development Programme organized by Animal Husbandry Department Balrampur district (Chhattisgarh) along with Dr. D. N. Singh (VAS and an alumnus of 1983 batch) and Dr. B. Lodhi (VAS) visited the Department of Poultry Science on 26/08/2022.
- Forty six (46 = 34 boys + 12 girls) nos. of students of National Agriculture Higher Education Project (NAHEP) under Innovation Grant organized by PGIVER, RAJUVAS, Bikaner district Jaipur (Rajasthan) along with Dr. Rashmi Singh (Assistant Professor - VMD) and Dr. B. Ashok (AHE) visited the Department of Poultry Science on 21/09/2022.
- Twenty (20 = 13 girls + 7 boys) nos. of students of B.Sc. (H) Biotechnology / Industrial Microbiology, College of Biotechnology, DUVASU, Mathura along with two faculty members *viz*. Dr. Priyambada Kumari and Ms. B. Uma Sharma visited the Department of Poultry Science on 22/09/2022.
- Sixty four (64) nos. of students of Harnam Singh College, Bareilly along with two faculty member's *viz*. Mr. Vikas Rajput visited the Department of Poultry Science on 24/09/2022.
- Dr. Vichar from Dog Training and Breeding Centre, SSB Dera, Alwar along with his fifteen trainees (15 nos.) visited Department of Poultry Science on 24/09/22.
- Dr. Shailendra Ku. Tiwari (Dean- Anjora Durg) along with Dr. P. K. Shukla (Dean-Veterinary Faculty) visited Department of Poultry Science on 08/10/22.
- Mr. Santosh Kumar Mishra (Secretary - Jan Jyoti Vikas Sewa Sansthan Fatehpur Uttar Pradesh) along with 25 numbers of farmers visited Department of Poultry Science on 09/11/22.
- Four numbers of faculties (GLA University, Mathura) along with 54 numbers of students visited Department of Poultry Science on 19/11/22.
- Thirteen numbers of students (NDVSU- College of Veterinary Science & AH, Jabalpur) visited Department of Poultry Science on 21/11/22.
- Russian delegates along with GLA University, Mathura (U.P.) India faculties and students visited Department of Poultry Science on 02/12/22.
- Mr. Awadh Bihari Upadhyay (Teacher - Sarvodaya Mahavidyalaya, Mathura, U.P.) along with 91 numbers of students visited Department of Poultry Science on 03/12/22.
- Dr. Sameer Dinkar Pant (an alumnus of 2005 batch pass out and Faculty from Charles Sturt University, Australia) along with four numbers of

faculties from DUVASU Veterinary University visited Department of Poultry Science on 12/12/22.

- Five numbers of IAEC members visited the Department of Poultry Science on 24/12/22.
- Honorable VC Ma'am along with 7 VC (Mrs.) visited Department of Poultry Science on 26/12/22 during 46th Annual Convention of Vice Chancellors of IAUA.
- Mr. Gaurav and four other (Teacher – Pt. Deen Dayal Upadhyay Govt. Model Inter College, Govardhan, Mathura, Uttar Pradesh) along with 55 numbers of students of class IX and X visited Department of Poultry Science on 07/01/23 and learned poultry rearing skills.
- Dr. S. R. Luhar and two other (Faculty – College of Agriculture, Anand Agricultural University, Gujarat, India) along with 66 numbers of students of class B.Sc. (Agriculture) final year visited Department of Poultry Science on 09/01/23 and learned poultry rearing skills.
- Dr. R. S. Patel (Veterinary Assistant Surgeons) along with 11 farmers of state Chhattisgarh visited Department of Poultry Science on 10/01/23.
- Dr. Mohammad Iqbal (an alumnus of 1981 batch pass out) along with one family members from J & K visited Department of Poultry Science on 17/01/23.
- Mr. Gaurav Gupta (SDO-Mathura) along with his official staffs (four numbers) visited the Department of Poultry Science on 21/01/23.
- Dr. D. K. Singh (Prof. & Head) and three other (Faculty (LPM) – College of Veterinary & Animal Science of SVPUAT- Meerut, U.P.) along with 78 numbers of students of class Ist Year B.V.Sc. & A.H. visited Department of Poultry Science on 01/02/23 and learned poultry rearing skills.
- Mrs. Vineeta Verma and three other (Teacher – GGIC School, Baldev, Mathura, U.P.) along with 53 numbers of students of class Ist Year B.V.Sc. & A.H. visited Department of Poultry Science on 01/02/23 and learned poultry rearing skills.
- Dr. K. K. Rathore (Veterinary Assistant Surgeons) along with 14 farmers of state Chhattisgarh visited Department of Poultry Science on 15/02/23.
- Dr. V. P. S. Jagat (Veterinary Assistant Surgeons) along with 17 farmers of state Chhattisgarh visited Department of Poultry Science on 24/02/23.
- Dr. J. K. (Veterinary Assistant Surgeons) along with 17 farmers of state Chhattisgarh visited Department of Poultry Science on 14/03/23.
- Dr. J. L. Banjare (Veterinary Assistant Surgeons) along with 15 farmers of state Chhattisgarh visited Department of Poultry Science on 17/03/23.
- Dr. Pramod Kumar (KVK, Ghaziabad) along with 25 trainees of state U.P. visited Department of Poultry Science on 20-21/03/23..

EXTENSION TRAINING LECTURES/PUBLICATION BY DIFFERENT DEPARTMENTS

Title of the lecture	Authors	Published in
Application of immuno-histo-chemistry for detection of cancer cells in animals and its demons-tration	Neeraj Kumar Gangwar and Kavisha Gangwar	Compendium of ICAR sponsored, Winter school on 'Recent advances in knowledge of structural dynamics and their applications to improve animal health, production and reproduction' Organized by the Department of Veterinary Anatomy, COVSc, DUVASU, from 10th-30th Jan., 2021, Mathura
Application of Immuno-histo-chemistry for identification of receptor protein	Neeraj Kumar Gangwar	
Common laboratory procedures used in haematology, urine, fecal and skin examination and common staining methods.	Neeraj Kumar Gangwar	Department of Veterinary and Animal Husbandry Extension, COVSc, DUVASU, Mathura, 12th May, 2022 and 23th September, 2022.(SSB,GOI- sponsored)

Title of the lecture	Authors	Published in
Diagnostic interpretation and hands on training of Hematological parameters in veterinary practice. Diagnostic interpretation and hands on training of animals diseases. Surgery and radiology	Neeraj Kumar Gangwar	Department of Surgery and Radiology, COVSc, DUVASU, Mathura, 8th March., -14th March., 2022. (ICAR-DIMSA sponsored)
Hands on practice on practical orientation of hematology of animals.	Neeraj Kumar Gangwar	Department of Veterinary and Animal Husbandry Extension, COVSc, DUVASU, Mathura, 06th March, 2023. (SSB, GOI sponsored)
Practical orientation of latest animal disease diagnostic laboratory techniques.	Neeraj Kumar Gangwar	Held in Department of Veterinary and Animal Husbandry Extension, COVSc, DUVASU, Mathura, 27th March, 2023.(SSB, GOI sponsored)
Fundamentals of diagnostic imaging techniques	R.P. Pandey	
Application of general and local anæsthesia in veterinary practice	Gulshan Kumar	
Practical Approaches in Diagnosis and Surgical Management of Abdominal Diseases	Sanjay Purohit	
पशु पालन आधारित समेकित कृषि प्रणाली के औचित्य, उद्देश्य एवं लाभ	Vijay kumar, S.P. Singh, Avneesh Kumar	Pashudhan Patrika June 2022 edition (DUVASU Publication no. 27).
Vaccination of livestock and companion animals	Parul, Barkha Sharma, Udit Jain	Manual for Para veterinary SSB
स्क्रब टाईफस एक पशु जन्य रोग	Parul, Udit Jain, Barkha Sharma and Sanjay Mishra.	e-pashupalan patrika , 2022, DUVASU.
एवियन इंफ्लूंजा अर्थात वर्ड फ्लू के कारण एवं बचाव	Sanjay Mishra and Parul.	Pashupalak mitar, 2022; 2(4)
Rabies: A global threat of Public Health.	Raghavendra P. Mishra, Udit Jain, Parul Barkha Sharma	Just Agriculture, 2022; (2) 10.
देशी गो पालन का महत्व एवं वर्तमान की अनिवार्यता	Parul, Barkha Sharma, Udit Jain and Meena Goswami.	Pashudhan Prakash, 2022
पालतू पशुओं को रेबीज़ से कैसे बचायें	Udit Jain, Parul, Barkha Sharma, Gourab Basak, Raghvander P Mishra, Abhishek Rathi, Aashima and Ishita Agnihotri	Pashudhan Prakash, 2022

Title of the lecture	Authors	Published in
पशुओं में टीकाकरण एवं सावधानियाँ	Raghvander P Mishra, Udit Jain, Parul, Barkha Sharma	Pashudhan Prakash, 2022
पशुओं में जेर का रूकना	जीतेन्द्र अग्रवाल, विकास सचान, अनुज कुमार, अतुल सक्सेना	राष्ट्रीय कृषि विकास योजना के अंतर्गत पशु औषधि विज्ञान विभाग द्वारा आयोजित वर्कशॉप: पशुरोग उपचार: जड़ी बूटियों का महत्व 21.03.2023
खुरपका मुंहपका रोग के लक्षण एवं बचाव	दिलीप कुमार यादव, विकास सचान	पशुपालक मित्र 3(1): 17-18; 2023
गर्भाशय, सर्विक्स या गर्भाशय ग्रीवा एवं योनी का प्रोलाप्से (शरीर निकलना) कारण एवं निवारण	संजय कुमार मिश्र, विकास सचान एवं सर्वजीत यादव	पशुपालक मित्र 2(2): 12-13; 2022
डेयरी पशुओं में जेर रूकने की समस्या एवं प्रबंधन	दिलीप कुमार यादव, विकास सचान	पशुपालक मित्र 3(1): 7-8; 2023
पशुओं की विभिन्न अवस्थाओं में उत्तम प्रबंधन की वैज्ञानिक विधियाँ	संजय कुमार मिश्र, विकास सचान	पशुपालक मित्र 2(2): 3-6; 2022
बकरियों के प्रजनन प्रबंधन में हारमोनों (अन्त:स्राव) का महत्त्व	विकास सचान	पशुसंदेश 1-4; 2022
घोड़ियों में मद के लक्षण एवं उनकी पहचान	Arun Kumar, Mohit Kumar, Neha Chaudhary and Jitendra Agrawal	Pashupalak Mitra 03 (01) January 2023
Breeding revolution by using sexed semen in cattle	Sanjay Kumar and Anuj Kumar	Pashudhan Prakash, 13:75-77: 2022
भारतीय अर्थव्यवस्था में पशुपालन एवं कुक्कुट व्यवसाय का योगदान	अजय कुमार, दीप नारायण सिंह, ममता, रजनीश सिरोही एवं यजुवेन्द्र सिंह	पशुधन प्रकाश तेरहवाँ अंक। भाकृअनुप- राष्ट्रीय पशु आनुवंशिक संसाधन ब्यूरो, करनाल (हरियाणा) पृ0सं0. 61; 2022
वर्षा ऋतु में पशुओं का उचित प्रबन्धन	अजय कुमार एवं जसवन्त कुमार रेगर	पशुधन प्रकाश तेरहवाँ अंक। भाकृअनुप- राष्ट्रीय पशु आनुवंशिक संसाधन ब्यूरो, करनाल (हरियाणा) पृ0सं0. 91; 2022

Title of the lecture	Authors	Published in
ओसर पशुओं का रख-रखाव एवं प्रबन्धन	अजय कुमार, ममता, दीप नारायण सिंह, रजनीश सिरोही एवं यजुवेन्द्र सिंह	पशुपालक मित्र 2(4):23-25; अक्टूबर, 2022
पशुओं में शारीरिक स्थिति स्कोरिंग	ममता, रजनीश सिरोही, दीप नारायण सिंह, अजय कुमार एवं यजुवेन्द्र सिंह	पशुपालक मित्र 2(4):21-22; अक्टूबर, 2022
नर पशुओं का बधियाकरण	अजय कुमार, ममता, रजनीश सिरोही, दीप नारायण सिंह एवं यजुवेन्द्र सिंह	पशुपालक मित्र 3(2): 3-5 (अप्रैल, 2023
प्राकृतिक आपदाएं और पशु प्रबन्धन	ममता, अजय कुमार, रजनीश सिरोही, दीप नारायण सिंह एवं यजुवेन्द्र सिंह	पशुपालक मित्र 3(2): 6-8 (अप्रैल, 2023
समेकित-कृषि प्रणाली में पशुपालन की भूमिका	अजय कुमार, यजुवेन्द्र सिंह एवं दीप नारायण सिंह	पशुधन पत्रिका, षोडश अंक, दुवासु, पब्लिकेशन नं0 271, पृष्ठ सं0 03; (2022)
कुक्कुट पालन व्यवसाय का किसानों की खाद्य सुरक्षा एवं आर्थिक अर्जन में महत्व	दीप नारायण सिंह, रजनीश सिरोही, यजुवेन्द्र सिंह, ममता, अजय कुमार, अमिताव भट्टाचार्य एवं पी.के. शुक्ला	पशुधन प्रहरी, अक्टूबर, 2022
One Health Approach to Control & Eradicate the Rabies: A sincere contribution of Louis Pasteur	Deep Narayan Singh, Ajay Kumar, Mamta, Rajneesh Sirohi, Yajunvedra Singh and Manisha Tyagi	Pashudhan Praharee, October 06, 2022
Application of Homeopathy in Veterinary Medicine	Deep Narayan Singh, Mamta, Ajay Kumar, Manisha Tyagi, Yajunvedra Singh and Rajneesh Sirohi	Pashudhan Praharee, July 25, 2022
Care and Management of Newborn Calf	Ajay Kumar, Rajneesh Sirohi, Mamta, Deep Narayan Singh and Yajunvedra Singh	Pashudhan Praharee, November 13, 2022
आपदा में पशुधन का उचित प्रबन्धन, पोषण एवं खाद्य सुरक्षा	दीप नारायण सिंह, मनीषा त्यागी, अजय कुमार, ममता, रजनीश सिरोही, यजुवेन्द्र सिंह एवं अमित सिंह	पशुधन प्रहरी, नवम्बर 16, 2022

Title of the lecture	Authors	Published in
Application of Veterinary Homeopathy in Dairy Animals	Ajay Kumar, Deep Narayan Singh, Mamta, Rajneesh Sirohi and Yajunvedra Singh	Pashudhan Praharee, July 29, 2022
वैज्ञानिक विधि से बकरी पालन का किसानों के आर्थिक एवं सामाजिक विकास में महत्व	दीप नारायण सिंह एवं अजय कुमार	पशुधन प्रहरी, अप्रैल 21, 2022
किसान मुनाफे के लिए अपनायें समेकित कृषि प्रणाली	जसवन्त कुमार रेगर, ज्योति माला, अजय कुमार, निनाद भट एवं अरूण कुमार मिश्रा	पशुधन प्रहरी, जुलाई 31, 2022
Integrated Farming System Approach to Cope Environmental challanges	Mamta, Rajneesh Sirohi, Deep Narayan Singh, Ajay Kumar, and Yajunvedra Singh	Pashudhan Praharee, November 15, 2022
गौशाला में पशुओं का पृथक्कीकरण कैसे करें	अजय कुमार, दीप नारायण सिंह, ममता, रजनीश सिरोही एवं यजुवेन्द्र सिंह	पशुधन प्रहरी, जुलाई 12, 2022
परिवहन के दौरान पशु कल्याण की आवश्यकता	ममता, रजनीश सिरोही, दीप नारायण सिंह, अजय कुमार, एवं यजुवेन्द्र सिंह	पशुधन प्रहरी, मार्च 29, 2022
बकरी पालन एक लाभप्रद व्यवसाय	अजय कुमार, रजनीश सिरोही, यजुवेन्द्र सिंह, दीप नारायण सिंह एवं ममता	पंचायत खबर, सितम्बर, 2022
व्यावसायिक डेयरी फार्म की रूपरेखा	यजुवेन्द्र सिंह, रजनीश सिरोही, दीप नारायण सिंह, ममता एवं अजय कुमार	पशुपालन व्यवसाय के आधारभूत सिद्धान्त, प्रशिक्षण मैनुअल, दुवासु प्रकाशन सं0 279; 2023
नवजात बच्चों एवं ओसर का उचित प्रबन्धन	दीप नारायण सिंह, यजुवेन्द्र सिंह, रजनीश सिरोही, अजय कुमार एवं ममता	पशुपालन व्यवसाय के आधारभूत सिद्धान्त, प्रशिक्षण मैनुअल, दुवासु प्रकाशन सं0 279; 2023
ब्याने के पूर्व एवं बाद में गर्भित पशुओं का उचित प्रबन्धन	अजय कुमार, यजुवेन्द्र सिंह, रजनीश सिरोही, दीप नारायण सिंह एवं ममता	पशुपालन व्यवसाय के आधारभूत सिद्धान्त, प्रशिक्षण मैनुअल, दुवासु प्रकाशन सं0 279; 2023

Title of the lecture	Authors	Published in
व्यावसायिक डेयरी फार्म की रूपरेखा	यजुवेन्द्र सिंह, रजनीश सिरोही, दीप नारायण सिंह, ममता एवं अजय कुमार	यावसायिक डेरी फार्मिंग के आधारभूत सिद्धान्त, प्रशिक्षण मैनुअल, दुवासु प्रकाशन सं0 280; 2023
नवजात बच्चों एवं ओसर का उचित प्रबन्धन	दीप नारायण सिंह, यजुवेन्द्र सिंह, रजनीश सिरोही, अजय कुमार एवं ममता	व्यावसायिक डेरी फार्मिंग के आधारभूत सिद्धान्त, प्रशिक्षण मैनुअल, दुवासु प्रकाशन सं0 280; 2023
ब्याने के पूर्व एवं बाद में गर्भित पशुओं का उचित प्रबन्धन	अजय कुमार, यजुवेन्द्र सिंह, रजनीश सिरोही, दीप नारायण सिंह एवं ममता	व्यावसायिक डेरी फार्मिंग के आधारभूत सिद्धान्त, प्रशिक्षण मैनुअल, दुवासु प्रकाशन सं0 280; 2023
व्यावसायिक डेयरी फार्म की रूपरेखा	यजुवेन्द्र सिंह, रजनीश सिरोही, दीप नारायण सिंह, ममता एवं अजय कुमार	अधिक उत्पादन के लिए उन्नत विधि से पशुपालन, प्रशिक्षण मैनुअल, दुवासु प्रकाशन सं0 281; 2023
नवजात बच्चों एवं ओसर का उचित प्रबन्धन	दीप नारायण सिंह, यजुवेन्द्र सिंह, रजनीश सिरोही, अजय कुमार एवं ममता	अधिक उत्पादन के लिए उन्नत विधि से पशुपालन, प्रशिक्षण मैनुअल, दुवासु प्रकाशन सं0 281; 2023
ब्याने के पूर्व एवं बाद में गर्भित पशुओं का उचित प्रबन्धन	अजय कुमार, यजुवेन्द्र सिंह, रजनीश सिरोही, दीप नारायण सिंह एवं ममता	अधिक उत्पादन के लिए उन्नत विधि से पशुपालन, प्रशिक्षण मैनुअल, दुवासु प्रकाशन सं0 281; 2023
व्यावसायिक डेयरी फार्म की रूपरेखा	यजुवेन्द्र सिंह, रजनीश सिरोही, दीप नारायण सिंह, ममता एवं अजय कुमार	डेयरी पशु प्रबन्धन के आधारभूत सिद्धान्त, प्रशिक्षण मैनुअल, दुवासु प्रकाशन सं0 282; 2023
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Modern innovative tools of biotechnology for improving quality of meat and meat products	Goswami, M., Pathak, V., Bharti, S. K., Sharma, B., Singh, S., Mishra, A. and Kumar, R.	Acta Scientific Microbiology. 5(9): 135-139; 2022
डेयरी उद्योग में ग्रामीण एवं बेरोजगार युवाओं के लिए रोज़गार के अवसर	Meena Goswami, Vikas Pathak, Sanjay Kumar Bharti and Rashmi	Pashushan Prakash. 119-123; 2022

Title of the lecture	Authors	Published in
Management of environmental and anthropogenic pollutants in poultry housing system	Yash Bhargava Meena Goswami, Vikas Pathak, Amitav Bhattacharya, Sanjay Kumar Bharti, Alok Chaudhary, Rishi Kumar and Abhishek Mishra	https://www.pashudhanpraharee.com/management-of-environmental-and-anthropogenic-pollutants-in-poultry-housing-system/: 2022
Demonstration of antibacterial activity of medicinal plant extract	Singh, A. and Nidhi	In: ICAR sponsored hands on training program "Analytical and Molecular Techniques to decipher the role of Phyto-biomolecules in Veterinary Therapeutics: 2023
Determination of antimicrobial resistance bacteria by minimum inhibitory concentration (MIC) test	Singh, A. and Nidhi	In: ICAR sponsored hands on training program "Analytical and Molecular Techniques to decipher the role of Phyto-biomolecules in Veterinary Therapeutics: 2023
Antibiotic resistance profiling of bacteria by Kirby Bauer disk diffusion method:	Singh, A. and Nidhi	In: ICAR sponsored hands on training program "Analytical and Molecular Techniques to decipher the role of Phyto-biomolecules in Veterinary Therapeutics: (2023).
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Common Bacterial Diseases of Animals	Ruchi Tiwari	In: Sahastra Seema Bal (SSB) Para-Veterinary training program organized by Department of Veterinary and Animal Husbandry Extension, College of Veterinary Sciences and Animal Husbandry, DUVASU, Mathura, (UP): 2023
Vaccination and deworming schedule and management of vaccine	Rashmi Singh	In: Sahastra Seema Bal (SSB) Para-Veterinary training program organized by Department of Veterinary and Animal Husbandry Extension, College of Veterinary Sciences and Animal Husbandry, DUVASU, Mathura, (UP): 2023
An Overview on Biosecurity Measures to Combat Infectious Diseases	Singh, P., Tiwari, R., Singh, V.K., Yadav, S.K	Poultry Square, 3 (10): 24, 2023

Title of the lecture	Authors	Published in
Enhancing green fodder availability throughout the year	Vinod Kumar	Delivered to faculty and students on the occasion of azadi ka amrit mahotsav 14/08/2022 as ppt presentation
दुधारू पशुओं में चारे की व्यवस्था	Muneendra Kumar, Vinod Kumar, Raju Kushwaha, Shalini Vaswani and Avinash Kumar.	In Vyavashayik dairy farming ke adharbhoot sidhant. Under ICAR SC/ST training manual. University Publication no. 280.
पशुओं में खनिज मिश्रण का महत्व एवं मिश्रित दाना बनाने की विधियाँ	Vinod Kumar, Muneendra Kumar, Raju Kushwaha, Shalini Vaswani and Avinash Kumar	Vyavashayik dairy farming ke adharbhoot sidhant. Under ICAR SC/ST training manual. University Publication no. 280: 2023
दुधारू पशुओं का पोषण प्रबंधन	Muneendra Kumar, Vinod Kumar, Raju Kushwaha, Shalini Vaswani and Avinash Kumar.	In Vyavashayik dairy farming ke adharbhoot sidhant. Under ICAR SC/ST training manual. University Publication no. 280: 2023
प्रथम ब्याने सक पूर्व मादा पशुओं का आहार प्रबंधन	Shalini Vaswani, Vinod Kumar, Muneendra Kumar, Raju Kushwaha, and Avinash Kumar	In Vyavashayik dairy farming ke adharbhoot sidhant. Under ICAR SC/ST training manual. University Publication no. 280: 2023
Nutritional Interventions to modulate Insulin Resistance in Dairy Animals	Muneendra Kumar, Vinod Kumar, Raju Kushwaha, Shalini Vaswani, Avinash Kumar, SD Naitam and Ankita Patel	Proceedings of 12th Biennial Animal Nutrition Association Conference, Febraury 16-18, 2023, Mathura India. 118-124 pp: 2022
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Innovations in diversified poultry feeding in order to mitigate stress	Bhattacharyya and P.K.Shukla	SERB-sponsored High –End Workshop (Karyashala) Advance Training on Climate Resilient and Welfare Friendly Poultry Production January 21-30, CARI, Izatnagar, pp-161-166: 2023
Effect of lighting programme on development of eyes of turkeys	R. Sirohi, P. K. Shukla, R. P. Pandey, A. Bhattacharyya, Y. Singh, D. N. Singh and A. Kumar.	*Indian Poultry Review*. pp-6: 2023
एकीकृत कृषि प्रणाली अपनानी है, बेरोजगारी हटानी है	Rashmi, Sanjeev Kumar Singh and Amit Singh	Pashudhan Patrika DUVASU publication no. 271: 8-9. 2022
एकीकृत कृषि प्रणाली के घटक एवं सिद्धांत	Amit Singh, Uma Shankar Rawat and Rashmi	Pashudhan Patrika DUVASU publication no. 271: 3. 2022

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गोशाला आत्मनिर्भरता की कुंजी	Rashmi, Sanjeev Kumar Singh, Amit Singh and Meena Goswami	Pashudhan Prakashan, ICAR-National. Bureau of Animal Genetic Resources Terhva ank-2022: 55-57. 2022
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KRISHI VIGYAN KENDRA

1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	115	2973	818	3791
Rural youths	8	144	17	161
Extension functionaries	12	542	10	552
Total	135	3659	845	4504

2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds (Mustard & Til)	207	84	-
Pulses (Chickpea)	25	10	-
Cereals (Including CRM)	947	630.6	-
Vegetables	27	15	-
Hybrid crops (Bajra)	12	5.0	-
Total	1218	744.6	-
Livestock & Fisheries	0	-	-
Other enterprises	25	-	-
Total	25	-	-
Grand Total	2486	744.6	-

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	13	60	60
Livestock	-	-	-
Nutrition Food Security	01	25	25
Total	14	85	85

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	125	5269
Other extension activities	-	7031
Total	125	12300

5. Seed & Planting Material Production

	Quintal/Number	Value Rs.	Distributed to No. of farmers
Seed (q)	650 q.	2470000.00	Supply to IARI, New Delhi
Planting material (No.)	46000	2834.00	291
Bio-Products (kg)	715.0	3575.00	26
Livestock Production (No.)	-	-	-
Fishery production (No.)	-	-	-

6. Soil, water & plant Analysis

	Samples	No. of Beneficiaries	Value Rs.
Soil	1300	902	9100.00
Water	76	58	0
Plant	0	0	0
Total	1376	960	9100.00

7. HRD and Publications

Sr. No.	Category	Number
1	Workshops	2
2	Conferences	1
3	Meetings	4
4	Training Manual	5
5	Extension folder	4
6	Proceedings	2
7	Award & recognition	1

UNIVERSITY FARMS

A. LIVESTOCK FARM COMPLEX (LFC)

At LFC Mathura, the total numbers of animals on 31.03.2023 were 661. It included Haryana cattle (241), Crossbred cattle (63), Sahiwal cattle (273), Murrah buffalo (75), Nili Rvai buffalo (06) and Teaser bull (03). During the financial year 2022-23, total milk production at the farm was 1,61,189.00 liters, out of which, the production of cow milk was 1,29,184.50 liters, buffalo milk was 33,004.50 liters. The animals are being used for research work of M.V.Sc. & Ph.D students of the University. During the year 2022-23 the revenue generated at LFC was Rs. 55,74,860.00 (Fifty five lac seventy four thousand eight hundred sixty only) Out of which, Rs. 52,27,760.00 (Fifty two lac twenty seven thousand seven hundred sixty only) was generated through the sale of milk coupons, Rs. 600.00 (Six hundred only) through the sale of dung/fertilizer and Rs. 3,46,500.00 (Three lac forty six thousand five hundred only) through the auction of animals.

B. POULTRY FARM

The Department of Poultry Science has maintained different species, breeds and varieties of birds in University poultry farm during 2022-23, which includes

Sl.	Poultry stocks	Quantity (nos.)
1.	Japanese quails	860
2.	Chabro birds	1543
3.	Other Chicken birds (nos,) viz. Black Rock (4); White Rock (14); CHD Broiler (16); Red Cornish (12); Dehlem Red (15); Barred Rock (8); PB Broiler (4); PB-1 Layer (6); Punjab Brown (8) and CHD Black (25)	112
4.	Guinea fowl birds	33
5.	Turkey birds	194
6.	Emu	1
7.	Kadaknath bird	79
8.	Aseel bird	30
9.	Naked Neck bird	13
10.	Layer birds	167
11.	Cockerels	10
	Grand Total	**3,042**

During financial year 2022-23, the poultry farm generated a revenue of Rs. **8,58,775/-** (Rs eight lac fifty eight thousand seven hundred seventy five) from sale of different birds and eggs. Additionally, a sum of Rs. **9,92,327**/- (Rs nine lac ninety two thousand three hundred twenty seven) and **4,37,357**/- (Rs four lac thirty seven thousand threee hundred fifty seven) was generated from sales of poultry products under Experiential Learning Unit (ELU) and revolving funds in Poultry Science Department respectively.

C. DIRECTORATE OF FARMS

PASTURE

During financial year 2022-23, the pasture of university has produced following products:

S.No	Name of Product	Quantity (In Qt.)
1	Wheat Seed (B/S)	160.35
2	Wheat Seed (under size)	53.00
3	Barley Seed	160.68
4	Oat Seed	9.45
5	Green Fodder	11541.85
6	Straw (Bhoosa)	218.90

The wheat seed (B/S) was transferred to IARI, New Delhi whereas, other products i.e. undersized wheat seed, Barley seed, oat seed, Green fodder and straw was transferred to Livestock farm of the University. Thus the total revenue generated revenue during the year was 50, 89, 228.00 (Fifty lakh eighty nine thousand two hundred twenty eight only). Out of which 6,78,280.00 was receipt revenue through the sale of Wheat seed (B/S) and the estimated revenue.

HUMAN RESOURCE DEVELOPMENT

Department of Surgery and Radiology, College of Veterinary Science and A.H., DUVASU, Mathura organized Two Training under AINP-DIMSCA for veterinary officers of UP Govt.

I. A Six Days short training on "Technological Advances in Diagnosis and Management of Surgical Cases" was organized from December 19–24, 2022, at the Department of Veterinary Surgery and Radiology, DUVASU, Mathura. Veterinary Officers of the Animal Husbandry Department of the UP Government attended the course. This training was conducted undewr SCSP Head of the project and was attended by 6 Veterinary offciers of the U.P. Govt. Theory lectures and hands on training on technological advances in diagnosis and management of surgical cases were delivered by the faculty members on Fundamentals of diagnostic imaging techniques (Prof. R.P. Pandey), Basic concept of direct digital radiography (DDR) in veterinary practice (Dr. Ilayaraja S), Application of general and local anæsthesia in veterinary practice (Dr. Gulshan Kumar), Practical Approaches in Diagnosis and Surgical Management of Abdominal Diseases (Prof. Sanjay Purohit), How to deal with reproductive emergencies in animals (Prof. Atul Saxena), Electrocardiography in dogs: Analysis and Interpretation of most common Arrhythmia (Dr. M.K. Srivastava), Diagnostic interpretation of haemato-logical parameters in veterinary practice (Dr. Neeraj Kumar Gangwar) and Diagnostic interpretation of Biochemical parameters in Veterinary Practice (Dr. Ashish Srivastava).

Honorable Vice Chancellors DUVASU Mathura Prof. AK Srivastava presided over the Valedictory function. Future technical support to the trainees from the institute is ensured by Prof. PK Shukla, Dean, Veterinary Faculty, Prof. Atul Saxena, DE and Prof. RP Pandey, HOD Surgery. In order to remain up-to-date on diagnostic and therapeutic developments, the Veterinary Officers really feel the need for such training periodically. We acknowledge the Director of Animal Husbandry for nominating the veterinary officers in this training. We are certain that these veterinary officers will confidently diagnose and manage the surgical cases.

II. A Six Days short training on "Recent Advances in Diagnosis and Management of Surgical Conditions in Veterinary Practice" from 06th February to 11th February, 2023; under the aegis of the ICAR-All India Network Programme on Diagnostic Imaging and Management of Surgical Conditions in Animals at Department of Veterinary Surgery and Radiology, College of Veterinary Science and Animal Husbandry Mathura was organized. Veterinary Officers of the Animal Husbandry Department of the UP Government attended the course. This training was conducted under the Genaeral Head of the project and was attended by 10 Veterinary offciers of the U.P. Govt. Theory lectures and hands on training on technological advances in diagnosis and management of surgical cases were delivered.

Prof. PK Shukla Dean, Veterinary Faculty presided over the Valedictory function on 11 February. Future technical support to the trainees from the institute is ensured by Prof. RP Pandey, HOD Surgery and Prof. Atul Saxena, DE. In order to remain up-to-date on diagnostic and therapeutic developments, the Veterinary Officers really feel the need for such training periodically. We acknowledge the Director of Animal Husbandry for nominating the veterinary officers in this training. We are certain that these veterinary officers will confidently diagnose and manage the surgical cases.

Two day International conference on "Wildlife - Bioscience, Biotechnological Innovations and Avant-garde Genetic Technologies" (WBBIAGT 2023)

A two day International conference on "Wildlife - Bioscience, Biotechnological Innovations and Avant-garde Genetic Technologies" (WBBIAGT 2023) organized by Department of Animal Genetics and Breeding, College of Veterinary Sciences and Animal Husbandry, DUVASU, Mathura, (UP)-281001, in collaboration with Indian Society of Genetics, Biotechnology Research and Development (ISGBRD) from February 20-21, 2023. Focused on genetic technologies, biotechnological break throughs, and bioscience. With 117 registered participants, including delegates from Germany, Japan, and Malaysia, the event comprised a theme session and eight technical sessions. Eminent dignitaries attended, and awards were presented for outstanding oral and poster presentations. The conference provided a valuable platform for knowledge exchange and showcased the latest advancements in the field.

Department of Veterinary Public Health organized a Scientific lecture on change of WHO guidelines on rabies post exposure prophylaxis- experience sharing from local to global on World Rabies Day" under NAHEP, on 28.09.2022

ICAR sponsored Winter School Training on "Recent advances in knowledge of structural dynamics and their applications to improve animal health, production and reproduction"

An ICAR sponsored Winter School on "Recent advances in knowledge of structural dynamics and their applications to improve animal health, production and reproduction" was organized by Department of Veterinary Anatomy, College of Veterinary Science & Animal Husbandry, U.P. Pt. Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Viswavidyalaya Evum Go Anusandhan Sansthan (DUVASU), Mathura from 10th January to 30th January, 2023. In the inaugural function Dr. M.B. Chetti, Vice Chancellor Sanskriti Vishwavidyalaya was the Chief Guest and Honable Vice Chancellor Prof. (Dr.) A.K. Srivastava has presided over the function. A total of fifteen participants from (1) Haryana, (1) Jammu & Kashmir (2) Madhya Pradesh, (1) Maharashtra (1) Punjab, (2) Rajasthan, (1) Tamil Nadu, (5) Uttar Pradesh and (1) West Bengal participated in the Winter School. Out of these 15 participants, 12 were male and three were females. 13

of these were from SAU/SVUs', one from Regional Research Station. Uttar Banga Krishi Vishwavidyalaya and one from the CIRG, ICAR institute Makhdoom, Farah. All the participants revealed their deep interest in the whole course and agreed it to the extremely useful for the teaching and research programme. In the Valedictory function, Hon'ble DDG (Animal Science) Dr. B.N. Tripathi was the Chief Guest. He distributed certificates to the participants. The compendium compiling all scheduled lectures and practical was given to each participant in the valedictory session.

Department of Livestock Products Technology

- Department of Livestock Products Technology organized Brainstorming session on "Insight on the drivers and barriers for the food safety in processing and marketing of foods of animal origin" on 19th November, 2022.
- Department of Livestock Products Technology organized two days NAHEP Sponsored workshop on "Scope and Potential of Start Ups in Livestock Sector" on 20th-21st December, 2022.

Two Days Training Programme, on "Hygienic milk production and adding value to milk for entrepreneurship promotion (उद्यमशीलता को बढ़ावा देने के लिए स्वच्छ दूध उत्पादन और दूध का मूल्यवर्धन)

The Department of Livestock Products Technology, College of Veterinary Science and Animal Husbandry, DUVASU, Mathura has organized Two Days Training Programme, on "Hygienic milk production and adding value to milk for entrepreneurship promotion (उद्यमशीलता को बढ़ावा देने के लिए स्वच्छ दूध उत्पादन और दूध का मूल्यवर्धन) under ICAR SCSP head on 27-28 March, 2023

Department of Veterinary Medicine

1st National Conference of Association of Mastitis (National Conference of AOM) on "Implications of Mastitis"

The Department of Veterinary Medicine, College of Veterinary Science and Animal Husbandry, DUVASU, Mathura has organized 1st National Conference of Association of Mastitis (National Conference of AOM) on "Implications of Mastitis" organized by department of Veterinary Medicine, on 19-20 October 2022.

- Two days National Dialogue on Sustainable growth and development of dairy sector under the Trust for advancement of agricultural sciences (TAAS) was organized on 16th-17th December, 2022 at DUVASU.

Workshop on "पशु रोग उपचार: जड़ी बूटियों का महत्व", The Department of Medicine, College of Veterinary Science and Animal Husbandry, DUVASU, Mathura has organized a workshop on "पशु रोग उपचार: जड़ी बूटियों का महत्व", under, राष्ट्रीय कृषि विकास योजना के अन्तर्गत.

Department of Veterinary Microbiology

The Department of Veterinary Microbiology, College of Veterinary Science and A.H., DUVASU, Mathura has organized One day Brainstorming Session on "Brucellosis and Policy Intervention for its Control" on 12th December, 2022.

Department of Veterinary Microbiology in association with ICAR-National Institute of Veterinary Epidemiology and Disease Informatics, Bengaluru, Karnataka organized "Expert Talk on diagnostic sampling procedures, control strategy, and clinical management of Lumpy skin disease" for sensitizing field animal husbandry heath officials through online mode on 31st September 2022.

Department of Animal Nutrition

- Brainstorming session on "Feeding strategies in ruminants for healthy milk and ghee and green environment.

Department of Animal Nutrition, College of Veterinary Science and A.H., DUVASU, Mathura has Organized XII Biennial Conference of Animal Nutrition Association of India on "New Horizons of Animal Nutrition Research: Combating the Challenges of Productivity, Health and Welfare of Animals" on February 16-18, 2023.

They have also organized one day Brain storming on Feeding strategies in ruminants for health milk and green environment at Department of Animal Nutrition, College of Veterinary Science and Animal Husbandry, DUVASU, Mathura, September 03, 2022.

Department of Veterinary Physiology

- Brainstorming workshop on Milk Vs Plant based Dairy analogues was organized under the aegies of NAAS on 10th December, 2022 at DUVASU, Mathura.

"Host-microbiome Interaction in Augmenting Productivity of Ruminants"

Brainstorming Session on "Host-microbiome interaction in augmenting productivity of ruminants" was successfully organized on 24th August 2022 by Department of Veterinary Physiology, COVSc. and AH. The session on Theme lectures was Co-Chaired by Dr A.K. Tyagi, ADG, Animal Nutrition and Physiology and Dr A. Sahoo, Director, NRCC, Bikaner. Theme lectures were given by Dr C. Joshi, Director, Gujarat Biotech Research Center; Dr L.C. Chaudhary, IVRI; Dr PK Malik, NIANP, Bangalore and Dr Brijesh Yadav, DUVASU, Mathura. The panel discussion was moderated by Prof (Dr) A.K. Srivastava, Vice Chancellor, DUVASU, Mathura. A total of 26 experts participated in the brainstorming session from nine different institutes of India.

Department of Poultry Science

World Egg Day 2022

'World Egg Day 2022' was celebrated by College of Veterinary Science and Animal Husbandry, DUVASU, Mathura on 14th October, 2022. On this occasion, a speech competition was organized by Department of Poultry Science for the undergraduate students on 'Eggs for a better life'. It was attended by faculty and students of the college. The winners of the competition were awarded prizes. Dr.Gulshan Kumar, Dr. Ambika Sharma and Dr. Parul were the jury members. Dr.P.K.Shukla, Dean, College of Veterinary Science and Animal Husbandry and Registrar and Dean PG, DUVASU, Mathura was the Chief Guest on the occasion. He stressed the importance of eggs as a source of nutrients in midday meal schemes and the strength of poultry products to boost immunity in New Normal. Dr.VikasPathak, Dean Students' Welfare also addressed the gathering. Dr. Amitav Bhattacharyya, Associate Professor, Poultry Science designed and coordinated the program along with his departmental colleagues. Dr. Manish Kumar Singh, Poultry Farm Manager proposed the vote of thanks.

XXXVII Indian Poultry Science Association Conference (IPSACON 2022)

Department of Poultry Science, organized XXXVII Indian Poultry Science Association Conference (IPSACON 2022) and National Symposium on "Recent Advances in Sustainable Poultry Production for Livelihood and Nutritional Security" from 4 to 6 November, 2022. The Chairman and Organizing Secretary was Dr. P.K.Shukla, Dean, College of Veterinary Science and Animal Husbandry, Mathura; Co-Organizing Secretary, Dr. Amitav Bhattacharyya, Associate Professor, Poultry Science and Treasurer, Dr. Manish Kumar Singh, Farm Manager (Poultry). A total of 228 abstracts were received and compiled in the compendium. Out of these, a total of 95 posters were presented in their respective sessions during the conference. Besides, Key Note Address, 14 lead lectures were presented during six oral sessions during the conference. Chancellor of DUVASU and Hon'ble Governor of Uttar Pradesh, Anandiben Patel addressed the gathering via video conferencing during the inaugural session. The Keynote Address of IPSACON 2022 was delivered by Tarun Shridhar, Former Secretary, Ministry of Fisheries, Animal Husbandry and Dairying, Government of India. The valedictory function of IPSACON 2022 was graced by

Hon'ble Member of Parliament, Lok Sabha, Hema Malini.

Department of Pharmacology and Toxicology

- Department of Pharmacology and Toxicology and PAI jointly organized National dialogue on Potential of probiotics in health and nutrition on 8th December, 2022.

Hands on Training programme on "Practical Approaches to mitigate the challenges of Anti-microbial Resistance through Phytoremediation

The Department of Pharmacology and Toxicology has organized a 10 days Hands on Training programme on "Practical Approaches to mitigate the challenges of Antimicrobial Resistance through Phytoremediation" w.e.f 19th – 28th January, 2023 for development of skill and practical adaptability to the students of SC category under SCSP plan of ICAR-funded All India Network Program on Ethno-Veterinary Medicine. This training programme was organized at Department of Veterinary Pharmacology & Toxicology, COVSc& AH, DUVASU, Mathura. This training mainly focuses on intensive practical exposure to participants along with theory lecture to understand the basic principles of different analytical and molecular techniques viz. Extraction of plant-based active principles, screening by UV-VIS spectroscopy, GC-MS to identify the active principle, ICP-OES to determine metallic pollutants, organ bath study, target identification by qPCR and Western Blot etc. In total 12 students from Mathura and adjoining area participated in this training programme. In total 17 theory lectures and 14 practical demonstrations were scheduled during this ten days training programme. The feedback of the participants was graded as 'excellent and useful'. Further most of them recommended organizing such training programme with more duration at regular basis.

Further, a book entitled as 'Biophysical Chemistry Principles & Techniques, 2022 edition, Upadhyay, Upadhyay & Nath, Himalya Publishing House along with the Training Manual were also distributed to all the participants of the training programme.

46th Annual Convention of Vice-Chancellors of Indian Agricultural Universities Association

U.P.PanditDeenDayalUpadhyayaPashuChikitsaVigyanVishwavidyalayaevum Go-Anusandhan Sansthan (DUVASU) Mathura, in collaboration with Indian Agricultural Universities Association (IAUA) organized 46th Annual Convention of Vice-Chancellors of Agriculture Universities on the topic "National Education Policy 2020: Implementation in Agricultural Universities" on 26th-27th December, 2023 in which Vice-Chancellors, Deans and Directors of about 45 Agricultural Universities from all over India participated. The chief guest of the inaugural session of this two-day program was Hon'ble Governor, Uttar Pradesh Smt. Anandiben Patel ji, who while presiding over the program in online mode explained the importance of the new education system in the agriculture sector. In her presidential address, she said that there is a dire need for agricultural universities in India to provide comprehensive solutions to the problems of the farmers. India's National Agriculture Policy may bring academic credit bank and multiple entry-exit options for degree programs of agricultural universities focused on research in crop science, fisheries, veterinary medicine and dairy science. The Guest of Honor of the program, Dr. R.C. Agrawal, DDG Education, Indian Council of Agricultural Research, New Delhi, said that National Education Policy- 2020 (NEP) provides an opportunity to higher educational institutions, especially those engaged in technical education, to create such a system which directly contributes to the transformation of the country into a global knowledge superpower. The main organizer of the convention, Hon'ble Vice Chancellor of DUVASU, Mathura Prof. (Dr.) Anil Kumar Srivastava while welcoming all the dignitaries in the program emphasized on the need of consultation on this subject to strengthen the current agricultural education system of the country. He also said that the aim of this education system is to develop the best professionals who have the ability to think and act logically, compassion and empathy, courage and adaptability, scientific temper and creative imagination.

During this two days convention, three technical sessions were conducted, where intensive discussions

were held to implement the new education system in agriculture and related subjects. The topics of discussions during sessions were 'NEP 2020 implementation in AUs', 'Implementation of National Education Policy-2020 for Undergraduate Studies', 'Technology-enabled Interventions and Strategies for Implementation of New Education Policy', 'Agribusiness Opportunities in Agriculture', 'Short Term & Certificate Courses for Skill Development in Agriculture','Skill Development and Short Courses in Animal Husbandry Sector' and 'Aligning Agricultural Education with National Education Policy for Atmanirbhar Bharat'. Opportunity was provided to each and every participant to present their point of view and topic of their choice and relevance. The second day of the convention started with launch of International Millet Year-2023, wherein the importance and significance of Millets and there availability and benefits were outlined by Dr. V. Geethalakshmi, Hon'ble Vice Chancellor, Tamil Nadu Agriculture University. Do promote, usage of millets, breakfast made from millets was servedduring program as well as in all hostels. The conference ended with valedictory cum plenary session 2nd day whereHon'ble Cabinet Minister Agriculture, Agricultural Education and Agricultural Research, Government of Uttar Pradesh,Shri. Surya PratapShahiji graced the occasion as Chief Guest. Hon'ble Minister underlinedthe importance of millets and using food made from coarse grains in our daily life. Along with this, he emphasized on the implementation of the new education policy in the agricultural higher education sector and said that the new education policy in agricultural universities will play an important role in brightening the future of agricultural graduates and post graduate students.Dr. Rameshwar Singh,President, IAUA and Hon'ble Vice-Chancellor, Bihar Animal Science University, presented report of the two-day conference and presented his views on the new education policy in the agricultural higher education sector.It was concluded that there is a need to adopt new education system to bridge the current gap between various stakeholders for attaining highest quality, equity and integrity in the higher education sector related to agriculture in the country.

Training Programme for Animal Owners under RKVY Project

Under RKVY-sponsored project “Strategic control of subclinical parasitism for better animal health and enhanced productivity in U.P.,” Department of

Parasitology held trainings for animal owners in nine villages of Farah, Chomuhan, and Nandgaon blocks of Mathura on July 26th, 28th, and 30th, December 21st–23th, and December 28th–30th. Under the trainings, livestock owners were trained on sustainable subclinical parasitism control in dairy animals. 200 animal owners received antiparasitic and mineral kits during these training programmes. With these training programmes, experts from the Animal Nutrition, LPM, Medicine, Gynecology, and Obstetrics Departments train the participants on various aspects of animal health.

Inauguration of Radio Frequency Identification System

Inauguration of Radio Frequency Identification (RFID) technology based on koha technology on December 14th, 2022 by Hon'ble Vice Chancellor Prof. (Dr.) A.K. Srivastava, Dr. P.K. Shukla, Dean, COVSc &AH, Dr. Ajay Prakash, Dean, PGS, Dr. Daya Shankar, Dean, Biotechenology and Dr. Shriprakash Singh, Incharge Officer University Library in University Library, DUVASU Mathura. It is 1st integrated automation system installed recently through Koha and RFID technology system in Agriculture University of U.P.

VII Convocation of NADS (I) and National Dialogue on "Innovations in Reshaping Indian Dairying"

The Veterinary University Mathura in collaboration with National Academy of Dairy Science (India) organized VII Convocation of NADS (I) and National Dialogue on "Innovations in Reshaping Indian Dairying" on 29th October, 2022. The objective of National Dialogue was to bring the Academicians, Researchers, Dairy Industry Personnel and stake holders on the common platform to deliberate on different issues and formulate strategies to boost the dairy sector of India. The chief guest of the inaugural session was Hon'ble Minister, Animal Husbandry & Dairying, Government of U.P., Shri Dharmpal Singh Ji. The president of NADS (I) and Hon'ble Vice-Chancellor, DUVASU, Mathura Prof. A. K. Srivastava asked to unpack the issues facing Indian dairy sector and to dive deep the factors that have been hampering the productivity and processing of fresh milk and dairy products. 30 renowned scientists and academicians from different part of country were conferred with Fellowship/Associate Fellowship of NADS (I). Two technical sessions were conducted in which five presentations were given followed by panel discussion. The national dialogue was ended with the conclusion that there is dire need for all the stake holders to come up together to design future roadmap for Indian dairy industry.

- Probiotic Association of India (PAI) and ICAR-NDRI Karnal jointly organized 6th Biennial Conference of PAI and International Symposium on Psychobiotics and gut: potential in neurological disorders on 5th-6th December, 2022 at DUVASU, Mathura.

National dialogue on Sustainable Growth and Development of Indian Dairy Sector

The Trust for Advancement in Agricultural Sciences (TAAS) New Delhi- a " Think Tank", the Indian Council of Agricultural Research (ICAR), and Uttar Pradesh Pandit Deen Dayal Upadhyaya Pashu Chiktsa Vigyan Vishwavidyalaya Evam Go-Anusandhan Sansthan (DUVASU) in collaboration with ICAR-National Dairy Research Institute (ICAR-NDRI), National Academy of Dairy Sciences-India (NADSI), Indian Dairy Association (IDA), Ministry of Fisheries, Animal Husbandry and Dairying (MoFAH&D), GoI, and International Livestock Research Institute (ILARI, New Delhi) organized a National dialogue on "Sustainable Growth and Development of Indian Dairy Sector" on 16th -17th December, 2022. The inaugural session was poised by the gracious presence of Dr. RS Paroda, Chairman, TAAS; Dr. Meenesh Shah, Chairman, NDDB; Dr. H Rahman, Regional Representative South Asia-ILRI; Dr. BN Tripathi, DDG (Animal Sciences), ICAR New Delhi; Mr. Amit Vyas, MD, KDCMP Union Ltd. (Amul Dairy); Dr. Bhag Mal, Secretary, TAAS; and Dr. AK Srivastava,

Vice Chancellor, DUVASU, Mathura and the host of the Dialogue. A total of 96 diverse stakeholders from Central and State government, scientific institutions, ICAR Institutes, SAUs, registered scientific societies, milk cooperatives, private milk processing industries, NGOs, FPOs, entrepreneurs, policy makers and farmers participated. The National Dialogue was organized under the visionary guidance of Vice-Chancellor Prof. A K Srivastava, emerged as a crucial platform for stakeholders to discuss, analyze, and propose strategies for the sustainable advancement of the dairy industry in India. The event brought together experts, farmers, policymakers, and researchers, fostering a comprehensive dialogue that aimed to address key challenges and unlock opportunities for dairy sector growth. Renowned experts delivered presentations on various aspects of the dairy industry, covering topics such as technological advancements, sustainable farming practices, and market dynamics. These presentations provided valuable insights and set the stage for informed discussions. Panel discussions brought together stakeholders from different segments of the dairy value chain, including farmers, processors, policymakers, and researchers. These sessions focused on addressing challenges and exploring collaborative solutions for sustainable growth. Dr. Triveni Dutt, Director, ICAR-IVRI, Izatnagar. Dr. AK Singh, Joint Director (Research), ICAR-NDRI Karnal, Dr. Sunil Saroj of the IFPRI, New Delhi, Dr. Brijesh Yadav, Veterinary Physiologist, DUVASU Mathura, Ms. Nikki Pilania Chaudhary, Mango Dairies, Pilibhit (Uttar Pradesh) and Hitesh Rathi, a perspective entrepreneur from Aadvik Foods Pvt. Ltd, deliberated on various aspects of sustainable growth and development of dairy in India. Dr. MP Yadav, Former Director and Vice Chancellor, ICAR-IVRI, Izatnagar; Dr. RK Singh, Former Director/Vice Chancellor, ICAR-IVRI, Izatnagar; Dr. SS Lathwal, ICAR-NDRI Karnal; Dr. DN Singh, DUVASU, Mathura; Dr. Umesh Singh, Director, ICAR-CIRC, Meerut; Dr. RS Sodhi, MD, Amul India, Member of the Board of International Dairy Federation (IDF); President of Indian Dairy Association (IDA), Dr. Inderjeet Singh, Vice Chancellor, GADVASU, Ludhiana; Dr. Smita Sirohi, Joint Secretary G-20, Dept of Agriculture & Farmers' Welfare (MoA&FW), GoI and Dr. A Sahoo, Director, ICAR-National Research Centre on Camel (NRCC), Bikaner, deliberated on various aspects of production and Management of dairy animals. Dr. AK Srivastava, Vice Chancellor, DUVASU chaired the Panel Discussion with 11 panelists viz., Drs. TK Datta, Praveen Malik, RK Singh, Manish Chateli, Pawan Singh, Arun Kumar Misra, Atul Saxena, Vikas Pathak, Nitin Bhatia, Raka Saxena, and Rajesh Saini and concluded the outcome of the Dialogue.

PARTICIPATION OF FACULTY MEMBERS IN INTERNATIONAL AND NATIONAL E-COFERENCES/SYMPOSIA during 2022-2023

College of Veterinary Science and Animal Husbandry

Name of the faculty member	Title of the event	Date
A. International		
Prof. Archana Pathak	20th International conference on Plastination	18th -22nd Jul, 2022
Dr. Neeraj Kumar Gangwar	International Veterinary Pathology Congress-2022 "Global Challenges in Rapid Diagnosis and Management of Animal and Poultry Diseases for improved health and Productivty", P.V. NRTVU, Hyderabad	17th -19th Nov., 2022
Prof. Vikas Pathak Dr. Meena Goswami	International Conference on Food Microbiology and Food Safety (ICFMFS) organized by Institute of Research Engineers and Scientists (Online mode), Phuket	06th -07th Dec., 2022
Prof. Rashmi Singh Dr. Pawanjit Singh Dr. Udit Jain Dr. Ajay Pratap Singh Dr. Ruchi Tiwari Dr. Renu Singh Dr. D. N. Singh Dr. P N Panigrahi Dr. Vinod Kumar Singh Dr. Soumen Choudhury Dr. Amit Shukla Dr. Rashmi	International Conference on Wildlife-Bioscience, Biotechnological Innovations and Avant-garde Genetic Technologies (WBBIAGT) organized at College of Veterinary Science and Animal Husbandry, Mathura	20th -21st Feb, 2023
Dr. Avneesh Kumar	International Conference on Blended Learning Ecosystem for Higher Education in Agriculture, in National Agricultural Science Complex, organized by ICAR, New Delhi, India	21st -23rd Mar., 2023
B. National		
Prof. Vijay Pandey Dr. Anuj Kumar Dr Parul	22nd Indian Veterinary Congress, XXIX Annual Conference of Indian Association of Advancement of Veterinary Research (IAAVR) and National Symposium on "Advancements in veterinary medical research contributing to One Health for betterment of animal and public health and their welfare" organized by College of Veterinary & Animal Science (RAJUVAS), Navania, Udaipur	08th-09th Apr., 2022
Dr. Udit Jain	National Webinar on "E-Waste Management" organized under ICAR-NAHEP-CAST project entitled "Centre of excellence for advance research on animal food safety, Mumbai Veterinary College, Parel, Mumbai	24th Apr., 2022

Prof. Vikas Pathak	20th Meeting of Scientific Panel on Meat and Meat Products including Poultry organized by FSSAI	24th Jun, 2022
Dr. Vikas Sachan	Online course on "Management of metabolic and production disorders in cattle" (agmoocs.in/v/62e79064895bd)	Jun to July, 2022
Dr. Udit Jain Dr. Parul	2 days Application training on "Attune next flow cytometer" held at DUVASU, Mathura	04th-05th Jul., 2022
Dr. Udit Jain Dr. Parul	12th National conference on One Health initiative on 'Importance of Intersectoral Cooperation in the Prevention of Zoonotic diseases of Public Health importance during the pandemic" Organized by Millennium India Education Foundation, New Delhi, VMMC and Safdarganj Hospital New Delhi and Seth GS Medical college and KEM Hospital Mumbai	06th Jul., 2022
Prof. Deepak Sharma Shri Rakesh Goel Dr. S.P. Singh Dr. Vijay Kumar Dr. Avneesh Kumar	National Webinar on "Cow Based Rural Development" jointly organized by ICAR-Central Institute for Research on Cattle, Meerut, UP-250001 and Dr. C.M. Singh Endowment Trust Bareilly, UP-243122	30th July, 2022
Dr.Amitav Bhattacharyya Dr. Ruchi Tiwari Dr. Vinod K. Singh	8th Annual meeting of Asian Council of science Editors (ACSE) meeting (virtual)	21st Aug.,2022
Prof. Rashmi Singh Dr. Udit Jain Dr. Ajay Pratap Singh Dr. Avneesh Kumar Dr. Shalini Vaswani	Brain storming session on "Host microbiome interaction in augmenting productivity of ruminants" organized by Department of Veterinary Physiology, College of Veterinary Science and Animal Husbandry, DUVASU, Mathura, UP	24th Aug.,2022
Dr. Shalini Vaswani	Brain storming session on Feeding Strategies in Ruminants for Healthy Milk and Green Environment	3rd Sep., 2022
Prof. Deepak Sharma Dr. S.P. Singh Dr. Avneesh Kumar	XIX Annual Convention (SOCDAB) & National Symposium on Contemporary Technology for Animal Genetic Resource (AnGR) Management organized by ICAR-NBAGR, Karnal, Haryana	21st-22nd Sep., 2022
Prof. P.K.Shukla Dr.Amitav Bhattacharyya	5th Annual Convention and National Conference of National Academy of Veterinary Nutrition and Animal Welfare at Nanaji Deshmukh Veterinary Science University, Jabalpur, India	21st -22nd Sep., 2022
Dr. Muneendra Kumar Dr. Shalini Vaswani Dr. Avinash Kumar	5th Annual Convention of National Academy of Veterinary Nutrition and Animal Welfare and National Conference on Coordinated, Nutrition and Health Approach for Sustainable Livestock Production, at NDVSU, Jabalpur	21st -22nd Sep., 2022.
Dr. M K Srivastava	3rd Annual Convention of Veterinary Internal and Preventive Medicine (VIPM) Society and National Symposium College of Veterinary Science & Animal Husbandary, Anand, Kamdhenu University, Gujarat (India)	7th – 9th Oct.,2022

Dr. Avneesh Kumar	National Dialogue on "Semen Biology For Enhancing Fertility" organized by Department of Veterinary Physiology, College of Veterinary Science and Animal Husbandry, DUVASU, Mathura	14th Oct., 2022
Prof. Vijay Pandey Dr. Udit Jain Dr. Parul Dr. A K Tripathi Dr. M K Srivastava Dr. A Srivastava Dr. A Chaudhury Dr. P N Panigrahi Dr. Avneesh Kumar Dr. Yajuvendra Singh Dr. Mamta Dr. Ajay Kumar Dr. Atul Prakash Dr. R.K. Singh Yadav Dr. Amit Shukla Dr Jitendra K Agrawal Dr. Pawanjit Singh Dr. Ambika Sharma	1st National conference of association of mastitis on "Implications of Mastitis" organized by Department of Veterinary Medicine, C.V.Sc.&A.H., DUVASU, Mathura	19th -20th Oct., 2022.
Dr.Amitav hattacharyya	5th World Veterinary Poultry Association (WVPA) Asia Meeting at Radisson Blue. Dhaka, Bangladesh	22nd -23rd Oct., 2022
Prof. Vikas Pathak Dr. Meena Goswami Dr. S.K.Bharti Dr. D. N. Singh Dr. Rashm	VII convocation of NADS(1) & National Dialogue on "Innovations in Reshaping the Indian Dairying" organized by Department of LPT, College of Veterinary Science & Animal Husbandry, DUVASU, Mathura	29th Oct., 2022
Dr. Atul Prakash	XXII Annual Conference of Indian Society of Veterinary Pharmacology and Toxicology and International Symposium on "New Horizons in Veterinary Pharmacology and Toxicology Research: Way Forward to Augment Livestock Health and Production" Department of Veterinary Pharmacology and Toxicology Veterinary College and Research Institute, Namakkal, Tamil Nadu- 637 002	2th -4th Nov., 2022
Prof. Vikas Pathak Prof. Vinod Kumar Dr. S.K. Bharti Dr. Neeraj Gangwar Dr. Muneendra Kumar Dr. Avneesh Kumar Dr. Rajneesh Sirohi Dr. D.N. Singh Dr. Shalini Vaswani	XXXVII Indian Poultry Science Association Conference (IPSACON 2022) and National Symposium on "Recent Advances in Sustainable Poultry Production for Livelihood and Nutritional Security" at DUVASU, Mathura (UP)	4th -6th Nov.,2022

Dr. Raju Kushwaha Dr. Avinash Kumar Dr. Rashmi		
Prof. Vikas Pathak	21st Meeting of Scientific Panel on Meat and Meat Products including Poultry organized by FSSAI	7th Nov., 2022
Dr. Vijay Kumar	First National Conference of Society of Farm and Companion Animal on fostering one health for food safety and security through sustainable animal husbandry and aquaculture practices organized by BASU, Patna, Bihar	10th -11th Nov., 2022
Prof. Vikas Pathak Dr. Shriprakash Dr. Avneesh Kumar	National Seminar and Annual Conference 2022 of ISSGPU on "Prospects and Potential of Small Ruminants Production for Enhancing Income under Changing Scenarios" organized at central Sheep and Wool Research Institute, Avikanagar, Rajasthan	10th -12th Nov., 2022.
Dr. Vinod Kumar, Dr. Shalini Vaswani	19th biennial International Conference on "Nutritional Technologies to Augment Livestock, Poultry, Canine and Fish Production for Global Competitiveness" Organized by Department of Animal Nutrition, GADVASU, Ludhiana 141004, Punjab	16th -18th Nov., 2022
Dr. Anuj Kumar Dr. Jitendra K Agrawal	National symposium and XXXVII annual convention of the Indian Society for study of Animal Reproduction on "optimizing animal reproduction through recent techniques of biotechnology, nutraceuticals and alternative medicine" at NDVSU, Jabalpur	16th-18th Nov., 2022
Dr. Vijay Kumar Dr. P N Panigrahi Dr. Ajay Pratap Singh Dr. Avneesh Kumar Dr. Udit Jain Dr. Parul Dr. Shalini Vaswani	Brain storming session on 'Insight on the driver and barriers for the food safety in processing and marketing of food of animal origin. Organized by Department of Livestock Products Technology, College of Veterinary Science and Animal , Mathura, UP	19th Nov., 2022
Prof. P.K.Shukla	14th Edition of Poultry India *Knowledge Day 2022* at Novotel, Hitex City, Hyderabad, India	22nd Nov., 2022
Dr. Ajay Kumar	VII International conference in Hybrid mode on "Global Research Initiatives for Sustainable Agriculture and Allied Science (Online mode) Organized BAU, Ranchi (Jharkhand) India	21st- 23rd Nov., 2022
Prof. Deepak Sharma Dr. Ambika Sharma Dr. S.P. Singh Dr. Ajay Pratap Singh Dr. Avneesh Kumar Shri Rakesh Goel Dr. Vijay Kumar Dr. Avneesh Kumar Dr. Vinod K. Singh	6th Biennial PAi Conference and International Symposium on "Psychobiotics and gut: Potential in neurological disorders" organized at College of Veterinary Science and Animal Husbandry, Mathura	5th-6th Dec., 2022

Dr. Atul Prakash Dr. Soumen Choudhury Dr. R.K.Singh Yadav Dr. Amit Shukla Dr. Jitendra K Agrawal		
Prof. Vikas Pathak Dr. Meena Goswami	International Conference on Food Microbiology and Food Safety (ICFMFS) organized by Institute of Research Engineers and Scientists (Online mode), Phuket	6th-7th Dec., 2022
Prof. Vijay Pandey Dr. Pawanjit Singh Dr. Ambika Sharma Dr. Neeraj K. Gangwar Dr. Parul Dr. Shalini Vaswani Dr. Vinod K. Singh Dr. Atul Prakash Dr. Soumen Choudhury Dr. R.K.Singh Yadav Dr. Amit Shukla Dr. Rashmi	The Foundation Day of Probiotic Association of India (PAi) & National Dialogue on "Potential of Probiotics in Health and Nutrition" organized at College of Veterinary Science and Animal Husbandry, Mathura (On-line)	08th Dec., 2022
Dr. Neeraj Gangwar Dr. Ajay Pratap Singh Dr.Shyama N prabhu Dr. Udit Jain Dr. Parul Dr. Vinod Kumar Singh	Brain storming session on Brucellosis and Policy Intervention for its Control	12th Dec., 2022
Prof. Vikas Pathak Dr. Meena Goswami	IMSACON XI and International Symposium on "Novel technologies and policies interventions for sustainable meat value chain" organized by National Research Centre on Meat, Telangana	14th -16th Dec, 2022
Prof. Vikas Pathak Dr. S.P. Singh Shri Rakesh Goel Dr. Vijay Kumar	TAAS-National Dialogue on "Sustainable Growth and development of Indian Dairy Sector", organized by DUVASU, Mathura	16th -17th, Dec., 2022.
Prof. Archana Pathak Prof. MM Farooqui Dr. Varsha Gupta Dr. AbhinovVerma	XXXVI Annual convention of Indian Association of Veterinary Anatomist and International Symposium 'on Advancement in anatomical studies: The stepping stone in transforming livestock and wildlife sector while achieving the global sustainable development' organized by Department of veterinary Anatomy, College of Veterinary Science, Navania, Udaipur Rajasthan	20th -22nd Dec., 2022.
Prof. Vijay Pandey	VI Annual Convention of Society of Veterinary Biochemists & Biotechnologists of India (SVBBI) and National Symposium organized at College of	05th-06th Jan., 2023

	Veterinary Science & Animal Husbandry, NDVSU, Jabalpur	
Dr. Pawanjit Singh Dr. Vinod K. Singh Dr. Vikas Sachan Dr. Rashmi	Feeding Future India: Glorious Contribution of Livestock Sector (International Seminar Organized by Network of DUVASU Alumni Society) at College of Veterinary Science and Animal Husbandry, Mathura	16th Jan., 2023
Dr. Vinod Kumar Singh	Webinar on Fermentation: Interplay of microbes, Immunity and Nutrition organized by Department of Rural Development and Agriculture Production, NEHU, Meghalaya in association with BIRAC, Govt. of India	03rd-04th Feb., 2023
Dr. Sanjay Purohit	23rd Indian Veterinary Congress and 30th Annual Conferece of IAAVR and National Symposium on "Advances in Tackling Antimicrobial Resistance and Ensuring Food Safety under One Health Perspective" held at College of Veterinary Science and Animal Husbandry, Anand, Gujarat	03rd-04th Feb., 2023.
Dr. Rajneesh Sirohi Dr. Vinod Kumar, Dr. Muneendra Kumar Dr. Shalini Vaswani Dr. Raju Kushwaha Dr. Avinash Kumar Dr. Ambika Sharma Dr. Yajuvendra Singh Dr. D.N. Singh Dr. Ajay Kumar	XII Biennial conference of Animal Nutrition Association (ANACON-2023) on "New Horizons of Animal Nutrition Research: Combating the Challenges of Productivity, Health and Welfare of Animals" organized by Department of Animal Nutrition, College of Veterinary Science & Animal Husbandry, DUVASU, Mathura	16th –18th Feb., 2023
Dr. A K Tripathi	39th Annual Convention of Indian Society for Veterinary Medicine (ISVM) and National Conference on "Advancements in Research and Innovations in Mitigation of Diseases of Livestock, Companion, Wild Animals and Poultry"	22th-24th Feb., 2023
Prof. P.K.Shukla	World Veterinary Poultry Association (India) Conference CoVSc. & AH., NDVSU, Jabalpur (M.P.), India	24th-25th Feb., 2023
Prof. Rashmi Singh	Expert lecture on 'Antimicrobial resistance in food animals: A public Health concern' in a two days workshop on "Emergence of Antimicrobial Resistance in present scenario and one health approach" organized by Department of Veterinary Microbiology, College of Veterinary Science & Animal Husbandry, ANDUAT, Kumarganj, Ayodhya	14th-15th Mar., 2023
Dr. M K Srivastava	NVF VETOPIA- 2023, Continuing Education Program, Organized by National Veterinary Foundation Delhi, at Marriott Hotel, Jaipur	17th-19th Mar., 23
Dr. Ajay Pratap Singh	Awareness Program on use of J-Gate@CeRA organized by ICAR-National Institute of FMD, Bhubaneshwar	23rd Mar., 2023

Dr. Shalini Vaswani	V Annual Convention and National Conference of National Academy of Veterinary Nutrition and Animal Welfare (PPKS) On "Coordinated education in India sub-component-SC-SP on topic Scientific rearing practices of dairy animals	23th -27th Mar., 2023.
College of Biotechnology		
Dr. Priyambada Kumari Ms. Shweta Sharma Ms. Parul Singh	Wildlife- Bioscience, Biotechnological Innovations and Avant-grade Genetic Technologies (WBBIAGT)	20th -21st Feb., 2023

PARTICIPATION OF FACULTY MEMBERS IN TRAININGS/WORSHOPS during 2022-2023

College of Veterinary Science and Animal Husbandry

Name of the faculty member	Title of the event	Date
International		
Dr. Ruchi Tiwari	ICAR Sponsored six months Overseas training programme under NAHEP-IDP on "Advances in diagnosis & surveillance of Emerging and Infectious Diseases and concepts of antimicrobial resistance affecting animal and human health", North Carolina State University, Raleigh, NC, USA	July-Dec., 2022
Dr. Ambika Sharma	Complementary Training program on "Interpretation of Laboratory data" offered by University of Illinois, College of Veterinary Medicine, Urbana-Champaign	16th-28th Aug., 2022
Prof. Rashmi Singh	Three months International Training on 'New generation vaccines based on adenoviral vectors' at Vaccine and Infectious Disease Organization - International Vaccine Centre (VIDO-InterVac), University of Saskatchewan, Saskatoon, Canada, under IDP-NAHEP, DUVASU	Oct.- Dec., 2022
National		
Dr. A K Tripathi	Six week online Course of MOOCs on Management of Metabolic and Production Disorders in Cattle	31st May -14thJune, 2022
Dr. Atul Prakash Dr. Soumen Choudhury Dr. Amit Shukla	Two Days Application Training Programme on "Attune Nxt Acoustic Focusing Cytometer"	4th-5th July, 2022
Dr. Rajneesh Sirohi Dr. D.N. Singh Dr. Mamta Dr. Ajay Kumar	21 days International e-Training cum orientation programme on "Technology Advancement and Integration in Improving Animal Health Production and Reproduction vis-à-vis Climate Change" organized by department of vety. physiology and biochemistry, College of Veterinary Science & Animal Husbandry, Mhow (MP)	05th – 25th July, 2022

Prof. Deepak Sharma Dr S.P. Singh Dr. Vijay Kumar Dr. Avneesh Kumar	International e-Training cum Orientation Programme (21 Days) on "Technology Advancement and Integration in Improving Animal Health, Production and Reproduction vis-à- vis Climate Change" organized by Department of Veterinary Physiology and Biochemistry, College of Veterinary Science and Animal Husbandry, Mhow, NDVSU, Jabalpur (M.P.), India	05th – 25th July, 2022
Prof. Deepak Sharma Shri Rakesh Goel Dr S.P. Singh Dr. Avneesh Kumar	One day IP Awareness/Training program under "National Intellectual Property Awareness Mission" organized by Intellectual Property Office, Ministry of commerce and industry, Government of India	05th Aug., 2022
Dr. S.K.Bharti Dr. Shalini Waswani	Online Training Programme on "Nurturing the Entrepreneurial Ecosystem in Agricultural Universities" (sponsored by NAHEP) organized by ICAR-NAARM, Hyderabad	23rd -27th Aug., 2022
Dr. Shalini Waswani	Nutrition, Health and Extension Approach for Sustainable Livestock Production" organized by Department of Animal Nutrition, College of Veterinary Science and Animal Husbandry N.D.V.S.U., Jabalpur- (MP) India	21st -22nd Sep., 2022
Prof. Vikas Pathak Dr. Varsha Gupta Dr. Meena Goswami Dr. Ruchi Tiwari Dr Shalini Vaswani Dr. Vijay Kumar Dr. Amit Shukla Dr. Rajkumar Singh Yadav	30 days Massive Open Online Course (MOOC) on "Digital Assessment and Evaluation Methodologies" organized by ICAR- National Academy of Agricultural Research Management	1st -30th Sep., 2022
Dr. Avneesh Kumar	International Virtual Meet on "Non-Coding RNAs In Health And Disease" Jointly Organized by All India Institute of Medical Sciences (AIIMS), Bhopal, India Flow Cytometry Solutions (P) Ltd, India Spectrum Life Sciences, India	12th – 14th Oct., 2022
Dr. Pawanjit Singh Dr. Avneesh Kumar	Two days workshop on 'Scope and Potential of start Ups in Livestock Sector" organized by Department of Livestock Products Technology, College of Veterinary Science & Animal Husbandry, DUVASU, Mathura	20-21, Dec., 2022.
Prof. Deepak Sharma Dr S.P. Singh Dr. Avneesh Kumar	National Training on "Laboratory Animal Management and Breeding" organized by Department of Animal Genetics and Breeding, College of Veterinary and Animal Sciences, MAFSU, Parbhani	10th -16th Jan., 2023.
Dr.Abhinov Verma	21 days Winter School Training on "Recent advances in knowledge of structural dynamics and their applications to improve animal health, production and reproduction" at Dept. of Veterinary Anatomy, COVSc, DUVASU, Mathura	10th- 30th Jan., 2023

Dr. Neeraj Kumar Gangwar	One Week Online Workshop on Advance Statistical Data Analysis using SPSS	21st-27thJan., 2023.
Dr. Vijay Kumar	Participated in 14 days online Certificate Course on "Recent Advancement in Reproductive and Infertility Management of Dairy Animals" organized by DUVASU, Mathura	24th Jan to 06th Feb., 2023
Dr Shalini Vaswani	01 day online training programme on Genome editing in farm animals for improved productivity and health, ICAR-NDRI, Karnal	03rd Mar., 2023.

COLLEGE OF BIOTECHNOLOGY

Name of the Teaching Associate	Title of the event	Date
Dr. Vijay Laxmi Tripathi Mr. Faizan ul Haque Nagrami Dr. Priyambada Kumari	Mushroom Production Technologies, Taq Gene Training and Research Enterprise, Dehradun, Uttarakhand	11th-13th May, 2022
Ms. Uma Sharma	Global Efforts on Agriculture, Forestry, Environment and Food Security	17th-19th Sep.,2022
Dr. Vijay Laxmi Tripathi Mr. Faizan ul Haque Nagrami Ms. Uma Sharma Ms. Shweta Sharma Dr. Nupur Raghav Dr. Shweta Sharma Ms. Parul Singh Mrs. Akshita Tiwari	Emerging Trends in Pharmaceutical and Biological Sciences	11th Feb., 2023
Ms. Uma Sharma	National cooperative union of India (NCUI)	14th-15th Mar.,2023

STUDENT WELFARE

National Cadet Corps

During the year 2022-2023, 38 and 36 cadets appeared in 'B' and 'C' certificate examination, respectively. Thirteen students registered for NCC participated in CATC-34 camp from 15th to 24th June 2022 and 18 students participated in Army attachment Camp at RVC Centre & College, Meerut from 11th to 21st October, 2022. Along with Captain Rajneesh Sirohi ANO, registered NCC students participated in blood donation camp organised at Kisan Bhawan, DUVASU, Mathura on 26th Nov., 2022. Captain Rajneesh Sirohi ANO participated in RDC-2023 organised at DG NCC Parade Ground, New Delhi from 30.12.2022 to 30.01.2023. Twenty seven NCC students participated in Army attachment camp organised at Military Hospital Mathura Cantt. from 23rd Jan to 1st Feb., 2023. Six NCC students participated in CATC-51 camp from 27th Jan to 3rd Feb., 2023. The Vice chancellor was given guard of honour on 15th Aug., 2022 and 26th Jan, 2023 by the cadets of NCC.

Yoga Day

The 8th international day of yoga was observed by the world with the yoga day theme of 2022-"YOGA FOR HUMANITY". The university organized Yoga Day shivir on 21st June, 2022 to commemorate the 08th international day of yoga. More than 500 participants including Hon'ble Vice-Chancellor Prof. (Dr.) Anil Kumar Srivastava, Faculty Members, Non Teaching Staff members and Students performed mass yoga practice under the guidance of yoga expert Shri Alok Kumar Sharma. The Vice-Chancellor stressed on yoga as a practice important for healthy mind and body.

Tablet Distribution Programme

District Administration, Mathura organized tablet distribution programme on 24th April 2022 in Nand Bhawan of DUVASU University Mathura. About 200 students of final year of various constituent college viz; College of Veterinary science and Animal Husbandry, College of Biotechnology and Institute of Para-Veterinary Sciences and post graduate received

tablets by MLA of Goverdhan Constituency Thakur Meghshyam Ji in view of technical education scheme by Govt. of UP.

DUVASU T10 Cricket Tournament-2022

To enhance the sorority and affable affiliation among students, teachers and staff, a new format of Tennis Ball Cricket Tournament DUVASU T10 Cricket Tournament-2022 was initiated from the year 2022 in DUVASU, Mathura. A total of ten teams of students of Veterinary College, Biotechnology College, Diploma Institute and Teachers and staff have participated in the tournament with great fervor and zeal. All the teams were grouped in two pools of five teams each and matches were held from May 31, 2022 to June 26, 2022. The final match of DUVASU T10 Cricket Tournament-2022 was played between teams of 4th Professional BVSc and 3rd Professional BVSc on June 26, 2022. Team 4th Professional BVSc won the first T10 Cricket Tournament-2022 trophy by beating the 3rd Professional BVSc in a thrilling final match. The prizes to the winners, runner up teams and players of the tournament were distributed by Prof. PK Shukla, Dean College of Veterinary Science, and Prof. Daya Shankar, President Games and Sports. Mr Rahul Sharma and Mr. Ravindra Kumawat, students of 4th Professional BVSc were adjudged Best Batter and Best Bowler of the tournament, respectively. Dr Vijay Pandey, Cricket Counselor and Mr. J.N. Pal, PTI of the University, coordinated successful organization of the first ever T10 Cricket Tournament-2022 of DUVASU, Mathura.

HarGharTirangaAbhiyan Program

- PrabhatPheri by students on 13th August 2022.
- Quiz My India on 13th August 2022.
- Desh Bhakti Song Competition on 13th August 2022.
- Mural Painting program on 13th August 2022.
- Distribution of flags by the students on 13th August 2022.
- Lectures by the teachers on 14th August 2022.
- Speech competition for students on 14th August 2022.
- Poetry recitation competition for students on 14th August 2022.
- Selfie with Tiranga Competition on 14th August 2022.

Celebration of World Nature Conservation Day

A plantation programme was organised by Institute of Paraveterinary Science on 28.07.2022 to celebrate World Nature Conservation Day. Plant saplings were planted by Prof. (Dr) Vikas Pathak, Director Diploma, Instrctors, students and staff.

Scholarship Distribution to the university Students

The University is disbursing scholarship to the meritorious under graduate and post graduate students of College of Veterinary Science and Animal Husbandry. The scholarship's offered by the ICAR, New Delhi and Department of Social Welfare, Govt. of U.P. are also facilitated by the university. During year 2022-23 an amount of Rs. 3,79,500/- was disbursed to 19 meritorious students. 11 Students received National Talent Scholarship (NTS) of ICAR. The university also forwarded 331 students applications for the award of scholarship offered by the Department of Social Welfare, Govt. of UP.

Welcome Party of Fresher's

Welcome of Fresher's usually called Fresher's party; in any college is an event which every student eagerly awaits from their time of admission. The purpose of

Fresher's Party is to welcome new students in a friendly atmosphere and to encourage their creative impulses to boost their confidence. It is the day where seniors and juniors finally bond and unite to celebrate being part of the college. To keep the pace with the tradition different colleges have organized fresher's party. The second year students of college of Biotechnology organized Fresher's Party for newly admitted students of 2022-23 batch on 06-10-2022. Whereas, the second year students of college of Veterinary Science organized Fresher's Party for the newly admitted students of batch 2022-23 on 08-12-2022. The Institute of Para Veterinary Science students organized their fresher's day on 14-12-2022 named as "AARAMBH"- Ek nai shuruat. Fresher's along with their seniors showcased their talent by various dance performances, songs, poem recitation etc. Hon'ble Vice-Chancellor, the Chief Guest in all the three welcome parties addressed and blessed the students.

All India Agricultural Universities Youth Festival

The program was organized from 13th-17th March 2023 at University of Agricultural Sciences, Bangalure. A total of 22 students participated in this competitive program from the university, and Chanchal Pachauri,

BVSc & AH 4th year student secured the fourth position in On Spot Painting event at the national level (Inter-University).

DUVASU Premier League-2022 Cricket Tournament

Tennis Ball Cricket Tournament DUVASU Premier League-2022 (DPL-2022) was organized from November 12, 2022 to November 28, 2022 in DUVASU, Mathura. A total of eight teams of students of Veterinary College, Biotechnology College, Diploma Institute and staff have participated in the tournament. All the teams were grouped in two pools of four teams each. The final match of DPL-2022 was played between teams of 4th Professional BVSc & AH (New) and 2nd Professional BVSc on November 28, 2022. Team 4th Professional BVSc won the DPL-2022 trophy by beating the 2nd Professional BVSc in an exciting final match. The prizes to the winners, runner up teams and players of the tournament were distributed by Prof. Ajay Prakash, Dean PGS, Prof. Daya Shankar, President Games and Sports and Prof Vikas Pathak, DSW of the University. Mr Vivek Yadav of 4th Professional BVSc & AH was Man of the Match in the final match. Mr. Ravindra Kumawat, of 4th

Professional BVSc was adjudged as Best Batter and Best Bowler of the tournament. Dr. Vijay Pandey, Cricket Counselor and Mr. J.N. Pal, PTI of the University, coordinated the whole event.

DUVASU Volleyball League-2022

DUVASU Volleyball League-2022 (DVL-2022) was organized from November 25, 2022 to December 02, 2022 in DUVASU, Mathura. A total of eight teams of students of Veterinary College, Biotechnology College, Diploma Institute and Supporting Staff have participated in the tournament. The final match of DVL-2022 was played between teams of 4th Professional BVSc & AH and Supporting Staff on December 02, 2022. Supporting Staff Team won the DVL-2022 trophy by beating the 4th Professional BVSc in an exciting final match by 2-1. The prizes to the players of Winner and Runner up teams were distributed by Prof. A.K. Shrivastava, Vice Chancellor of the University, Prof. A.K. Madan, Registrar, Prof. Daya Shankar, President Games and Sports, Prof. Sarvajeet Yadav, Director Para-Veterinary Institute, Prof Vijay Pandey, Estate Officer, and Dr. Rajneesh Sirohi, Incharge, SW, of the University.

Annual Sports Day

The 20th Annual Sports Meet 2022-23 of this university was organized on 20th-21st March 2023. The event was inaugurated by Prof. A.K. Srivatava, Hon'ble Vice-Chancellor by unfurling the University Flag. The Vice-Chancellor declared the sports meet open after march-past, salutation and sports oath. The pigeons were released as a symbol of peace and freedom. During the two days event a number of sports were organized in which students from various colleges and institution participated. Ajay Meena (Enrollment Number V-2265/20), BVSc & AH and Kirti Singh (Enrollment Number B-2286/21), BSc Industrial Microbiology were declared the best male and female athlete of the year, respectively. The closing ceremony of sports meet was held on 21-03-2023.


ANNUAL SPORTS MEET

OTHER HIGHLIGHTS AND ACTIVITIES

INDEPENDENCE DAY

The University celebrated 76th Independence Day on the auspicious morning of 15th August 2022. Students, Staff and Faculty members filled with a feeling of patriotism and dedication gathered in the main ground. A Guard of Honour was presented by 1 UP R&V SQN NCC, Mathura as a mark of respect to the Hon'ble Vice-Chancellor Prof. (Dr.) A.K. Srivastava, the Chief Guest of the occasion. The Celebration started with the hoisting of the Indian National Flag by the Chief Guest followed by floral tributes to the "Father of the Nation". The chief guest addressed the gathering about the sacrifices of great people for the country.

ENTRANCE EXAMINATION

The University successfully conducted entrance examinations for the admission in different academic programmes. Prelim examination of Pre Veterinary Test (PVT) was conducted on 25th August 2022 at eight different centers of Uttar Pradesh viz; Prayagraj, Kanpur, Lucknow, Mathura and Bareilly districts. Total 2939 candidates applied for the examination, out of which 278 candidates cleared the examination for the next phase of competition. The PVT-Mains was conducted at Mathura in which total 213 candidates qualified for the entrance in B.V.Sc. & A.H. course. The PDET examination for the admission in diploma courses of Institute of Para-veterinary Science of the University was conducted on 11th September 2022, in which total 337 candidate had applied and 271 candidates appeared in the examination. University also conducted PGET for admission in MVSc and PhD program on 22.01.2023. 382 candidates applied for MVSc and 37 for PhD, out of which 238 candidates appeared for MVSc and 14 for PhD.

GANDHI JAYANTI

153rd Birth Anniversary of Mahatma Gandhi ji was celebrated by the University on 2nd Oct, 2022 in front of Main building of COVSc & A.H. All the Officers, teachers, students & staff attended the Programme. The unveiling of the portrait of Gandhi ji was done followed by offering of floral tribute by the Deans, Directors, officers, faculty members of the University.

CONSTITUTION DAY

To celebrate Indian Democracy in compliance with the instructions issued by the Government of India. The lecture on the subject of "India: Mother of Democracy" was organized on 26-11-2022 at 05:00 pm at Kisan Bhawan. Dean, CoVSc was the chief guest and he presented a lecture on the importance of the preamble of the constitution in English and Hindi, Boys and Girls presented lectures on "India: The Mother of Democracy". The Controller of Examinations apprised the student's about the importance of constitution day. At the end of program, a vote for thanks was presented by the Dean, Student's Welfare.

BLOOD DONATION CAMP

The Blood donation camp was organized jointly by the university and 1 UP R&V SQN NCC, Mathura on 27th November 2022, where more than 60 volunteers donated the blood for noble cause.

REPUBLIC DAY

74th Republic Day was celebrated in the University on 26th January 2023. Filled with patriotism and dedication, the students, staff and faculty members gathered on the University ground. Honorable Vice-Chancellor Prof. (Dr.) A.K. Srivastava was the chief guest and was presented Guard of Honor by the cadets of UP R&V SQN NCC Mathura. The national festival started by hoisting the national flag by the Chief gust. Thereafter, Vice Chancellor addressed the gathering and sweets were distributed.

WORLD T.B. DAY

On 24th March 2023, on the occasion of World Tuberculosis Day, a program on the topic of eradication of tuberculosis was organized in the University. The Vice-Chancellor of the university Prof. A.K. Srivastava, Dean, College of Veterinary Science Prof. P.K. Shukla, District Tuberculosis Officer Mathura Dr. Sanjeev Yadav, Medical Officer of the university Dr. S.P.S. Chauhan and teachers of veterinary faculty participated in this program.

During this program, the vice-chancellor of the university, Prof. A.K. Srivastava in his presidential address, gave comprehensive information about the campaign run by the Government of India on the subject of Tuberculosis, and also shared that 99 percent of the patients suffering from this disease would be cured. Yes, there should be continuous drug supply for the treatment of such patients. Medicine is free for the patients suffering from this disease, the treatment of patients suffering from tuberculosis is generally for 08 months. Tuberculosis mostly occurs in the lungs, a part from this disease can occur in bone, brain and spinal cord. The patient suffering from this disease has to take treatment on time. The patient has to take the medicine on the basis of doctor's advice, the patient should not take the medicine on an empty stomach, Along with this, it was also informed that this disease is commonly seen in animals as well, this disease also spreads in humans from animals, for its prevention milk should be boiled and drunk, as well as patients should cover their mouth while coughing and sneezing with handkerchief etc. It should be done so that type disease does not spread in any other family member. Along with this, the Vice-Chancellor of the university gave best wishes to all the patients suffering from the Tuberculosis and wished their mental recovery from the disease and also prayed to god for the recovery of all the patients.

In this program 09 teachers of veterinary faculty, along with Honorable Vice-Chancellor Prof. A.K. Srivastava, identified 10 teachers from Tuberculosis office, Mathura and mentioned in the list made available to the university, for the promotion and dissemination of the campaign run by the Government of India on the subject of tuberculosis. The patients suffering from tuberculosis were adopted as per the instruction given by the campaign and nutritional bags were distributed to them.

PT. DEEN DAYAL UPADHYAYA JAYANTI

106th birth anniversary of Pandit Deen Dayal Upadhyaya ji was celebrated by the University on 25h September, 2022 in front of Administrative block of DUVASU, Mathura. Floral tribute was paid to Pandit Deen Dayal Upadhyay Ji by Prof. A.K. Srivastava, Vice-Chancellor, Dr. P. K. Shukla, Dean, COVSc & AH and other dignitaries of the University along with faculty members, and other staff of the UNIVERSITY. (PHOTO)

AMDEDKAR JAYANTI

The birth anniversary of the principal architect of the Indian Constitution Dr. Bhimrao Ambedkar was celebrated on 14th April 2023. Tribute was paid to Baba sahib by teaching, non teaching staff and students of the university with flower offerings. Dean, College of Veterinary Science Dr. P.K. Shukla extended the words of inspiration from Baba Saheb's life.

BASANT PANCHAMI

Saraswati poojan was performed on Basant Panchami i.e. 05-02-2022 at University Library. It was performed by the hands of Professor A.K. Srivastava, Vice-chancellor and Professor P.K. Shukla, Registrar/ Dean and Incharge Libarary with other faculty members, non teaching staff and students of the University. On this occasion Professor Srivastava recommended maximum use of Library facilities to all the members for up grading of their academics and general performance.

BLOOD DONATION CAMP

A Blood donation camp was organized on 26th March 2022 in kisan bhawan in the premises of University in collaboration with 1 UP R& V SQN, NCC, Mathura and Maharishi Dayanand District Hospital, Mathura in which 60 units of Blood donation was made by student and staff of the University.

CONVOCATION CEREMONY

12th convocation of DUVASU, Mathura was held on 3rd March, 2023 in the University auditorium. Convocation function was presided over by the Hon'ble Governor of Uttar Pradesh and Chancellor of DUVASU Smt. Anandi Ben Patel ji, Dr. Abhijeet Mitra, Animal Husbandry Commissioner, Department of Animal Husbandry and Dairying, New Delhi was the chief guest of the occasion. As per the tradition, the proceedings of convocation commenced with lighting of lamp, Saraswati Vandana followed by University song and National anthem. The convocation was declared “open” by the Hon'ble Governor of Uttar Pradesh. Hon'ble Vice Chancellor presented the University progress report and Hon'ble chancellor conferred degrees to the students of respective streams. 78 students were conferred BVSC & AH degree, 20 students were awarded MVSc degrees and 03 students were conferred PhD degrees. 30 students were conferred with BSc Biotechnology and B.Sc. (H) Industrial Microbiology. 12 medals in B.V.Sc. & A.H., 04 medals in M.V.Sc and 03 medals in B.Sc. Biotechnology were awarded to the students in various categories for their academic excellence and extra-curricular activities. Shivam Khare and Virender Pratap Yadav received best M.V.Sc. thesis Award in Production Science and Paraclinical subjects, respectively. Dr. Abhinov Verma and and Vikas


बारहवाँ दीक्षान्त समारोह


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बारहवाँ दीक्षान्त समारोह

Sachan received best Ph.D. Thesis Award in Basic Veterinary Science and Clinical subject, respectively. Department of Physiology got best department award which was received by Dr. Sarvjeet Yadav, Professor and Head, Department of Veterinary Physiology. Hon'ble Chancellor, DUVASU blessed and congratulated the degree recipients and medal holders.

YUVA-2023

Like every year, National Youth Day was celebrated at GBPUAT, Pantnagar with jubilant energy and strong enthusiasm. "Udbhav" the yearly National debate was organized by Vivekananda Swadhyaya Mandal, Pantnagar during 14th -15th January 2023. The topic of the bilingual debate competition was “Youth of India is capable to empower the nation to be global power in 20th century”. Total 45 universities participated from across the nation forming a cluster of 180-200 students from vivid states. As per the norms four students from DUVASU ensured their participation in two teams - One for Hindi and one of English. To represent Team Hindi Aditya Maheshwari and Reena Kushwaha were selected and for Team English Akanksha Sharma and Ishita Singh were selected. Both teams held the flag of university high by giving top notch competitive oration. Aditya Maheshwari bagged the Best Content Award in Hindi Debate and rest of the participants received the participation certificates for the prestigious National competition. Dr Amitav Bhattacharya, Associate Professor, Poultry Science and Dr Ambika Sharma, Associate Professor, Veterinary Biochemistry were the team leaders.

FOUNDATION DAY OF UNIVERSITY

The 21st University Foundation week is being celebrated from 25th October to 31st October 2022. During these celebrations, University planned variety of functions including plantation drives in campus, 1st conference of Association of Mastitis, 7th Convocation of National Academy of Dairy Science (India), Foundation Oration lecture by Dr.Himanshu Pathak, Secretary, DARE and Director General, ICAR on 30.10.2022, a series of academic lectures on 31st Oct. 2022 and culminating in address by the Hon'ble Vice Chancellor on 31st Oct. 2022.

Today, on 30th Oct. 2022 at 11.00 am, the University Foundation Oration lecture was organized in Pt. DeenDayalUpadhyaya Auditorium. The lecture was attended by luminaries from various animal sciences institute including Dr. TriveniDutt, Director Cum Vice Chancellor, ICAR-IVRI; Dr. A. K. Tyagi, ADG (ANP), ICAR, Dr. A. K. Tiwari, Director, ICAR-CARI, Dr. D. K. Sharma Director, ICAR-CIRG, Dr. P. K. Rai, Director ICAR-DRMR, faculty, students and staff of Veterinary University Mathura. The program began with lighting of lamp and SaraswatiVandana followed by University Song by the students of the university.

At the outset, Prof. A. K. Srivastava, Hon'ble Vice Chancellor, Veterinary University, Mathura welcomed the guests and delivered the citation for the audience, followed by presentation of citation award to Dr. Himashu Pathak, Secretary, DARE and Director General, ICAR. Thereafter, Dr. Himashu Pathak delivered the foundation day oration on 'How to be successful in life'. He gave ten maxims for anyone to be successful in life. He pointed out that; first maxim is 'thinking' and do SWOT analysis of his/ her situation

to find out the solution for any situation. The second maxim is 'Asking' where one must ask himself that what one is doing and what can be the outcomes of ones actions. The third maxim is 'Doing', for which one must actually do the work as soon as it is to be done. The fourth maxim is 'Disciplining' which basically is the one that keeps the individual on straight path for success. 'Team building' is next and for this one must focus on who to select as team member for execution of a task, because a correct person at the correct time at the correct place will get the work done. 'Customerising' has to be followed for meeting the expectations of your relationships, which may be personal or professional. One must learn to 'forgive' others for their opinions because it is only the point of view that matters and not the individual in particular. Similarly, one must 'enjoy' smallest achievements of life and 'change' to realize ones potential. Lastly, gratitude extended through a small 'Thank you' is most powerful. The lecture was mesmerizing and the audience was spellbound. Dr. B. N. Tripathi, Deputy Director General (Animal Science), chaired the session and appreciated the words of guidance with advice that all must follow these for a happy and contented life. He termed his oration lecture as ten pointers for a successful professional and personal life and as an eye opener for many.

AWARDS & HONOURS

Faculty

Name of Scientist	Name of Award	Event	Date
Prof. Vikas Pathak	Awarded Fellow, National Academy of Veterinary Science at XX NAVS (I)	Convocation – cum – scientific convention on 'Restructuring veterinary education, research & extension for enhancing livestock & poultry production to boost the GDP" by Nagpur Veterinary College, Nagpur Maharashtra Animal and Fishery Sciences University, Nagpur & National Academy of Veterinary Sciences (India) New Delhi	20-21Jun., 2022
	Awarded Fellow, National Academy of Dairy Science (India)	VII Convocation of NADS(I) and National Dialogue on "Innovations in Reshaping Indian Dairying"	29 Oct., 2022
	Technical session chair and Invited speaker	International Conference on Food Microbiology and Food Safety (ICFMFS) held in Phuket, Thailand in online mode	06-07 Dec., 2022
	Best Paper award "Comparative Product Profile Analysis of Health Promoting Indian Cheese (Paneer) Prepared from Milk of Different Indigenous Milch Animals"	International Conference on Food Microbiology and Food Safety (ICFMFS) held in Phuket, Thailand in online mode	06-07 Dec., 2022
Prof. Archana Pathak	Chief Editor of Indian Journal of Veterinary Anatomy	Indian Association of Veterinary Anatomists	2022
Prof. Sanjay Purohit	Gaon Gyan Paritoshik Award-2023	Indian Association of the Advancement of Veterinary Research (IAAVR) held at College of Veterinary Science and Animal Husbandry, Anand, Gujarat.	3-4 Feb., 2023
	Pashudhan Samridhi India Gaurav Ratna Award-2022	For recognition of outstanding professional work and significant contribution for the advancement of Livestock Sector in India by Pashudhan Praharee	
Prof. Deepak Sharma	Eminent Professor Award-2023	Conferred "Eminent Professor Award - 2023" by Indian Society of Genetics, Biotechnology Research and Development (ISGBRD), Agra, (UP)	21 Feb., 2023
Prof. Vijay Pandey	Fellow Membership Award	National Academy of Veterinary Science (India)	April 2022
Shri Rakesh Goel	Excellent Research/Teaching award-2023	Conferred "Excellent Research/ Teaching award-2023-2023" by Indian Society of Genetics, Biotechnology Research and Development (ISGBRD), Agra, (UP)	21 Feb., 2023

Dr. Brijesh Yadav	National Environmental Academic Scientist of the year award	National Environmental Science Academy	31 Dec., 2022
	Nominated as Nominee of CPCSEA in the IAEC	Ajmal Khan Tibbiya College., AMU, Aligarh and The National *JALMA* Institute for Leprosy & Other Mycobacterial Diseases, Agra.	2022
	Acted as panelist	Brainstorming Session on "Host-microbiome interaction in augmenting productivity of ruminants" on	24 Aug., 2022.
	Acted as panelist	Brainstorming Session on "Feeding Strategies in Ruminants for Healthy Milk and Green Environment" at Veterinary University, Mathura.	3 Sep., 2022
	Acted as panelist	National Dialogue on Semen Biology for enhancing fertility on Veterinary University, Mathura.	14 Oct., 2022
	Acted as panelist	Brainstorming under the aegis of National Academy of Agricultural Sciences on Milk vs Plant based dairy Analogues on Veterinary University, Mathura.	10 Dec., 2022
Dr. Mukul Anand	India Animal Health Award	India Animal Health Summit & Awards 2022	6-7 Jul., 2022
	Young Scientist Award	Indian Animal Health Submit (Agriculture Today),	5 Jul., 2022.
	Distinguished Scientist Award	Indian Society of Genetics, Biotechnological Research and Development,	20-21 Feb., 2023
	Member of National advisory board for Sheep and Goat.	National Advisory Committee for Animal Husbandry and Dairying, Government of India-	
	Best poster award-	Milk metabolic profile in mastitic goat. P.N. Panigrahi, Manu Jiaswal, Mukul Anand, Amit Shukla, A.K. Tripathi. 1st National Conference of Association of Mastitis held at DUVASU, Mathura,	19-20 Oct, 2022
Dr. Varsha Gupta	K.L. Suri Best Poster presentation Award and Medal	XXXVI Annual convention of Indian Association of Veterinary Anatomist and International Symposium organized by Department of Veterinary Anatomy and Histology, College of Veterinary and Animal Science, Navania	20-22 Dec., 2022.
Dr. Dilip Kumar Swain	Prof. S.S. Guraya Young Scientist Award	Indian Society for the study of Reproduction and Fertility	24-26 Feb., 2023

	Dr. D.N. Mulick Award 2023	Society of Animal Physiologists of India	2023
	Distinguished Scientist Award	Indian Society of Genetics, Biotechnology Research and Development, Agra UP	2023
Dr. Neeraj Kumar Gangwar	Elected zonal secretary North zone of the IAVP society, India	Indian Association for Veterinary Pathologists society	2019-22
	Member of IAEC	DUVASU, Mathura	2022
	Certificate of Appreciation	8th International conference on Wildlife-Bioscience, Biotechnological innovations and Avant-garde Genetic Technologies organized by AGB, COVSc, DUVASU, Mathura.	20-21 Feb., 2023
Dr. Pawanjit Singh	Certificate of Appreciation	International Conference on Wildlife-Bioscience, Biotechnological Innovations and Avant-garde Genetic Technologies (WBBIAGT)	20-21 Feb., 2023
	Best Oral Presentation Award	International Conference on Wildlife-Bioscience, Biotechnological Innovations and Avant-garde Genetic Technologies (WBBIAGT)	
	Certificate of Co-Chairperson	International Conference on Wildlife-Bioscience, Biotechnological Innovations and Avant-garde Genetic Technologies (WBBIAGT)	
	Certificate of Session Manager (Rapporteur)	International Conference on Wildlife-Bioscience, Biotechnological Innovations and Avant-garde Genetic Technologies (WBBIAGT)	
	Certificate of Session Manager (Rapporteur)	New Horizons of Animal Nutrition Research: Combating the Challenges of Productivity, Health and Welfare of Animals (ANACON)	2023
	Certificate of Appreciation	New Horizons of Animal Nutrition Research: Combating the Challenges of Productivity, Health and Welfare of Animals	2023
	Certificate of Session Manager (Rapporteur)	Association of Mastitis (AOMCONF)	19-20 Oct., 2022
	2nd Best Oral Paper Presentation Award		
Dr. Ambika Sharma	Louis Pasteur Award	For the significant and erudite on the topic "One health approach: The need of the hour" on the occasion of World Rabies Day 2022 by Pashudhan Prahree.	Sept., 2022

	Best Oral Paper award	1st National Conference of Association of Mastitis on "Implication of Mastitis" (AOMCONF - 2022).	19-20 Oct., 2022
Dr. S. P. Singh	Excellence Research Award -2023	Conferred "Excellence Research Award - 2023" by Indian Society of Genetics, Biotechnology Research and Development (ISGBRD) on February 20-21, 2023.	20-21 Feb., 2023
Dr. Udit Jain & Dr. Parul	Best Oral presentation Award-Ist position	8th International conference on "Wildlife bioscience, Biotechnological innovations and AGT (WBBIAGT-2023) at DUVASU, Mathura organized by ISG, BR&D, Agra and DUVASU, Mathura	20-21 Feb., 2023
	Best Oral presentation Award-IInd position	2nd annual convention of VIPM and National symposium on "Innovations in veterinary medicine: present status and futuristic implications" organized by COVSc & AH, ANDUAT, Kumarganj, Ayodhya	06-07 May, 2022
	Dr S.P. Singh best research paper award 2019	XVIII Annual conference of IAVPHS organized by ICAR Research complex for NEH region Umiam, Meghalaya	1- 2 Dec., 2022
Dr. Udit Jain	Member of Executive Committee of "Indian Association of Veterinary Public Health Specialists	XVIII Annual conference of IAVPHS organized by ICAR Research complex for NEH region Umiam, Meghalaya	1- 2 Dec., 2022
Dr. Shriprakash Singh	Zonal Secretary (North Zone) of IAVA	Indian Association of Veterinry Anatomists	2022
	Best poster Award (2022)	XXXV Annual Conference of Indian Poultry Science Association Proceedings of Indian Poultry Science Association Conference (IPSACON-2022) organized by Dept. of Poultry science, COVSc, DUVASU, Mathura	6 -8 Nov., 2022.
Dr. Anuj Kumar	Best paper award	National symposium and XXXVII annual convention of the Indian Society for study of Animal Reproduction on "optimizing animal reproduction through recent techniques of biotechnology, nutraceuticals and alternative medicine" at NDVSU, Jabalpur	16-18 Nov., 2022.
Dr. M K Srivastava, Dr. A Srivastava Dr. A K Tripathi	Best oral presentation award (3rd)	AOMCONF-2022	19-20 Oct., 2022
Dr. Mukesh Kr Srivastava	"Management of recurrent urinary tract infections induced kidney disease in canine through Ayurveda" during	3rd Annual Convention of VIPM	7-9 Oct., 2022

Dr. Mukesh Kr Srivastava	Therapeutic management of recurrent allergic dermatitis (sweet itch) in horse through Ayurveda	3rd Annual Convention of VIPM	7-9 Oct., 2022
Dr. D.N. Singh	Dr. C.M. Singh Veterinary Science Excellence award-2022	Pashudhan Prahari	30 Nov.,2022
	Dr. V. Kurrien Award of Excellence- 2022	Pashudhan Prahari	2022
Dr. A K Tripathi, Dr. P N Panigrahi	Best poster presentation award (1st)	AOMCONF-2022	19-20 Oct., 2022
Dr. A K Tripathi, Dr. M K Srivastava, Dr. A Srivastava, Dr. A Chaudhury, Dr. P.N. Panigrahi	Best oral presentation award (3rd)	AOMCONF-2022	19-20 Oct., 2022
Dr. A K Tripathi	Best poster presentation award (1st)	AOMCONF-2022	19-20 Oct., 2022
	Best poster presentation award (3rd)		
	Best poster presentation award		
Dr. Ajay Pratap Singh	Best Oral Presentation award	8th International Conference of Indian Society of Genetics, Biotechnology Research and Development on Wildlife-Bioscience, Biotechnological Innovations and Avant Garde Genetic Technologies	20-21, Feb., 2023.
	Best Oral Presentation award (Team),	1st National Conference of Association of Mastitis	19-20 Oct., 2022
Dr. Soumen Choudhury	Best Oral Presentation Award	WBBIAGT-2023	
Dr. Meena Goswami	Dr. C M Singh Veterinary Science Excellence Award 2022	Pashudhan Praharee	2022
	Best paper presentation award	International Conference on Food Microbiology and Food Safety (ICFMFS) held in Phuket, Thailand in online mode	06-07 Dec., 2022
	Technical session chair and Invited speaker	International Conference on Food Microbiology and Food Safety (ICFMFS) held in Phuket, Thailand in online mode	

Dr. Ruchi Tiwari	Young Researcher of the Year Award-2022	IV National Education Excellence Conclave Cum VI National Excellence Award Ceremony by Integrated Chambers of Commerce and Industry	30 Jul., 2022
	Highly Cited Researchers (HCR) 2022 Award	ClarivateTM (Clarivate Analytics, Thomson Reuters, Web of Science) https://recognition.webofscience.com/awards/highly-cited/2022/	2022
Dr. S.K.Bharti	1st prize for oral paper presentation	XXXVII Indian Poultry Science Association Conference (IPSACON 2022) and National Symposium on "Recent advances in sustainable poultry production for livelihood and nutritional security" organized at DUVASU, Mathura	4-6 Nov.,2022
Dr. Rajkumar Singh Yadav	First Prize in Poster Presentation	1st National Conference of Association of Mastitis entitled "Implications of Mastitis"	19-20 Oct., 2022
Dr. Abhinov Verma	Best PhD Thesis Award- 2022 (Basic Science Category)	12th Convocation of DUVASU, Mathura	3 Mar., 2023.
	Dr.C. Vijayaragavan Memorial Silver Jubilee Medal and Award for Best Paper	XXXVI Annual Convention of Indian Association of Veterinary Anatomists and National Symposium organized by Department of veterinary Anatomy, College of Veterinary Science, Udaipur Rajasthan,	20-22 Dec 2022.
	Reviewer Excellence Award	The Haryana Veterinary Journal	2022
Dr. Vinod Kumar Singh	Dr. C.M. Singh Best Ph.D Scholar Award	Dr. C.M. Singh Birth Centenary Year Celebrations (30.11.2021 - 30.11.2022) & National Webinar on Advances of Veterinary Sciences during 75 Years of Indian Independence (1947-2022) organized by Dr C.M. Singh Endowment Trust, Bareilly, UP	30 Nov., 2022
	Registration sponsorship to participate in 8th Annual Conference of Asian Council of Science Editors	Science Alert (UAE) under the Science Alert Capacity Building Program	21st Aug., 2022
	Best oral presentation award (Team) during	XXXVII annual conference of IPSACON Organized by Department of Poultry Science, COVS & AH, DUVASU, Mathura	19-20 Oct., 2022.
	Best oral presentation award (I[st])	Technical Session-I during 8th International Conference of Indian Society of Genetics, Biotechnology Research and Development (WBBIAGT 2023)	20-21 Feb., 2023

	Best oral presentation award (Ist)	Technical Session-III during 8th International Conference of Indian Society of Genetics, Biotechnology Research and Development (WBBIAGT 2023)	
Dr. Rashmi	Best PhD Thesis award	8th International Conference on Wildlife-Bioscience, Biotechnological Innovations and Avant-garde Genetic Technologies (WBBIAGT) Organizes by Indian Society of Genetics, Biotechnology Research and Development, Agra	20-21 Feb., 2023
Dr. Ajay Kumar	Young Scientist Award- 2022	GRISAAS-2022	23 Nov., 2022
Dr. Vikas Sachan	Best PhD thesis award (Veterinary clinical subjects)	12th Convocation of DUVASU, Mathura	3 Mar., 2023.
Dr. Amit Shukla	Best Oral Presentation Award	8th Annual Conference of Wildlife - Bioscience, Biotechnological Innovations and Avant-garde Genetic Technologies" (WBBIAGT 2023)	20-21 Feb., 2023
	Second Prize in Poster Presentation	IPSACON-2022	4-6 Nov., 2022
	First Prize in Poster Presentation	1st National Conference of Association of Mastitis entitled "Implications of Mastitis"	19-20 Oct., 2022.
Dr. P N Panigrahi, Dr. A K Tripathi	Best oral presentation award (1st)	AOMCONF-2022,	19-20 Oct., 2022.
Dr. P N Panigrahi, Dr. A K Tripathi	Best oral presentation award (1st)		
Dr. P N Panigrahi, Dr. A K Tripathi, Dr. M K Srivastava, Dr. A Srivastava,	Best oral presentation award (1st)		
Dr. Avneesh Kumar	Innovative Biotechnologist Award -2023	Conferred by Indian Society of Genetics, Biotechnology Research and Development (ISGBRD), Agra, UP	21 Feb., 2023.
	Young Scientist Award	IV International Conference in Hybrid mode on “Innovative and Current Advances in Agriculture & Allied sciences (ICAAAS-2022)” organized by Himachal Pradesh University, Summer Hill, Shimla,	12-14 Jun., 2022
Dr. Renu Singh	2nd Best poster presentation	NCAM, Implications of Mastitis-2022	

Dr. Sanjay Purohit receiving
Gaon Gyan Paraitoshik Award - 2023

Dr. Abhinov Verma receiving
Best Ph.D. Thesis Award - 2023

Students

Name of Scientist	Name of Award	Event	Date
Dr. Mahentesh Shetkar	Young Scientist Award	In the 8th International conference on wildlife bioscience, Biotechnological Innovations and Avant-Garde Genetic Technologies at DUVASU Mathura in collaboration with Indian Society of Genetics, Biotechnology Research and Development (ISGBRD), Agra, UP.	20-21 Feb, 2023
	First Position in Oral presentation	On presenting paper entitled "Genetic analysis of economic traits in Hariana cattle" in the 8th International conference on "wildlife bioscience, Biotechnological Innovations and Avant-Garde Genetic Technologies" at DUVASU Mathura on 20-21 Feb, 2023.	20-21 Feb, 2023
	Awarded Best Oral Presentation award	On presenting paper entitled "Development of predictive models for lifetime performance traits in Hariana cattle" in the 8th International conference on "wildlife bioscience, Biotechnological Innovations and Avant-Garde Genetic Technologies" at DUVASU Mathura on 20-21 Feb, 2023.	20-21 Feb, 2023
Dr. Babita Solanki	Awarded Best Oral Presentation award	On presenting paper entitled "Genetics in wildlife conservation to save endangered species" in the 8th International conference on "wildlife bioscience, Biotechnological Innovations and Avant-Garde Genetic Technologies" at DUVASU Mathura on 20-21 Feb, 2023	20-21 Feb, 2023

RESEARCH PUBLICATIONS

Publications

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2. Anand M, Yadav S, Dhariya R, Vaswani S and Chaudharya D. (2023). Effect of silage feeding on post thaw semen quality in Jamunapari buck. *International Journal of Veterinary Sciences and Animal Husbandry* 8(1): 01-04.
3. Anand M, Yadav S, Dhariya R, Vaswani S and Chaudharya D. (2023). Effect of silage feeding on post thaw semen quality in Jamunapari buck. *International Journal of Veterinary Sciences and Animal Husbandry* 8(1): 01-04.
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Review Articles

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ESTATE OFFICE

New constructions/Renovation and repair work done by Estate of the University.

S. No.	Details of work	Working Organization	Total sanctioned amount (in lacs)	Status of work
1.	Repair and renovation work in the Health center of University	U.P.R.N.S.S.	13.68	Work in progress
2.	Civil work in camp office of Vice Chancellor	U.P.R.N.S.S.	06.95	Work completed
3.	Construction at Goat Farm of DUVASU, Mathura ➢ Construction of two new sheds at the Goat Farm ➢ Division of newly established area at goat farm into two parts with the help of meshwork for two breeds of goats ➢ Construction of area for kids at 4 number shed of goat farm with the help of meshwork	U.P.R.N.S.S.	15.87	Work completed
4.	Construction of platinum Jubilee monument in the main campus of University	U.P.R.N.S.S.	26.63	Work in progress
5.	Fencing on the boundary wall of New Girls Hostel of University	U.P.P.C.L	00.86	Work completed
6.	Repair work of open sheds and manger area at the Dairy farm. White wash and painting of walls and roof of sheds	U.P.S.C.I.D.C	28.55	Work in progress

FINANCIAL STATUS

(in Lacs)

S. No.	Budget Source	Salary	Contingency	Total
1.	State Government	5317.64	2932.19	8249.83
	KVK	145.00	9.25	154.25
	Other project IDP (NAHEP) FMD EVM AICRP DIMISCA RKVY		20.03 484.25 4.92 4.88 5.75 6.25 31.00	557.08
2.	ICAR Development SCSP Subplan Internship NTS		30.20 30.00 19.70 7.18	87.08
3.	University Receipt		890.74	890.74
			Total	9938.98
4.	2020-21 State Government	4602.42	1754.50 323.49 (Hostel construction)	6680.41

RIGHT OF INFORMATION ACT

In compliance of the order of Govt. of Uttar Pradesh and provision of RTI Act, 2005, PIO received 60 applications out of which 44 applications were cleared and 16 are under consideration during 2022-23.

उ.प्र. पं. दीनदयाल उपाध्याय पशु चिकित्सा विज्ञान विश्वविद्यालय
एवं गो अनुसंधान संस्थान, मथुरा–281001 (उ.प्र.)

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