वार्षिक प्रतिवेदन
ANNUAL REPORT
2023-2024

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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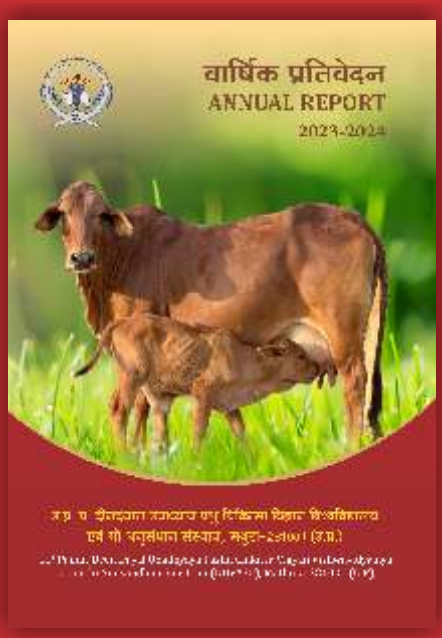

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FOREWORD

I feel immense pleasure and pride to present the Annual Report of U.P. Pandit Deen Dayal Upadhayaya Pashu Chikitsa Vigyan Vishwavidyalaya Evam Go Anusandhan Sansthan (DUVASU), Mathura, for the year 2023-24. This report showcases the exceptional accomplishments of the past reporting year as another feather of glory, including significant international visits by faculty and students aimed at enhancing knowledge and skills, as well as notable achievements in academic quest, research pursuits, extension activities, recruitment of new faculties and infrastructure development. During this period, 22 research projects were actively functional in the university. Among these, 7 were funded by RKVY, 4 by ICAR, 7 were supported through various other Govt. agencies such as UPCAR, DAHD, CCRH, DBT and 4 were sponsored by esteemed private organizations.

The University boasts a premier Veterinary Clinical Complex, equipped with cutting-edge technology and a fully modernized diagnostic laboratory. In the reporting year 2023-2024, the complex handled a total of 15,296 clinical cases involving both small and large animals and generated revenue of Rs. Rs. 13,99,715.00. The University continues to provide exceptional diagnostic and clinical services to livestock and pets in Mathura and the surrounding districts. DUVASU students have excelled in an array of activities, including sports meets, cultural events, youth festivals, NCC and NSS programs, at university, state and all India levels, bringing significant commendation to the University.

The University has also undertaken experiential learning programs across various departments of the College of Veterinary Science and Animal Husbandry. These programs offer hands-on training to students, farmers, animal rears and unemployed rural youth, enhancing their self-sustainability. During the year, the University celebrated Deekshotsav maah-2024 by organizing numerous activities for students, faculty and staff of the university. In 2023-24, the University welcomed a distinguished group of dignitaries, academicians, scientists, and diplomats from diverse renowned institutes of India and overseas from USA, UK, Thailand and Bangladesh, who imparted their valuable insights with the faculty & administration of University.

The Department of Veterinary and Animal Husbandry Extension Education, supported by the Veterinary College faculty and KVK, conducted numerous training sessions aimed at upgrading the knowledge of farmers, farm women, animal owners, field veterinarians, para-veterinary professionals of the Sashastra Seema Bal, and unemployed rural youth. The University successfully organized six memorial oration lectures, four national-level brainstorming sessions, two international and one national workshop, one hands-on training programme sponsored by SCSP-ICAR, one national conference and various expert lectures. Additionally, several other trainings and workshops were held, and academic recruitment procedures were conducted to attract talented faculty for grooming the budding veterinary professionals. The quality of research at the University is evidenced by more than 88 publications in peer-reviewed journals, which have contributed to increasing the University's international ranking. Faculty members have received numerous prestigious awards, national and international honors, and recognitions. I extend my heartfelt gratitude to Her Excellency, Smt. Anandiben Patel ji, Governor of Uttar Pradesh and the Hon'ble Chancellor of the University, the Additional Chief Secretary to the Hon'ble Governor, and the Principal Secretary of Animal Husbandry, Government of Uttar Pradesh, for their support in infrastructure and administrative matters. I also acknowledge the financial support from various agencies, including UPCAR,

the Government of Uttar Pradesh, RKVY, ICAR, and the Government of India, which has been instrumental in supporting collaborative research efforts.

Looking ahead, our goal is to provide a versatile and comprehensive educational experience to maintain robust research facilities to engender startup encouraging and employment oriented education. We aspire to address emerging health challenges and evolving paradigms driven by novel pathogens in the context of climate change by enhancing educational excellence, integrating digital learning, and focusing on demand-driven research to ensure nutritional security and promote sustainable livelihood. In the future, we will focus on enhancing our connections with stakeholders, improving the safety of milk and meat production, and boosting farmers' incomes through increased productivity, value addition, and the assurance of high quality and safety in animal-based food products.

The dedicated work of the Editorial Committee in compiling this Annual Report, highlighting the University's various activities and achievements, is sincerely appreciated.

(A. K. Srivastava)

प्राक्कथन

मुझे आपके समक्ष यू0पी0 पंडित दीन दयाल उपाध्याय पशु चिकित्सा विज्ञान विश्वविद्यालय एवं गो अनुसंधान संस्थान (दुवासु), मथुरा की वर्ष 2023-2024 की वार्षिक रिपोर्ट प्रस्तुत करते हुए अपार प्रसन्नता और गर्व महसूस हो रहा है। यह रिपोर्ट पिछले रिपोर्टिंग वर्ष की असाधारण उपलब्धियों को एक और गौरवपूर्ण वर्ष के रूप में प्रदर्शित करती है, जिसमें ज्ञान और कौशल को बढ़ाने के उद्देश्य से संकाय सदस्यों और छात्रों द्वारा महत्वपूर्ण अंतर्राष्ट्रीय यात्राओं के साथ-साथ शैक्षणिक अभिविन्यास, अनुसंधान कार्यों, प्रसार गतिविधियों, नए शिक्षकों की भर्ती और बुनियादी ढांचे के विकास में उल्लेखनीय उपलब्धियाँ शामिल हैं। दुवासु के छात्रों ने विश्वविद्यालय, राज्य और अखिल भारतीय स्तर पर खेल प्रतियोगिताओं, सांस्कृतिक कार्यक्रमों, युवा समारोहों, एन0सी0सी0 और एन0एस0एस0 कार्यक्रमों सहित कई गतिविधियों में उत्कृष्ट प्रदर्शन किया है, जिससे विश्वविद्यालय की काफी प्रशंसा हुई है। इस अवधि के दौरान, विश्वविद्यालय में 22 शोध परियोजनाऐं सक्रिय रूप से काम कर रही थीं। इनमें से 7 को आर0के0वी0वाई0 द्वारा वित्त पोषित किया गया था, 04 को आई0सी0ए0आर0 द्वारा, 07 को यू0पी0सी0ए0आर0, डी0ए0एच0डी0, सी0सी0आर0एच0, डी0बी0टी0 जैसी विभिन्न एजेंसियों के माध्यम से सहायता प्रदान की गई थी और 04 को प्रतिष्ठित निजी संगठनों द्वारा वित्त पोषित किया गया था। विश्वविद्यालय में अत्याधुनिक प्रौद्योगिकी और पूरी तरह से आधुनिक नैदानिक प्रयोगशाला से सुसज्जित एक प्रमुख पशु चिकित्सा नैदानिक परिसर है। रिपोर्टिंग वर्ष 2023-2024 में, छोटे और बड़े दोनों जानवरों से जुड़े कुल 15,296 नैदानिक मामले प्रस्तुत किए गए और वी0सी0सी0 द्वारा वर्ष 2023-2024 के दौरान कुल रु0 13,99,715.00 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।

विश्वविद्यालय ने पशु चिकित्सा विज्ञान और पशुपालन महाविद्यालय के विभिन्न विभागों में अनुभवात्मक शिक्षण कार्यक्रम भी शुरू किए हैं। ये कार्यक्रम छात्रों, किसानों, पशु पालकों और बेरोजगार ग्रामीण युवाओं को उनकी आत्मनिर्भरता को बढ़ाने के लिए व्यावहारिक प्रशिक्षण प्रदान करते हैं। इस अवधि के दौरान, विश्वविद्यालय के छात्रों, संकाय और कर्मचारियों के लिए कई गतिविधियों का आयोजन करके दीक्षोत्सव माह-2024 मनाया। विश्वविद्यालय ने भारत और विदेशों के विभिन्न प्रसिद्ध संस्थानों के गणमान्य व्यक्तियों, शिक्षाविदों, वैज्ञानिकों और राजनयिकों के एक प्रतिष्ठित समूह का स्वागत किया, जिसमें ओक्लाहोमा स्टेट यूनिवर्सिटी, यू0एस0ए0; पुड्र्यू यूनिवर्सिटी, यू0एस0ए0; यूनिवर्सिटी ऑफ इलिनोइस, यू0एस0ए0 और बंगबंधु शेख मुजीबुर रहमान, कृषि विश्वविद्यालय, बांग्लादेश शामिल हैं, जिन्होंने विश्वविद्यालय के संकाय और प्रशासन के साथ अपने समृद्ध अनुभवों को साझा किया।

पशु चिकित्सा महाविद्यालय संकाय, कृषि विज्ञान केंद्र और पशु चिकित्सा और पशुपालन प्रसार विभाग ने किसानों, महिलाओं, पशु पालकों, पशु चिकित्सकों, सशस्त्र सीमा बल के परा-पशु चिकित्सा पेशेवरों और बेरोजगार ग्रामीण युवाओं के ज्ञान को उन्नत करने के उद्देश्य से कई प्रशिक्षण सत्र आयोजित किए। विश्वविद्यालय ने छह स्मारक व्याख्यान, चार राष्ट्रीय स्तर के विचार-मंथन सत्र, दो अंतर्राष्ट्रीय और एक राष्ट्रीय कार्यशाला, एस0सी0ए0एस0पी0- आई0सी0ए0आर0 द्वारा प्रायोजित एक व्यावहारिक प्रशिक्षण कार्यक्रम, एक राष्ट्रीय सम्मेलन और विभिन्न विशेषज्ञ व्याख्यानों का आयोजन सफलतापूर्वक किया। इसके अतिरिक्त, कई अन्य प्रशिक्षण और कार्यशालाएं आयोजित की गईं, और पशु चिकित्सकों के विकास के लिए प्रतिभाशाली संकाय को प्राप्त करने के लिए शैक्षणिक भर्ती प्रक्रियाएं आयोजित की गई। विश्वविद्यालय में अनुसंधान की गुणवत्ता का प्रमाण अच्छे उद्धरणों के साथ शोध पत्रिकाओं में 88 से अधिक प्रकाशनों से मिलता है, जिन्होंने विश्वविद्यालय की अंतर्राष्ट्रीय रैंकिंग बढ़ाने में योगदान दिया है। विश्वविद्यालय के कई संकाय सदस्यों ने विभिन्न राष्ट्रीय और अंतर्राष्ट्रीय सम्मान, कई प्रतिष्ठित पुरस्कार और मान्यता प्राप्त की है।

मैं विश्वविद्यालय की माननीय कुलाधिपति और उत्तर प्रदेश की माननीय राज्यपाल महामहिम श्रीमती आनंदीबेन पटेल जी, अतिरिक्त मुख्य सचिव, पशुपालन और प्रधान सचिव, पशुपालन, उत्तर प्रदेश सरकार को इस संस्थान के बुनियादी ढांचे और प्रशासनिक मामले में उनके समर्थन के लिए अपना हार्दिक धन्यवाद और आभार व्यक्त करता हूँ। मैं विश्वविद्यालय को सहयोगात्मक अनुसंधान सहायता के लिए यू0पी0सी0ए0आर0 उत्तर प्रदेश सरकार, आर0के0वी0वाई0, आई0सी0ए0आर0, नई दिल्ली और भारत सरकार (जी0ओ0आई0) सहित विभिन्न वित्तीय एजेंसियों से समय-समय पर प्राप्त वित्तीय सहायता की हार्दिक सराहना करता हूँ। आने वाले भविष्य में, हमारा लक्ष्य स्टार्टअप को प्रोत्साहित करने और रोजगार उन्मुख शिक्षा के लिए मजबूत अनुसंधान सुविधाओं को बनाए रखने के लिए एक बहुमुखी और व्यापक शैक्षिक अनुभव प्रदान करने की दिशा में कार्य करना है। हम उभरते स्वास्थ्य मुद्दों और जलवायु परिवर्तन के संदर्भ में उभरते नए रोग जनकों का समाधान करने, शिक्षा में उत्कृष्टता बढ़ाने, डिजिटल शिक्षा को एकीकृत करने और पोषण सुरक्षा और पशु आधारित खाद्य उत्पादों से आजीविका सुनिश्चित करने के उद्देश्य से मांग-आधारित अनुसंधान पर ध्यान केंद्रित करने की आकांक्षा रखते हैं। भविष्य में, हम हितग्राहियों के साथ अपने संबंधों को बढ़ाने, दूध और मांस उत्पादन की सुरक्षा में सुधार करने और उत्पादकता में वृद्धि, मूल्यवर्धन और पशु-आधारित खाद्य उत्पादों में उच्च गुणवत्ता और सुरक्षा के आश्वासन के माध्यम से किसानों की आय को बढ़ाने पर ध्यान केंद्रित करेंगे।

मैं, विश्वविद्यालय की विभिन्न गतिविधियों और उपलब्धियों पर प्रकाश डालने वाली इस वार्षिक रिपोर्ट को संकलित और प्रकाशित करने में 'संपादकीय समिति' द्वारा किए गए समर्पित कार्य की सराहना करता हूँ।

Srivastava

(डा. ए. के. श्रीवास्तव)

CONTENTS

EXECUTIVE SUMMARY

TEACHING

- During 2023-24, College of Veterinary Science and Animal Husbandry admitted 100 students in B.V.Sc.&A.H. programme, out of which 36% were girls. In M.V.Sc. and Ph.D. programmes, 69 and 04 students were admitted, respectively.
- During the same year, 04 students received Ph.D., 32 students M.V.Sc. and 79 students B.V.Sc.&A.H. degree from College of Veterinary Science and Animal Husbandry.
- During the reporting year, College of Biotechnology admitted 40 B.Tech. (Biotechnology) and 02 M.Sc. (Biotechnology) students and also awarded B.Sc. (H) Biotechnology/Industrial Microbiology degree to 27 students.
- During 2023-24, 60-60 students were admitted to Diploma in Veterinary Pharmacy (DVP) and Diploma in Livestock extension (DLE) programmes, respectively and 51 and 57 students completed their DVP and DLE programmes, respectively.
- During the same year, 04 students of College of Veterinary Science and Animal Husbandry, DUVASU, Mathura qualified JRF examination-2023 with All India Rank (AIR)-11, Category (CAT) Rank-02, AIR-30, AIR-42 and AIR-60.
- Veterinary Clinical Complex (VCC) of the University is well equipped with modern facilities which include small and large animal operation theatres, two ICUs for pets, C-arm image intensifier, digital X –ray machine, CCTV camera, USG machine, laparoscopy set, mobile X-ray machine, small animal anesthesia machine, loading and unloading platform and indoor unit for small and large animals. During 2023-24, total of 15,296 clinical cases were handled and a total revenue of Rs. 13, 99,715.00 was generated.
- Disease Diagnostic Laboratory of VCC is well equipped with digital microscope, dry chemistry analyzer, hematology analyzer electrolyte analyzer. During 2023-24, 1,896 clinical samples were analyzed and a revenue of Rs. 6, 64,630.00 was generated.
- 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.
- 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.
- The Department of Livestock Products Technology (LPT) is running a revolving project on “Processing of milk, meat and eggs for value added products”. Experiential Learning Programme in Department of LPT imparted practical trainings on preparation of different milk and meat products to undergraduate and post-graduate students.
- During the reporting year, 1741.50 liters of surplus milk from Livestock Farm Complex was processed into 222.10 kg paneer and 72.0 kg khoya. Total 5.10 kg of chicken nuggets and 1.50 kg chicken patties were also prepared under revolving fund scheme. The profit generated from milk and meat products was Rs. 11,347.00.
- University Library has 35,885 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

facilities of the library are: 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.

- Feed production and processing project under Department of Animal Nutrition has a feed processing unit and Urea molasses mineral block unit. It prepared 100 quintal/yr area specific mineral mixture which was sold to the farmers on nominal cost.

RESEARCH

- During the reporting year, 22 externally funded projects were running in various Departments of College of Veterinary Science and Animal Husbandry. Out of these, 07 projects were funded by RKVY, 04 projects by ICAR, 03 projects by UPCAR, 02 project funded by DAHD, GOI, 01 project by CCRH, New Delhi, 01 project by DBT, 01 project by Avitech Nutrition, Gurgaon, Hariana, 01 project by Essence Natura Private Limited Panchkula Haryana, India, 01 project by Ayurvet Limited, Katha, Baddi, and 01 project was funded by IIL, Hyderabad, respectively.
- During 2023-24, 01 PhD. and 25 M.V.Sc. thesis in Veterinary and Animal Sciences subjects were submitted as per academic research in various Departments.
- During the year under report, University published 84 research publications and four review articles.

EXTENSION

- During 2023-24, Department of Veterinary and Animal Husbandry Extension Education organized seven specialized/short trainings on the campus benefitting 496 participants, 34 exposure visits of students and farmers in Pashu Gyan Chaupal, Dairy Farm and Goat Unit and 31 exposure visits of 862 farmers, students and dignitaries at University Poultry farm.
- Department of Veterinary and Animal Husbandry Extension conducted 03 MAITRI trainings for 127 farmers/livestock owners, 02 trainings for 38 Para-Veterinary Professional's of Sashastra Seema Bal (SSB) and 05 trainings for 100 farmers under SC-SP Plan, 08 exposure visits of 415 students and 26 of 723 farmers from different districts of Uttar Pradesh and Chhattisgarh were also conducted.
- During this year, various extension trainings were organized by different Departments of College of Veterinary Science and Animal Husbandry including 01 workshop cum gosthi and 02 awareness camp/exposure visit programmes for farmers by Department of Pharmacology & Toxicology, two training programmes by Department of Anatomy, one training programme by Department of LPM, one awareness camp and one training programme by Department of LPT and 05 training programmes for Veterinary officers, four for AI Worker's and three for farmers by Department of Veterinary Physiology.
- During this year, total 94 trainings were conducted by KVK scientists for 2,922 participants. Out of these, 74 trainings were for farmers and farm women, 03 for rural youth, and 17 for extension functionaries, through which 2,181 farmers and farm women, 65 rural youth and 676 extension functionaries were trained.
- To demonstrate the production potential of various proven technologies, the frontline demonstrations on farmers field were conducted for 340 farmers and livestock owners.
- Under the technology assessment and refinement, technology assessed for various crops were 11 with 70 number of trials, wherein 70 farmers were benefitted. Total 125 extension activities were conducted by KVK for 12,300 participants. KVK provided 550 mobile advisory services to the farmers of the adjoining districts.
- In the year 2023-24, KVK produced 541 quintal seeds, 62,500 planting material and 785.00 kg. bio-products and generated a total revenue of Rs. 20.00 lac, Rs. 6,125.00 and Rs. 3,925.00 respectively through these products.

- During this year, soil and water testing laboratory of KVK analyzed 942 soil and 82 water samples and on the basis of result recommendations for balanced fertilization and watering were given to 600 beneficiaries and generated a revenue of Rs. 6,594.00.
- Mahila Adhyan Kendra unit of DUVASU, Mathura organized various activities such as nukkad natak, painting, quiz and essay writing competition, awareness camps and classes on health education for girls and women in University Campus and Bandi village, Baldev, Mathura, U.P.

UNIVERSITY FARMS

- During 2023-24, total milk production at LFC was 1,64,968.50 liters, out of which, the production of cow milk was 1,26,768.50 liters and that of buffalo milk was 38,200.00 liters. The total revenue generated during this period was Rs. 53,37,110.00.
- Poultry Farm of the University maintained variety of species and breeds including layers, Cockerels, Chabro, Aseel, Kadaknath, Naked neck, Japanese quail, Turkey, Guinea fowl and Emu. The revenue of Rs. 13,41,582.00 was generated from sale of different birds and eggs.
- Additionally, a sum of Rs. 8,10,041.00 and Rs. 2,16,376.00 was generated from sales of poultry products under Experiential Learning Unit (ELU) and revolving funds in Poultry Science Department respectively.
- The revenue generated from Madhuri Kund Farm of the University during financial year 2023-24 from seeds was Rs. 58,48,498.00.
- The revenue generated from Fodder and Forage Research Division of the University during financial year 2023-24 through the sale of seeds, straw and green fodder was Rs. 38,73,470.00.

HUMAN RESOURCE DEVELOPMENT

- In the year 2023-24, 28 posts (permanent) of faculty members in the College of Veterinary Sciences and Animal Husbandry were filled through direct recruitment. Further, in the same year, two faculty members were promoted under CAS from AGP Rs. 7,000.00 to Rs. 8,000.00, seven faculty members were promoted from Assistant Professor to Associate Professor and two from Associate Professor to Professor. The recruitment of 09 and 09 faculty members (self-financed) was also done in the College of Biotechnology and in the Institute of Para-Veterinary Science, respectively.
- During the year under report, Department of Surgery and Radiology, DUVASU, Mathura organized 03 Six-Days short trainings for Veterinary Officers of Government of Uttar Pradesh under the aegis of the ICAR-All India Network Programme on Diagnostic Imaging and Management of Surgical Conditions in Animals (AINP-DIMSCA) Scheme at DUVASU, Mathura.
- Uttar Pradesh Pandit Deen Dayal Upadhyaya Pashu Chikitsa Vishvavidyalay evam Go Anusandhan Sansthan (DUVASU), Mathura, Uttar Pradesh commemorated 'Deekshotsav Maah-2024' from February 5th, 2024 to March 4th, 2024 by organizing various academic, research, extension and other extra-curricular activities throughout the month.
- Department of Veterinary Pathology organized National Brainstorming Session on "Trans-boundary Animal Diseases: Way Forward for Prevention and Control" on February 19th, 2024.
- Department of Veterinary Physiology organized National Conference of Indian Society for Buffalo Development (ISBD) from October 27th-28th, 2023.
- Department of LPM organized one day brainstorming session on "Economic Use of Low Productive Animals" at Department of Livestock Production Management (LPM), on February 22nd, 2024.
- Under the flagship of IDP-NAHEP, ICAR, Government of India, an International Workshop on 'One Health' was organized by

Department of Biochemistry at DUVASU, Mathura during on December 13th-15th, 2023.

- Department of LPT organized three days International Workshop on "Quality and Safety Audits of Foods from Animal Origin" under IDP-NAHEP from December 20th -22nd, 2023.
- In collaboration with ICAR-IASRI, the University conducted a two-day workshop for students and faculty on NARES-Blended Learning Platform (BLP) during October 30th - 31st, 2023.
- Department of Pharmacology and Toxicology organized a DST-SERB sponsored Karyashala from June 28th-July 07th, 2023 and 10-days Hands on Training programme from February 7th-16th, 2024 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. The Department also organized One Day Brain Storming Session on the topic "Reverse Pharmacology: A Wind Fall to the Post-COVID Therapeutics" on February 13th, 2024.
- During 'Deekshotsav Maah', University organized four memorial oration lectures viz., Dr. B. P. Pande memorial oration lecture on February 16th, 2024, Dr. P.G. Pandey Memorial oration lecture on February 17th, 2024, Dr. S.K. Talpatra memorial oration lecture on February 23rd, 2024 and Dr. C.M. Singh memorial oration lecture on February 28th, 2024.
- Department of Veterinary and Animal Husbandry Extension organized a one-day brainstorming session on 'Livestock Propagation Model for India' on February 20th, 2024.

STUDENT WELFARE

- On 9th International Yoga Day, a special Yoga Shivir was organized on June 21st, 2023 by the University, With active participation of Hon'ble Vice-Chancellor Prof. (Dr.) Anil Kumar Srivastava, faculty, staff member and students.
- During year 2023-24, University awarded scholarship to 06 meritorious students. The University also forwarded 343 students applications for the award of scholarship offered by the Department of Social Welfare, Govt. of UP and 12 Students received National Talent Scholarship (NTS) of ICAR.
- DUVASU T10 Cricket Tournament-2023 was played between eight teams of students of Veterinary College, Biotechnology College, and Diploma Institute from May 19th to June 26th, 2023.
- Fresher's party was thrown for first year students of B.V.Sc.&A.H. on September 30th, 2023, for Biotechnology students on October 19th, 2023 and for students of Para-Veterinary Science on October 31st, 2023.
- 21st Annual Sports of DUVASU, Mathura was organized from March 11th-12th, 2024 when a number of games and sports like football, volleyball, hockey, table-tennis, badminton, chess, kho-kho, kabaddi, cricket and athletics were played.
- 1st State Level Inter Agricultural/Veterinary Universities Youth Festival "Aahwaan 2023" was organized for the first time by the University from December 21st-22nd, 2023.
- During the year 2023-24, 22 and 36 NCC cadets appeared in 'B' and 'C' certificate examinations respectively. 32 NCC- registered students participated in an NCC Camp organized from October 23rd to November 1st, 2023 at Universal College, Hathras, U.P.
- NCC cadets presented Guard of Honour to Her Excellency Smt. Anandiben Patel Ji, Governor of Uttar Pradesh in 13th Convocation of the University on March 4th, 2024. They also presented Guard of Honour to the Hon'ble Vice Chancellor of the University on Independence Day, 2023 and Republic Day,2024.

OTHER HIGHLIGHTS AND ACTIVITIES

- University successfully conducted the Undergraduate entrance examination-2023 (UGEE-2023), Pre-Diploma Entrance

Examinations (PDET-2023) and Postgraduate (M.V.Sc. and Ph.D.) Entrance Examinations (PGEE-2023) during the year 2023-2024.

- The 13th convocation of DUVASU, Mathura was held on March 4th, 2024. 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, Her excellency Smt. Anandiben Patel Ji.
- Blood donation camp was successfully organized jointly by the University and 1 UP R&V SQN NCC, Mathura on October 2nd, 2023 at University campus.
- 'World Egg Day-2023' was celebrated by College of Veterinary Science and Animal Husbandry, DUVASU, Mathura on October 13th, 2023.
- DUVASU signed the MOU's with two International Universities *viz.* Oklahoma State University's College of Veterinary Medicine, Stillwater, Oklahoma, USA, and Purdue University, United States.
- Saraswati pooja was performed to celebrate the Basant Panchami on February 14th, 2024 at University Library.
- 22nd Foundation day of DUVASU, Mathura was celebrated with oration lectures of two distinguished speakers *viz.* Dr. Bhupendra Nath Tripathi, Vice-Chancellor, SKUAST, Jammu and Kashmir on October 25th, 2023 and Dr. T. K. Dutta, Director, ICAR-Central Institute for Research on buffaloes, Hisar, Haryana on October 26th, 2023.
- World Zoonoses Day was organized with the theme of "Zoonoses: Current Scenario" on July 5th, 2023 in the University.
- Review meeting of the 'Internal Quality Assurance Cell' (IQAC) of the University was held on February 5th, 2024 at Uttar Pradesh Pandit Deen Dayal Upadhyaya Pashuchikitsa Vishvavidyalay evam Go Anusandhan Sansthan (DUVASU), Mathura, U.P.
- Mahila Adhyayan Kendra of the University organized a meeting for rural women of the adopted villages Shahjadpur, block-Farah and Bandi, block-Baldev on February 7th, 2024.
- Best Department, best teacher and best research thesis (03 best M.V.Sc. thesis and 02 best Ph.D. thesis) were awarded at 13th convocation of DUVASU, Mathura on March 04th, 2024.
- A meeting of the Scientific Advisory Committee of Krishi Vigyan Kendra was held on February 24th, 2024.
- University celebrated Ambedkar Jayanti, Independence Day, birth anniversary of Pt. Deen Dayal Upadhyaya, Gandhi Jayanti, Hindi Diwas and Republic Day during the year 2023-24.

AWARDS AND HONOUR / ACHIEVEMENTS

- Dr. Amit Kumar Jaiswal was granted Patent on "Essential Oil Based Formulation for Control of *Rhipicephalus microplus* Tick" on February 14th, 2024.
- Dr. Barkha Sharma received Citation and Vice chancellor Appreciation Award-2023 for her services in the capacity of Recruitment Officer, DUVASU, by the Hon'ble VC, DUVASU, Mathura on January 26th, 2024.
- Prof. Brijesh Yadav received Best Teacher Award during 13th Convocation of DUVASU, Mathura on March 4th, 2024.
- Dr. Kavisha Gangwar received Best M.V.Sc. thesis award in 13th Convocation of the university.
- Dr. Pradeep Kumar received Best Ph.D. thesis award in 13th Convocation of the University.
- Department of Veterinary Physiology received Best Department award in 13th Convocation of the university.
- Prof. Sarvajeet Yadav received Fellow of Animal Physiologists Association on March 1st-2nd, 2024.

- Dr. Shalini Vaswani received the best teacher award in 13th Convocation of the university.
- Prof. Vikas Pathak received title of National Fellow of Association of Animal Scientists in 2nd Veterinary and Animal Science Congress and 2nd Annual Convention of Association of Animal Scientists & National Symposium at Apollo College of Veterinary Medicine, Jaipur (Rajasthan) on February 17th -19th, 2024.
- Prof. Vinod Kumar received ANSI Fellow Award in 20th Biennial International Conference 2024 by ANSI, Karnal and Department of Animal Nutrition, Madras Veterinary College, Chennai Tamil Nadu on January 23rd -25th, 2024.

FINANCE AND BUDGET

- During 2023-24, University received Rs. 5,716.46 lacs and Rs. 1,800.00 lacs under salary and contingency heads, respectively from Govt. of U.P.
- In the year 2023-24, University received Rs 99.00 lacs under salary head for KVK.
- Rs 342.62 lacs were received by various financial agencies for the extramural projects.
- University received Rs 107.08 lacs under ICAR SC-SP development subplan, and Internship & NTS.
- During the year, total receipt generated by the University was Rs 992.75 lacs.

RIGHT TO INFORMATION ACT

- In compliance of the order of Govt. of Uttar Pradesh and provision of RTI Act, 2005, PIO received 58 applications out of which 42 applications were cleared and 16 are under consideration.

International Yoga Day Celebration

कार्यकारी सारांश

शिक्षण

- वर्ष 2023-24 में पशु चिकित्सा विज्ञान एवं पशुपालन स्नातक कार्यक्रम में 100 विद्यार्थियों ने प्रवेश लिया, जिसमें 36% छात्रायें हैं। पशु चिकित्सा विज्ञान स्नातकोत्तर तथा विद्या वाचस्पति कार्यक्रम में क्रमशः 64 एवं 4 विद्यार्थियों ने प्रवेश प्राप्त किया।
- इसी सत्र में पशु चिकित्सा विज्ञान स्नातकोत्तर तथा विद्या वाचस्पति कार्यक्रम में क्रमशः 4 और 32 विद्यार्थियों ने विभिन्न विषयों में उपाधि प्राप्त की, साथ ही पशु चिकित्सा विज्ञान एवं पशुपालन स्नातक कार्यक्रम में 79 विद्यार्थियों ने स्नातक की उपाधि प्राप्त की।
- रिपोर्टिंग वर्ष में जैव प्रौद्योगिकी महाविद्यालय ने बी0टेक0 स्नातक कार्यक्रम में 40 तथा जैव प्रौद्योगिकी स्नातकोत्तर कार्यक्रम में 2 विद्यार्थियों ने प्रवेश प्राप्त किया, साथ ही 27 विद्यार्थियों ने जैव प्रौद्योगिकी/औद्योगिक सूक्ष्मजीव विज्ञान स्नातक की उपाधि प्राप्ति की।
- वर्ष 2023-24 में वेटरनरी फार्मेसी एवं पशुधन प्रसार में डिप्लोमा के लिये क्रमशः 60 एवं 60 विद्यार्थियों ने प्रवेश लिया तथा 51 विद्यार्थियों ने वेटरनरी फार्मासिस्ट डिप्लोमा तथा 57 विद्यार्थियों ने पशुधन प्रसार में डिप्लोमा प्राप्त किया।
- इसी वर्ष में, विश्वविद्यालय के 4 विद्यार्थियों ने अखिल भारतीय रैंक-II (श्रेणी में-02), अ0भा0रै0-30, अ0भा0रैं0-42, व अ0भा0रै0-60 के साथ जूनियर रिसर्च फेलोशिप परीक्षा उत्तीर्ण की।
- विश्वविद्यालय का शैक्षणिक पशु चिकित्सालय आधुनिक रोग निदान की सभी सुविधाओं से सुसज्जित है तथा इसमें छोटे तथा बड़े पशुओं की शल्य चिकित्सा हेतु शल्य कक्ष, पालतू पशुओं हेतु दो आई0सी0यू0 कक्ष, सी-आर्म इमेज इंटेसिफायर, डिजिटल एक्स-रे मशीन, सी0सी0टी0वी0 कैमरा, अल्ट्रासोनोग्राफी मशीन, लैप्रोस्कोपी सेट, चलायमान एक्स-रे मशीन, छोटे पशुओं के लिये एनेस्थीसिया मशीन, छोटे व बड़े पशुओं को चढ़ाने व उतारने के लिये प्लेटफार्म तथा उन्हें रखने के लिये आंतरिक यूनिट की सुविधा भी उपलब्ध है। वर्ष 2023-24 में रोगों के 15,296 नमूनों की जाँच की गयी, जिनके द्वारा रु0 13,99,715.00 का राजस्व प्राप्त हुआ।
- शैक्षणिक पशु चिकित्सालय, की रोग निदान प्रयोगशाला डिजिटल सूक्ष्मदर्शी, बायोकेमिकल एनालायजर व रक्त के नमूनों की जाँच हेतु हिमेटोलाजी एनालाइजर, इलेक्ट्रोलाइट एनालाइजर आदि से सुसज्जित है। वर्ष 2023-24 में 1,896 नमूनों की प्रयोगशाला में जाँच के माध्यम से कुल रु0 6,64,630.00 का राजस्व प्राप्त किया गया।
- रिपोर्टिंग वर्ष में, पशु चिकित्सा एवं पशु पालन महाविद्यालय के शिक्षकों एवं स्नातकोत्तर छात्रों द्वारा मथुरा जिले के विभिन्न गाँवों में जाकर पशुओं की चिकित्सा हेतु चिकित्सा शिविरों का आयोजन किया गया।
- कुक्कुट पालन विभाग की प्रायोगिक प्रशिक्षण यूनिट के अंतर्गत विकसित किये गये पोल्ट्री ब्रीडर फार्म, लेयर फार्म तथा हैचरी फार्म द्वारा स्नातक, स्नातकोत्तर व विद्या वाचस्पति के विद्यार्थियों के शिक्षण व कौशल विकास हेतु तथा इंटनशिप के विद्यार्थियों को पोल्ट्री फार्म में कुक्कुट पालन प्रबंधन व उद्यमिता विकास में प्रशिक्षित किया गया।
- ई0एल0यू0 के संसाधनों जैसे कि मृत पक्षियों और विकास के विभिन्न चरणों वाले भ्रूणयुक्त अण्डों का प्रयोग शरीर रचना विभाग, विकृति विज्ञान विभाग, जैव प्रौद्योगिकी विभाग व सूक्ष्मजीव विज्ञान विभाग के छात्रों व कर्मचारियों के शैक्षणिक और शोध की आवश्यकताओं को पूरा करने के लिये किया गया।
- पशुधन उत्पाद प्रौद्योगिकी विभाग द्वारा दूध, मांस और अण्डों के प्रसंस्करण द्वारा उत्पादों के मूल्य संवर्धन हेतु एक परियोजना चलायी जा रही है। एल0पी0टी0 विभाग द्वारा दूध और मांस के प्रसंस्करण व उत्पादों के निर्माण से संबंधित अनुभवात्मक शिक्षण कार्यक्रम द्वारा स्नातक व स्नातकोत्तर छात्रों को प्रयोगात्मक स्तर पर प्रशिक्षित किया जा रहा है ताकि विद्यार्थियों को दूध व मांस के विभिन्न उत्पादों के उत्पादन से संबंधित महत्वपूर्ण जानकारियाँ उपलब्ध करायी जा सकें।
- रिपोर्टिंग वर्ष के दौरान, पशुधन प्रक्षेत्र से 1,741.50 लीटर अतिरिक्त दूध का प्रयोग करके 222.10 किलोग्राम पनीर व

72.00 किलोग्राम खोया का उत्पादन किया गया। विश्वविद्यालय की रिवाल्विंग निधि योजना के अंतर्गत 5.10 किलोग्राम मीट नगेट्स और 1.50 किलोग्राम चिकन पेटीज भी तैयार किये गये, वित्तीय वर्ष 2023-24 के लिये दूध व मांस के उत्पादों के विक्रय द्वारा रु0 11,347.00 का लाभ उत्पन्न किया गया।

- विश्वविद्यालय के पुस्तकालय में पशु चिकित्सा विज्ञान, पशुपालन व जैव प्रौद्योगिकी विषय से संबंधित 34,885 पुस्तकें, 13 ऑनलाइन शोध पत्रिकाऐं, CERA वेबसाइट की सुविधा तथा विभिन्न प्रकाशनों के हिंदी व अंग्रेजी समाचार पत्र उपलब्ध हैं। पुस्तकालय की अन्य सुविधाओं में पुस्तक प्रसार सेवा, पुस्तक संदर्भ सेवा, कम्प्यूटर/इंटरनेट सेवा, शोध ग्रंथ पढ़ने की सुविधा, 1973 से अगस्त 2004 तक की सी0डी0 रॉम द्वारा वेट सी0डी0 की सुविधा, 1972 से मई 2005 तक कैब सी0डी0 सुविधा व 1990 से दिसम्बर, 2005 तक के कैब ऐबस्ट्रैक्ट पढ़ने की सुविधा आदि शामिल हैं।
- पशु पोषण विभाग में फीड उत्पादन और प्रसंस्करण परियोजना के अंतर्गत एक फीड प्रसंस्करण यूनिट तथा एक यूरिया मोलासेस खनिज ब्लॉक इकाई उपलब्ध है। इन इकाइयों से उत्पादित फीड व यू0एम0एम0बी0 विश्वविद्यालय के साथ-साथ किसान मेलों व कृषकों के प्रशिक्षण हेतु भी उपलब्ध है। यूनिट द्वारा 100 क्विंटल/वर्ष की दर से क्षेत्र विशेष खनिज मिश्रण तैयार किया गया जो किसानों को लागत प्रभावी दर पर उपलब्ध है।

अनुसंधान

- रिपोर्टिंग वर्ष के दौरान विश्वविद्यालय के पशु चिकित्सा विज्ञान एवं पशुपालन महाविद्यालय के विभिन्न विभागों में 22 बाह्य वित्त पोषित परियोजनाएं चल रही हैं। जिनमें से 07 परियोजनाएं राष्ट्रीय कृषि विकास योजना द्वारा, 04 भारतीय कृषि अनुसंधान परिषद द्वारा, 03 उपकार द्वारा 02 डी0ए0एच0डी0, भारत सरकार द्वारा, 01 सी0सी0 आर0एच0, नई दिल्ली द्वारा, 01 परियोजना डी0बी0टी0 द्वारा, 01 परियोजना एविटेक न्यूट्रीशन, गुड़गांव, हरियाणा द्वारा, 01 परियोजना एसेंस नेचुरा प्राइवेट लिमिटेड पंचकुला, हरियाणा, भारत द्वारा, 01 परियोजना आयुरवेट लिमिटेड, कथा, बद्दी द्वारा और 01 परियोजना आई0आई0 एल0, हैदराबाद द्वारा वित्त पोषित है।
- वर्ष 2023-24 में विश्वविद्यालय में पशु चिकित्सा विज्ञान व पशुपालन महाविद्यालय के विभिन्न विभागों में शैक्षिण अनुसंधान के अंतर्गत पशु चिकित्सा विज्ञान व पशुपालन विषयों से संबधित 01 Ph.D. और 25 M.V.Sc. शोध ग्रंथ प्रस्तुत किए गए।
- रिपोर्टिंग वर्ष में विश्वविद्यालय द्वारा 84 शोध पत्रों व 04 समीक्षा लेखों का प्रकाशन किया गया।

प्रसार गतिविधियाँ

- वर्ष 2023-24 में पशु चिकित्सा और पशुपालन प्रसार विभाग ने विश्वविद्यालय के परिसर में 496 प्रतिभागियों को लाभान्वित करने हेतु 07 विशेष/लघु प्रशिक्षण कार्यक्रम व छात्रों के 34 भ्रमण कार्यक्रमों का आयोजन पशु ज्ञान चौपाल, डेरी फार्म और बकरी प्रक्षेत्र में किसानों, पशुपालकों, व आगंतुकों हेतु किया।
- रिपोर्टिंग वर्ष के दौरान कुल 862 आगंतुकों के साथ-साथ देश के विभिन्न भागों से आए हुए किसानों, विद्यार्थियों व गणमान्य व्यक्तियों द्वारा 31 बार कुक्कुट प्रक्षेत्र में भ्रमण किया गया।
- पशु चिकित्सा और पशुपालन प्रसार विभाग ने रिपोर्टिंग अवधि के दौरान 127 ग्रामीण किसानों/ पशुपालकों/ बहुउद्देशीय कृत्रिम गर्भाधान तकनीशियनों के लिए 3 मैत्री प्रशिक्षण, सशस्त्र सीमा बल, नई दिल्ली के 38 पैरा वेटरनरी प्रशिक्षणार्थियों के लिए दो प्रशिक्षण और एससी-एसपी योजना के तहत 100 किसानों के लिए पांच प्रशिक्षण आयोजित किए और पशुपालन में नवीनतम तकनीकियों व उद्यमों का प्रदर्शन किया। उत्तर प्रदेश और छत्तीसगढ़ के विभिन्न जिलों के 415 छात्रों के लिए 08 और 723 किसानों के लिए 26 प्रदर्शनी दौरे भी आयोजित किए गए।
- इस वर्ष के दौरान, पशु चिकित्सा विज्ञान और पशुपालन महाविद्यालय के विभिन्न विभागों द्वारा विभिन्न प्रसार संबधी प्रशिक्षणों का आयोजन किया गया, जिसमें पशु औषधि एवं विष विज्ञान द्वारा किसानों के लिए 1 कार्यशाला गोष्ठी और 2 जागरूकता शिविर कार्यक्रम, शरीर रचना विज्ञान विभाग द्वारा दो प्रशिक्षण कार्यक्रम, पशुधन उत्पाद प्रौद्योगिकी विभाग द्वारा एक जागरूकता शिविर और एक प्रशिक्षण कार्यक्रम और पशु चिकित्सा अधिकारियों के लिए 05 प्रशिक्षण कार्यक्रम तथा शरीर

क्रिया विज्ञान विभाग द्वारा पशु चिकित्सा अधिकारियों के लिए 05 प्रशिक्षण कार्यक्रम, कृत्रिम गर्भाधान करने वाले सहायकों के लिए 04 व किसानों के लिए 03 प्रशिक्षण कार्यक्रम का आयोजन किया गया।

- इस वर्ष के दौरान कृषि विज्ञान केंद्र के वैज्ञानिकों द्वारा 2,922 प्रतिभागियों के लिए कुल 94 प्रशिक्षणों का आयोजन किया गया, जिनमें से 74 प्रशिक्षण किसानों और कृषक महिलाओं के लिए, 03 ग्रामीण युवाओं के लिए और 17 प्रसार कार्यकर्ताओं के लिए थे, जिनके माध्यम से 2,181 किसानों व कृषक महिलाओं, 65 ग्रामीण युवाओं और 676 प्रसार कार्यकर्ताओं को प्रशिक्षित किया गया।
- विभिन्न सिद्ध तकनीकियों द्वारा उत्पादन क्षमता में वृद्धि को प्रदर्शित करने हेतु 340 किसानों और पशुपालकों के लिए प्रदर्शन आयोजित किए गए।
- प्रक्षेत्र परिक्षण के अंतर्गत, 11 फसलों के लिए, 70 परीक्षणों के साथ तकनीकियों का मूल्यांकन किया गया, जिससे 70 किसान लाभान्वित हुए। 12,300 प्रतिभागियों के लिए कुल 125 प्रसार गतिविधियों का आयोजन किया गया। निकट के जनपदों के किसानों को दूरभाष द्वारा 550 परामर्श सेवाएं प्रदान की गई।
- कृषि विज्ञान केंद्र ने 541 क्विंटल बीज, 62,500 रोपण हेतु पौधे एवं 785.00 किलोग्राम जैव-उत्पादों का उत्पादन किया जिनसे कुल मिलाकर रु0 20,10,050.00 का राजस्व प्राप्त हुआ।
- किसानों के साथ संपर्क सुधार द्वारा उनसे जुडें रहने के लिए गोष्ठियों व नैदानिक भ्रमणों का आयोजन किया गया। कृषि विज्ञान केंद्र की प्रयोगशाला ने 942 मृदा तथा 82 जल के नमूनों का विश्लेषण किया व परिणाम के आधार पर 600 लाभार्थियों को संतुलित रूप से उर्वरक और पानी डालने की क्रिया बताई गई जिसके माध्यम से कुल 6,594.00 रुपए का राजस्व अर्जित किया गया।
- विश्वविद्यालय की महिला अध्ययन केंद्र इकाई ने विश्वविद्यालय परिसर और बंदी गांव, ब्लॉक बलदेव, जिला मथुरा, उत्तर प्रदेश में बालिकाओं और महिलाओं के लिए नुक्कड़ नाटक, चित्रकला, प्रश्नोत्तरी और निंबध लेखन प्रतियोगिता, जागरूकता शिविर और स्वास्थ्य शिक्षा पर कक्षाओं जैसी विभिन्न गतिविधियों का आयोजन किया।

विश्वविद्यालय प्रक्षेत्र

- वर्ष 2023-24 में एल0एफ0सी0 में कुल दूध का उत्पादन 1,64,968.50 लीटर था जिसमें से गाय के दूध का उत्पादन 1,26,768.50 लीटर और भैंस के दूध का उत्पादन 38,200.00 लीटर था। इस अवधि के दौरान एल0एफ0 सी0 फॉर्म को कुल रु0 53,37,110.00 का राजस्व प्राप्त हुआ।
- पशु चिकित्सा महाविद्यालय के कुक्कुट फार्म पर विभिन्न प्रकार की प्रजतियों की मुर्गियों जैसे चाबरों, असील, कड़कनाथ, नेकेड नेड, जापानी बटेर, टर्की, गिनी फाउल और इमू का पालन व उनकी नस्लों का रखरखाव रखा गया। वित्तीय वर्ष 2023-24 में, इनके अंडों तथा कुक्कट इत्यादि की बिक्री से कुल रु0 13,41,582.00 का राजस्व प्राप्त हुआ।
- इसके अतिरिक्त प्रायोगिक शिक्षा इकाई ई0एल0यू0 के तहत कुक्कुट उत्पादों की बिक्री और कुक्कुट विज्ञान विभाग में चल रही रिवाल्विंग निधि के माध्यम से क्रमश: रू0 8,10,041.00 तथा रू0 2,16,376.00 भी प्राप्त किए गए।
- वित्तीय वर्ष 2023-24 के दौरान विश्वविद्यालय के माधुरी कुंड फार्म से बीजों के माध्यम से रू0 58,48,498.00 का कुल राजस्व प्राप्त हुआ।
- वित्तीय वर्ष 2023-24 के दौरान विश्वविद्यालय के चारा अनुसंधान प्रभाग से बीज, पुआल और हरे चारे की बिक्री के माध्यम से रू0 38,73,470.00 का राजस्व प्राप्त हुआ।

मानव संसाधन विकास

- वर्ष 2023-24 में, पशु चिकित्सा विज्ञान और पशुपालन महाविद्यालय में संकाय सदस्यों के 28 (स्थायी) पदों को सीधी भर्ती के माध्यम से भरा गया तथा सी0ए0एस0 के अंतर्गत, दो सहायक आचार्यों को वेतनमान रु. 7,000.00 से रु. 8,000.00 पर, सात सहायक आचार्यों को सह-आचार्य पद पर और दो सह-आचार्यों को आचार्य के पद पर पदोन्नत किया गया। जैव प्रौद्योगिकी महाविद्यालय और पैरा-वेटरनरी विज्ञान संस्थान में क्रमश: 09 और 09 संकाय सदस्यों (स्व-वित्तपोषित) की भर्ती की गई।
- रिपोर्टिंग वर्ष के दौरान, पशु शल्य चिकित्सा और रेडियोलॉजी विभाग, पशु चिकित्सा विज्ञान और पशुपालन

महाविद्यालय मथुरा द्वारा आई0सी0ए0आर0-अखिल भारतीय नेटवर्क कार्यक्रम के तत्वाधान में उत्तर प्रदेश सरकार के पशु चिकित्सा अधिकारियों के लिए तीन, 6-दिवसीय लघु प्रशिक्षण कार्यक्रमों का आयोजन किया गया।

- उत्तर प्रदेश पंडित दीन दयाल उपाध्याय पशु चिकित्सा विज्ञान विश्वविद्यालय एवं गो अनुसंधान संस्थान, मथुरा, उत्तर प्रदेश ने 5 फरवरी, 2024 से 4 मार्च, 2024 तक पूरे माह विभिन्न शैक्षिणिक, अनुसंधान, प्रसार और अन्य पाठ्येत्तर गतिविधियों का आयोजन करके "दीक्षोत्सव माह-2024" का आयोजन किया।
- विकृति विज्ञान विभाग ने 19 फरवरी, 2024 को 'पशुओं की ट्रांसबाउंड्री बीमारियों से बचाव एवं नियंत्रण के उपाय' विषय पर एक दिवसीय राष्ट्रीय विचार-मंथन सत्र का आयोजन किया।
- शरीर क्रिया विज्ञान विभाग ने इंडियन सोसाइटी फॉर बफेलो डेवलपमेंट (आई0एस0बी0डी0) का राष्ट्रीय सम्मेलन 27-28 अक्टूबर, 2023 को आयोजित किया।
- पशुधन उत्पादन एवं प्रबंधन विभाग द्वारा 'कम उत्पादकता वाले पशुओं के आर्थिक उपयोग' विषय पर एक दिवसीय विचार-मंथन सत्र का आयोजन 22 फरवरी, 2024 को किया गया।
- जैव रसायन विभाग द्वारा आई0डी0पी0-एन0ए0एच0ई0 पी0, आई0सी0ए0आर0, भारत सरकार के प्रमुख कार्यक्रम के अंतर्गत दुवासु, मथुरा में 'एकल स्वास्थ्य' विषय पर एक अंतर्राष्ट्रीय कार्यशाला का आयोजन 13-15 दिसंबर, 2023 को किया गया।
- पशुधन उत्पाद प्रौद्योगिकी विभाग द्वारा दिनांक 20-22 दिसंबर, 2023 तक आई0डी0पी0-एन0ए0एच0ई0पी0, के अंतर्गत 'पशु मूल के खाद्य पदार्थों की गुणवत्ता एवं सुरक्षा का संपरिक्षण' विषय पर 3 दिवसीय अंतर्राष्ट्रीय कार्यशाला का आयोजन किया।
- विश्वविद्यालय ने आई0सी0ए0आर0 - आई0ए0एस0 आर0आई0 के सहयोग से एन0ए0आर0ई0 एस.-ब्लेंडेड लर्निंग प्लेटफॉर्म (बी0एल0पी0) पर दो दिवसीय कार्यशाला का आयोजन 30-31 अक्टूबर, 2023 के दौरान किया, जिसमें दुवासु, मथुरा के छात्रों और शिक्षकों ने भाग लिया।
- पशु औषधि और विष विज्ञान विभाग ने 28 जून से 07 जुलाई, 2023 तक डी0एस0टी0-एस0ई0आर0बी0 द्वारा प्रायोजित एक कार्यशाला का एवं आई0सी0ए0आर0 द्वारा वित्त पोषित एथनो-वेटरनरी मेडिसिन पर अखिल भारतीय नेटवर्क कार्यक्रम की एस0सी0एस0पी0 योजना के अंतर्गत अनुसूचित जाति की श्रेणी के छात्रों के कौशल व व्यवहारिक क्षमता के विकास हेतु एक 10 दिवसीय हैंड्स ऑन प्रशिक्षण कार्यक्रम का आयोजन 7-16 फरवरी, 2024 में किया। विभाग ने 13 फरवरी, 2024 को एक दिवसीय विचार-मंथन सत्र का भी आयोजन किया।
- दीक्षांत माह के आयोजन के दौरान विश्वविद्यालय ने चार स्मारक व्याख्यान (i)16 फरवरी, 2024 को डॉ0 बी0पी0 पांडे स्मारक व्याख्यान (ii) 17 फरवरी, 2024 को डॉ0 पी0जी0 पांडे स्मारक व्याख्यान (iii) 23 फरवरी, 2024 को डॉ0 एस0के0 तालपात्रा स्मारक व्याख्यान और (iv) 28 फरवरी, 2024 डॉ0 सी0एम0 सिंह स्मारक व्याख्यान का आयोजन किया।
- पशु चिकित्सा और पशुपालन प्रसार विभाग ने 20 फरवरी, 2024 को 'भारत के लिए पशुधन प्रसार मॉडल' पर एक दिवसीय विचार-मंथन सत्र का आयोजन किया।

छात्र कल्याण

- 9वें अंतर्राष्ट्रीय योग दिवस के उपलक्ष्य पर विश्वविद्यालय द्वारा एक विशेष योग शिविर का आयोजन 21 जून, 2023 को किया गया, जिसमें माननीय कुलपति प्रो0 (डॉ0) अनिल कुमार श्रीवास्तव, शिक्षकगणों, कर्मचारी सदस्यों और छात्रों सहित 1000 से अधिक प्रतिभागियों ने भाग लिया।
- वर्ष 2023-24 के दौरान विश्वविद्यालय ने 06 मेधावी छात्रों को छात्रवृत्ति प्रदान की। विश्वविद्यालय ने समाज कल्याण विभाग उत्तर प्रदेश शासन द्वारा दी जाने वाली छात्रवृत्ति के पुरस्कार के लिए 343 छात्रों के आवेदन भेजे और 12 छात्रों को आई0सी0ए0आर0 की राष्ट्रीय प्रतिभा छात्रवृत्ति प्राप्त हुई।
- दुवासु टी-10 क्रिकेट टूर्नामेंट 2023, 19 मई से 26 जून, 2023 तक दुवासु मथुरा में खेला गया, जिसमें पशु चिकित्सा महाविद्यालय, जैव प्रौद्योगिकी महाविद्यालय और डिप्लोमा संस्थान के छात्रों की कुल आठ टीमों ने बड़े उत्साह के साथ प्रतियोगिता में भाग लिया।

- पशु चिकित्सा एवं पशु पालन महाविद्यालय के प्रथम वर्ष के छात्रों का स्वागत समारोह 30 सितंबर, 2023 को, जैव प्रौद्योगिकी महाविद्यालय के छात्रों का 19 अक्टूबर, 2023 को और पैरा-वेटरनरी विज्ञान संस्थान के छात्रों के लिए 31 अक्टूबर, 2023 को फ्रेशर डे के रूप में मनाया गया।
- दुवासु, मथुरा के 21 वें वार्षिक खेलकूद कार्यक्रम का दो दिवसीय आयोजन 11-12 मार्च, 2024 को किया गया था, जिसमें फुटबॉल, वॉलीबॉल, हॉकी, टेबल टेनिस, बैडमिंटन, शतरंज, खो-खो, कबड्डी, क्रिकेट और एथलेटिक्स जैसे कई खेल खेले गए।
- प्रथम राज्य स्तरीय अंतर कृषि/पशु चिकित्सा विश्वविद्यालय युवा महोत्सव 'आह्वान 2023) का आयोजन विश्वविद्यालय में पहली बार 21-22 दिसंबर, 2023 को किया गया।
- वर्ष 2023-24 के दौरान, 22 और 36 कैडेट्स क्रमशः 'बी' और 'सी' प्रमाण पत्र परीक्षा में उपस्थित हुए। एन0सी0सी0 में पंजीकृत 32 छात्र/छात्राओं ने दिनांक 23 अक्टूबर से 01 नवम्बर, 2023 तक Universal College, Hathras Road, Iglas (Aligarh) में आयोजित NCC कैम्प में, 11 छात्र/छात्राओं ने दिनांक 20 जनवरी, 2024 को वृन्दावन स्थित सैनिक स्कूल में एन0सी0सी0 द्वारा आयोजित कार्यक्रम में भाग लिया। बी0वी0एस0सी0 एण्ड ए0एच0 तृतीय वर्ष के छात्र नितिन बघेल ने दिनांक 26 सिम्बर, 2023 से 05 फरवरी, 2024 तक Republic Day Camp 2024 में भाग लेकर विश्वविद्यालय का प्रतिनिधित्व किया ।
- एन0सी0सी0 के केडिट्स ने विश्वविद्यालय के त्रयोदश दीक्षांत समारोह में उ0प्र0 की राज्यपाल महामहिम एवं कुलाधिपति श्रीमती आनंदीबेन पटेल जी को गार्ड ऑफ आनर प्रस्तुत किया। उन्होंने विश्वविद्यालय के कुलपति प्रो0 (डॉ0) अनिल कुमार श्रीवास्तव, को स्वतंत्रता दिवस तथा गणतंत्र दिवस पर गार्ड ऑफ ऑनर प्रस्तुत किया।

अन्य मुख्य झलकियाँ एवं कार्यकलाप

- वर्ष 2023-24 के दौरान, विश्वविद्यालय ने सफलतापूर्वक स्नातक प्रवेश परीक्षा-2023 (यू0जी0ई0ई0-2023), पूर्व-डिप्लोमा प्रवेश परीक्षा (पी0डी0ई0टी0-2023), और स्नातकोत्तर (M.V.Sc. और Ph.D.) प्रवेश परीक्षा (पी0जी0ई0ई0-2023) आयोजित की।
- विश्वविद्यालय का त्रयोदश दीक्षांत समारोह, उत्तर प्रदेश की माननीय राज्यपाल और उत्तर प्रदेश पं0 दीन दयाल उपाध्याय पशु चिकित्सा विज्ञान विश्वविद्यालय एवं गो अनुसंधान संस्थान, मथुरा, की कुलाधिपति महामहिम श्रीमती आनंदीबेन पटेल जी की अध्यक्षता में दिनांक 4 मार्च, 2024 को आयोजित किया गया। दीक्षांत समारोह के मुख्य अतिथि डा0 रामेश्वर सिंह, कुलपति, बिहार पशु विज्ञान विश्वविद्यालय, पटना रहे।
- विश्वविद्यालय परिसर में 2 अक्टूबर, 2023 को विश्वविद्यालय और 1 यू0पी0आर0एंडवी0, एन0सी0 सी0, मथुरा द्वारा संयुक्त रूप से रक्तदान शिविर का सफलतापूर्वक आयोजन किया गया।
- पशु चिकित्सा विज्ञान और पशुपालन महाविद्यालय, दुवासु, मथुरा द्वारा 13 अक्टूबर, 2023 को 'विश्व अंडा दिवस 2023' मनाया गया।
- शिक्षण और अनुसंधान में, तकनीकी सहयोग के लिए, दुवासु ने दो अंतर्राष्ट्रीय विश्वविद्यालय जैसे ओक्लाहोमा स्टेट यूनिवर्सिटी कॉलेज ऑफ वेटरनरी मेडिसिन, स्टिलवॉटर, ओक्लाहोमा, यूएसए और पर्ड्यू यूनिवर्सिटी, संयुक्त राज्य अमेरिका के साथ समझौता ज्ञापन पर हस्ताक्षर किए।
- बसंत पंचमी मनाने के लिए विश्वविद्यालय पुस्तकालय में 14 फरवरी, 2024 को सरस्वती पूजा की गई।
- दुवासु, मथुरा का 22 वां स्थापना दिवस 25 अक्टूबर, 2023 को जम्मू और कश्मीर, एस0के0यू0ए0एस0टी0, के कुलपति डॉ0 भूपेंद्र नाथ त्रिपाठी और 26 अक्टूबर, 2023 को भा.कृ.अ.प.-केन्द्रीय भैंस अनुसंधान संस्थान, हिसार, हरियाणा के निदेशक डॉ0 टी0के0 दत्ता के व्याख्यान के साथ मनाया गया।
- विश्वविद्यालय में 5 जुलाई, 2023 को 'जूनोसिस: वर्तमान परिदृश्य' पर विश्व जूनोसिस दिवस का आयोजन किया गया।
- विश्वविद्यालय के 'आंतरिक गुणवत्ता आश्वासन प्रकोष्ठ' (आई0क्यू0ए0सी0) की समीक्षा बैठक 5 फरवरी, 2024 को उत्तर प्रदेश पंडित दीन दयाल उपाध्याय विश्वविद्यालय एवं गो अनुसंधान संस्थान (दुवासु), मथुरा, उत्तर प्रदेश में आयोजित की गई।

- विश्वविद्यालय के महिला अध्ययन केंद्र ने गोद लिए गए गाँव शाहजादपुर, ब्लॉक-फरह और बंदी ब्लॉक-बलदेव की ग्रामीण महिलाओं के लिए 7 फरवरी, 2024 को एक बैठक का आयोजन किया।
- 4 मार्च, 2024 को विश्वविद्यालय के त्रयोदश दीक्षांत समारोह में सर्वश्रेष्ठ विभाग, सर्वश्रेष्ठ शिक्षक और तीन सर्वश्रेष्ठ एमवीएससी शोध और दो सर्वश्रेष्ठ पीएचडी शोध पुरस्कार प्रदान किये गये।
- कृषि विज्ञान केंद्र की वैज्ञानिक सलाहकार समिति की बैठक 24 फरवरी, 2024 को आयोजित की गई।
- विश्वविद्यालय ने वर्ष 2023-24 के दौरान, अंबेडकर जयंती, स्वतंत्रता दिवस, पं. दीन दयाल उपाध्याय जयंती, गांधी जयंती, हिंदी दिवस और गणतंत्र दिवस का आयोजन किया।

पुरस्कार और सम्मान/उपलब्धियाँ

- डॉ. अमित कुमार जायसवाल को 14 फरवरी, 2024 को *'रेपिसिफेलस माइक्रोप्लस* टिक के नियंत्रण के लिए सगंध तेल आधारित फॉर्मूलेशन' पर पेटेंट दिया गया।
- डॉ. बरखा शर्मा को 26 जनवरी, 2024 को माननीय कुलपति, दुवासु, मथुरा द्वारा भर्ती अधिकारी, दुवासु के रूप में उनकी सेवाओं के लिए प्रशस्ति पत्र और कुलपति प्रशंसा पुरस्कार-2023 प्राप्त हुआ।
- प्रो. बृजेश यादव को 4 मार्च, 2024 को दुवासु, मथुरा के त्रयोदश दीक्षांत समारोह के दौरान सर्वश्रेष्ठ शिक्षक का पुरस्कार दिया गया।
- डॉ0 कविशा गंगवार को विश्वविद्यालय के त्रयोदश दीक्षांत समारोह में सर्वश्रेष्ठ एम0वी0एस0सी0 शोध ग्रन्थ पुरस्कार मिला।
- डॉ0 प्रदीप कुमार को विश्वविद्यालय के त्रयोदश दीक्षांत समारोह में सर्वश्रेष्ठ पी0एच0डी0 शोध ग्रन्थ पुरस्कार मिला।
- पशु शरीर क्रिया विभाग को 4 मार्च, 2024 को दुवासु, मथुरा के त्रयोदश दीक्षांत समारोह के दौरान सर्वश्रेष्ठ विभाग का पुरस्कार दिया गया।
- प्रो0 सर्वजीत यादव को एनिमल फिजियोलॉजिस्ट एसोसिएशन द्वारा मार्च, 2024 में फेलो की उपाधि प्रदान की गई।
- डॉ0 शालिनी वासवानी को विश्वविद्यालय के त्रयोदश दीक्षांत समारोह में सर्वश्रेष्ठ शिक्षक का पुरस्कार मिला।
- अपोलो पशु चिकित्सा महाविद्यालय, जयपुर (राजस्थान) में दि. 17 से 19 फरवरी, 2024 को आयोजित द्वितीय पशु चिकित्सा एवं पशुपालन कांग्रेस तथा पशु वैज्ञानिक संगठन के द्वितीय सम्मेलन एवं राष्ट्रीय संगोष्ठि में प्रो0 विकास पाठक को राष्ट्रीय पशु वैज्ञानिक संगठन द्वारा 'नेशनल फेलो' की उपाधि प्रदान की गई।
- प्रो0 विनोद कुमार को 23-25 जनवरी, 2024 को ए0एस0आई0, करनाल और पशु पोषण विभाग, मद्रास पशु चिकित्सा महाविद्यालय, चेन्नई तमिलनाडु द्वारा 20वें द्विवार्षिक अंतर्राष्ट्रीय सम्मेलन 2024 में ए0एन0एस0 आई0 में फेलो की उपाधि प्रदान की गई।

वित्त और बजट

- वित्तीय वर्ष 2023-24 के दौरान, विश्वविद्यालय को उत्तर प्रदेश शासन से वेतन मद में रु0 5,716.46 लाख एवं कंटीन्जेंसी मद में रु0 1,800.00 लाख का बजट प्राप्त हुआ।
- वर्ष 2023-24 के दौरान, विश्वविद्यालय को कृषि विज्ञान केन्द्र के लिए वेतन मद में रु0 99.00 लाख प्राप्त हुए।
- विभिन्न वित्तीय एजेंसियों द्वारा बाह्य वित्त पोषित परियोजनाओं हेतु रु0 342.62 लाख प्राप्त हुए।
- विश्वविद्यालय को आई0सी0ए0आर0 एस0सी0-एस0पी0 विकास उप-योजनाओं, इंटर्नशिप और एन0टी0एस0 के अंतर्गत रु0 107.08 लाख प्राप्त हुए।
- रिपोर्टिंग वर्ष के दौरान, विश्वविद्यालय द्वारा उत्पन्न कुल रसीद रु0 992.75 लाख थी।

सूचना का अधिकार अधिनियम

- उत्तर प्रदेश शासन के निर्देशों और आर0टी0आई0 अधिनियम, 2005 के प्रावधानों के अनुपालन के क्रम में, 58 आवेदन पत्र प्राप्त हुए जिनमें से 42 आवेदनों का निस्तारण किया गया और 16 विचाराधीन हैं।

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

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 Government. 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 Para Veterinary Science.

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.

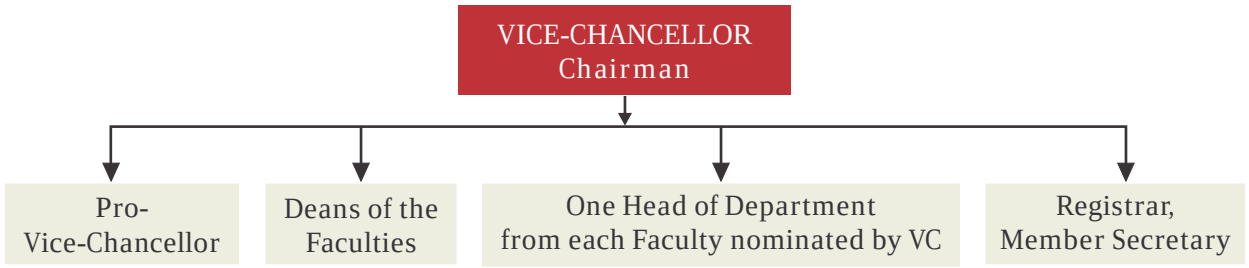
A. AUTHORITIES OF THE UNIVERSITY

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.

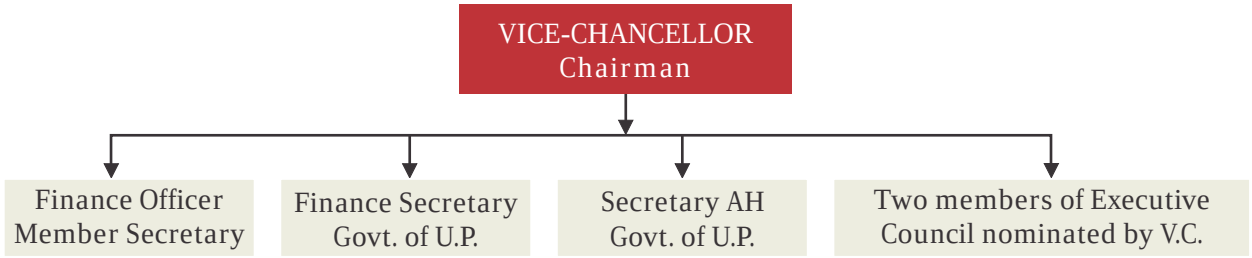
2. Academic Council

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:



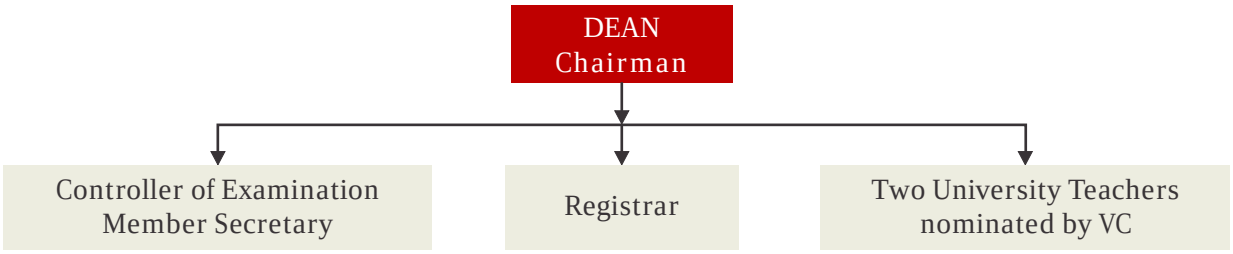
3. Finance Committee

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:



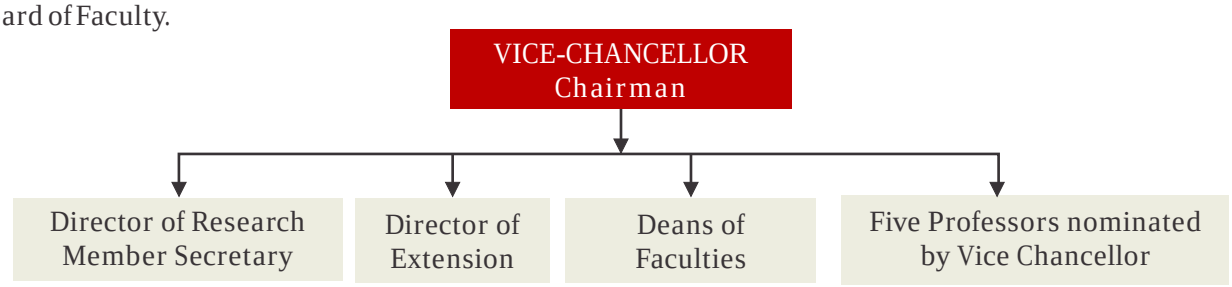
4. Examination Committee

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:



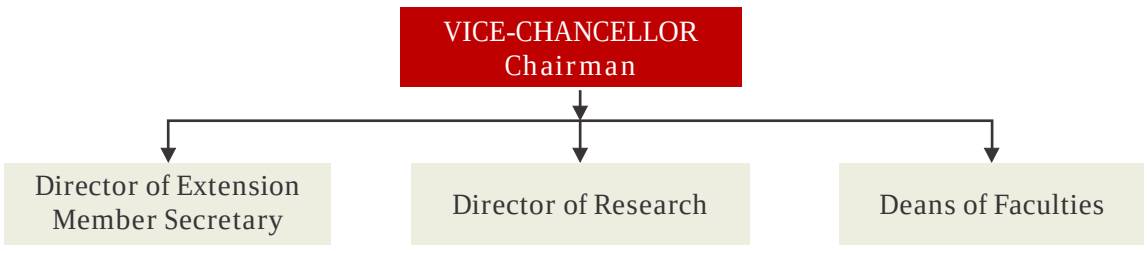
5. Board of Faculty

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:

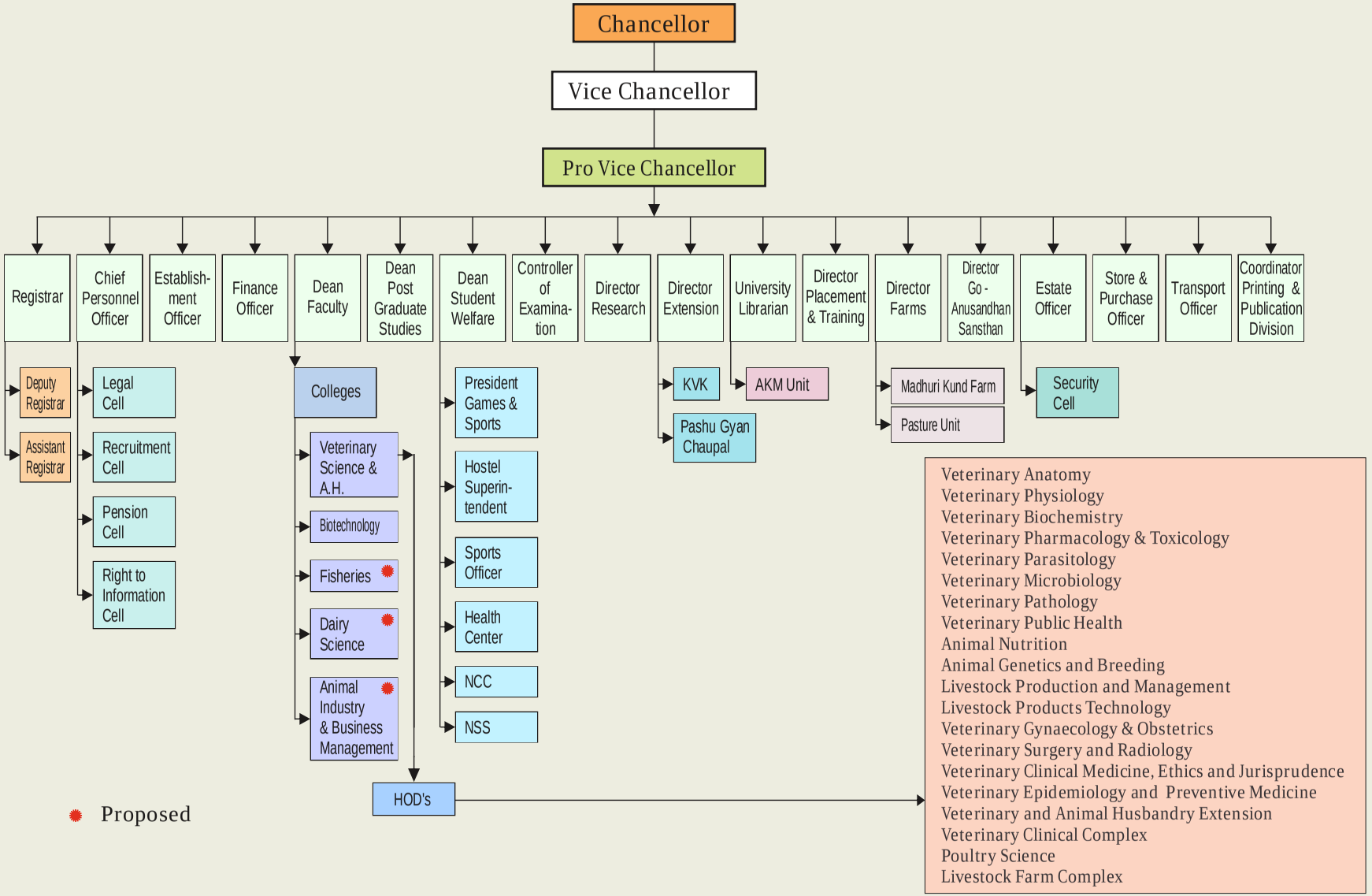


7. Extension Advisory Committee

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.	45th	November 20th, 2023	DUVASU, Mathura
2.	46th	December 16th, 2023	
3.	47th	January 23rd, 2024	
4.	48th	March 3rd, 2024	

Academic Council

S. No.	Meeting No.	Date	Venue
1.	92nd	September 21st, 2023	DUVASU, Mathura
2.	93rd	November 10th, 2023	
3.	94th	December 15th, 2023	
4.	95th	January 5th, 2024	
5.	96th	February 29th, 2024	

Finance Committee

S. No.	Date of Meeting	Venue
1.	November 20th, 2023	DUVASU, Mathura
2.	January 23rd, 2024	
3.	March 3rd, 2024	

Extension Advisory Committee

S. No.	Date of Meeting	Venue
1.	February 24th, 2024	DUVASU, Mathura

C. Officers of the University

S. No.	Designation / Post	Name of the Officer	Date From	To
1.	Chancellor	Hon'ble Smt. Anandiben Patel Ji, Governor of Uttar Pradesh		
2.	Vice Chancellor	Prof. Anil Kumar Srivastava	June 3rd, 2022	Continuing
3.	Registrar	Prof. Arun Kumar Madan	November 29th, 2022	Continuing
4.	Deputy Registrar	Dr. Raju Kushwaha	February 1st, 2023	Continuing
5.	Finance Officer	Shri Santosh Kumar Kushwaha	July 08th, 2022	July 19th, 2023
		Shri Munna Lal Shukla	August 26th, 2023	Continuing
6.	Controller of Examination	Dr. Amit Singh	November 28th, 2022	Continuing
7.	Dean, C.V.Sc. & A.H.	Prof. P. K. Shukla	September 14th, 2020	November 24th, 2023
		Prof. Vikas Pathak	November 25th, 2023	Continuing

8.	Dean, College of Biotechnology	Prof. Sharad Kumar Yadav	March 1st, 2022	February 02nd, 2024
		Prof. Rashmi Singh	February 3rd, 2024	Continuing
9.	Dean, PGS	Prof. Ajay Prakash	December 3rd, 2021	January 05th, 2024
		Prof. Archna Pathak	January 6th, 2024	Continuing
10.	In-charge, Student Welfare	Dr. Rajneesh Sirohi	December 1st, 2022	Continuing
11.	Director Clinics	Prof. R. P. Pandey	September 18th, 2010	Continuing
12.	Director Research	Prof. Vikas Pathak	November 30th, 2022	January 05th, 2024
		Prof. Vinod Kumar	January 6th, 2024	Continuing
13.	Director Extension	Prof. Atul Saxena	December 5th, 2022	Continuing
14.	Director Go Anusandhan	Prof. Deepak Sharma	November 1st, 2022	Continuing
15.	Director, Farms	Prof. Vinod Kumar	June 24th, 2021	Continuing
16.	University Librarian	Dr. S.P. Singh	June 22nd, 2021	Continuing

TEACHING

In Mathura, under the aegis of U. P. Pandit Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidhyalaya Evam Go Anusandhan Sansthan (DUVASU), there are two colleges, namely College of Veterinary Science and Animal Husbandry and College of Biotechnology. Both colleges are regularly conducting their degree programmes. Veterinary University (DUVASU) 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 animal health and Animal Husbandry issue in the state, undertake need based 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 93 during the year 2023-2024. Besides performing the teaching, faculty members are engaged in 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 2023-24

S. No.	Academic programme	Intake capacity	Students admitted			Pass out details		
			Male	Female	Total	Male	Female	Total
1.	B.V.Sc.&A.H.	100	64	36	100	58	21	79
2.	M.V.Sc.	53*+23**	34	35	69	18	14	32
3.	Ph.D.	33*+15**	01	03	04	03	01	04

B. College of Biotechnology

Undergraduate, Post Graduate and Doctor of Philosophy academic programmes in the College of Biotechnology are B.Tech. Biotechnology/B.Sc.(H) Biotechnology/Industrial Microbiology; M.Sc./M.V.Sc. Biotechnology and Ph.D. Biotechnology, respectively.

Details of students admitted & pass out during 2023-24

S. No.	Academic programme	Intake capacity	Students admitted			Pass out details		
			Male	Female	Total	Male	Female	Total
1.	B.Tech. Biotechnology	40	24	16	40	0	0	0
2.	B.Sc. (H) Biotechnology/ Industrial Microbiology	0	0	0	0	09	18	27
3.	M.Sc./M.V.Sc. Biotechnology	20	0	02	02	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 done by the qualified Veterinary post graduate contractual staff appointed by the University administration.

Details of students admitted & pass out during 2023-24

S. No.	Academic programme	Intake capacity	Students admitted			Pass out details		
			Male	Female	Total	Male	Female	Total
1.	Diploma in Livestock Extension (DLE)	60	58	02	60	50	07	57
2.	Diploma in Veterinary Pharmacy (DVP)	60	51	09	60	39	12	51

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 Sciences and Animal Husbandry 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 duty of learned and experienced faculty members. 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 animal's ICU for dogs, loading

and unloading platform and indoor units for small and large animals. A total of 15,296 clinical cases were presented during the year 2023-2024 and the total revenue generated during this year was Rs. 13,99,715.00. 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. It is 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. A total of 1,896 laboratory tests of clinical cases were conducted during 2023-24 and the total revenue generated from laboratory tests was Rs. 6,64,630.00.

3. Ambulatory Services and Clinical Camps

Apart from this, ambulatory clinical services are also provided by Veterinary University (DUVASU), Mathura at the doorstep of animal owner to the nearby villages of Mathura district by the clinical 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

   A. The Department of Poultry Science has breeder farm, layer farm and hatchery of experiential learning unit in poultry (ELU) served as models for UG, PG 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, Biotechnology 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, 1,741.50 liters of surplus milk from Livestock Farm Complex was processed into 222.10 kg paneer and 72.00 kg khoya which was sold to university employees and students at approved rates. Total 5.10 kg of chicken nuggets and 1.50 kg chicken patties were also prepared under revolving fund scheme. The profit generated from milk and meat products for the financial year 2023-24 was Rs. 11,347.00.

3. Feed production and processing

   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 55.60 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 49,250.00 quintal concentrate feed of about Rs 10.00 crore values was prepared from July 2012-March 2024 and

more than 1,200 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/year and provided to farmers on nominal cost. This year (2023-24) Departmental sale of mineral mixture was about 100 quintal with a revenue generation of Rs 6.00 lacs.

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 is 10.00 AM to 7.00 PM every working days. At present, there are 35,885 books of various streams like Veterinary science, Animal Husbandry and Biotechnology, 13 journals including online journals & www.cera.jccc.in. University library procures seven newspapers regularly. These are; Danik Jagran, Amar Ujala, 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 2023-24.

1. Conducted English (Non –Credit course) personality development classes for 1st Year B.V.Sc & AH students.
2. Students were informed about job vacancies in 09 Companies (National & MNC).
3. Ziqitza Healthcare Limited, Lucknow conducted Campus interview for pass out students.
4. 04 Students of our University qualified in JRF examination 2023.

S.No.	Name of Students	Roll No.	JRF (Up to All India rank- 100)
01	Garima Chaudhary	UP01010028	JRF (Animal Science) AIR-11, CAT Rank-02
02	Shivangi Tripathi	UP01010033	JRF (Veterinary Science) AIR-30
03	Deep Shikha	UP01010013	JRF (Veterinary Science) AIR-42 CAT Rank-04
04	Asha Yadav	UP01010057	JRF (Veterinary Science) AIR-60 CAT Rank-21

RESEARCH


NAHEP
NAHEP
NATIONAL AGRICULTURAL HIGHER EDUCATION PROJECT
INSTITUTE OF PARA VETERINARY SCIENCE
INSTITUTIONAL DEVELOPMENT PLAN

A. Extra-Mural Projects

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	Prof. Archana Pathak Prof. Ajay Prakash Prof. MM Farooqui Dr. Abhinov Verma Dr. Neeraj Gangwar	RKVY	59.50
A2	Livestock health and disease control program on FMD	Dr. Ajay Pratap Singh	DAHD, GOI	10.00
A3	All India network programme on diagnostic imagining and management of surgical conditions in animals (AINP-DIMSCA)- ICAR	Prof. Sanjay Purohit Dr. Gulshan Kumar	ICAR	21.75
A4	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
A5	Unit of Network project on animal genetic resource	Dr. Avneesh Kumar Dr. Deepak Sharma Dr. Satyendra Pal Singh	ICAR-NBAGR	11.00
A6	Strategic control of subclinical parasitism for better animal health and enhanced productivity in UP	Dr. Jitendra Tiwari	RKVY	124.31
A7	Evaluation of acaricide resistance and development of herbal formulations for tick control in large ruminants of western Uttar Pradesh	Dr. Amit Kumar Jaiswal Dr. Pradeep Kumar Dr. Shanker Kumar Singh	UPCAR	20.08
A8	Strategic control of GI parasitism and anthelmintic resistance in goats for upliftment of owners	Dr. Jitendra Tiwari Dr. Mukul Anand Dr. Amit Shukla Dr. Pradeep Kumar	UPCAR	24.50
A9	Effect of polyherbal formulation in milk quality, rumen health, immunity and liver function in lactating Sahiwal Cattle	Prof. Brijesh Yadav Prof. Deepak Sharma Dr. Satyendra Pal Singh Dr. Muneendra Kumar Dr. Yajuvendra Singh Dr. Ajay Pratap Singh	Essence Natura Private Limited Panchkula Haryana, India	6.06
A10	Evaluation of efficacy of some phytogenic supplements for improving meat quality in broiler chicken	Dr. Meena Goswami Awasthi Prof. Vikas Pathak Prof. P K. Shukla Dr. Amitav Bhattachrya	Ayurvet Limited Katha, Baddi	3.09

A11	Pharmacological studies and development of polyherbal formulation for reproductive disorders in animals	Dr. Soumen Choudhury Dr. Amit Shukla	ICAR	98.80
A12	Genetic improvement to enhance the productivity of local goat population using phenotypically superior and genetically higher worth breed through AI	Dr. Mukul Anand	DBT	58.60
A13	Project under National Livestock Mission, DAHD, GOI	Dr. Mukul Anand	DAHD, GOI	80.60
A14	Establishment of embryo transfer technology lab and training center with ovum pick up- in vitro fertilization facility for indigenous cattle breeds	Dr. Mukul Anand	RKVY	743.51
A15	An open label randomized placebo-controlled multicenter study to assess safety and immunogenicity of live attenuated Lumpy Skin Disease vaccine (freeze dried) manufactured by Indian Immunologicals Limited in cattle and buffaloes	Prof. Rashmi Singh	IIL, Hyderabad	25.00
A16	Clinical evaluation of some homeopathic medicines against mites induced dermatitis in dogs	Dr. Shanker K. Singh Dr. Ashish Srivastava	CCRH, New Delhi	27.47
A17	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
A18	Establishment of small-scale feed processing demonstration unit to promote rural youth entrepreneurship	Dr. Shalini Vaswani	RKVY	236.27
A19	Boosting feeding value of paddy straw as animal fodder by means of different treatments	Dr. Shalini Vaswani	UPCAR	16.1
A20	Empowering rural youth and women with animal husbandry practices and livestock products processing	Dr. Rajneesh Sirohi Dr. Yajuvendra Singh Dr. Mamta Dr. Ajay Kumar	ICAR Schedule Caste- Sub Plan (SC-SP) 2023-24.	3.55
A21	Establishment of modern referral veterinary disease diagnostic laboratory with special reference to animal tumours	Dr. Neeraj Kumar Gangwar Dr. Shankar K. Singh and others	RKVY	124.10
A22	Efficacy of poly herbal formulation on immunity and gut development in broiler chicks	Dr. Neeraj K Gangwar Dr. Ajay Pratap Singh Dr. Amitav Bhattacharya Dr. Abhinov Verma	Avitech Nutrition, Gurgaon	6.79

A. Extra-mural Projects

1. Entrepreneurial promotion by preparation of specimens from fallen animals

During 2023-24, under R.K.V.Y sponsored project, plastinated specimen of brain slices were prepared using Epoxy resin, silcon and glycerine. Besides this other wet and dry teaching specimens were prepared. Two trainings were organised for unemployed youths for the skill development under "Skill development training for rural youth through commercial use of organs of animals." *w.e.f.* September 19th to 21st, 2023 and September 25th to 27th, 2023.

2. Livestock health and disease control program on FMD (DAHD, GOI funded national project)

A total of 4,519 pre-vaccination and 3,436 post-vaccination bovine serum samples from NADCP-Phase II sent by Animal Husbandry Department, Govt. of Uttar Pradesh were processed. The pre-vaccination serum antibody titre was observed to be 21.80 %, 18.74 % and 15.93% for FMD-virus serotype O, A and Asia 1 respectively. The post vaccination serum antibody titre showed significant upward trend with 31.86 %, 42.69 % and 37.74 % of vaccine animals protected against FMD-virus serotype O, A and Asia 1 respectively. During the assessment year a total of 2165 serum samples comprising of 711 and 1,454 sera samples of Cow and buffaloes respectively, were analyzed for FMD NSP serosurveillance. Overall NSP reactivity was 3.37 % whereas, NSP reactivity was higher in cow (5.90%) compared to buffaloes (2.13%).

3. All India network programme on diagnostic imagining and management of surgical conditions in animals (AINP-DIMSCA)- ICAR

In All India Network Programme on Diagnostic Imagining and Management of Surgical Conditions in Animals (AINP-DIMSCA), a total budget of Rs. 21.75 lacs was received from ICAR in 7 instalments during 2023-24. Three, six days training were organised to update the diagnostic and surgical procedures in small and large animals under All India Network Programme on Diagnostic Imagining and Management of Surgical Conditions in Animals (AINP-DIMSCA) for veterinary officers of Animal Husbandry Department of U.P. and Studnets of DUVASU, Mathura during 2023-2024. The first training was on the "Management of Clinical Conditions and Application of Diagnostic tools –Field Perspectives" and attaneded by 10 veterinary officers of Animal Husbandry Department of U.P. from January 1st to 06th, 2024. The second training was on the "Clinical Application of Diagnostic Imagining in Veterinary Practice" and attaneded by 10 veterinary officers of Animal Husbandry Department of U.P. from February 12th-17th, 2024. The third training was on the "Clinical Application of Diagnostic Imagining in Veterinary Practice" and attaneded by 18 stundets of DUVASU, Mathura, U.P. from March 18th-23rd, 2024.Theory lectures and hands on training were conducted to update the knowledge and hands on training to enhance the knowledge on diagositc and surgical procedurs. The training was highly fruitful to veterinary officers and they further recommend specialized training of orthopedic and ophthalmic affections.

These training were extremely fruitful to veterinary officers and they further recommended specialized trainings of orthopedic and ophthalmic affections. Availing facilities developed under DIMSCA, the clinical cases are being treated with good outcome.

4. Establishment of A2 genotype testing laboratory for cattle of Uttar Pradesh

A total budget of Rs. 99.95 lacs was released by RKVY for project entitled "Establishment of A2 genotype testing laboratory for cattle of Uttar Pradesh". The proposed lab under project has been handed over during this financial year. All the proposed instruments have been purchased and installed. Survey of the Brij region containing Mathura district and adjoining area has been done. 400 samples of cattle have been collected which are under testing in the laboratory for their genotype.

5. Unit of Network project on animal genetic resource

A total budget of Rs. 11 Lakh was released by ICAR-NBAGR for the DUVASU, Mathura unit of the project, which has been utilized towards work progress of target of the project. The target allotted to unit was "Survey and characterization of goat, donkey and other native AnGR of Western UP". The unit started its work by surveying Braj region for the target population. Total six enumerators were hired to carry out the survey work.The indigenous goat population around Goverdhan tehseel and adjoining region of Mathura and Deeg district of Rajasthan were surveyed. A total of 1000 animals were surveyed in the given time period. The unit also surveyed the donkey rearing clusters in Mathura and Agra district.

6. Strategic control of subclinical parasitism for better animal health and enhanced productivity in Uttar Pradesh

Department of Veterinary Parasitology had organized five awareness training programmes under the RKVY funded project “Strategic control of subclinical parasitism for better animal health and enhanced productivity in Uttar Pradesh”. The camps were organized with the title “ Control of parasitic diseases in dairy animals” to spread awareness among the livestock owners about losses incurring due to the presence of parasitic diseases along with proper management and control of the same. The camps were organized from March 13th to 16th, 2024 in the Vittal Nagar, Nabipur, Saypur, Umri and Nagla Gaju Jansuti villages of Mathura district. A total of 500 participants took part in these trainings and camps, with over 50% of them being women. The team of experts gave in-depth knowledge about importance of balanced nutrition and formulation of feed with available resources which would aid in improving the reproductive capacity and higher milk production. The issues of livestock owners related to the gynaecological problems of repeat breeding and infertility were addressed along with promotion of clean milk production by improving management in dairy animals. The trainees were guided on the proper usage of anthelmintics and management of parasites both on and off the host with a short briefing of mastitis in dairy animals.

7. Evaluation of acaricide resistance and development of herbal formulations for tick control in large ruminants of western Uttar Pradesh

An assessment of acaricide resistance in *Rhipicephalus microplus* against commonly used chemical acaricides (deltamethrin, cypermethrin, flumethrin and amitraz) was evaluated in three districts of western Uttar Pradesh viz. Mathura, Bareilly and Muzaffarnagar by in vitro tick bioassay (AIT and LPT). For acaricidal evaluation the LC50 values were calculated and compared with the available data of susceptible strain of *R. microplus* (IVRI susceptible strain). The results revealed the Level II deltamethrin and Level I amitraz resistance in *R. microplus* of all three districts. The Level I cypermethrin resistance was reported in *R. microplus* of Bareilly and Muzaffarnagar district. The *R. microplus* of Mathura district was found susceptible to cypermethrin. In case of flumethrin resistance data could not be calculated by standard method because data for susceptible strain is not developed till date in India. The use of deltamethrin in Mathura, Bareilly and Muzaffarnagar district of western Uttar Pradesh should be strictly avoided. The flumethrin, cypermethrin and amitraz should be used judicially for tick control on animals as it is showing level I resistance. The cypermethrin is the most effective acaricide to tick control in animals of Mathura district.

8. Strategic control of GI parasitism and anthelmintic resistance in goats for upliftment of owners

In UPCAR Funded research project Strategic control of GI parasitism and anthelmintic resistance in goats for upliftment of owners, 50.72 % (n=970) overall prevalence of GIN was observed in Mathura, Agra, Hathras and Aligarh districts of western Uttar Pradesh. High infection of was observed during monsoon season (60.23%) followed by summer (52.04%), autumn (49.69%) and winter (21.29%). Mainly bursate worm

infection was observed in the faecal samples. Amphistome infection was present but Fasciola infection was not observed in the collected samples. Amongst bursate worms, *Haemonchus* spp., *Trichostrongylus* spp., *Oesophagostomum* spp. and *Strongyloides* spp. were identified.

Haemonchus contortus population in four herds of Mathura, and two herds of Agra, Aligarh and one herd of Hathras were found in gray zone for resistance, where lower efficacy (< 85 %) of thiabendazole was observed in LDA. Nine strains of *Haemonchus contortus* having reduced efficacy of thisbendazole drug in *in-vitro* trials were collected. Senji (*Melilotus* spp.), marvel grass (*Dichanthium* spp.) and speargrass (*Heteropogon* spp.) were collected from the field. The ethanolic and aqueous extracts of all the plant were extracted. Lethal concentrations (LC) estimate of *Dichanthium* spp. resulted in a 50% reduction of *H. contortus* eggs hatching at 0.78 and 0.64 mg/mL obtained from aqueous extract and ethanolic extract respectively.

9. Effect of polyherbal formulation on milk quality, rumen health, immunity and liver function in lactating Sahiwal cattle

The experiment started in the month of November. Sixteen lactating Hariana cattle with similar stage of lactation and lactation yields were selected for this experiment based on their previous records. As it was difficult to get all sixteen animals at a time fulfilling all the criteria, the animals were taken for the study as and when available. The animals were divided into two groups; control group with basal diet and treatment group with basal diet and required dose of Rumitan. Initially, all the animals were adapted for the basal diet for 15 days and the feeding was done as per the experimental design up to 3 months. The milk production data was recorded every day. The physiological parameters were recorded on day 0, 30, 60 and 90 whereas on same days blood was also collected at 08.00 hour whereas the milk was collected at 03.30 hours. On day 90 rumen liquor was collected. The experimental work has been completed; however, the analysis work will be done soon.

10. Evaluation of efficacy of some phytogenic supplements for improving meat quality in broiler chicken

The research work was conducted to evaluate the efficacy of some phytogenic supplements for improving meat quality in terms of physico-chemical properties and sensory evaluation, where spice/herbs based and nano emulsified essential oils based phytogenic supplements were found effective to improve growth parameters of broilers, carcass characteristics. They also improved hematological parameters, meat quality characteristics, fatty acid profile and mineral content of broiler meat. The shelf life of boiler meat was also improved from 9 days to 15 days with incorporation of both phytogenic supplements in feed. This meat samples from both phytogenic supplements were within the safe limit in terms of fat oxidation and microbiological safety and was well acceptable by the semi trained sensory panelists upto 15th day of storage under refrigeration at 4±2^{o}C.

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 year 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, 1,741.50 liters of surplus milk from Livestock Farm Complex was processed into 222.10 kg paneer and 72.00 kg khoa which was sold to university employees and students at approved rates. Total 5.1 kg of chicken nuggets and 1.5 kg chicken patties were also prepared under Revolving fund scheme. The profit generated from milk and meat products for the financial year 2023-24 was Rs. 11,347.00.

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

Earlier we reported the promising antibacterial action of *Eucalyptus robusta* (ER) and *Prosopis juliflora* (PJ) leaves extract against *E. coli* and *Staphylococcus aureus* isolated from uterine discharges of cattle and buffaloes with the history of uterine infection. Here we evaluated the combined effect of ER and PJ extract aginst these most common etiologies of uterine infection in farm animals. The combined effect of these extract did not produce any synergistic or additive effect; however, they even did not produce antagonistic action too. The antibacterial action of the combination of these two extracts was found to be similar to that observed for the extract alone. As we have reported earlier that the antibacterial action of *P. juliflora* leaves extract was mediated by inhibition of bacterial biofilm production, efflux pump expression as well as by damaging the bacterial cell wall in Gm-ve bacteria, thus, here we attempted to identify the possible phyto-constituents responsible for these mechanism(s) of action by *in silico* docking study. Two chemical compounds (phytosterols) were isolated and structurally identified from the leaves extract of *P. juliflora*. These were namely, daucosterol and stigmasterol.

12. Genetic improvement to enhance the productivity of local goat population using phenotypically superior and genetically higher-worth breed through AI

The project is still ongoing and under the mandate of this project, frozen semen straws are being sold to many farmers, different organizations working in the goat sector, and different states. Additionally, MOUs have been signed with different organizations working in the goat sector, namely, a) The Goat Trust, b) PRADAN, c) ISHARA, and d) Genus Breeding India Pvt. Ltd. (ABS India). Moreover, training of different farmers on goat keeping has been conducted.

PROJECTS OF POST GRADUATE STUDENTS COMPLETED DURING 2023-24

A. List of PhD and M.V.Sc. Theses completed

S. No.	Title of Thesis	Name of the Student	Name of the Guide	Subject
Ph.D.				
1)	Clinico-epidemiological, diagnostic and therapeutic studies on tropical theileriosis in bovines.	Dr. Manu Jaiswal	Dr. A. K. Tripathi	Veterinary Medicine
M.V.Sc.				
1)	Ultrasonographic study of udder and teat in cows.	Dr. Varsha Gangwar	Prof. R. P. Pandey	Veterinary Surgery and Radiology
2)	Clinical studies on comparative radiographic and ultrasonographic evaluation of abdominal disorders in canines.	Dr. Tarun Kamal	Prof. S. Purohit	Veterinary Surgery and Radiology
3)	Ultrasonographic study of kidney and urinary bladder in Jamunapari goats.	Dr. Anurag Bhardwaj	Dr. Gulshan Kumar	Veterinary Surgery and Radiology
4)	Sonographic Studies on the neck region in Sahiwal Calves.	Dr. Abhishek Rathi	Dr. Gulshan Kumar	Veterinary Surgery and Radiology
5)	Epidemiological study of Brucellosis in dairy cattle of Mathura district.	Dr. Abhishek Rathee	Dr. Udit Jain	Veterinary Public Health
6)	Study of antibiofilm activity of essential oils on *Staphylococcus aureus* isolated from milk and milk based products.	Dr. Aashima	Dr. Parul	Veterinary Public Health
7)	Evaluation of therapeutic potential of *Moringa oleifera* leaves on acute liver failure (ALF) in dog.	Dr. Anupama Verma	Dr. A. K. Tripathi	Veterinary Medicine
8)	Evaluation of therapeutic potential of *Moringa oleifera* leaves on renal impairments in dog	Dr. Shveta Singh	Dr. Padma Nibash Panigrahi	Veterinary Medicine
9)	Effect of feeding probiotics and exogenous fiberolytic enzyme treated rice straw on the performance of heifers.	Dr. Ankita Patel	Prof. Vinod Kumar	Animal Nutrition
10)	Effect of feeding urea and exogenous fiberolytic enzyme treated paddy straw on the performance of growing cattle.	Dr. Shubhan Naitam Devidas	Dr. Raju Kushwaha	Animal Nutrition
11)	Effect of herbal feed additive and sulfate on the performance of cattle calves.	Dr. Himanshu Garg	Dr. Avinash Kumar	Animal Nutrition
12)	Effect of shatavari (*Asparagus racemosus*) root powder supplementation on performance of Sahiwal cows.	Dr. Manisha Tyagi	Dr. Rajneesh Sirohi	LPM
13)	Effect of dietary supplementation and *in ovo* feeding of menthol on the performance of commercial broilers.	Dr. Bondar Bhupal Bhaskar	Prof. P. K. Shukla	Poultry Science

14)	Effect of dietary supplementation and *in ovo* feeding of alpha ketoglutarate on the performance of commercial broilers.	Dr. Kherde Aditya Rajiv	Dr. Amitav Bhattacharyya	Poultry Science
15)	To Study the immunomodulatory effect of herbal feed additives in broiler chicken.	Dr. Prajwal Chaple Suresh	Dr. Neeraj Kumar Gangwar	Veterinary Pathology
16)	Assessment of epithelial mesenchymal Transition (EMT) as biosignature for tumour metastasis in canines.	Dr. Bhate Yash Abhay	Dr. Shyama N. Prabhu	Veterinary Pathology
17)	Assessment of ZnO nanoparticles induced hepato-renal alterations in male wistar rats	Dr. Himani Pandey	Dr. Renu Singh	Veterinary Pathology
18)	Assessment of CuO nanoparticle induced reproductive system alterations in male wistar rats.	Dr. Barbaile Ashvin Motilal	Dr. Renu Singh	Veterinary Pathology
19)	Effect of incorporation of herbs and humectants on physico-chemical, sensory and self life properties of goat milk soft cheese.	Dr. Rishi Kumar	Dr. Meena Goswami Awasthi	Livestock Products Technology
20)	Development and characterization of collagen based active edible film and its application in meat food model.	Dr. Abhishek Mishra	Dr. Sanjay Kumar Bharti	Livestock Products Technology
21)	Investigating the role of Cullin-Ring Ubiquitin Ligase in Regulation of Vascular Dysfunction in Sepsis.	Dr. Divyanshi Gupta	Dr. Soumen Choudhury	Veterinary Pharmacology & Toxicology
22)	Studies on the effect of chromium (VI) in male rats following sub-chronic exposure.	Dr. Bhoge Sampada Ganesh	Dr. Rajkumar Singh Yadav	Veterinary Pharmacology and Toxicology
23)	Evaluation of pancreatic regeneration activity of *Pterocarpus marsupium* in rats with streptozotocin-induced diabetes.	Dr. Vanshika Chandrol	Dr. Atul Prakash	Veterinary Pharmacology and Toxicology
24)	Molecular epidemiology of antibiotic resistant *Enterococcus spp.* in poultry and associated environment.	Dr. Ishta Agnihotri	Dr. Barkha Sharma	Department of Veterinary Epidemiology
25)	Differential expression of micro-RNA profiling in mammary gland of Indian dairy goat at various stages of lactation.	Dr. Babita Kumari	Dr. Deepak Sharma	Animal Genetics and Breeding

THESIS ABSTRACTS

College of Veterinary Science and Animal Husbandry

Ph.D.

1. Clinico-epidemiological, diagnostic and therapeutic studies on tropical theileriosis in bovines

Abstract- The present study was conducted to study the diagnostic efficacy of molecular diagnostic technique (PCR) with traditional technique (thin blood smear) routinely used for diagnosis of theileriosis in bovines, clinical epidemiology and clinical markers of tropical theileriosis in bovines, alterations in trace minerals, cortisol and thyroxin status in bovine tropical theileriosis and therapeutic efficacy of various therapeutic regimens on tropical theileriosis in buffaloes.

Molecular diagnostic technique (PCR) was found to be of maximum efficacy (78.62% and 49.03%) followed by giemsa stained thin blood smear examination (49.03% and 20.00%) in cattle and buffaloes respectively. Highest prevalence in cattle and buffalo was recorded during the month of April and lowest prevalence was recorded during October month in cattle and December month in buffaloes. It has been found that higher prevalence of theileriosis recorded in female cattle in comparison to male and no variation on the basis of sex was observed in buffaloes. Significant increase in the prevalence was observed in cattle and buffaloes on the basis of age. Significant increase in the prevalence of theileriosis was observed in different breeds of cattle (cross breed have highest prevalence followed by in non-descript breed, Sahiwal breed and least in Haryana breed). However, in buffaloes, no significant variations in the prevalence were recorded. Significant variation was observed in different parity of buffaloes, highest prevalence was recorded in buffaloes with > 3 parity, followed by 2-3 parity and followed by 1 parity while, lowest prevalence was recorded in zero parity but no variation is observed in different parity of cattle. No variation was observed in the prevalence of theileriosis in cattle and buffaloes on the basis of pregnancy. Predominant clinical signs exhibited by the theileriosis in positive cattle were fever, tick infestation, enlarged lymph nodes, pale mucous membranes, anorexia/inappetance, thin mucoid nasal discharge, respiratory distress, emaciation/ weakness, lacrimation, reduced milk yield and pica while in buffaloes fever, enlarged lymph nodes, anorexia/inappetance, thin mucoid nasal discharge, respiratory distress, emaciation/ weakness, lacrimation, reduced milk yield.

It has been found that low levels of serum iron concentration in buffaloes in comparison to healthy buffaloes but no such variations were observed in cattle. Significant low levels of serum zinc concentration were observed in cattle in comparison to healthy cattle, but no such variations were observed in buffaloes. There were no variations recorded in healthy and diseased animals in concentration of manganese and copper. Significantly low levels of serum T_3 concentration was observed in cattle in comparison to healthy cattle but no variations were observed in buffaloes. Significant low levels of serum T_4 concentration was observed in theileria positive cattle and buffaloe in comparison to healthy cattle and buffalo. Significant higher levels of serum cortisol concentration was observed in theileria positive cattle and buffaloes in comparison to healthy cattle and buffaloes. In expression study of various genes, it was observed that in IL-12-A gene 2.05 fold changes was observed in infected adult cattle, INF á gene 3.05 fold changes was observed in infected calves, INF á gene 3.05 fold changes was observed in infected calves, MAF-B gene 1.94 fold changes was observed in infected calves and 2.3 fold changes was observed in infected adult cattle, BOLA DQ gene 5.29 fold changes was observed in infected calves, TLR 4 gene 3.31 fold changes was observed in infected adult cattle and TNF á gene 5.02 fold changes was observed in infected calves.

Therapeutic efficacy of various therapeutic regimens was evaluated on the basis clinical improvement, disappearance of clinical signs and parasitological examination, hematological and biochemical values after treatment of positive cases. There was a reduction in Hb, PCV, TEC, TLC

and lymphocyte count and increase in neutrophil counts in all the positive cases before treatment (day 0). In biochemical study the values of serum total protein, serum albumin and glucose were found lower in all positive cases before treatment (day 0) while, ALT, AST, ALP, BUN, cholesterol and triglyceride were found significantly higher in all positive cases before treatment (day 0). No significant variation in serum creatinine concentration was found in various treatment groups of theileria positive buffaloes. On the basis best recovery was assessed in group IV (% recovery: 100) treated which Buparvaquone, long acting Oxytetracycline, Furosemide and Isofluperidone followed by group III (% recovery: 83.33) treated with Buparvaquone, Long acting Oxytetracycline and Furosemide and least in group II (% recovery: 66.66) treated with Buparvaquone and Long acting Oxytetracycline.

M.V.Sc.

1. Ultrasonographic study of udder and teat in cows

Abstract- The study was done on adult, normal healthy lactating and dry Sahiwal cows at ILF complex and the clinically aftected Sahiwal cows reported at TVCC DUVASU Mathura.Study in Part I had dry cows (Group I),Part II had two sub groups; group IIA (pre milking) and group IIB (post milking) and Part III had clinical cases. B–mode USG for udder and teat echotexture and biometry of all quarters of udder and teats was done innon sedated cows with travis restraint. Group I, IIA and IIB had 6 animals each (3rd parity) and 8 clinical cases consisted of group III. On USG examination udder parenchyma appeared as homogenous hyperechoic with anechoic alveoli. Gland cistern appeared as anechoic area. Diameter of gland cistern was large in pre milking than post milking group and dry animals. Teat wall was 3 layered;outer thin hyperechoic, middle thick hypoechoic and inner thin hyperechoic. Its thickness was less in pre milking as compare to post milking and dry animals. Teat cistern appeared anechoic with a hyperechoic lining. Diameter and length of teat cistern were large in pre milking than post milking and dry animals. Streak canal appeared as a hyperechoic line and its length was more in post milking group. Rosette of Furstenberg appeared as a hyperechoic line with smaller diameter in dry animals. The mean and SE values of studied parameters in group IIA were – 34.93± 3.77 mm, 20.25± 2.14 mm, 3.52± 0.13 mm, 50.36± 3.05 mm, 10.85± 0.5 mm, 6.56± 0.33mm, 5.66± 0.43mm, 7.1± 0.48 for DGC, DTC, DTCr, LTC, LSc, TWTt, TWTm and TWTb respectively. In group IIB, the mean values were – 13.21± 1.1 mm, 9.55± 0.96 mm, 3.55± 0.13 mm, 39.36± 2.3 mm, 12.04± 0.4 mm, 7.8± 0.51mm, 6.8± 0.51mm, 8.3± 0.52 for DGC, DTC, DTCr, LTC, LSc, TWTt, TWTm and TWTb respectively. In dry cows of group I, the mean values were – 7.1± 0.54 mm, 7.42± 0.93mm, 2.55± 0.14 mm, 33.8± 1.4 mm, 8.79± 0.3 mm, 7.44± 0.43mm, 7.2± 0.32mm, 8.09± 0.46mm for DGC, DTC, DTCr, LTC, LSc, TWTt, TWTm and TWTb respectively. Group III consisted ofone case each of Teat obstruction, Teat laceration, Teat gangrene, Udder growth, Hemolactia, Udder abscess and two cases of Udder mastitis. Parenchyma hadheterogenous echotexture and gland cisterns were changed in their size and echogenicity. Length of teat cistern and streak canal varied only in severely affected cows. Echotexture of teat wall had loss of 3 layer detail. Rosette of Furstenberg was not differentiable.

Doppler USG of milk vein was performed in sample animals andmaximum B- flow velocities in milk vein, its distance from skin surface and its diameter were 45.82 cm /sec, 23.4cm/sec and 29.45cm/sec; 4.03mm, 4.10mm and 4.08mm and 13.77mm, 13.01mm and 13.72 in lactating, dry and clinically affected animal respectively.

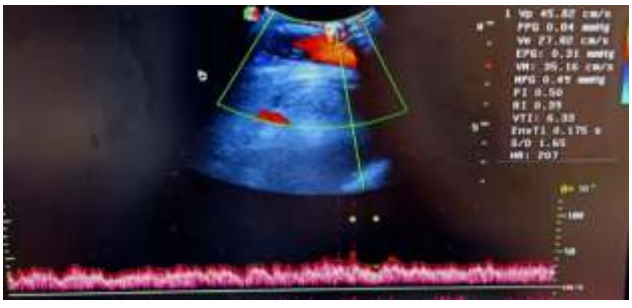


Fig. Milk vein doppler flow indices measurement in group-II lactating cow

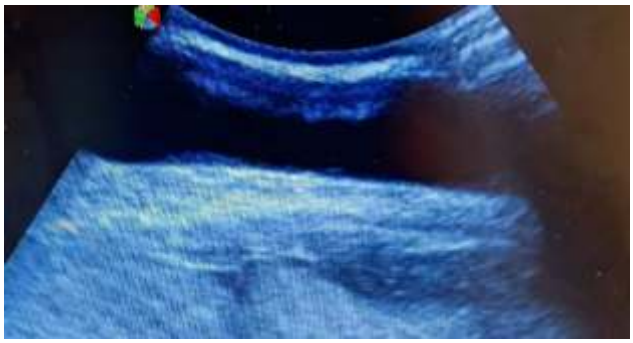


Fig. Echolocation of milk vein (anechoic near contact area)

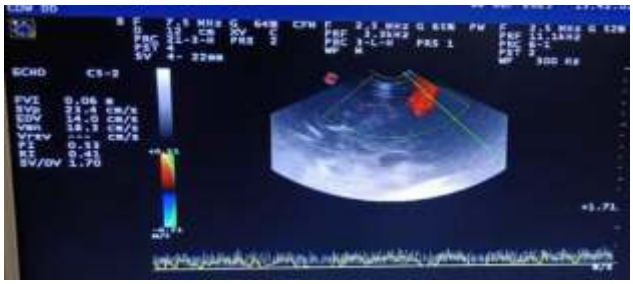


Fig. Milk vein doppler flow indices measurement in group-I dry cow

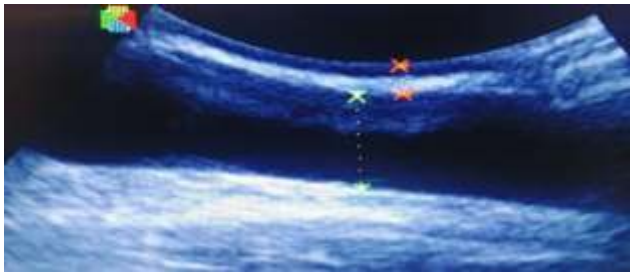


Fig. Measurement of milk vein diameter

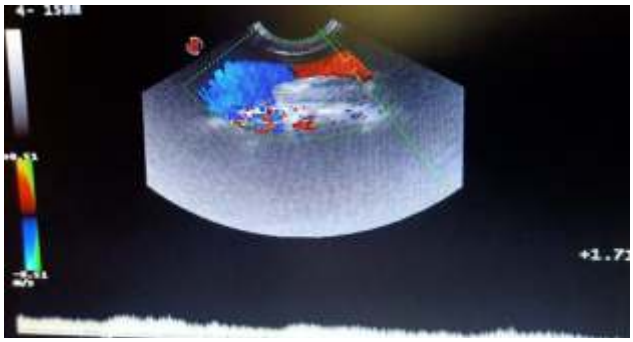


Fig. Milk vein doppler flow in group-III cow with teat obstruction

Fig. Milk vein doppler indices measurement in group-III cow with teat obstruction

2. Clinical studies on comparative radiographic and ultrasonographic evaluation of abdominal disorders in canines

Abstract- Present study was conducted on 6 healthy dogs and 39 diseased dogs of either sex to evaluate the abdominal disorders based on the radiographic and ultrasonographic examinations along with the alteration in urine analysis, haematological and biochemical parameters. Clinical parameters (dehydration status, mucous membrane, respiratory rate, heart rate, rectal temperature),haematological parameters (white blood cells, red blood cells, haemoglobin, haematocrit value, platelet count, lymphocytes, neutrophils), biochemical parameters (blood urea nitrogen, total protein, alanine transaminase, serum creatinine, blood glucose), urological parameters (leukocyte esterase, ketone bodies, nitrites, urobilinogen, bilirubin, protein, glucose, specific gravity, blood, pH) were analyzed. In radiography lateral andventrodorsalview of the abdomen were taken. Ultrasonographic scanning of the abdominal organs wereperformed using 3.5-7.5 MHz convex transducer with suitable gain.Urine analysis, haematological and biochemical parameters were analyzed by using standard techniques. A prospective study of abdominal disorders of canines was carried out. Three types of gastrointestinal disorders were diagnosed in 6 dogsout of which 2were of gastro-duodenal disorders, one of mesenteric lymph node tumourand three of Intestinal disorders. In genital disorders, 13 cases were diagnosed with uterine disorders and testicular disorders. Uterine disorders were further divided into pyometra (8 cases), gravid uterus (1 case), hysterocele (1 case). Testicular disorders were observed as morochid (two cases), cryptorchid (one case). In urinary system disorders, 20 cases were diagnosed i.e. urinary bladder disorders (19 cases), urethral calculi (one case). Urinarybladder disorders subdivided into Urinary bladder calculi (8 cases), cystitis (4 cases) and urine retention (7 cases). Hospital incidence of various abdominal disorders in dogs was also recorded during the study period 379 dogs were presented for various surgical disorders out of which 91 (24.01 per cent) dogs

had G.I.T 91 cases (20.87 per cent), genital disorders 110 cases(28.57 per cent) and urinary disorders 178 cases (50.54 per cent).It was concluded that hospital incidence of various disorders of the urinary system was observed in 12 percent followed by 7 percent in genital and 5 percent in gastro-intestinal disorders. The sonographic examination was more helpful in diagnosis of the gastro-intestinal, genital and urinary systems disorders. It is recommended that the precise and timely diagnosis of the abdominal disorders is the indispensable for good surgical outcome and should be based on the radiographic, sonographic evaluation along with the haemato-logical, biochemical and urine analyses.

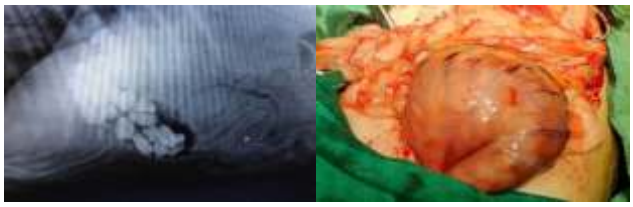


Fig: a) Stone grits in gastric region of lateral abdominal radiograph, b) Exteriorized the stomach,

c) Remove grits from stomach with small incision, d) Stone grits.

3. Ultrasonographic Study of Kidney and Urinary Bladder in Jamunapari Goats

Abstract- This study was conducted in two parts. In Part I of the study, the kidneys and urinary bladder of 18 healthy adult femaleJamunapari goatswere scanned sonographically,using 2.8-6 MHz curvilinear transducer and 5MHzmicro-convex transducer to standardize ultrasonographic examination protocol and generation of reference images. The left and right kidneys were scanned from right dorsal flank by paravertebral approachand the bladder was scanned from mid ventral abdomen as well as from Ischio-rectal fossa.

The mean ± S.E. values of renal length, renal width, cortex width, medulla width, parenchyma width and horizontal length of renal sinus for right kidney in 18 animals were found to be 5.70 ± 0.07, 2.86 ± 0.03, 0.65 ± 0.01, 1.52 ± 0.03, 1.87 ± 0.01, 2.91 ± 0.10 cm respectively while in left kidney were found to be 5.92 ± 0.09, 2.87 ± 0.05, 0.66 ± 0.02, 1.54 ± 0.04, 1.89 ± 0.02, 2.61 ± 0.11 cm respectively. The distended bladder was seen as anechoic circular structure surrounded by a smooth echogenic wall with a mean thickness of 0.12 ± 0.02 cm.

It was concluded that ultrasound is an easy,rapid and non-invasive method to evaluate echotexture and morphometry of structures of urinarysystem.

Part II of the study was conducted on eight male goats presented for the affection of urinary tract with the objective to diagnose the urinary affection on the basis of ultrasonography.All male goats had urine retention at some point of time. The ultrasonographyrevealed distended urinary bladder with anechoic urine with mild level of mineralization or hyperechoic calculi at the basein six affected animals. Two animals had cystorrhexis and ultrasonographic examination revealed a partially distended urinary bladder with an anechoic disruption in the bladder wall and leaking of anechoic material in peritoneum as well. Amputation of urethral process with uro-hydropropulsion, tube-cystotomy and cystorrhaphy with tube-cystotomy were performed to treat these cases. All cases recovered eventually.

Fig: Sonographic measurements of renal length(D1), renal width(D2), renal cortex(D3), renal medulla(D4), renal parenchyma(D5), horizontal length of renal sinus(D6).

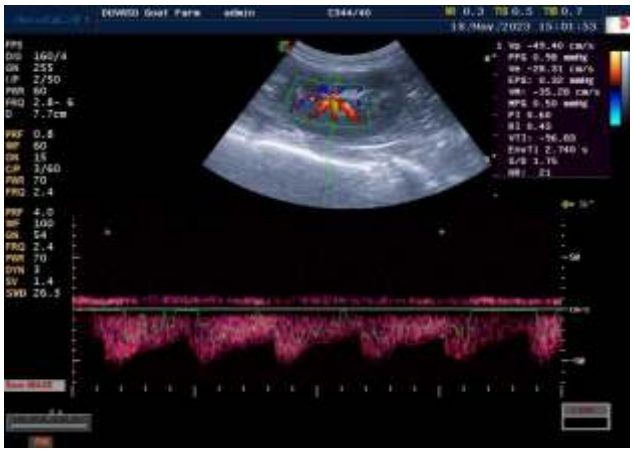


Fig: Spectral display showing Doppler scan of the Left renal artery in a healthy Jamunapari goat. The blood flow is towards the transducer i.e., towards the kidney confirms that it is the artery not the renal vein.

Fig: Spectral display showing Doppler scan of abdominal Aorta present ventral to the left kidney.

4. Sonographic Studies on the neck region in Sahiwal Calves

Abstract- This ultrasonographic studywas conducted on normal healthy Sahiwal calvesborn and kept at the Instructional Livestock Farm Complex (ILFC) of the College of Veterinary Science and Animal Husbandry, DUVASU, Mathura.These calves were divided into three groups of six animals each as per following details: Group I (0-4 months of age), Group II (above 4 and up to 8 months of age) and Group III (above 8 and up to 12 months of age). Ultrasound scanning was donein standing position in all the animals without sedation, using 7.5 MHz curvilinear transducer.

The common carotid artery (CCA),appeared as an anechoic structure of uniform diameterin longitudinal scan. The three layers (intima, media, adventitia) could be discerned. The CCA, appeared as an anechoic structure of uniform diameter and almost circular with a thicker wallin transverse scan. The wall of the external jugular vein (EJV) appeared as thin hyperechoic lines which had aclearl demarcation from the surrounding tissue. The oesophagus appeared as a multilayered concentric ring-like structure in the transverse section and a tube-like structure in longitudinal section with the hypoechogenic lumen. The five-layer pattern of the oesophageal wall was observed. The annular ligaments of the trachea appeared as a distinct hyperechoic structure and the cartilaginous tracheal rings were visualized as regularly spaced anechoic structures in between the ligament, in the sagittal plane. In transverse scan, the trachea had a well-demarcated ventral margin with the reverberation and gas shadowing artifact. The internal pattern of fine parallel and linear echoes was observed in longitudinal scanof the ligamentumnuchae, while intransverse scan, a hyperechoic round bundle of fibers was visible beneath the skin.

The mean ± SE values of left CCA were D (Diameter) (0.44 ± 0.02, 0.44 ± 0.05&0.46 ± 0.07), S (Skin to vessel distance) (1.07 ± 0.01, 1.17 ± 0.04&1.71 ± 0.08), PSV (Peak Systolic Velocity) (63.18 ± 4.08, 72.41 ± 2.08 & 89.79 ± 1.75), EDV (End Diastolic Velocity) (15.88 ± 0.84, 21.93 ± 0.34 & 31.30 ± 1.83), PI (Pulsality Index) (1.25 ± 0.17, 1.49 ± 0.15& 1.64 ± 0.22), RI (Resistivity Index) (0.63 ± 0.03, 0.72 ± 0.04 & 0.73 ± 0.05) in the calves of group I, II and III respectively. The mean ± SE values of right CCA were D (0.43 ± 0.03, 0.45 ± 0.04 & 0.49 ± 0.04), S (1.11 ± 0.04, 1.22 ± 0.1 &1.71 ± 0.25), PSV (63.14 ± 2.72, 73.18 ± 2.33 & 90.21 ± 0.90), EDV (16.30 ± 0.77, 23.22 ± 1.61 & 30.11 ± 1.23), PI (1.33 ± 0.15, 1.42 ± 0.17 & 1.48 ± 0.12), RI (0.69 ± 0.03, 0.71 ± 0.05 & 0.74 ± 0.03) in the calves of group I, II and III respectively. The mean ± SE values of left EJV were D (Diameter) (0.47 ± 0.03, 0.51 ± 0.03 & 0.83 ± 0.14), S (Skin to vessel distance) (0.37 ± 0.04, 0.38 ± 0.04 & 0.42 ± 0.05), V (Velocity) (12.17 ± 0.68, 16.94 ± 0.38 & 19.81 ± 0.63), PI (Pulsality Index) (0.17 ± 0.04, 0.26 ± 0.04 & 0.32 ± 0.05)in the calves of group I, II and III respectively. The mean ± SE values of right EJV were D (0.49 ± 0.02, 0.58 ± 0.05 & 0.81 ± 0.07), S (0.36 ± 0.03, 0.38 ± 0.02 & 0.39 ±

0.03), V (12.97 ± 0.88, 16.62 ± 0.28 & 19.69 ± 0.7), PI (0.28 ± 0.05, 0.31 ± 0.04 & 0.57 ± 0.26)in the calves of group I, II and III respectively. For CCA, the mean values of S increased significantly in group III, mean values of PSV and EDV increased significantly with increase in age of calves. For EJV, the mean values of Dincreased significantly in group III, mean values of V increased significantly with increase in age of calves was observed here.

5. Epidemiological study of Brucellosis in dairy cattle of Mathura district

Seroprevalence study of Brucellosis in dairy cattle and human of various blocks of Mathura district, India, was done using different serological tests viz. RBPT, STAT, i-ELISA, c-ELISA, MRT, CMT. A total of 405 serum samples were collected comprising dairy Cattle (372), male (33) and Human (80) and milk (165) samples were also collected from dairy cattle. On analysis of 405 animal samples, RBPT recorded in dairy cattle 49 (13.17%) whereas 0 (0%) in human. STAT showed 43 (11.55%) in dairy cattle, 4 (50%) in human. Similarly, i-ELISA revealed 55 (14.78%) and 6 (7.5%) in human. Similarly, c-ELISA revealed 8 (2.15%) in dairy cattle. MRT and CMT showed 22 (13.34%) and 24 (14.54%) respectively in dairy cattle which shows that the Brucellosis is one of the factor of causing Sub-clinical mastitis in the dairy cattle of Brucella positive animals. PCR detected amplicons of 223bp in tissue samples employed whereas only 3 sample was detected with B. abortus, B. melitensis, B.ovis, B. suis by AMOS PCR at 498bp, 285bp, 976bp & 731bp respectively. Histopatholgy and mZN staining was also performed on the tissue sample (liver, spleen, foetal stomach content). Pink colour coco Bacilli and histopathological changes were seen in the tissue samples of aborted fetus. Risk factor analysis was also done on the basis of questions asked to the farmers of the Mathura district. Factors like herd size, climate, region of origin, level of hygiene, breeds was not significant for brucellosis in dairy cattle by P value was more than P?0.05. Similarly odd ratio was also calculated for the risk factor analysis and it shows region of origin, level of hygiene, knowledge and awareness at farms are the main risk factor for the endemic spread of Brucellosis in various blocks of Mathura district. Taking i-ELISA as standard test the sensitivity and specificity of RBPT and STAT for dairy cattle and STAT for humans were calculated. Result shows (89.09%) sensitivity & (86.61%) specificity of RBPT, (78.18%) sensitivity & (88.05%) specificity of STAT for dairy cattle and (66.7%) sensitivity, (94.87%) specificity of STAT for Humans. Economic loss was also calculated as per the economic model to estimate the loss due to the Brucellosis to farmers of Mathura district. The result shows that the loss was estimated Rs. 62,95,129/- per annum which is a huge economic loss to the farmers of dairy cattle of dairy farms/gaushalas of various blocks of Mathura district.

6. Study of antibiofilm activity of essential oils on Staphylococcus aureus isolated from milk and milk based products

The present research work was conducted to investigate the antibiofilm activity of essential oils on Staphylococcus aureus isolated from milk and milk based products. S. aureus was isolated from 315 samples that included retail raw milk (50), traditional milk based products (burfi, peda, milk cake and dudhi halwa) (150), frozen milk products (ice cream and kulfi) (60) and handswabs (milk shop workers and vendors) (55) from various regions of Mathura. The prevalence of S. aureus in retail raw milk, traditional milk based products, frozen milk products and in handswabs was 78.0%, 21.3%, 15%, 32.7%, respectively, with overall prevalence of 31.1%. Antimicrobial resistance of the S. aureus isolates for methicillin and vancomycin was evaluated by Antibiotic sensitivity test and E test. A total of 34 isolates were resistant for methicillin and 10 were resistant for vancomycin. The prevalence of MRSA in retail raw milk, traditional milk based products, frozen milk products and in handswabs was 24.0%, 6.6%, 5.0% and 6.3%, respectively, with an overall prevalence of 10.7% in all the sources. The prevalence of VRSA in retail raw milk, traditional milk based products, frozen milk products and in handswabs was 4.0%, 2.6%, 1.6% and 5.45% with an overall prevalence of 3.17% in all the sources. Further, the biofilm forming capabilities of the MRSA strains (34) and

VRSA (10) strains were detected phenotypically by three different assays viz. TCP, TM and CRA. In CRA assay, 16.6% MRSA were biofilm formers while 83.3% were non biofilm formers and for VRSA, 40% were biofilm formers and 60% were non biofilm formers. In Tube method 38.2%, 32.3% and 29.4% of MRSA strains were strong, moderate and weak biofilm formers, respectively. In Tube method 50.0% each were strong, moderate and none was weak biofilm formers. In TCP assay 61.7%, 23.5% and 14.7% MRSA were strong, moderate and weak biofilm former while 60.0%, 40.0%, 0.0% VRSA were strong, moderate and weak biofilm former, respectively. Overall, results showed TCP was better assay than TM and CRA. Further, strong biofilm former MRSA (21) and VRSA (6) were subjected to found the MIC values against eugenol and cardamomum oil. The MIC values of eugenol for MRSA biofilms ranged from 3.125-0.19 (v/v) while for VRSA biofilms ranged from 0.19-0.39 (v/v). The MIC value of cardamomum oil for MRSA and VRSA biofilms ranged from 50-25 (v/v). These results indicate that MRSA strains were more susceptible to eugenol than cardamomum oil. Antibiofilm effects of eugenol and cardamomum essential oils were observed on MRSA and VRSA biofilms at MIC of 0.19 and 0.39 (v/v) concentration for eugenol and 25 and 50 (v/v) concentration of cardamomum oil. It was observed that the OD values of the control for all the samples was much higher than the OD of biofilms treated with different concentrations of oils. Under SEM analysis, the biofilms that were treated with different concentration of eugenol and cardamomum showed loss of cell-to-cell connections, disruption of organized structures of the biofilms, loss in normal morphology, surface became rough and collapse of bacterial cells possibly due to exudation of the contents. Minimum inhibitory concentration (MIC) values and Scanning Electron Microscopy (SEM) analysis suggests that eugenol has better antibiofilm activity than cardamomum oil and thus eugenol can inhibit biofilms of MRSA and VRSA at lower concentrations as compared to cardamomum oil. This study revealed that both eugenol and cardamomum oils exert antibiofilm effects on MRSA and VRSA biofilms and can be applied on the surfaces of equipments, food containers, utensils and other materials to prevent MRSA and VRSA biofilms.

7. Evaluation of therapeutic potential of Moringa oleifera leaves on acute liver failure (ALF) in dog

The present study was conducted to investigate the occurrence of acute liver failure in dog and to evaluate the therapeutic potential of *Moringa oleifera* leaves on acute liver failure in dogs. For this, a total of 3881 dogs, irrespective of age, breed and sex presented to TVCC, DUVASU, Mathura were examined during a period of study *i.e.*, from February 2023 to July 2023. Total 205 dogs showed clinical signs concern to acute liver failure, out of which 31 dogs were found positive for acute liver failure by altered Hematology, altered serum biochemistry and diagnostic imaging abnormalities. The overall occurrence (hospital based prevalence) of acute liver failure in total dog population was 1.107 % (31/3881) whereas hospital based prevalence among suspected dogs was 15.12 % (31/205). Amongst different breeds, Labrador retriever had the highest occurrence 29.03 % and Shih Tzu possesses lowest occurrence of acute liver failure i.e. 5.26 %. Age wise prevalence was highest in dog age group 4-8 years and female dogs possessed more prevalence than male. Vomiting, anorexia, icterus, weakness, abdominal pain, wt. loss, fever, neurologic signs, hematemesis, inappetance, pale mucus membrane and polyuria/polydypsia are the important clinical findings in dogs with acute liver failure as per our study. Twelve (12) found positive for acute liver failure during screening were taken for therapeutic studyand randomly allocated into 2 groups, each group having 6 animals. In group II conventional treatment was given and in group III conventional treatment with combination of *Moringa oleifera* @ 30mg/kg body weight PO was administered for 14 days. Conventional treatment includes fluid therapy Inj. Dextrose 10% (as per dehydration status), Tab. Amoxicillin and clavulanic acid P.O at 22 mg/kg for 7-14 days; diuretics (furosemide + spiranolactone) @ 2mg/kg PO q12hrs if required; Inj metaclopramide @ 0.2-0.5 mg/kg every 8 to 12 hour interval if required; Amino acid

supplementation orally @0.5ml/kg daily for 14 days if required;Inj B-complex @1-2ml i/m on alternate days for 14 days if required; according to clinical signs. The indigenous extract preparation comprised the leaves of *Moringa oleifera* which was air-dried under shade, grind to a fine powder and hydroalcoholic extract was prepared. Six apparently healthy dogs were placed in healthy control group (group I) after thorough physical examination and hemato-biochemical tests. Therapeutic evaluation was done on the basis of percent recovery assessment and hemato-biochemical alterations. Percent recovery was assessed by clinical improvement in terms of disappearance of clinical signs and alterations in the hemato-biochemical parameters on day 7th and day 14th post treatment.Complete clinical examination of all dogs of acute liver failure was made. Both conventional therapy as well as combination of *Moringa oleifera* with conventional therapy was found effective against acute liver failure in dog as evidenced by restoration of ALT, AST, ALP, GGT, total protein, cholesterol, bilirubin and glucose. Although, better recovery towards normalcy was noticed in group III. Based on results of the study it was concluded that *Moringa oleifera* (act as hepatoprotectant) may be advised as adjunct therapy along with conventional treatment for early recovery in acute liver failure in dog.

8. Evaluation of therapeutic potential of Moringa oleifera leaves on renal impairments in dog

The present study was conducted to investigate the occurrence of renal impairment in dog and to evaluate the therapeutic potential of *Moringa oleifera* leaves on renal impairment in dogs. For this, a total of 3881 dogs, irrespective of age, breed and sex presented to VCC, DUVASU, Mathura were examined during a period of study *i.e.*, from February 2023 to July 2023. Total 287 dogs showed clinical signs concern to renal impairment, out of which 43 dogs were found positive for renal impairment by various clinical markers and laboratory tests. The overall occurrence (hospital based prevalence) of renal impairment in total dog population was 1.107 % (43/3881) whereas hospital based prevalence among suspected dogs was 14.98 % (43/287). Amongst different breeds, Labrador retriever had the highest occurrence20.37 % and Beagle possesses lowest occurrence of renal impairment i.e. 10 %. Age wise hospital based prevalence was highest in dogs' age group 4-8 years and female dogs possessed more prevalence than male. In the present investigation it was observed that dogs feeding with commercial diet are more prone to renal impairment that home based fed dogs. Anorexia, lethargy, vomiting, weakness/ depression, anuria/ oligourea, polydipsia/ polyuria, proteinuria, glucosuria, ketonuria etc. are the important clinical findings in dogs with renal impairment as per our study. Twelve (12) found positive for renal impairment during screening were taken for therapeutic studyand randomly allocated into 2 groups, each group having 6 animals. In group B conventional treatment was given and in group C conventional treatment with combination of *Moringaoleifera*@ 30mg/kg body weight PO was administered for 14 days. Six apparently healthy dogs were placed in healthy control group (group A) after thorough physical examination and various diagnostic tests. Treatment with conventional drugs as well as combination therapy with *Moringaoleifera* significant reduced the concentration of Hb, TEC, PCV, Platelets as well as activities of the activities of serum creatinine, BUN, ALP, AST, GGT and renal biomarker protein cystatin-C and SDMA in renal impairment dogs. Based on results of the study it was concluded that *Moringaoleifera* may be advised as adjunct therapy along with conventional treatment for early recovery in renal impairment in dog.

9. Effect of feeding probiotics and exogenous fiberolytic enzyme treated rice straw on the performance of heifers

This study was conducted to evaluate the probiotic and exogenous fibrolytic enzymes onfeed intake, nutrient digestibility, growth performance, haematology, enzymatic activity, antioxidant status, plasma minerals and ingestivebehaviour in Hariana heifers. In first phase, *in vitro* degradability of nutrients as an effect of supplementation of probiotic and EFE at various

levels was tested and optimum results were obtained at 5g/kg DM and 7g/kg DM mixed with TMR-based paddy straw. The result showed better IVDM degradability, IVOM degradability, total gas production, microbial biomass production, total volatile fatty acid, and partitioning factor. In second phase, a total of 18 Hariana heifers were selected and allocated into three groups having six heifers in each group and fed treatment diet for 120 days. The control group was fed on basal diet without any supplementations whereas, group-1 was supplemented basal diet with 5g/kg probiotic (*Saccharomyces cerevisiae*) and group-2 was supplemented basal diet with 7g/kg EFE. The nutrient requirements of Hariana heifers were met by feeding concentrate mixture, jowar, and paddy straw (50:30:20 ratio) on DM basis as per NRC (2001) guidelines. Experimental animals were monitored daily for DMI and fortnightly body weight change. At the end of the study, a digestion trial of 7 days was conducted to study the effect of supplementation on nutrients utilization. Blood samples were collected on the days 0, 30, 60, 90, and 120 days post supplementation and analyzed for haematological attributes, biomarkers of energy, lipid and protein metabolism, biomarkers of liver and kidney function, biomarkers of antioxidant status, and plasma mineral levels. At the end of trial rumen enzyme activity and ingestivebehaviour were also noted. No effect on DMI, FCR, FCE but body weight gain was found significantly higher ($P<0.05$) in supplemented group.There was no significant effect ($P<0.05$) of supplementation on blood parameters except Hb and HCT levels which showed significantly higher in supplementation group.Treatment groups showed significantly higher ($P<0.05$) plasma total protein, plasma globulin, plasma cholesterol, plasma ALP and lower bilirubin whereas, no significant effect ($P>0.05$) was found on albumin, glucose, triglycerides, ALT, AST, creatinine and PUN levels. BHBA and IGF-1 were similar but NEFA, FRAP and SOD were significantly different ($P<0.05$) in control, probiotic and EFE group, respectively. There was no significant effect on plasma minerals and animal behaviour parameters after supplementation but rumen enzyme i.e., cellulase, Avicelase, and xylanase activity in EFE group showed significantly higher ($P<0.05$) activity than probiotic or control group. Finally, it may be concluded that probiotics (*Saccharomyces cerevisiae*) and exogenous fibrolytic enzyme @ 5 and 7 g per kg DM, respectively improved weight gain and digestibility of nutrients without affecting blood haematology, biochemical parameters, mineral profile and ingestive behaviour adversely. Thus, rice straw may be included in ration of ruminant's upto 20% of DM with probiotics (*Saccharomyces cerevisiae*) and exogenous fibrolytic enzyme treatments.

10. Effect of feeding urea and exogenous fiberolytic enzyme treated paddy straw on the performance of growing cattle

Present study was conducted to investigate the effect of herbal feed additive and sulfate supplementation on growth performance, nutrient utilization, blood biochemical parameters, immune and antioxidant response and rumen fermentation pattern. Twenty four growing cattle calves (12 male Haryana, 8 male Sahiwal, 4 female Sahiwal calves) were distributed into four groups with six animals each in a randomized block design. Control (C) group were not supplemented with any extra things other than the present in basal diet, T1 group were supplemented with herbal feed additive (Fennel + CLO; @ 1.0% of DMI), T2 groups were supplemented with sulphate @ 0.075% of DMI, and group T3 were supplemented with diet containing herbal feed additive (Fennel + CLO; @ 1.0% of DMI) and sulfate @ 0.075% of DMI. Basal diet offered to experimental groups containg 40% concentrate and 60% wheat straw. Body weight and dry matter intake were recorded fortnightly. Overall body weight, DMI (kg/day), TDN intake (g/kg $W^{0.75}$) and DCP intake (g/kg $W^{0.75}$) found similar in treatment as well as control group. Nutrient digestibility and digestible nutrient intake were not impacted by supplementation of either herbal feed additive and/or sulphate supplementation. ADGwere similar in all groups. FCR were not significantly different between control and treatment groups. Haematological parameters like blood haemo-globin concentration and PCV values were not

effected among the all four groups. Overall plasma glucose, triacylglyceroland cholestrol concentration were similar among all groups. Plasma total protein, albumin, BUN, ALT, AST, bilirubin and creatinine were found similar in all treatment and control groups. Plasma SOD was also similar in all groups. Total antioxidant concentation show no any significant difference between control and treatment groups. There is no effect on the rumen pH and the volatile fatty acid concentration after feeding with herbal feed additive and sulfate among all the four groups. Protozoal population decreases significantly in the herbal feed additive supplemented group T1 as compared to control, T2 and T3. Total bacteria, fungi and *Fibrobacter Succinogenes* population and were similar among all the groups. Sulfate reducing bacteria is significantly higher in the sulfate treated group T2 as compared to control, T1 and T3. CMCase and avicelase, urease activities are significantly higher in T2 as compared to control, T1 and T3 whereas amylase, beta gulucosidase, xylanase activity were similar in all the four groups. It may be concluded that supplementation of herbal feed additive (Fennel + CLO; @ 1.0% of DMI) may be used in high roughage based ration due to its inhibitory effect on protozoa and supplementation of sulphate may improve the fibre digestion in the cattle calves.

11. Effect of herbal feed additive and sulfate on the performance of cattle calves

Abstract- This study was conducted to evaluate the effect of feeding urea and exogenous fibrolytic enzymes (EFE) treated paddy straw onfeed intake, nutrient digestibility, growth performance, haematology, blood biochemical, plasma minerals, enzymatic activity, and animal behaviour in Sahiwal heifers. In first phase, *in vitro* degradability of nutrients as an effect of supplementation of urea and EFE at various levels was tested and optimum results were obtained at 4% and 8 g/kg dry matter (DM) mixed with total mixed ration (TMR) based paddy straw. The result showed better *in vitro* dry matter digestibility (IVDMD), *in vitro* organic matter digestibility (IVOMD), total gas production, microbial biomass production and partition factor. In second phase, a total of 24 Sahiwal heifers were selected and allocated into four groups having six heifers in each group and fed treatment diet for 120 days. The control group was fed on basal diet without any supplementations whereas, group-1 was supplemented basal diet with 4% urea treated paddy straw, group-2 was supplemented basal diet with 8 g/kg DM EFE and group-3 was supplemented basal diet with 4% urea and 8 g/kg DM EFE treated paddy straw. The nutrient requirements of Sahiwal heifers were met by feeding concentrate mixture, jowar green fodder and paddy straw (50:30:20 ratio) on DM basis as per NRC (2001) guidelines. Experimental animals were monitored daily for dry matter intake (DMI) and fortnightly body weight change. At the end of the study, a digestion trial of 6 days was conducted to study the effect of urea and EFE treated paddy straw on nutrients utilization. Blood samples were collected on the days 0, 30, 60, 90, and 120 days post supplementation and analyzed for haematological attributes, biomarkers of energy, lipid and protein metabolism, biomarkers of liver function, endocrine biomarkers of growth and plasma mineral levels. At the end of trial rumen enzyme activity and animal behaviour were also noted. Feed conversion ratio (FCR), feed conversion efficiency (FCE) and body weight gain was found significantly higher ($P<0.05$) in treatment group but there was no difference in DMI.There was no significant effect ($P<0.05$) of treatment on hematological parameters. Treatment groups showed significantly higher ($P<0.05$) plasma total protein, plasma albumin, plasma urea nitrogen (PUN), whereas, no significant effect ($P>0.05$) was found on plasma glucose, triacylglycerides, total cholesterol, HDL-cholesterol, plasma globulin, creatinine, alkaline phosphatase (ALP), alanine aminotransferase (ALT), aspartate aminotransferase (AST) and bilirubin levels. Triiodothyronine (T3) and Insulin like growth factor (IGF-1) concentration were found significantly higher ($P<0.05$) in treatment group whereas Thyroxine (T4) show non-singnificant difference between treatment and control group. There was no difference in plasma minerals concentration and animal behaviour parameters but rumen enzymes activity is significantly higher

in combination group than that of control and other treatment groups. Finally, it may be concluded that urea and EFE @ 4% and 8 g/kg DM, respectively improved weight gain and digestibility of nutrients without affecting blood haematology, biochemical parameters, mineral profile and animal behaviour adversely. Thus, urea and EFE treated paddy straw may be included in ration of ruminant's upto 20% of DM.

12. Effect of Shatavari *(Asparagus racemosus)* root powder supplementation on performance of Sahiwal cows

The study was conducted to evaluate the effect of herbal feed supplement Shatavari root powder on 18 lactating Sahiwal cows, which were divided into the three treatment groups having 6 animals in each for a period of 90 days. Group T1 as control provided with only basal diet, T2 group received 30 g Shatavari root powder along with the basal diet and T3 was supplemented with 60 g Shatavari root powder along with the basal feed. The effect of herbal feed supplement Shatavari on milk yield was significant (PÂ0.05) (5.56±0.63, 6.5±0.50 and 7.05±0.12 in T1, T2 and T3 resprctively) milk composition parameters revealed no significant (P>0.05) effect of Shatavari root powder on milk fat and protein%. However, milk lactose and Total solids were found significant different (PÂ0.05) from the control group. Physio-chemical parameters of milk i.e. temperature, pH and density were also assessed and found non significant (P>0.05) to each other. Milk somatic cell count differed significantly (PÂ0.05) in T3 compared with control. Effect of SRP on body condition score was found non significant (P>0.05) in either treatment groups. Hemetological parameters viz; hemoglobin, PCV,DLC, TLC, TEC were found in normal physiological range in all the groups. Significant (PÂ0.05) increase in blood glucose was observed in the treatment groups. There was also a significant (PÂ0.05) reduction in the BHBA after supplementation of herbal feed Shatavari. Biochemical parameters total protein and total albumin were found to differed significantly (PÂ0.05) in the SRP supplemented groups other biochemical parameters like cholesterol, triglycerides, urea and creatinine were also assessed and found to differed significantly (PÂ0.05) after SRP supplementation. Prolactin hormone was also assessed and found to increase significantly (PÂ0.05) in T2 and T3 than the control. Cortisol assay was also performed and significant difference was found in the T3 than the control (T1). It was concluded that feeding of SRP @ 60 g/animal/day is beneficial for improving milk yield, milk composition, glucose level and other biochemical constituents in lactating Sahiwal cows.

13. Effect of dietary supplementation and *in ovo* feeding of menthol on the performance of commercial broilers

This study was carried out to evaluate the effect of dietary supplementation vis-a-vis*in ovo* feeding of menthol on the performance of commercial broilers. Three hundred and seventy five fertile eggs of CARI-VISHAL birds were set for incubation for first 18 days in the setter and last 3 days in the hatcher. On the 18th day, *in ovo* feeding was done at the broad end of the egg. The eggs were divided into three groups: un-injected control, sham control (injected with 0.5 ml of 5% ethanol), and *in ovo* injected with menthol (0.5 ml of 1% menthol solution).After hatching, 180-day-old chicks were reared for feeding trial. Chicks from these three groups were further divided into two subgroups, each with three replicates and ten chicks per replicate. One subgroup received a basal diet, while the other received a basal diet with menthol supplementation at a rate of 250 mg/kg diet. Birds were reared for 42 days (6 weeks) and kept on a Basal or Control diet [BIS, 2007; broiler starter diet till 3 weeks and thereafter broiler finisher diet till 6 weeks]. Day old body weight of *in ovo* menthol group birds was significantly higher (P<0.01) compared to un-injected control. There were no significant differences in the body weight gain, feed consumption and FCR during different phases of growth after *in ovo* feeding and/or dietary supplementation of menthol. HA titre (P<0.001), IgM titre (P<0.001), IgM concentration (P<0.05) in *in ovo* menthol group were significantly higher than sham control and un-injected control group. Further, HA titre (P<0.01), IgM titre (P<0.01),

serum IgY (P<0.01), IgM concentration (P<0.001), FWI (P<0.002) were significantly higher in dietary menthol supplemented group birds as compared to basal diet fed group birds. In addition, *in ovo* feeding along with dietary supplementation of menthol resulted in significantly higher (P<0.05) HA titre, IgY concentration (P<0.005) and significantly lower (P<0.001) serum cortisol as compared to other interaction groups. There was no significant effect of *in ovo* feeding and dietary supplementations of menthol on blood biochemical parameters, development of digestive and lymphoid organs, carcass quality traits, cut up parts, yield of giblets and chemical composition of breast and thigh muscles.The ether extract (%) of breast muscle of birds were significantly lower in birds of *in ovo* menthol group (P<0.01) and menthol supplementation group (P<0.001) than un-injected control and basal diet respectively. Dietary supplementation of menthol resulted in significantly higher concentration of sodium(P<0.04) in breast meat cut and significantly higher concentration of copper and iron (P<0.04, P<0.01) in thigh meat cuts. *In ovo* feeding or dietary supplementation of menthol resulted in significant decrease in saturated fatty acids and significant increase in omega-6 fatty acids in breast and thigh meat cuts. Further, *in ovo* feeding along with dietary supplementation of menthol resulted in significant increase in polyunsaturated fatty acids (P<0.003) and omega 6 fatty acids (P<0.001) in breast meat cut. Thus, *in ovo* feeding of 1% menthol as well as dietary supplementation of menthol @ 250 mg/ kg diet resulted insignificant positive effects on early body weight and immune responses in broilers. These treatments also influenced fatty acid composition in meat, with potential positive implications for consumer health. However, they did not significantly impact other growth parameters or carcass quality traits.

14. Effect of dietary supplementation and in ovo feeding of alpha ketoglutarate on the performance of commercial broilers

The present study was conducted to assess the effect of dietary supplementation vis-à-vis *in ovo* feeding of alpha ketoglutarate (AKG) on the performance of commercial broilers. Three hundred and seventy five fertile eggs of CARI-VISHAL birds were set for incubation for first 18 days in the setter and last 3 days in the hatcher. On the 18th day, *in ovo* feeding was done at the broad end of the egg. The eggs were divided into three groups: un-injected control, sham control and *in ovo* injected with AKG (0.6 ml of 1.5% AKG solution). After hatching, 180-day-old chicks were reared for feeding trials. Chicks from these three groups were further divided into two subgroups, each with three replicates and ten chicks per replicate. One subgroup received a basal diet, while the other received a basal diet with 1% AKG supplementation diet. Birds were reared for 42 days (6 weeks) and kept on a Basal or Control diet [BIS, 2007; broiler starter diet till 3 weeks and thereafter broiler finisher diet till 6 weeks]. Body weight gain during 0-3weeks and 0-6 weeks in dietary supplemented AKG group were significantly higher (P<0.001 and P<0.02) than basal diet group. Similarly, feed consumption indietary supplementation of AKG group was significantly higher (P<0.04 and P<0.04) than basal diet group during 3-6 weeks and 0-6 weeks. Serum HA (P< 0.001, P< 0.001 and P<0.001) and IgMtitre (P<0.001, P<0.001 and P<0.001) to 1% GRBC were significantly higher in *in ovo*feeding of AKG and/or dietary supplementation of AKG. Serum cortisol concentration was significantly lower (P<0.001 and P<0.001) in *in ovo*AKG or dietary supplementation of AKG. Plasma cholesterol was significantly lower (P< 0.03) in dietary supplementation of AKG than basal diet group. Further, total protein was significantly higher in dietary supplementation of AKG (P<0.01) as well as *in ovo AKG* with AKG supplemented group (P<0.01). Small intestine weight was significantly lower (P<0.01) in basal diet supplemented with AKG than basal diet. However, large intestine length was significantly higher (P<0.005) in *in ovo* AKG group than un-injected control. Na content of breast muscle of birds of*in ovo*AKG group was significantly higher (P<0.001) than birds of un-injected control and sham control. Further, Fe and Mn content of thigh muscle of birds of *in ovo*AKG group was significantly higher (P<0.02 and

P<0.01) than birds of un-injected control group. In breast meat cuts, *in ovo* feeding or dietary supplementation of AKG was significantly lower in SFA. Birds of *in ovo* AKG group had significantly higher (P<0.02) MUFA than birds of un-injected control group. Further, dietary supplementation of AKG resulted in significantly higher (P<0.03) omega 6 fatty acids in breast meat cuts as compared to birds in the control diet. PUFA (P<0.001) and omega 6 fatty acids (P<0.001) were significantly higher in birds after dietary supplementation of AKG or *in ovo* feeding of AKG.It was concluded that dietary AKG supplementation led to increased body weight gain and feed consumption during different phases of growth. *In ovo* feeding or dietary supplementation of AKG resulted in significantly higher serum HA, IgM, and lower cortisol levels. In addition, percent PUFA and omega 6 fatty acids were significantly higher and saturated fatty acids were significantly lower in breast meat cuts of birds after *in ovo* feeding and/or dietary supplementation of AKG.

15. To study the immunomodulatory effect of herbal feed additives in broiler chicken

The present study was conducted to study the immunomodulatory effect of herbal feed additives in broilers chicken. That was designed to see the effect of poly herbal feed additive on growth, haemato-biochemical and immunological parameters in broilers. In the current study, total300 day old broiler chicks (n=300) were equally divided into five dietary treatment groups (T1, T2, T3, T4 and T5), having three replicates of 20 birds each. The study was conducted in broiler chicken during 0-6 weeks of age. During the experiment, birds were fed basal ration, T1 (control), T2- Basal diet+ Herbal Immuno-modulator A, T3- Basal diet + Herbal Immuno-modulator B, T4- Basal diet + Herbal Immuno-modulator C and T5-Basal diet +Enramycin. There was no significant difference on the average weekly body weight among the different treatment groups except at second week where T4 birds had significantly higher (P<0.05) body weight compared to T1, T2, T3 and T5. The average weekly body weight gain did not showed significant difference among the different treatment groups however group T4 and T5 birds had significantly higher (P<0.05) body weight gain compared to T1,T2 and T3 groups. The average weekly FCR was better in T4 and T5 groups as compared to T1 groupduring over all experimental period. There was no significant difference in the average body weight gain among the different treatment groups during different phases of growth. The average feed intake during different phases was lower in T4 as compared to T1 during whole 6 weeks of period. Therewas no significant difference in the FCR among the different treatment groups during different phases of growth. However the FCR was comparatively better in T4 group as compared to the other treatments and control group during 0-6 week period. There was significant difference in the concentration of serum IgY and IgA antibodies among the different treatment groups after 6 weeks of age, but T4 group birds had significantly higher(P<0.05) concentration of serum Pre-vaccinated and post-vaccinatedIgY and IgA antibodies titreas compared to T1,T2,T3 and T5 groups. There was significant difference in cell mediated immune response to (PHA-P) among the different treatment groups at 6 weeks of age, group T4 birds had significantly higher (P<0.05) cell mediated immune response to (PHA-P) among the T1, T2,T3 and T5groups.There was no significant difference in blood biochemical parameters among the different treatment groups after 6 weeks of age except increase in Total Protein in T4 group. Total Protein level was significantly higher (P<0.05) in T4 group as compared to T1, T2, T3 and T5 groups. The large intestine weight and large intestine length were significantly higher (P<0.05) in T4 as compared to T1, T2, T3 and T5 groups. There was no significant difference in carcass quality traits among the different treatment groups after 6 weeks of age. There was no significant difference on the hematological parameters among the different treatment groups except in Heterophil-lymphocyte ratio and RBC count, where group T4 birds had significantly lower (P<0.05) Heterophil-lymphocyte ratio and significantly higher RBC count compared to T1,T2, T3 and T5 groups. There was significant difference (P<0.05) on the intestinal morphometry among the different

treatment groups,T4 group has increase in duodenal, jejunum and ileum villous height, width and crypt depth as compared to other treatment groups.There was no significant difference in the CD4+ and CD8+ cells infltration in the different intestinal sections among groups in immuno-histochemistry. Gene expression shows the significant difference in the oxidative stress and pro-inflammatory response genes as compared to antibiotic and control group. Thus, it may be concluded that polyherbal feed supplemented in diet may be to elicit growth performance, immunity, blood biochemical, hematological and gut health parameters at par to antibiotic group.

Fig- Experimental Chicks.

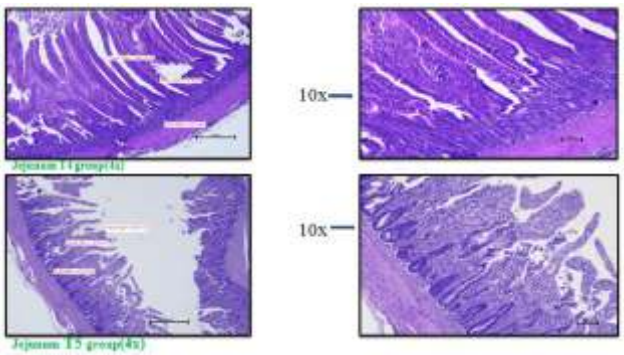
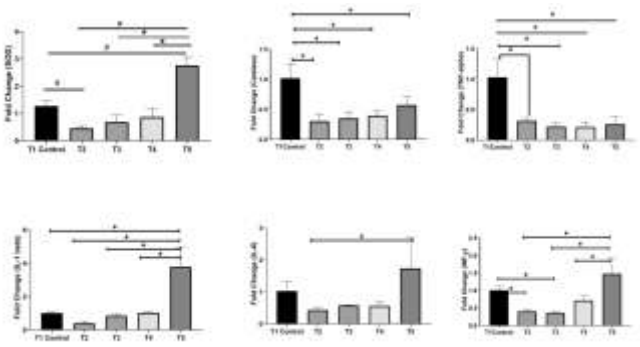


Fig. Effect of dietary supplementation of herbal feed additives on intestinal morphometry of broilers chicken after 6 weeks of age



Molecular Transcription Profiling of Selected Innate Immune Response Genes

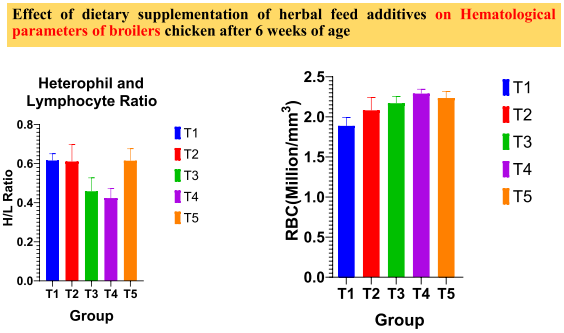


Fig.-Inactive alveolar duct without secretions blood vessel Active alveolar duct with secretion interlobular connective tissue (400X. HE)

16. Assessment of epithelial mesenchymal Transition (EMT) as biosignature for tumour metastasis in canines

Metastasis is a complex biological process that occurs when cancer cells spread from the primary site of the tumour to other parts of the body, forming secondary tumours. This is a critical aspect of cancer progression and often represents a more advanced stage of the disease. Epithelial-mesenchymal transition (EMT) is a biological process in which epithelial cells, which are typically involved in forming tissues and lining organs, undergo a series of changes that confer upon them characteristics of mesenchymal cells. In the context of cancer, EMT is often linked to the ability of cancer cells to invade surrounding tissues and metastasize to distant organs. Cells undergoing EMT may gain the ability to migrate through the basement membrane, invade blood vessels, and establish secondary tumours at distant sites. This study focuses on EMT as a

biosignature for the assessment of metastasis in epithelial tumours in dogs. In this present study, a total of 23 biopsy samples from different dogs that were presented at Veterinary Clinical Complex (VCC), Mathura were studied from a time period from November 2022 till September 2023. Patient data, including breed, age, gender, location, anatomical lesion details were recorded. FNAC was performed to study cytological changes. Lymph node involvement was assessed by performing FNAC on the nearest draining lymph node to the affected region. Out of the six lymph node aspirates examined, only four yielded positive results, indicating the presence of tumor cells. The tumour samples that were surgically excised formed the basis of the study. The tumours were classified and graded histopathologically. Immunohistochemical staining was carried out for detection of EMT biomarkers like E-cadherin, N-cadherin, Vimentin and Laminin-5 and the expression of these biomarkers was assessed. AgNOR staining was performed to check the proliferative activity of the tumour cells the expression of these biomarkers was compared with tumour grades and lymph node metastasis. The results were quantified using manual IHC scoring and image analysis which showed that tumours of higher histological grade showed lower expression of E-cadherin over the expression of N-cadherin, vimentin and laminin-5. AgNOR staining results showed that the tumours of higher grade exhibited higher mAgNOR count and pAgNOR counts indicating higher proliferative activity than tumours of lower grade. These findings suggest a potential association between EMT biomarker expression, tumor grade, and proliferative activity, providing valuable insights into the metastatic potential of epithelial tumours in dogs. This research contributes to the understanding of canine cancer biology and may inform future diagnostic and therapeutic strategies for managing metastatic disease in veterinary medicine. However studies involving higher number of are required for using these biomarkers as prognostic tool for assessing the EMT in canines.

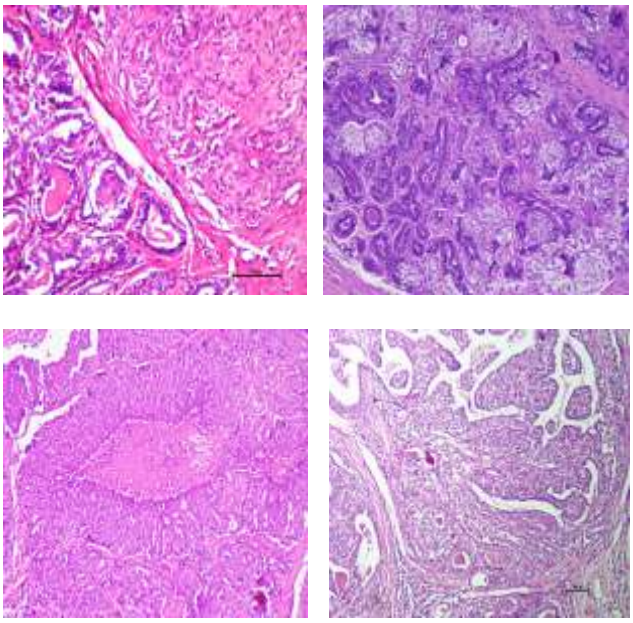


Fig 4.1. A.Carcinoma and malignant myoepithelioma, mammary gland, canine. Pleomorphism in both the population of cells namely the carcinoma cells of gland (arrow) and the spindle shaped myoepithelial cells (star). B. Mucinous carcinoma, MG, canine. Characterised by the production of abundant mucin (star). C.Comedocarcinoma, MG, canine. Characterized by central area of necrosis (arrow) with viable peripheral areas of neoplastic cells. D. Intraductal papillary carcinoma, MG, canine. Proliferation of malignant ductal epithelial cells in the form of papillae (arrow) H&E 200X.CBA

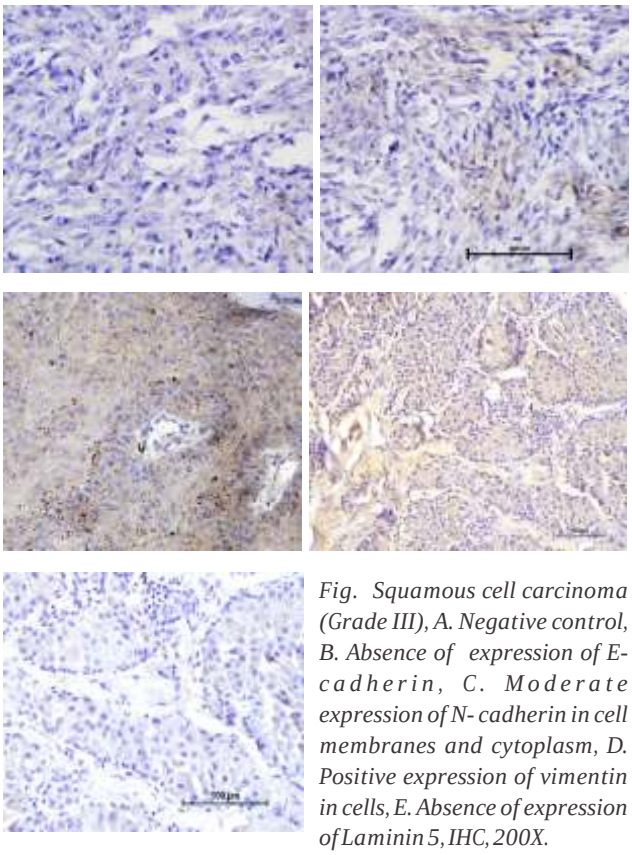


Fig. Squamous cell carcinoma (Grade III), A. Negative control, B. Absence of expression of E-cadherin, C. Moderate expression of N- cadherin in cell membranes and cytoplasm, D. Positive expression of vimentin in cells, E. Absence of expression of Laminin 5, IHC, 200X.

17. Assessment of ZnO nanoparticles induced hepato-renal alterations in male wistar rats

Present study was undertaken to evaluate the hepato-renal alteration induced by daily oral dosing of ZnO nanoparticles in male wistar rats. For this purpose, a total of seventy-two rats were randomly divided into 4 groups. Rats of Group I were fed with basal feed and water and served as control rats. Rats of Group II, III, IV were given a daily dosage of ZnO NP @ 800 mg/kg, 400 mg/kg, 200 mg/kg respectively, through oral gavaging. Rats were humanely sacrificed at 15, 30 and 45 days of oral dosing to study the effect of ZnO NP on clinical signs, body weight, organ weight, haematological, biochemical, immunological and molecular parameters.

Clinical signs of reduced feed intake, increased water intake, dry hair coat, dullness, depression, decrease in growth rate, soft stools were observed in rats of group II. Similar but mild signs were evident in group III. Rats of Group (I, IV) remained active and alert throughout the trial period. Body weight decreased significantly in rats of Group II from 4th week onwards. Non-significant reduction in body weight was also observed in Group III, however body weight was not affected in rats of Groups (I, IV). Organ weights viz. liver, heart, lungs and brain reduced non-significantly. Significant reduction in the weight of kidneys was observed at 45 days of exposure. Feed intake reduced significantly in Group II after 3rd week of exposure to ZnO NP. However, feed intake varied non-significantly in other groups. Water intake presented a non-significant increase in Group II. Haematological observations revealed significant reduction in TEC, Hb and Platelet count in Group II post 30 days of oral dosing. Significant reduction in TEC, Hb and platelet count was observed in both Groups II & III post 45 days of oral exposure to ZnO NP. Biochemical alterations presented an increase in ALT, AST & ALP levels in Group II at the interval of 30 days. Increased levels of ALT, AST & ALP were observed in both Groups II & III at 45 days of interval. The levels of BUN &Creatinine were also significantly increased in Group II after 30 days while significant increment in BUN &Creatinine levels was evident in both Groups II & III after 45 days of interval. Non-significant reduction in total serum proteins was evident at all intervals in all treatment groups as compared to the control group. Significant increase in levels of total bilirubin, LDH & GGT was evident in Group II post 30 days of exposure, while the increment was significant in both Group II & III after 45 days of exposure. Grossly, no marked changes were evident in liver and kidney of any treatment group upto 30 days of exposure period. Slight paleness was evident in liver and kidneys at 45 days of exposure period. Histopathologically, normal histoarchitecture of hepatocytes was evident in all groups upto 15 days of exposure. Thereafter, cellular swelling, hydropic degeneration, focal necrosis and increased sinusoidal spaced were evident in liver of rat of Groups II & III after 30 days. In kidney, mild congestion between kidney sinusoids was evident after 30 days. Markers of oxidative stress depicted a significant rise in hepatic MDA in Group II at 30 days and in both Groups II & III at 45 days of exposure. Renal MDA increased in both Groups II and III at 30 and 45 days of exposure. Hepatic and renal GSH levels were significantly reduced in Group II at 30 days while significant reduction was observed in both Groups II & III at 45 days of exposure period. Hepatic and renal IL-6 revealed a significant increase in Group II after 30 days, while significant increase was evident in both Groups II & III after 45 days of exposure. TNF-á increased significantly in Group II in hepatic tissue after 30 days, while significant increase was evident in both Groups II & III post 45 days of exposure. In kidney, TNF-á increased significantly in both Groups II & III at 30 and 45 days of exposure. The mean values of Hsp-70 expression revealed a significant upregulation in both hepatic and renal tissue in Groups II & III at 30 and 45 days interval of oral exposure to ZnO NP.

18. Assessment of CuO nanoparticle induced reproductive system alterations in male wistar rats

This study investigates the impact of CuO nanoparticle exposure on the reproductive system of male Wistar rats during a sub-acute oral administration spanning 45 days. Three different

doses, representing 1/10th, 1/20th, and 1/40th of the LD-50, were administered, and various parameters were evaluated, including general body parameters, haemato-biochemical parameters, oxidative stress biomarkers, testicular injury biomarkers, serum testosterone levels, sperm parameters, histopathology, and quantitative gene expression of HSP-70 and GAPDH genes in the testes.

Results show that, up to the 3rd week, no clinical signs of toxicity were observed. However, from the 3rd week onwards, a non-significant decrease in body weight was noted, and from the 4th to 6th week, rats exhibited low feed consumption, emaciation, drowsiness, and a rough body coat. Significant changes in feed and water intake were observed from the 4th to 6th week. Organ weights remained non-significantly altered in treated groups compared to the control. Hematological parameters exhibited significant changes on day 30 and 45, with decreased TEC, Hb, and PCV, and increased TLC. Serum biochemical parameters (AST, ALT, Creatinine, BUN) showed increased levels, notably on day 45. Oxidative stress markers MDA and SOD demonstrated significant changes on day 30 and 45, indicating increased lipid peroxidation and decreased antioxidant capacity. Testicular injury biomarkers revealed significant alterations, with LDH, acid phosphatase, GGT, and SDH showing changes on day 30 and 45. Serum testosterone levels decreased significantly on day 45. Sperm parameters, including sperm concentration, % live and dead count, hypo-osmotic swelling test, and % acrosomal integrity, exhibited significant changes on day 30 and 45. TNF-alpha and IL-1 levels increased in testes on day 30 and 45, indicating an inflammatory response. Molecular analysis revealed a significant increase in the mRNA expression of testicular HSP-70 in all treatment groups on day 45.

In conclusion, sub-acute oral exposure to CuO nanoparticles induces significant alterations in the reproductive system of male Wistar rats, affecting various parameters and suggesting potential toxicity.

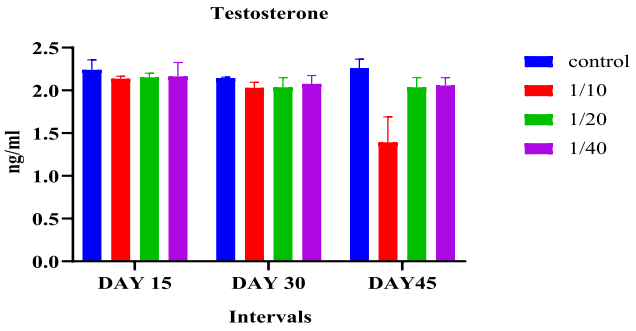


Fig. 3: Effect of oral administration of CuO nanoparticles on serum testosterone level in the rats of groups (II, III and IV) at the intervals of 15, 30 and 45 days of experimentation.

19. Effect of incorporation of herbs and humectants on physico-chemical, sensory and shelf life properties of goat milk soft cheese

The present investigation was conducted to evaluate the effect of herbs and humectants on physico-chemical, sensory and shelf-life properties of goat milk soft cheese. In first experiment, T2- goat milk soft cheese with 0.75% salt and incubated for 15 hours was selected. Goat milk soft cheese was incorporated with different humectants *viz.* glycerol (G1, G2, G3) and sorbitol (S1, S2, S3) separately at 2%, 4% and 6% level. For glycerol, pH, moisture content, fat/dry matter content and water activity values decreased significantly ($P<0.05$) whereas titratable acidity, total solid, ash content and brix values increased significantly ($P<0.05$) with increased glycerol level. Adhesiveness, gumminess, chewiness and lightness values increased significantly ($P<0.05$). G2- goat milk soft cheese with 4% glycerol was selected. For sorbitol, pH, moisture content, fat/dry matter and water activity decreased significantly ($P<0.05$) while titratable acidity, total solid and brix values increased significantly ($P<0.05$). Adhesiveness and gumminess values increased significantly ($P<0.05$).There was no significant difference in sensory scores between T2, S1 and S2 but decreased significantly ($P<0.05$) in S3. Therefore, S2- goat milk soft cheese with 4% sorbitol was selected. On comparison of G2 and S2 treatments, S2- goat milk soft cheese with 4% sorbitol was selected as the best treatment. Third experiment was conducted to optimize the level of

natural herbs *viz.* oregano (OR1, OR2, OR3) and cinnamon (CN1, CN2, CN3) separately under two sub experiments at 0.5%, 0.75% and 1.0% level. For oregano powder, moisture content, fat/ dry matter content, water activity and brix values decreased significantly (P<0.05) whereas ash content increased significantly (P<0.05) with increased level of oregano powder. Adhesiveness, gumminess, chewiness and lightness values decreased significantly (P<0.05) whereas redness values increased significantly (P<0.05) with increased level of oregano powder. OR1- goat milk soft cheese with 0.5% oregano powder was selected. For cinnamon, pH and water activity values decreased significantly (P<0.05) whereas ash content increased significantly (P<0.05) with increased level of cinnamon powder. Gumminess, chewiness and redness values increased significantly (P<0.05) with significant (P<0.05) decrease in lightness values. CN1- goat milk soft cheese with 0.5% cinnamon was selected. Goat milk soft cheese with optimum level of humectants and natural herbs powder along with control were stored at 4±2^{0}C under different packaging conditions *i.e.* parchment paper, LDPE and vacuum laminates and evaluated for quality characteristics at every 3rd day interval for parchment paper and LDPE, whereas at every 7th day interval for vacuum laminates. Titratable acidity, TBARS, FFA values and microbiological count of control as well as treatments increased significantly (P<0.05) whereas pH and scores of all sensory attributes decreased significantly (P<0.05) with progression of storage period. OR1 had better acceptability than CN1 in terms of sensory attributes throughout the storage period. It is concluded that goat milk soft cheese incorporated with 0.75% salt, 4% sorbitol, 0.5% oregano and incubated for 15 hours was selected as the best treatment and this product had a shelf life of 9th day, 15th day and atleast 35thday in parchment paper, LDPE and vacuum laminates respectively under refrigeration.

20. Development and characterization of collagen based active edible film and its application in meat food model

The present study was undertaken to develop composite active biodegradable edible film of collagen, carrageenan and tea tree essential oil using casting technique for preserving chicken nuggets. Collagen was extracted from chicken feet through modified acetic acid soluble collagen extraction method and analysis through Ultra performance liquid chromatography identified glycine, glutamic acid, proline, and alanine as major amino acids. Preliminary trials were carried out to standardize the ingredients and processing conditions for composite edible film production. On the basis of physico-chemical properties, a film containing 2% carrageenan and 0% collagen, 1.75% carrageenan and 3.75% collagen, 1.5% carrageenan and 4% collagen and 1.25% carrageenan and 4.25% collagen4% were found optimum. The apparent viscosity of film forming solution significantly (P<0.05) decreased with increasing collagen. The mean pH, moisture absorption, film swelling, water vapor permeation rate (WVTR) and transparency decreased significantly (P<0.05) with increasing concentration of collagen. The film thickness measurement exhibited significant (P<0.05) uniformity. The film solubility, tensile strength, elongation at break and water activity of the films increased significantly (P<0.05). Sensory evaluation of these films over chicken nuggets revealed non-significant (P>0.05) higher overall acceptability for treatments with significant (P<0.05) scores for flavor and saltiness. On the basis of physico-chemical, mechanical, barrier and optical and sensory properties, 4% collagen and 1.5% carrageenan (C2) were found optimum. Based on Minimum inhibitory concentration using food pathogens, tea tree essential oils (EO) at 0.5% (TB1), 1% (TB2) and 2% (TB3) were selected for incorporation. Dynamic oscillatory measurements of FFS showed 'weak gel'-like behavior. The film's pH, moisture absorption, water activity, tensile strength, WVTR, lightness value and transparency showed significant (P<0.05) difference with increasing EO concentration. The film thickness showed non-significant difference (P>0.05), however, film swelling, film solubility, elongation at break, lightness value and whiteness index increased significantly (P<0.05) with increased tea tree oil concentration. Based on the results of antimicrobial activity, physico-mechanical and

sensory scores, three films containing tea tree 0.5, 1 & 2% along with two control viz. LDPE (C1) and edible film without EO were selected for detailed storage stability studies of chicken nuggets for 15 days at refrigeration temperature (4±1°C). The proximate parameters except moisture showed non-significant (P>0.05) change during storage. The pH, peroxide, FFA and TBA values of treatments were significantly (P<0.05) lower than control. The total plate count, psychrophilic and yeast and mold count were significantly (P<0.05) lower in treatments, whereas coliforms were not detected throughout the storage period. All sensory attributes except the saltiness of samples were significantly influenced by the storage time (P<0.05). The treated samples were found well acceptable during the whole storage period of 15 days however the control groups were shown to be the most perishable group during the storage. Reduction in overall acceptability with storage time was much more pronounced in C2 than C1, TB1, TB2 and TB3. The retail cost of chicken nuggets was estimated to be Rs 287.00/ kg of product with packaging composite edible film Rs 54.00.

21. Investigating the role of cullin-ring ubiquitin ligase in regulation of vascular dysfunction in sepsis

Sepsis, a systemic inflammatory response syndrome against microbial infection, causes multiple organ failure resulting in death worldwide in human and animals. Vascular hyporeactivity resulting in reduced peripheral resistance is considered to be the leading cause of death in sepsis. Ubiquitylation is a post-translational modification that regulate cellular protein turnover, however, dysregulation of the ubiquitin proteosome system (UPS) alters the protein homeostasis and thereby contribute to various disease conditions. Cullin ring ubiquitin ligase (CRL) is one of the most studied UPS in the context of cancer biology, albeit, its role in infection and inflammation has recently become an exciting area of research. Thus, present study was aimed to evaluate the role of CRL in regulating vascular contractile protein homeostasis and thereby regulating sepsis-induced vascular hyporeactivity. Further, an attempt was made to delineate the efficacy of cullin neddylation inhibitor on the outcome of sepsis, if any. Sepsis was induced by caecal ligation and puncture (CLP) in mice and thoracic aorta was collected during the late phage of sepsis for the mRNA expression, Western Blot as well as RNAi experiments. Functional study on isolated aortic rings from different groups was also performed to assess vascular RhoA/ROCK signalling. The mean survival time of septic animals were significantly (p <0.05) reduced in septic mice (17.36 ± 0.51 h; N=14) as compared to sham-operated (SO) mice. All the SO mice (n=12) survived during 72 h observation period. Sepsis produced marked inhibition of vascular RhoA/ROCK signalling as evidenced by a significant (p <0.05) increase in the vasorelaxant response to Y-27632 which was at least in part, mediated by iNOS-NO-sGC signalling axis. Further, a significant (p <0.05) down-regulation of RhoA and ROCK expression in both aorta and mesenteric arteries was observed in septic mice. On the other hand, the protein expression of cullin3 was significantly (p<0.05) upregulated in mesenteric arteries isolated from septic mice. Additionally, the gene silencing of cullin3 in vascular smooth muscle cells resulted in increase in the mRNA expression of RhoA. Treatment of septic mice with a cullin neddylation inhibitor (MLN4924) along with imipenem significantly (p <0.05) improved the survival time (22.67 ± 1.26 h, N=6) with decrease in septic score. This improvement in survival time following combined treatment was attributed to decrease in bacterial load in blood, peritoneal lavage, lungs and spleen as well as restoration of vascular contractile response to nor-adrenaline, reduction in sepsis-induced enhanced relaxation to Y-27632 and acetylcholine-mediated endo-thelium-dependent relaxation. Moreover, the histopathological changes as observed in lungs, liver, kidney, heart and spleen of septic mice was markedly reduced following combined treatment with MLN4924 and imipenem. Taken together, it may be concluded that sepsis-induced increase in cullin3 mediated degradation of RhoA possibly contribute to the vascular hyporeactivity and MLN4924 as a small molecule drug have a large potential to treat vascular dysfunction in sepsis in long run.

22. Studies on the effect of chromium (VI) in male rats following sub-chronic exposure

Present study was undertaken to investigate the sub-chronic effects of chromium (VI) in male rats using potassium dichromate (0.625 mg/kg, 1.25 mg/kg, and 2.5 mg/kg) following oral administration. No discernible clinical signs of toxicity were observed at any dose, and weekly average body weight gain remained almost consistent. Both absolute and relative organ weights exhibited no significant differences among treatment groups. Hematological parameters showed no appreciable variations across the different treatment groups. Potassium dichromate exposure demonstrated limited impact on plasma total protein, albumin, and globulin levels. While HDL cholesterol exhibited a non-significant decrease, plasma glucose, cholesterol, and LDL cholesterol levels displayed a slight and non-significant increase. Non-significant elevations were noted in plasma AST, ALT, creatinine, and uric acid across all treated groups, with minimal changes in total bilirubin and BUN. Hepatic MDA levels increased non-significantly in a dose-dependent manner, accompanied by a non-significant decrease in SOD, CAT, GSH, and GST levels. Testicular MDA increased non-significantly in a dose-dependent manner, with a concomitant non-significant decrease in SOD, CAT, and GST levels. Testicular GSH levels showed minimal alteration. A non-significant rise in ACP, LDH, GGT, and FSH levels in the testis was observed across all treated groups, while testicular SDH and testosterone levels exhibited non-significant decreases. Necropsy revealed no gross changes in various organs, including lungs, liver, kidneys, spleen, testes, seminal vesicles, and prostate. Histopathological examination disclosed lymphocytic infiltration in the intestine across all treated groups, and congestion and degenerative changes were evident at higher doses (1.25 mg/kg, 2.5 mg/kg). Higher doses also induced hepatocyte degeneration and mononuclear cell infiltration around the central vein. Kidney changes occurred in a dose-dependent manner which includes tubular degeneration and mild to moderate congestion. Lung and spleen tissue showed normal histoarchitecture. Testis tissues showed mild degeneration in wall and increase in luminal space of seminiferous tubule with decrease in Leydig and Sertoli cells, while degenerative changes and depletion in the secretion were observed in prostate and seminal vesicle at higher doses (2.5 mg/kg). Testicular upregulation of HSP70 and downregulation of Nrf2 were observed in a dose-dependent manner. There was a non-significant and mild decrease in the percentage of live sperm, HOST-positive sperm, and sperm with intact acrosome. Potassium dichromate minimally affected the mitochondrial transmembrane potential of sperm, with a non-significant increase in sperm exhibiting fragmented DNA.

23. Evaluation of pancreatic regeneration activity of Pterocarpus marsupium in rats with streptozotocin-induced diabetes

Present study was undertaken to investigate the therapeutic and pancreatic regenerative potential of ethanolic extract of *Pterocarpus marsupium* against experimentally high fat diet (HFD) fed-streptozotocin-induced type 2 diabetes in male Wistar rats. Feeding high fat diet continuously for four weeks followed by streptozotocin (STZ) administration developed the hyperglycemia and clinical signs (reduced body weight, polyphagia, polydipsia) related to diabetes mellitus 72 hours after the STZ administration. Oral administration of ethanolic extract of *Pterocarpus marsupium* and metformin for 60 days alleviate the clinical signs, reduced fasting blood glucose level and improved body weight. Relative organ weight indices of diabetic group showed increased liver, kidney and heart weight, while relative weight of pancreas was significantly reduced. Metformin and Pm extract treatment recover the relative organ weight indices towards the healthy control group. Glycated haemoglobin (HbA1c), which is the biomarker of diabetes mellitus increased significantly, also decrease serum insulin level was found in diabetic rats, while metformin and PM extract treatment reduced the HbA1c level and improved the serum insulin level. Biochemical examination showed increase level of Triglycerides. Total cholesterol, LDL and decrease

level of HDL in diabetic rats, which confirms the development of dyslipidaemia, whereas Pm extract and metformin treatment improved the lipid profile. Oxidative stress indices in liver and pancreatic tissue showed significant increase in MDA level and reduced GSH, SOD and Catalase activity. PM extract and metformin treated groups significantly reduced MDA level and improved activity of antioxidants. Histopathological examinationperformed on liver, kidney, heart and pancreatic tissues showed degenerative changes in diabetic rats. H&E and Chrom alum haematoxylin-phloxine staining of pancreas showed shrunken islets and decreased becell mass in diabetic rats, while in metformin and PM extract treated groups showed improved histoarchitecture in liver, kidney and heart tissues and improved beta cell mass in pancreatic tissue. Quantitative analysis of mRNA expression of transcription factors involved in pancreatic regeneration (PDX-1, Ngn3, MafA) were performed, wheredownregulation of all three transcription factors in diabetic group were observed. PM extract and metformin efficiently upregulate the expression of these transcription factors.

24. Molecular epidemiology of antibiotic resistant enterococcus spp. in poultry and associated environment.

The present study was undertaken to characterize Enterococcus species isolated from poultry cloacal swab, poultry meat sample, handler's hand swab and poultry associated environment (water, feed and environment) by cultural isolation, PCR detection, haemolytic activity, biofilm formation and antibiogram. Antibiotic profiling of detected Enterococcus spp. isolates were done by disc diffusion method. To detect the prevalence of major virulence genes of Enterococcus spp. Total 305 samples were examined for the presence of Enterococcus spp. The overall prevalence of Enterococcus spp. by cultural isolation was 55% (168). Out of 168 isolates, the prevalence of Enterococcus spp. by targeting tuf gene and ddlE. faecalis gene in PCR was 100 and 73.80%, respectively and none were found to be positive for ddlE.faecium. In Haemolytic activity, 100% Enterococcus isolates showed á haemolysis on 5% sheep blood agar. While 16.07% showed á hemolysis, 30.95% showed â hemolysis and 63.69% showed ã haemolysis on 5% horse blood agar. Out of 168 Enterococcus isolates, 66.67% isolates were biofilm producer. In the antibiotic sensitivity test, Enterococcus isolates showed high resistance toward Oxacillin and Mupirocin. However, moderate resistance was seen towards Gentamicin, whereas all the isolates were susceptible to Penicillin G and Vancomycin. This study found a high prevalence of multidrug resistance among Enterococci isolated from poultry, suggesting that these resistant bacteria and genes may be transported from food to humans and pose a significant risk to human health in the coming years. Total 168 isolates of the Enterococcus spp. were recovered from the 305 poultry sample by biochemically and Polymerase Chain Reaction (PCR) and all the isolates were further screened for virulence associated genes, namely aggregation substance (asa), enterococcal surface protein (esp), cytolysin (cyl), gelatinase (gelE), hyaluronidase (hyl). Study revealed that prevalence of gelE gene was comparatively high (40.47%) followed by asa gene (19.02%), esp gene (14.88%) and hyl gene (8.92%). None of the Enterococcus spp. isolates harborcyl gene.

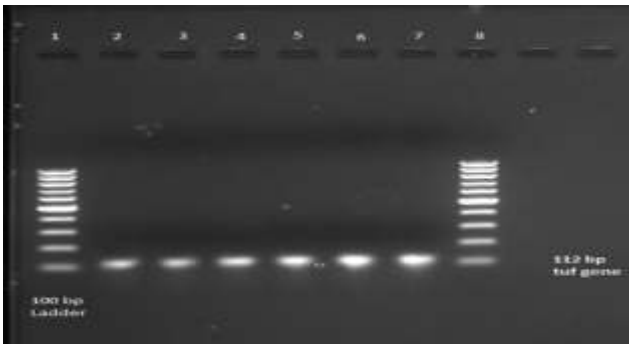
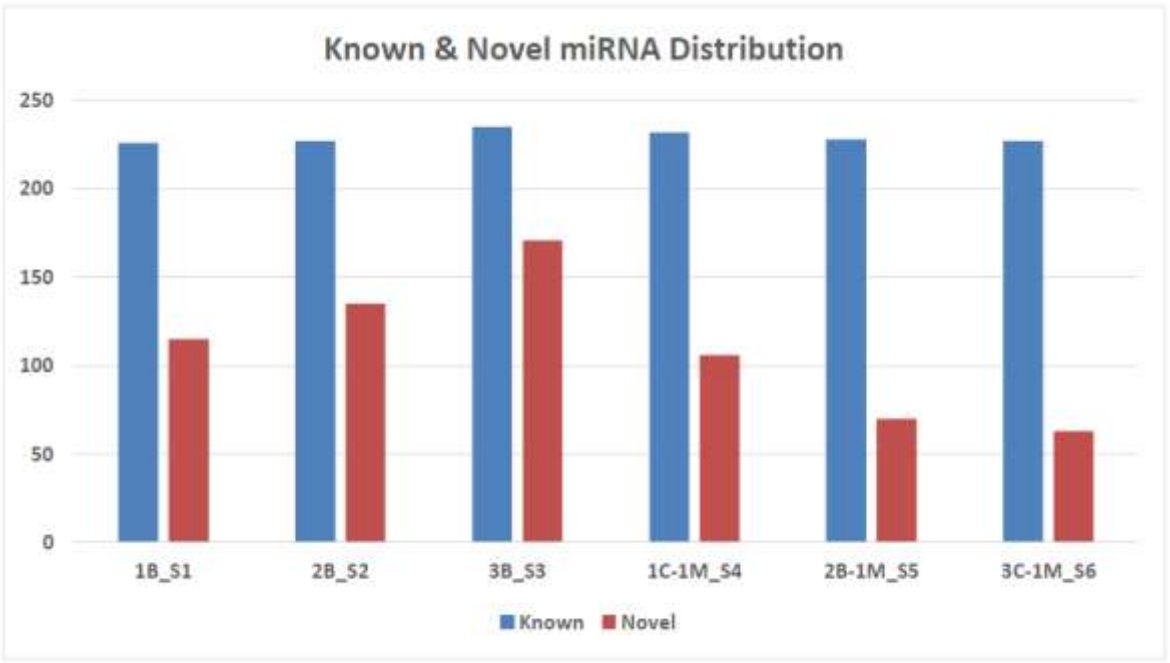


Fig. 10: Agarose gel showing PCR amplified product (112bp) of tuf gene of Enterococcus isolates

25. Differential expression of micro-RNA profiling in mammary gland of Indian dairy goat at various stages of lactation

The research work was designed to get micro-RNA expression profiling and to compare and analyse the micro-RNA expression profile at various stages of lactation in Indian dairy goat. micro-RNAs are

small non coding RNA molecules that serves as important post-transcriptional gene expression regulators by targeting messenger RNAs for post-transcriptional endonucleolytic cleavage or translational inhibition. In this study two micro-RNA libraries were constructed based on early (15 days after kidding) and peak lactation (45 days after kidding) dairy goat mammary gland tissues and sequenced using Illumine NovaSeq6000 high-throughput sequencing technology. A total of 688 in early and 687 in peak known micro-RNAs identified while Novel 421 in early and 239 in peak lactation were identified. Out of these total known significant micro-RNAs are 137 and total Novel significant micro-RNA are 249. The known and novel micro-RNA of all the samples were used for the differential estimation using the edger package in R studio. Two micro-RNAs chi-miR-192-5p and chi-miR-99b-5p are specific to control group and four micro-RNA chi-miR-1343, chi-miR-376b-5p, chi-miR-425-5p, chi-miR- 493-3p are specific during peak lactation. A total 35 micro-RNA were Up regulated and 16 Down regulated in known group. And 12 up regulated and 10 down regulated in Novel group. Novel micro-RNA was 149 control specific and 55 treated specific. Target prediction for differentially expressed known micro-RNAs identified 39027 micro-RNAS significantly up regulated and 10972 micro-RNAs down regulated. Associations between up regulated and down regulated along with most significant micro-RNAs was analysed by Volcano map. Significantly expressed micro-RNAs in control vs treated group were analysed by Heat map for all samples. Important micro-RNA families that were obtained are-let-7, miR-148, miR-99, miR30, miR-29, miR-92, miR-34, miR-493. These micro-RNAs may be important factors for mammary gland development and lactation regulation and potentially valuable molecular markers, which may provide a theoretical reference for further investigation of mammary gland physiology.




श्री डॉ. ए. के. श्रीवास्तव
उपकुलपति पं. दीनदयाल उपाध्याय पशु चिकित्सा
विज्ञान विश्वविद्यालय एवं गौ अनुसंधान
(दुवासू) मथुरा

EXTENSION

EXTENSION

1. Department of Veterinary and Animal Husbandry Extension Education

The mandate of the department is to provide livestock owners with information and innovative knowledge to equip them with methodologies to diffuse innovative researches among livestock owners by adopting improved technologies that may enhance their skills, increase their productivity, provides more employment opportunities and thereby making them economically sound.

i) Activities, organized or conducted by the department

S. No.	Title	Duration and Place	Number of Participants
1.	Five training programmes under "Strengthening & Development of Agricultural Education in India" Sub-Component- Scheduled Caste-Sub-Plan (SC-SP) during financial year 2023-24.	March, 2024	100
2.	Multi Purpose Artificial Insemination Technician in Rural India (MATRI) in collaboration with Uttar Pradesh Livestock Development Board (UPLDB) Lucknow	May 29th, 2023-June 27th, 2023	32
3.	Multi Purpose Artificial Insemination Technician in Rural India (MATRI) in collaboration with Uttar Pradesh Livestock Development Board (UPLDB) Lucknow	December 28th, 2023 - January 26th, 2024	50
4.	Multi Purpose Artificial Insemination Technician in Rural India (MATRI)in collaboration with Uttar Pradesh Livestock Development Board (UPLDB) Lucknow	February 12th - March 12th, 2024	45

ii) Sashastra Seema Bal (SSB) Training

S.No.	Organization/Institution Name	Date	Number of Participants
1.	Para Veterinary staff	April 17 th - 19 th, 2023	22
2.	Para Veterinary staff	May 22 nd - 24 th, 2023	16

iii) Exposure visit of students

S.No.	Organization/institution Name	Date	Number of Participants
1	Apollo College of Veterinary Medicine, Jaipur	July 17th, 2023	51
2	Apollo College of Veterinary Medicine, Jaipur	July 25th, 2023	25
3	College of Veterinary and Animal Sciences, G.B. Pant University of Agriculture and Technology, Pantnagar	August 24th, 2023	32
4	GLA University, Mathura	December 1st, 2023	50
5	State Inter College Aadig, Mathura	December 27th, 2023	92
6	Pt. Deen Dayal Upadhyaya Govt. Inter College, Sista, Sadabad, Hathras	January 24th, 2024	108
7	Sanskriti Ayurveda Medical College Chhata, Mathura	February 3rd, 2024	24
8	GHS Sanchuli Nangaon, Mathura Uttar Pradesh	January 16th, 2024	33

iv) Exposure visit of farmers

S.No.	Department/Agency	Date	Number of Participants
1	Department of Animal Husbandry. Durg, Chhattisgarh	April 5th, 2023	15
2	DDVS, Animal Husbandry Department Chhattisgarh	April 12th, 2023	14
3	DDVS, Rajnandgaon Animal Husbandry Department. Chhattisgarh	July 11th, 2023	15
4	DDVS, Rajnandgaon Animal Husbandry Department Chhattisgarh	July 11th, 2023	14
5	Animal Husbandry Deptt. Raigarh, Chhattisgarh	August 8th, 2023	15
6	Animal Husbandry Department., Keria Chhattisgarh	August 22nd, 2023	16
7	Animal Husbandry Department Raigarh, Chhattisgarh	September 18th, 2023	15
8	Animal Husbandry Department Dhanvati Chhattisgarh	October 3rd, 2023	27
9	Ganna Kisan Sansthan Kendra Shahajanpur U.P.	October 10th, 2023	38
10	Bhawana Seva Sansthan Shahajanpur U.P.	October 19th, 2023	50
11	Ganna Kisan Sansthan Prachiksan Kendra, Gonda, U.P.	November 7th, 2023	32
12	Animal Husbandry Department, Sakti, Chhattisgarh	December 12th, 2023	12
13	Animal Husbandry Department Sakti, Chhattisgarh	January 6th, 2024	15
14	Animal Husbandry Department. Sikar, Rajasthan	January 8th, 2024	45
15	Animal Husbandry Department Jaitpur Sakti, Chhattisgarh	January 10th, 2024	14
16	Animal Husbandry Department. Dhantari Chhattisgarh	January 11th, 2024	60
17	Animal Husbandry Department Chhattisgarh	January 20th, 2024	13
18	Pashupalan Sarswati Welfare Society, Mathura	February 3rd, 2024	68
19	Pragya Gramothan Seva Samitti Fatehpur	February 12th, 2024	48
20	Animal Husbandry Department, Jahnjir Chhattisgarh	February 16th, 2024	10
21	Pashudhan Vikas Vibhag, Dondi, Balod, Raipur, Chhattisgarh	February 17th, 2024	15
22	Animal Husbandry Department, Hariwar, Uttrakhand	February 21st, 2024	22
23	Arpit Gramin Vikas Evam Prachikshan Sansthan Kanpur, U.P.	February 23rd, 2024	25
24	Animal Husbandry Department Chhattisgarh	March 12th, 2024	15
25	Rajendra Verma Gramin bal Vikas Evam Prachikshan Sansthan Gonda, U.P.	March 13th, 2024	60
26	Agriculture Department. Hamirpur, U.P.	March 17th, 2024	50

v) Lecture delivered in specialized training / short duration training courses

S. No.	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	June 15th, 2023, January 15th, 2024	32 50
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	June 16th, 2023, January 15th, 2024, March 1st, 2024	32 50 45
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	June 21st, 2023, January 20th, 2024, March 6th, 2024	32 50 45
4.	Animal husbandry, animal production and adoption of animal rearing as business	Under UPSRLM Lakhpati Didi Mission	February 21st, 2024	39
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 2023-24.	March 15th, 2024	40
7.	Clean milk production	"Strengthening & Development of Agricultural Education in India" Sub-Component- Schedule Caste-Sub-Plan (SC-SP) during financial year 2023-24.	March 16th, 2024	40
8.	Field data collection techniques	Management practices with welfare for dairy cattle and poultry for students of 4th semester Diploma in livestock extension	August 8th, 2023 August 22nd, 2023	41

2. ACTIVITIES ORGANIZED BY KVK

i. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	74	1906	275	2181
Rural youths	3	65	-	65
Extension functionaries	17	658	18	676
Total	94	2629	293	2922

ii. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)
Oilseeds (Mustard & Til)	100	40
Cereals (Including CRM)	208	123.6
Vegetables	20	8
Hybrid crops (Bajra)	12	5.0
Grand Total	340	176.6

iii. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	11	70	70
Total	11	70	70

iv. Extension Programmes

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

v. Mobile Advisory Services

Message Type	Type of Messages			
	Crop	Weather	Awareness	Total
Text only	24	2	4	30
Voice only	-	-	-	-
Voice & Text both	-	-	-	-
Total Messages	24	2	4	30
Total farmers Benefitted	550	-	-	550

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

Department of Pharmacology & Toxicology

Gosthi for Farmers

- One day Workshop cum Ghosthi on "Pilot initiative for quality improvement in animal health and productivity through ethno-veterinary practices" was organized on March 13th, 2024 under SCSP of ICAR-EVM to educate the farmers about the use of indigenous herbal drugs. Fifteen (15) farmers belonging to SC category were participated in the workshop which was organized at farmers door step (Pura village, Rasulpur, Mathura). Three lectures by the experts (Dr Soumen

Choudhury, Dr Amit Shukla and Dr Preeti Gangwar, Veterinary Officer, Rasulpur) were delivered 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.

- Two awareness camps/exposure visit programme for livestock owners under ICAR Scheduled Caste Sub-Plan were made on March 14th, 2024. During the awareness camp herbal medicines and mineral mixtures were distributed to the beneficiaries. Beside this, printed literatures (leaflet/ booklet/ pamphlet/ manual) depicting usefulness of traditional ethno-veterinary practices against common reproductive and productive ailments were also supplied as reading material for reference.

Department of Anatomy

1.	RKVY training programme on " Skill development training for rural youth through commercial use of organs of dead animals" held at Department of Veterinary Anatomy	September 19th-21st, 2023	20
		September 25th-27th, 2023	20

Training programme for youths

The department of Anatomy has organized 2 Three Days Training programme on "Skill development training for rural youth through commercial use of organs from fallen animals" under RKVY sponsored project entitled "Entrepreneurial promotion by preparation of specimens from fallen animals from 19-21 September 2023 and 25-27 September, 2023. Under these training programmes "Hands on training" were given to youths for the preparation of museum and teaching specimens by various methods. Five lectures were delivered and hands on training was given on Method for the collection of bones from dead animals and preparation of articulated skeleton. Method for the preparation of silicon cast of lungs. Preparation and conservation of animal by taxidermy. Cleaning/Preparation of bones for preparation of articulated skeleton. Methods for the cleaning of stomach & interline for the preparation of inflated specimens. Preparation of inflated specimens by using ballooning technique from dead animals. Total forty youths, twenty in each training programme have participated from different parts of Uttar Pradesh. The manual comprising of lectures and practical were distributed to the participants. The certificates were distributed to the participants after successful completion of training programme.

Department of LPM- Organized training programme

S.N.	Title of training	No. & type of beneficiary	Funding agency	Duration
1	An introduction to animal welfare, equine handling, restraining and farriery.	20 students of Second year diploma programme.	Brooke hospital for animals (India), Ghaziabad	May 22nd to 27th, 2023

Department of LPT

One day awareness camp on: Capitalization in animal food production knowledge at rural level (on-campus) dated March 15th, 2024 and Two days training programme on: Importance of Hygienic milk

production and processing in small dairy business (off-campus) dated from March 16th to 17th, 2024 under "Capacity building for unemployed rural youth through dairy enterprise" Under ICAR Development Action Plan for Scheduled Cast (DAPSC) / SC SP 2023-24.

Department of Poultry Science

• Exposure Visits of Dignitaries, Veterinary Officers, Students and Farmers

Exposure visits of students and farmers and visits by dignitaries from various parts of the country from time to time and getting apprised of the activities under Poultry Farm.

SI. No.	Date	Exposure visit of farmers, students, Veterinary Officers, Dignitaries
1.	April 4th, 2023	Dr. A. S. Chandrakar (Veterinary Assistant Surgeon) along with 16 farmers of state Chhattisgarh visited Department of Poultry Science and appraised the activities of DUVASU Poultry Farm
2.	April 12 th, 2023	Dr. Prahlad Kumar (Veterinary Assistant Surgeon) along with 15 farmers of state Chhattisgarh visited Department of Poultry Science and appraised the activities of DUVASU Poultry Farm.
3.	April 19 th, 2023	Dr. Vichare Nema (Commandant-Veterinary) along with 20 numbers of cadet of different states visited Department of Poultry Science and appraised the activities of DUVASU Poultry Farm
4.	May 6 th, 2023	Dr. Mayank Dubey (Asst. Prof. - LPM) – College of Agriculture, of Banda University of Agriculture and Technology, Banda, Uttar Pradesh) visited Department of Poultry Science and learned poultry rearing skills.
5.	May 24 th, 2023	20 numbers of cadet of different states of SSB Para Veterinary Staff visited Department of Poultry Science.
6.	June 24 th, 2023	Dr. Nirbhay Kumar (Assc. Prof. - VPT – Bihar Veterinary College, of BASU, Patna, Bihar) visited Department of Poultry Science.
7.	June 27 th, 2023	Dr. Mahipal Choubey (Asst. Prof.-ANN-Faculty of Veterinary & Animal Sciences, BHU, Varanasi) visited Department of Poultry Science.
8.	June 29 th, 2023	Dr. J. P. Singh (Prof. & Head -VMD-College of Veterinary Sciences, NDUAT, Ayodhya) visited Department of Poultry Science.
9.	June 30 th 2023	Mr. Sharad (ARF) along with 11 numbers of students of different states of Ayurvet Research Foundation, Sonipat, Haryana visited Department of Poultry Science and learned poultry rearing skills and appraised the activities of DUVASU Poultry Farm.
10.	June 30 th, 2023	Honorable VC Ma'am along with DDG, Fisheries (Mrs.) visited Department of Poultry Science appraised the activities of DUVASU Poultry Farm
11.	July 11 th, 2023	Drs. Devendra, A. Chandrakar, and Upasana (Veterinary Assistant Surgeons) along with 43 farmers of state Chhattisgarh visited Department of Poultry Science.
12.	July 14 th, 2023	Dr. Ashish Kumar (Techno -Commercial Inberg, Serbia) visited Department of Poultry Science.
13.	September 6 th, 2023	Dr. Braj Mohan (KVK, Mathura) along with 25 farmers visited Department of Poultry Science
14.	October 1st, 2023	Dr. R. B. Singh (Mathura) visited Department of Poultry Science.
15.	October 3rd, 2023	Dr. B. Soni (VAS - Chhattisgarh) along with 15 farmers visited Department of Poultry Science.
16.	November 3rd, 2023	Dr. Gloria Tigga (Assistant Professor - Department of Veterinary Physiology, of Ranchi Veterinary College, Ranchi) visited Department of Poultry Science.
17.	December 1st, 2023	Dr. A. K. Rai (Assistant Professor –GLA University, Mathura) and his two colleagues along with 60 students of B.Sc. (Ag) visited Department of Poultry Science.

18.	December 12 th, 2023	Dr. Chandra Shekhar Kumar (Assistant Professor – Ganna Utpadak PG College Baheri Bareilly along with 85 students of B.Sc. (Ag), Dr. A. K. Khater (Veterinary Assistant Surgeons) along with 12 farmers and Veterinary Assistant Surgeons along with 16 farmers of Chhattisgarh state visited Department of Poultry Science.
19.	December 26 th, 2023	Dr. Abhinav Upadhyay (Assistant Professor - Uconn Animal Science - University of Connecticut - Lead Poultry Production Project), visited Department of Poultry Science.
20.	December 27 th, 2023	Two faculty members of Govt Bhartiya Inter College Ading - Mathura along with 92 students visited Department of Poultry Science.
21.	December 30 th, 2023	Dr. Percy Awari (Former Assistant Professor - Department of Poultry Science, of Bombay Veterinary College, Mumbai) visited Department of Poultry Science.
22.	January 10 th, 2024	Dr. V. P. Singh (Veterinary Assistant Surgeons) along with 12 farmers of state Chhattisgarh visited Department of Poultry Science.
23.	January 20 th, 2024	Dr. R. S. Patel (Veterinary Assistant Surgeons) along with 12 farmers of Chhattisgarh visited Department of Poultry Science.
24.	February 16 th, 2024	Dr. K. K. Rathore (Veterinary Assistant Surgeons) along with 15 farmers of Chhattisgarh state visited Department of Poultry Science.
25.	February 17 th, 2024	Dr. Asana Garg (Veterinary Assistant Surgeons) along with 15 female farmers of state Chhattisgarh visited Department of Poultry Science.
26.	February 25 th, 2024	Mr. Mohd. Umar along with 44 farmers of district Gorakhpur, Uttar Pradesh visited Department of Poultry Science.
27.	March 12 th, 2024	Dr. K. S. Yadav (Veterinary Assistant Surgeons) along with 15 farmers of state Chhattisgarh and Mr. Rajesh Verma along with 60 farmers of district Gonda, Uttar Pradesh visited Department of Poultry Science.
28.	March 20 th, 2024	Mr. Abhijeet Singh along with 40 farmers of district Mathura (Baldev), Uttar Pradesh visited Department of Poultry Science.
29.	March 21st to 22nd, 2024	Dr. Rajneesh Sirohi (Associate Professor – LPM) along with 80 farmers of district Mathura, Uttar Pradesh visited Department of Poultry Science.
30.	March 21st, 2024	Dr. J. Gandhar (Asst. Prof. VMD) along with newly admitted 65 M.V.Sc. & Ph.D. students visited the Department of Poultry Science during the orientation program.
31.	March 22nd, 2024	Forty (40) numbers of farmers of district Mathura, Uttar Pradesh under (SC-SP Project) visited Department of Poultry Science.

Extension trainings organized by Department of Physiology

Trainings organized for Veterinary Officers

1.	July 19 th -21st, 2023	Govt. of Uttar Pradesh.(RKVY project Propagation)	16
2.	July 31st- August 2nd, 2023	Govt. of Uttar Pradesh. (RKVY project modernized)	16
3.	August 9 th - 11 th, 2023	Govt. of Uttar Pradesh. (RKVY project modernized)	16
4.	September 13 th -16 th, 2023	Govt. of Uttar Pradesh.	24
5.	September 20 th -23rd,2023	Govt. of Uttar Pradesh.	24

Trainings organized for Artificial Insemination (AI) workers

1.	August 4th-8th, 2023	Govt. of Uttar Pradesh. (RKVY project modernized)	16
2.	August 7th-8th, 2023	Govt. of Uttar Pradesh. (RKVY project modernized)	16
3.	September 1st- 3rd, 2023	AI Workers from U.P.	44
4.	December 16 th -18 th, 2023	AI Workers from U.P., Bihar, Chhattisgarh	47

Trainings organized for Farmers

1.	July 11th-15th, 2023	Farmers from Jharkhand, Haryana, Uttar Pradesh, Rajasthan, Gujrat	56
2.	August 23rd-27th, 2023	Farmers from Delhi, Rajasthan, Madhya Pradesh Haryana and Uttar Pradesh	77
3.	December 11th-15th, 2023	PRADAN, Uttar Pradesh	45

National training programme on "Scientific Goat Farming: Self-employment and income generation"

On July 11, 2023, Dr. Mukul Anand conducted a training program at DUVASU Mathura, focusing on imparting scientific knowledge and techniques to goat farmers from the Scheduled Caste community. The program aimed to equip marginal farmers with effective goat management strategies while also empowering them with self-sustaining methods for income generation. Dr. U.S. Gautam, DDG Extension Education at ICAR, graced the event as the chief guest, while Dr. Neeraj Gupta, Chief Executive Officer of Uttar Pradesh Livestock, honored the occasion as the guest of honor.

1. Earning From Semen Analysis 2023-24

S.No.	Description of Goods/Services	Quantity	Month	Amount (Rs.)
1.	Analysis of Sexed Semen Sample	30 Sample	April	50,000.00
2.	Analysis of Sexed Semen Sample	30 Sample	May	50,000.00
3.	Analysis of Sexed Semen Sample	30 Sample	June	50,000.00
4.	Analysis of Sexed Semen Sample	30 Sample	July	50,000.00
5.	Analysis of Sexed Semen Sample	30 Sample	August	50,000.00
6.	Analysis of Sexed Semen Sample	30 Sample	September	50,000.00
7.	Analysis of Sexed Semen Sample	30 Sample	October	50,000.00
8.	Analysis of Sexed Semen Sample	30 Sample	November	50,000.00
Total earnings				4,00,000.00

2. Earning from training in year 2023-2024

S.No.	Date	Training given to	Earning (INR)
1.	July 11th-15th, 2023	56	2,80,000.00
2.	August 23rd-27th, 2023	77	3,85,000.00
3.	September 1st- 3rd, 2023	44	88,000.00
4.	December 11th-18th, 2023	47	2,99,000.00
Total earnings			10,52,000.00

3. Earning from Sale of Goat Frozen Semen in year 2023-2024

S.No.	Date	Name Frozen Semen Buyer	Dose	Amount (INR)
1.	April 28 th, 2023	Dr Sanjeev Srivastava, Gorakhpur	315	12,600.00
2.	May 3rd, 2023	Nandinandan Breeds seeds India Pvt Ltd	1950	78,000.00
3.	May 6 th, 2023	LUVAS	120	4,800.00
4.	June 10 th, 2023	Nandinandan Breeds seeds India Pvt Ltd	1950	78,000.00
5.	July 11 th, 2023	S. K. Chatterjee	750	30,000.00
6.	July 26 th, 2023	Deputy director, Veterinary Services, Ambikapur, Chhattisgarh	750	30,000.00
7.	August 21st, 2023	Nandinandan Breeds seeds India Pvt Ltd	1950	78,000.00
8.	September 6 th, 2023	Deputy director, vet services, District Korea, Chhattisgarh	500	20,000.00
9.	September 14 th, 2023	Deputy director, vet services, District Ambikapur, Chhattisgarh	1050	42,000.00
10.	September 21st, 2023	Animal breeding programme officer, Ujjain	784	31,360.00
11.	October 10th, 2023	Dewalrajpuriya, Chhattisgarh	125	50,00.00
12.	November 1st, 2023	Nandinandan Breeds seeds India Pvt Ltd	1405	56,200.00
13.	November 17th, 2023	Sheep development board, Jammu	17000	7,20,000.00
14.	January 2nd, 2024	Nandinandan Breeds seeds India Pvt Ltd	2800	1,12,000.00
Total earnings				12,97,960.00

4. EXTENSION / INVITED LECTURES IN TRAININGS

S.No.	Authors	Title of the lecture & details of event	Published in
1.	Vinod Kumar, Mokshata Gupta and Shalini Vaswani	Silage Based Dairy Herd Management. In Training Manual of ICAR-Sponsored Winter School - Animal Nutrition Strategies for Efficient and Carbon Neutral Livestock Production.	2024, Ch. 21 pp 106-111
2.	Vinod Kumar, Muneendra Kumar and Raju Kushwaha	Strategies for utilising anionic and cationic diets for enhanced productivity. In Training Manual of ICAR-Sponsored Winter School - Animal Nutrition Strategies for Efficient and Carbon Neutral Livestock Production.	2024, Ch. 8 pp 37-41
3.	Vinod Kumar, Ram Dev Yadav and Muneendra Kumar 2024	Effect of heavy metal toxicity on animal health and productivity. Training Manual during Winter school entitled Animal Feed Safety and Quality Assessment to Ensure Safe Food of Animal Origin for Human Consumption organized by RAJUVAS.	February 5th-25th, 2024, pp 27-30
4.	Mokshata Gupta 2024	"Basic Aspects of Nutrition and Concept of Ration Balancing" "MAITRI training programme" organized by Department of VAHE at DUVASU, Mathura.	February 27th, 2024
5.	Neeraj Kumar Gangwar and Kavisha Gangwar	Application of Advanced pharmacological and molecular tools for bioprospecting of drugs, organized by the Department of Veterinary Pharmacology & Toxicology, COVSc, DUVASU, Mathura (ICAR sponsored).	July 28th-7th, 2023
6.	Neeraj Kumar Gangwar	Common laboratory procedures used in haematology, urine, faecal and skin examination, blood smear examination and common staining methods for SSB para-veterinary staff, organized by the Department of Animal husbandry extension, DUVASU, Mathura. (GOI sponsored).	April 8th, 2023
7.	Neeraj Kumar Gangwar	Common laboratory procedures used in haematology, urine, fecal and skin examination and common staining methods organized in Department of Veterinary and Animal Husbandry Extension, COVSc, DUVASU, Mathura, on Animal management, Disease Diagnosis and emergency care of livestock and companion animals (For paraveterinary staff, SSB,GOI- sponsored).	May 23rd, 2023
8.	Neeraj Kumar Gangwar	Postmortem examination and collection of samples in veterinary practice. Management on clinical conditions and applications of diagnostic tools-Field perspectives training organized by Surgery and radiology department, COVSc, DUVASU, Mathura. (ICAR -DIMSA sponsored).	Jan 1st-6th, 2024
9.	Singh, A., Nidhi, Singh, V.K., Tiwari, R., Shrinet, G, Arun, A. and Singh, R.	Antibiotic Susceptibility Profiling of Pathogens By Kirby-Bauer Disc Diffusion Method. *In:* ICAR sponsored hands on training program "Practical Approaches in Demystification of Functional Potential of Phyto-phramacophores".	2024
10.	Singh, A., Nidhi, Singh, V.K., Tiwari, R., Shrinet, G, Arun, A. and Singh, R.	Antibacterial Effects of Methanol Extracts of Plant Extract by Agar Well Diffusion Method..*In:*ICAR sponsored hands on training program "ICAR sponsored hands on training program "Practical Approaches in Demystification of Functional Potential of Phyto-phramacophores".	2024

11.	Singh, A., Nidhi, Singh, V.K., Tiwari, R., Shrinet, G, Arun, A. and Singh, R.	Determination of Minimum Inhibitory Concentration Of Plant Extract By Broth Microdilutio Method : *In:*ICAR sponsored hands on training program "ICAR sponsored hands on training program "Practical Approaches in Demystification of Functional Potential of Phyto-phramacophores".	2024
12.	Shanker K. Singh and Mukesh Srivastava	Production disease management of dairy cows under impending climatic changes. DST-SERB sponsored High-end Workshop on "Climate-smart livestock farming for sustainable production (CSLFSP)" at Livestock Production and Management Section, ICAR-Indian Veterinary Research Institute, Izatnagar- 243 122 (U.P.), India.	September 18th-27 th, 2023
13.	Shanker K. Singh	Bio-markers of diagnostic importance in livestock metabolic diseases- A novel disease phenotype for herd health management. ICAR- sponsored short course on the topic "Recent developments in livestock phenome data recording, analysis and interpretation in the era of genomics" at ICAR-National Research Centre on Camel, Bikaner.	January 3rd-12th, 2024
14.	Vikas Pathak, Meena Goswami, Amit Singh and Chirag Singh	Prospects and regulations related to functional foods in India and abroad. International workshop on "Quality and safety audits of foods from animal origin" at DUVASU, Mathura. Pp. 38-45.	December 20th -22nd, 2023
15.	Amit Singh, Rashmi and Meena Goswami	Approaches for marketing of functional food at animal origin. International workshop on "Quality and safety audits of foods from animal origin" at DUVASU, Mathura .	December 20th - 22nd, 2023. pp. 107-120
16.	Brijesh Yadav	Delivered lecture as an expert in international workshop entitled 'Advances in nanotechnology and its application in animal health' organized by Dept of Veterinary Microbiology, COVSc and AH, Ayodhya .	December 15th-16th, 2023
17.	Brijesh Yadav	Delivered lecture on "Augmentation of livestock productivity through assisted reproductive technique in dairy animals" at MANAGE, Hyderabad.	June 20th-22nd, 2023
18.	Brijesh Yadav	Delivered a lecture titled "IQAC and NAAC Accreditation" in Chintan Shivir.	August 29th, 2023
19.	Brijesh Yadav	Delivered two lectures as a resource person on "Climate change, adaptation and ameliorative measures for sustainable livestock production", and "SPCA, Animal cruelty and slaughter house acts" for induction training programme for Bihar Veterinary Service, organized by BIPARD, Gaya, Bihar.	May 26th, 2023
20.	Brijesh Yadav	Delivered 9 lectures in MAITRI training programme on organized by Dept of Veterinary and Animal Husbandry Extension, DUVASU .	2023-24
21.	Brijesh Yadav	Delivered lecture in the training program under the training program of brook Hospital for animals.	May 23rd, 2023
22.	Brijesh Yadav	Delivered lecture in training programme organized by Institute of Para Veterinary Science, DUVASU .	August 10th-24th, 2023
23.	Brijesh Yadav	Delivered lecture for diploma students in training programme organized by Institute of LPM Department, DUVASU.	May 23rd, 2023

24.	Mukul Anand	Delivered lecture in Dumka district of Jharkhand.	January 2nd-6th, 2023
25.	Mukul Anand	Delivered lecture in training for Veterinary Officer of Chhattisgarh, organized by Dept. of Veterinary Physiology, DUVASU, Mathura .	January 8th-13th, 2023
26.	Mukul Anand	Delivered lecture in training for Veterinary Officer of Chhattisgarh, organized by Dept. of Veterinary Physiology, DUVASU, Mathura.	July 19th-21st, 2023
27.	Mukul Anand	Delivered lecture in training for Goat Farmers, organized by Dept. of Veterinary Physiology, DUVASU, Mathura .	March 14th-18th, 2023
28.	Mukul Anand	Delivered lecture in training for Women Goat Farmers, organized by Dept. of Veterinary Physiology, DUVASU, Mathura.	March 18th-20th, 2023
29.	Dilip Kumar Swain	Delivered an online lecture on Fluorescence Staining Techniques for Sperm analysis .	February 12th, 2024
30.	Dilip Kumar Swain	Delivered an online lecture on Electro-Physiology of spermatozoa.	February 9th, 2024
31.	Udit Jain	Delivered lecture on "Vaccination schedule of bovine animals". in MAITRI training organized by Department of VAHE, DUVASU, Mathura .	April 1st-30th, 2024
32.	Udit Jain	Delivered lecture on "Economically important diseases and their prevention through timely vaccination, various available vaccines, vaccination schedules and importance of maintaining cold chain" in MAITRI training organized by Department of VAHE, DUVASU, Mathura.	May 29th-June 27th, 2023
33.	Parul	Delivered lecture on "Animal health care: Diagnostic for control and eradication of disease FMD, HS, PVR and Avian disease" in MAITRI training organized by Department of VAHE, DUVASU, Mathura .	May 29th-June 27th, 2023
34.	Parul	Delivered lecture on "Role of clean and hygienic milk production in control of mastitis" in MAITRI training organized by Department of VAHE, DUVASU, Mathura .	December 28th 2023-January 26th, 2024
35.	Parul	Delivered lecture on "Economically important disease and their prevention through timely vaccination, various available vaccine, vaccination schedule and importance of maintaining cold chain" in MAITRI training organized by Department of VAHE, DUVASU, Mathura .	February 12th - March 12th, 2024
36.	Parul	Navjaat sishuoon ko istanpaan, In the course curriculum for (1,2,3,4th Prof BVSc and AH).	December 3rd, 2023
37.	Udit Jain & Parul	Delivered lecture and practical demonstration on "Microbial Load (TVC and coliform count) estimation and *E. coli* O157H7 detection in milk, milk products and environmental samples" in Training programme on "Practical approaches in demystification of functional potential of phyto-pharmacophores" organized by department of pharmacology and toxicology, DUVASU, Mathura.	February 7th-16th, 2024
38.	R.P Pandey	Decision making in surgery.	January 1st- 6th, 2024
39.	Gulshan Kumar	Clinical application of diagnostic imagining techniques.	January 1st- 6th, 2024

40.	Sanjay Purohit	Surgical management of various abdominal disorders in animals.	January 1st- 6th, 2024
41.	R.P Pandey	Basic concept of diagnostic ultrasonography.	February 12th-17th, 2024
42.	Sanjay Purohit	Basic concept of diagnostic radiography.	February 12th-17th, 2024
43.	Gulshan Kumar	Radiographic anatomy of Thorax in dogs.	February 12th-17th, 2024
44.	Jyotsana Bhatt Joshi	Radiographic anatomy of abdomen in dogs.	February 12th-17th, 2024
45.	Prabha Sharma	Ultrasonographic examination of urogenital system.	February 12th-17th, 2024
46.	Akash	Role of ultrasonographic examination in small and large animals practice.	February 12th-17th, 2024
47.	R.P Pandey	Principal of diagnostic ultrasonography.	March 18th – 23rd, 2024
48.	Sanjay Purohit	Principal of diagnostic radiography.	March 18th – 23rd, 2024
49.	Gulshan Kumar	Importance of radiographic anatomy in disease diagnosis.	March 18th – 23rd, 2024
50.	Jyotsana Bhatt Joshi	Artefacts observed during the ultrasonographic examination.	March 18th – 23rd, 2024
51.	Prabha Sharma	Ultrasonographic examination of abdominal organ.	March 18th – 23rd, 2024
52.	Akash	Importance of C-arm in orthopaedic case management.	March 18th – 23rd, 2024

MAHILA ADHYAYAN KENDRA

Mahila Adhyayann Kendra, DUVASU, Mathura has adopted Bandi village, Block Baldeo, Mahavan, District Mathura, U. P. and various activities such as nukkad natak and awareness camps for women were organized. In the month of September, a nukkad natak on Purdah system and dowry system was performed by Undergraduate students to educate the villagers about this social evil. For motivation of girls, painting and essay writing competition on dowry system –an evil for society was organized. In the month of October, a camp was organized to aware the girls and women on girl education. They were informed about the new education policy for girls and also on gender discrimination. In the month of November, a group discussion on mental and physical health related issues for young girls and old age women was executed. Quiz, painting and drawing competitions were organized in Primary School, Bandi on freedom fighters of India to motivate and encourage the students. A drawing competition was also organized among the kids of various age groups at Nand Bhawan, DUVASU on the occasion of Children's Day on the topic "Their love for nature, environment and earth". In this event students from primary school, Cantt. Mathura and kids of employees of DUVASU participated. In all above events girls and women of the village and DUVASU have participated with full enthusiasm. Beside these activities, on the directives of Hon'ble Governor of Uttar Pradesh lectures on various topics related to women health were delivered for the girl students by the lady faculties of the university. This programme is being organized regularly in the College of Veterinary Sciences and Animal Husbandry, College of Biotechnology and Institute of Para-veterinary science.

UNIVERSITY FARMS

A. Livestock Farm Complex (LFC)

At LFC Mathura, the total numbers of animals on March 31st, 2024 were 450. It included Haryana cattle (184), Sahiwal cattle (179), Murrah buffalo (77), Nili Ravi buffalo (07), Teaser bull (02) and AI Cross bred bull (01). During the financial year 2023-24, total milk production at the farm was 1,64,968.50 liters, out of which, the production of cow milk was 1,26,768.50 liters, buffalo milk was 38,200.00 liters. The animals are being used for research work of M.V.Sc. & Ph.D. students of the University. During the year 2023-24 the revenue generated at LFC was Rs. 53,37,110.00. Out of which, Rs. 52,98,210.00 was generated through the sale of milk coupons, Rs. 1,500.00 through the sale of dung/fertilizer and Rs. 37,400.00 through the door delivery.

B. Poultry Farm

The Department of Poultry Science has maintained different species, breeds and varieties of birds in University poultry farm during 2023-24, which includes

S.No.	Poultry stocks	Quantity (Nos.)
1.	Japanese quails	374
2.	Chabro birds	783
3.	Other Chicken birds (nos,) viz. Black Rock (8); White Rock (6); CHD Broiler (10); Red Cornish (9); Dehlem Red (07); Barred Rock (8); PB Broiler (9); PB-1 Layer (7); Punjab Brown (9) and CHD Black (06)	79
4.	Guinea fowl birds	28
5.	Turkey birds	85
6.	Emu	1
7.	Kadaknath bird	56
8.	Aseel bird	24
9.	Naked Neck bird	05
10.	Layer birds	166
11.	Cockerels	10
	Grand Total	1,611

During financial year 2023-24, the poultry farm generated a revenue of Rs. 13,41,582.00 from sale of different birds and eggs. Additionally, a sum of Rs. 8,10,041.00 and 2,16,376.00 was generated from sales of poultry products under experiential learning unit (ELU) and revolving funds in Poultry Science Department, respectively.

C. DIRECTORATE OF FARMS

- Madhuri Kund Agriculture Farm

  The overall production of Rabi crops 2023-24 (451 Acre of land) during FY- 2023-24.

S. No.	Name of Crop	Area (in Acre)	Production (in Quintal)	Production Program
1	Mustard	284	300.00	Seed Production
2	Wheat	193	2500.00	
3	Barley	24	200.00	Grain Production
4	Bhusa (Wheat and Barley)	501	1494.41	Fodder production

- Revenue through selling of seeds –
  - Mustard Grain – Rs. 31,50,610.00
  - Wheat seeds – Rs. 26,91,888.00

- Pasture

  During financial year 2023-24, the pasture of University has produced following products:

S.No	Name of Product	Quantity (In Qt.)
1	Wheat Seed (B/S)	241.00
2	Barley Seed	112.20
3	Oat Seed	35.40
4	Green Fodder	8510.00
5	Straw (Bhoosa)	235.00

The wheat seed (B/S) was transferred to IARI, New Delhi whereas, other products i.e. Barley seed, oat seed, Green fodder and straw was transferred to Livestock Farm of the University. Thus the total revenue generated during the year was Rs. 38,73,470.00. Out of which Rs. 10,19,430.00 was receipt revenue through the sale of Wheat seed (B/S) and the estimated revenue was Rs. Rs. 28,54,040.00.

HUMAN RESOURCE DEVELOPMENT

Appointments and Promotions of Faculty members of the University

In the University, there is regular promotion of eligible faculty members under Carrier Advancement Scheme (CAS) and filling of vacant posts through direct recruitment. In the processes of CAS and recruitment, the rules and regulations laid down by the Government of Uttar Pradesh are strictly followed. In the year 2023-24, 28 posts (permanent) of faculty members in the College of Veterinary Sciences and Animal Husbandry were filled through direct recruitment. Further, in the same year, two faculty members were promoted under CAS from AGP Rs. 7,000.00 to Rs. 8,000.00, seven faculty members were promoted from Assistant Professor to Associate Professor (AGP Rs. 8,000.00 to Rs. 9,000.00) and two from Associate Professor to Professor (AGP Rs. 9,000.00 to Rs. 10,000.00). The recruitment of 09 faculty members (self-financed) was also done in the College of Biotechnology and 09 faculty members (self-financed) in the Institute of Para-Veterinary Science.

Department of Surgery and Radiology, College of Veterinary Sciences and Animal Husbandry, DUVASU, Mathura organized Training under AINP-DIMSCA for Veterinary Officers, Government of Uttar Pradesh

A six-days short training on "Management of Clinical Conditions and Application of Diagnostic tools –Field Perspectives" from 01st January to 06th January, 2024; 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 training. Theory lectures and hands on training on technological advances in diagnosis and management of surgical cases were delivered. Prof AK Srivastava, VC, DUVASU, Mathura instructed the trainees to work diligently in a scientific manner for benefit of farmers. Prof. Vikas Pathak Dean, Veterinary Faculty presided over the Valedictory function on 06th January. Future technical support to the trainees from the institute is ensured by Prof. R.P. Pandey and Prof. Atul Saxena. In order to remain up-to-date on diagnostic and therapeutic developments, the Veterinary Officers praised and expressed the need for organizing such trainings periodically.

A six-day short training on "Clinical Application of Diagnostic Imagining in Veterinary Practice" from February 12th-17th, 2024;

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 the training was organized. Veterinary Officers of the Department of Animal Husbandry, Government of Uttar Pradesh attended the training.

A six-days short training on "Basics of Diagnostic Imagining Techniques in Veterinary Practice" from March 18th-23rd, 2024;

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 the training was organized. Eighteen Students of DUVASU, Mathura attended the training.

Deekshotsav Maah-2024

The 13th convocation of Uttar Pradesh Pandit Deen Dayal Upadhyaya Pashuchikitsa Vishvavidyalay evam Go Anusandhan Sansthan (DUVASU), Mathura, Uttar Pradesh was held on March 4th, 2024. Under the ambiance guidance of the Hon'ble Vice-Chancellor of the University, Prof. Anil Kumar Srivastava, the University celebrated 'Deekshotsav Maah-2024' from February 5th, 2024 to March 4th, 2024. The University organized various academic, research, extension and other extra-curricular activities throughout the month. Chief Guest of the inaugural session of the "Deekshotsav Maah-2024", mentioned about the food-availability, contribution of animal husbandry and various animal products in the country along with significance of balanced diet in regard to the human health. On this occasion, he referred about Green Revolution, White Revolution, Blue Revolution and Yellow Revolution. He encouraged faculty members, officers and students of the University to inspire people from every corner of the society to ensure food security, food availability and to create awareness about balanced diet in the country to establish healthy society. The programme was presided over by Prof. Prem Kumar Kalra, Director/Vice Chancellor, Dayal Bagh Educational Institute, Agra. In his presidential address, he elaborated about sustainable soil fertility to

achieve optimum productivity by proper utilization of resources. He motivated one and all present in the auditorium to build a healthy and developed society. The coordinator of the program, Director Research of the University, Prof. Vinod Kumar welcomed and felicitated the guests and mentioned the achievements of the Chief Guest and the Chairman of the program. On this occasion, the Dean, College of Veterinary Sciences & Animal Husbandry mentioned the glorified history of establishment of this prestigious University.

Department of Veterinary Pathology organized National Brainstorming session on "Transboundary Animal Diseases: Way Forward for Prevention and Control" on February 19th., 2024.

On February 19th, 2024, National Brainstorming session was organized by the Veterinary Pathology Department on the topic "Transboundary Animal Diseases: Way forward for prevention and control". The session was presided over by the Hon'ble Vice-Chancellor of the University, Prof. Anil Kumar Srivastava. In his presidential address, he discussed the various adverse effects of diseases on animal production and the economic losses caused by them. He told that if we take effective prevention of various types of infectious diseases, then we can get good productivity from the animals and also save the economic loss incurred in their treatment. He said that transboundary diseases of animals are those diseases which are spread due to the movement of animals from one place to another or from one country to another or by the movement of infected people, animals and birds. Due to which the country has to suffer nutritional, public health and economic losses. On this occasion, Dr. Raj Kumar Singh, Former Vice-Chancellor / Director, ICAR-Indian Veterinary Research Institute, Izatnagar, Bareilly, discussed the prevention of epidemics and zoonotic diseases. Dr. R. P. Singh, Director, ICAR- National Institute on Foot and Mouth Disease, Bhubaneswar. discussed about the measures to control and prevent Foot and Mouth Disease. Dr. Baldev Raj Gulati, Director, National Institute of Veterinary Epidemiology & Disease Informatics, Bengaluru, discussed how to assess the risk of transboundary and emerging animal diseases. Dr. Raj Veer Singh Pawaiya, Principal Scientist and Head Division of Pathology, Indian Veterinary Research Institute, Izatnagar Bareilly, explained about the measures to control transboundary diseases of animals. Dr. G. Saikumar, Principal Scientist discussed the success and failure of animal disease control programs. In the session, Director of National

Institute of High Security Animal Diseases, Bhopal, Dr. Aniket Sanyal, Senior Scientist Dr. K. Gururaj and Dr. Anil Kumar Mishra expressed their views. Prof. Vikas Pathak, Dean, College of Veterinary Sciences & Animal Husbandry welcomed and felicitated the guests.

Department of Veterinary Physiology organized National Conference of Indian Society for Buffalo Development (ISBD) on October 27th-28th, 2023.

Department of Veterinary Physiology organized National Conference of ISBD and Symposium on "Modern approaches for sustainable buffalo production in the scenario of climate change" during October 27th-28th, 2023. The symposium was attended by more than 200 scientists, academicians, industrialists, policy

makers, NGOs and research scholars from different part of the country. Dr Abhijit Mitra, Animal Husbandry Commissioner, GoI was the chief guest and Dr Triveni Dutt, Director cum Vice Chancellor of Indian Veterinary Research Institute, Bareilly and Dr AK Tyagi, ADG, Animal Nutrition and Physiology were the Guest of Honors whereas (Prof.) Dr A.K. Srivastava presided over the inaugural session. Dr Inderjeet Singh, VC, GADVASU; Dr Kamlesh Trivedi, Advisor NDDB and Dr N. Punniamurthy, Prof. Emeratus were the key speakers of the national symposium. Prof. (Dr) A. K. Srivastava chaired the industry academia interaction session.There were five technical sessions in which 21 lead papers, 33 oral presentations and 79 posters were listed. More than 16 lead papers, 25 oral presentations and 60 posters were presented during different technical sessions. The major center of attraction for the students was the Ideathon in which many students across the country participated. The industry academia meet was center of attraction of this conference in which 10 participants from industry, academia, government bodies and NGOs participated.

Department of LPM organized one day brainstorming session on "Economic Use of Low Productive Animals" at Department of Livestock Production Management (LPM), on February 22nd, 2024.

On February 22nd, 2024, a brainstorming seminar was organized by the Department of Livestock Production and Management on the topic of economic use of low productive animals. The seminar was presided over by the Hon. Vice-Chancellor of the University, Prof. Anil Kumar Srivastava. In his presidential address, he discussed in detail the number of low productive animals in India and the loss caused by them. He told in his address that unproductive destitute cows can be used for research and as surrogate mothers. Apart from this, information was also provided about the schemes for protection of unproductive destitute cattle by the government. On this occasion, Dr. Manish Kumar Chatli, Director of Central Institute for Research on Goats, said that the diseased low productive animals can play an important role in infecting other healthy animals with the disease. He also discussed about their disposal and the use of dead cattle & animals for producing by-products such as gelatine used in making capsules. Dr. A. Kumaresan, Principal Scientist, National Dairy Research Institute (NDRI), Bengaluru, encouraged researchers to use low productivity animals in research work and vaccine production. He told in his address that many biological molecules we import from other countries, we can obtain them by using less productive animals. Dr. Rubina Baithalu, Senior Scientist of National Dairy Research Institute (NDRI), Karnal, discussed about generating employment opportunities and increasing the income of farmers by processing the by-products obtained from unproductive cattle. Prof. Vikas Pathak, Dean, College of Veterinary Sciences & Animal Husbandry discussed the medicinal properties of Panchgavya and inspired to use it as a medicine. Further, he expressed his views on making lamps and biodegradable containers from cow dung.

Department of Biochemistry organized one International Workshop on 'One Health' under the flagship of IDP-NAHEP, ICAR, Government of India from December 13th to 15th, 2023

Under the flagship of IDP-NAHEP, ICAR, Government of India, an international workshop on One Health was organized at DUVASU, Mathura during December 13th to 15th, 2023. The workshop organization was coordinated by the Prof. A. K. Srivastava, Hon'ble Vice Chancellor, DUVASU, Mathura, Prof. Vikas Pathak, Dean, College of Veterinary Science and Animal Husbandry, Prof. P. K. Shukla, Academic Coordinator, NAHEP, Prof. Atul Saxena, Principal Investigator-NAHEP, DUVASU and Dr. Ambika Sharma, Associate Professor, Department of Veterinary Biochemistry as the Organizing Secretary. In the workshop, a wide diversity of experts contributed from different professional backgrounds. These experts hailed from various fields of expertise and countries, spanning across USA, UK, and Thailand. The attendees comprised a mix of academicians, researchers, and students. The primary aim of the workshop was to create connections between One Health, Eco-Health, and associated concepts, merging ecosystem, animal, and human health. There were seven sessions in offline mode which included antimicrobial drug resistance, Human-animal interface cross talk, Health care- one health and public health, One health approaches for control and eradication of diseases, Indigenous knowledge systems, sustainable life. One session held in hybrid mode which focused on One health: Meeting today's challenges to shape tomorrow.The three days international workshop held at DUVASU created a great impact on the connectedness of different disciplines, different countries and different universities under one umbrella. The fifty-five (55) participants were benefitted from the talks which was a mixed group of faculty and post-graduate students.

International workshop on Quality and safety audits of foods from animal origin

Department of LPT organized three days International workshop under IDP-NAHEP from December 20th to 22nd, 2023. Total 18 faculty member and 37 post graduate students from different departments participated in this international workshop. Five international speakers from United States of America and three national speakers were invited from different fields working in food safety and audits area. Experts delivered total 14 lectures in 5 sessions, where speakers shared their research experience on genome sequencing, machine learning based work flow and automation and robotics use in poultry sector, antimicrobial resistance, nanotechnology etc. The speakers introduced newer technologies i.e., Ultrafine

ozone and water bubbles in poultry production and their effect on meat quality. They also emphasized over food laws, pet/animal food safety issues, regulatory frame work and Food Safety Modernization Act (FSMA) in US perspective. The speakers interacted and motivated post graduate students to take steps forward to get opportunities in world renowned universities during this international workshop.

Workshop on NARES – blended learning platform

A two-days workshop on NARES-Blended Learning Platform (BLP) was conducted by the University during October 30th -31st, 2023 in collaboration with ICAR-IASRI. The students and faculty of DUVASU participated in the event. The inaugural session was graced by Prof A. K. Srivastava, Vice Chancellor, DUVASU; Dr. Alka Arora, Professor (CA) & Principal Scientist, Co-PI, ICAR-IASRI; Prof. Pankaj Kumar Shukla, Dean, CVSc & AH, & Academic co-ordinator; Dr. Atul Saxena, PI, IDP-NAHEP, DUVASU; and Heads of various Departments,

faculty, and students. A total of 25 faculties and 86 students enrolled for the event. In the technical session I, the brief introduction of the blended learning platform was given by the team ICAR-IASRI which was followed by the demonstration of demonstration of BLP for faculties by team ICAR-IASRI. Demonstrations of BLP and other IT initiatives was also given by team ICAR-IASRI. The workshop ended with a vote of thanks by Dr. Avinash Kumar, Assistant Professor, Animal Nutrition.

DST-SERB -sponsored Karyashala on "Application of Advanced Pharmacological and Molecular Tools for Bioprospecting of Drugs" w.e.f. June 28th - July 07th, 2023.

The DST-SERB sponsored High End Workshop (HEW) was organized by the Department of Pharmacology & Toxicology, COVSc&AH, DUVASU, Mathura. Twenty (20) postgraduate students from different institutes and disciplines participated in this HEW. Twelve resource faculties including three external experts (from ICAR-IVRI, CSIR-CIMAP and University of Hyderabad) demonstrated different advance analytical and molecular techniques (viz. ICP-OES, GC-MS, HPLC, wire myography, qPCR, Western Blot, CRISPR-Cas9, Flowcytometry, ICC/IHC etc.) used in the bioprospecting of drugs. The most striking and interesting feature of this HEW was every techniques were demonstrated to participants on 'Hand-on-training' mode along with their theoretical background. In total, 19 practical classes was demonstrated to the candidates by different experts.

Hands on Training programme on "Practical Approaches in Demystification of Functional Potential of Phyto-pharmacophores" w.e.f February 7th-16th, 2024 under SCSP plan of ICAR-funded All India Network Program on Ethno-Veterinary Medicine.

The center has organized a 10 days Hands on Training programme on "Practical Approaches in Demystification of Functional Potential of Phyto-pharmacophores" w.e.f February 7th – 16th, 2024 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, organ bath study, target identification by qPCR and Western Blot, flow cytometry etc, in vitro antibacterial and acaricidal activity of plant extract as well as alternative

animal models for studying the functional potentials of phytoconstituents. In total 15 students from all over India participated in this training programme. In total 16 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 on 'Practical Approaches in Demystification of Functional Potential of Phyto-pharmacophores' were also distributed to all the participants of the training programme.

Organized One Day Brain Storming Session on the topic "Reverse Pharmacology: A Wind Fall to the Post-COVID Therapeutics" on February 13th, 2024

On February13th, 2024, a one-day brainstorming program was organized by the Department of Pharmacology and Toxicology on the subject of "Reverse Pharmacology: A Wind Fall to the Post-COVID Therapeutics" under the guidance of the Hon'ble Vice Chancellor of the University, Prof. Anil Kumar Srivastava. This program was presided over by Prof. Vikas Pathak, Dean, College of Veterinary Sciences & Animal Husbandry. In his presidential address, Prof. Pathak discussed the quality of various medicinal plants and their uses. Coordinator of the programme, Prof. Vinod Kumar, Director Research of the University, while welcoming the visitors, discussed about the properties of medicinal plants. Scientists and faculty members from higher research institutes of the country like Central Drug Research Institute, Lucknow Central Medicinal and Aromatic Plants Research Institute, Lucknow, Central Goat Research Institute, Makhdoom, Mathura and College of Veterinary Sciences, Mathura participated in this program. The organizing secretary of the program, Prof. Atul Prakash, told how medicines can be made available to the public as soon as possible through Reverse Pharmacology. In the program, the speakers presented their suggestions and lectures on various topics and dimensions. Three external speakers were also present in the program.

Dr. B. P. Pande Memorial Oration Lecture

On February 16th, 2024, under the Deekshotsav Maah, renowned Animal Parasitologist Dr. B. P. Pande memorial oration lecture was organized. The chief guest of the programme, Hon'ble Vice Chancellor of the University, Prof. Anil Kumar Srivastava, in his address shared the contribution of eminent animal parasitologist Dr. B. P. Pandey and discussed his achievements. He said that the research work should be designed and performed in the laboratories of institutions and universities considering the interest of society and farmers. Similarly, the policies should also be determined so that science can be properly used for the benefit and upliftment of society. The keynote speaker of the memorial address was Dr. Smita Sirohi, Principal Scientist, National Dairy Research Institute, Karnal Haryana and Indian Embassy Advisor for Agricultural and Marine Products to Belgium, Luxembourg and European countries, discussed the excellent research done by Dr. B.P. Pandey and explained their application in animal health and parasite control. In her address, she discussed the adverse effects of animal parasites on animal productivity and by controlling them, we can get maximum benefits from livestock. The memorial speech program was presided over by Dr. Ashok Kumar Tiwari, Director, Central Avian Research Institute, Izatnagar, Bareilly. In his presidential address, Dr. Tiwari praised Dr. B.P. Pandey, remembering his contribution, discussed about various diseases caused by animal parasites and gave information about their control and prevention. Prof. Vikas Pathak Dean, College of Veterinary Sciences & Animal Husbandry welcomed and congratulated the visitors and remembered Dr. B.P. Pandey. On this occasion, the University's Director of Research, Prof. Vinod Kumar, remembered Dr. B. P. Pande and shared a brief biography of the eminent scientist with the gathering.

Dr. P.G. Pandey Memorial Oration Lecture

On February 17th, 2024, renowned veterinary pathologist and animal parasitologist Dr. P.G. Pandey memorial oration was organized at Deen Dayal Auditorium under the direction and guidance of Hon'ble Vice-Chancellor, Professor Anil Kumar Srivastava. The chief guest of the memorial speech program was Dr. Trilochan Mohapatra, former Director General of the Indian Council of Agricultural Research, New Delhi. In his address he remembered the contribution of Dr. P.G. Pandey and discussed the Green Revolution, White Revolution and Blue Revolution. He emphasised on identification and registration of various breeds of indigenous animals like cow, buffalo, sheep, goat, chicken etc. of our country, and inspired the veterinary scientists of the university to work towards the conservation of indigenous animal germ plasm. In the address, the keynote speaker Dr. Mahapatra motivated the university scientists for developing high-quality

diagnostic tests and vaccines for the control and prevention of various types of diseases like foot-and-mouth disease, rinderpest, bird flu, African swine fever, lumpy skin disease and other infectious diseases. On this occasion, Hon. Vice Chancellor of the University, Professor Anil Kumar Srivastava, praised Dr. P.G. Pandey, remembering his contribution and shared the insights of the excellent work done by him and his administrative abilities with the students. On this occasion, Professor Srivastava directed all the teachers and students of the university to do excellent work on animal health by taking inspiration from Dr. Pandey. The program was presided over by Dr. P.K. Rai, Director of National Mustard Research Institute, Bharatpur. He paid tribute to Dr. P.G. Pandey. In his presidential address, Dr. Rai praised and appreciated the work done by him and inspired the students of the university to do excellent work in the field of animal husbandry. Dean, College of Veterinary Sciences & Animal Husbandry, while welcoming and congratulating the visitors, remembered Dr. P.G. Pandey. On this occasion, the University's Director of Research, Prof. Vinod Kumar, shared a brief summary of the biography of Dr. P.G. Pandey.

Brainstorming session on "Livestock Propagation Model for India"

On February 20th, 2024, a one-day brainstorming session was organized on the topic 'Livestock Propagation Model for India' by the Department of Veterinary and Animal Husbandry Extension. The main objective of this program is to increase the income of all the cattle owners and make them self-reliant through animal husbandry. In the program, Vice-Chancellor of the University, Prof. Anil Kumar Srivastava highlighted the important role of animal husbandry in the Indian agricultural economy. Keynote speaker Dr. Ranjay Kumar Singh, Indian Council of Agricultural Research, New Delhi, explained about the features and uses of new extension models. Dr. Rupasi Tiwari, Joint Director of Extension, Indian Veterinary Research Institute, presented her ideas to benefit the animal farmers through information technology. Dr. Hans Ram Meena expressed his views regarding sustainable model for animal husbandry. After this, Dr. Mukesh Bhagat, Principal Scientist, Central Institute for Research on Goat, Farah, presented his models for the use of precision dairy farming to benefit the cattle farmers. Former Vice Chancellor of SKUAST, Jammu, Dr. J.P. Sharma presented a summary of the views put forward by other scientists of the university.

Dr. S.K. Talpatra Memorial Oration Lecture

On February 23rd, 2024, renowned animal nutritionist Dr. S.K. Talpatra memorial oration lecture was organized at Deen Dayal Auditorium under the direction and guidance of Hon'ble Vice-Chancellor of the University, Prof. Anil Kumar Srivastava. The Chief guest of the oration lecture Dr. Sanjay Kumar, Chairman, Agricultural Scientists Recruitment Board (ASRB), Government of India, New Delhi, gave a detailed discussion about nutraceuticals. In his address, he discussed the medicinal properties of various herbal plants and their importance, and laid emphasis on the use of herbal medicine. He gave information about various nutritious and quality products, with which various types of animal and human diseases can be

treated. The program was presided over by Dr. Kusumakar Sharma, Former Assistant Director General, Human Resources, Indian Council of Agricultural Research, New Delhi. In his presidential address, he gave information about the usefulness of a balanced diet for humans and animals and its benefits. He discussed various types of medicinal substances, which can maintain good health of humans and animals. Hon'ble Vice-Chancellor of the University, Prof. Srivastava while remembering Dr. S.K. Talpatra, shared his contrition with the students. On this occasion, Prof. Srivastava motivated all the teachers and students of the University to get inspired by Dr. Talpatra. He mentioned that most of the girls in our country are suffering from deficiency of iron, vitamin B-12, folic acid and calcium. Due to which their complete development is not possible. In such a situation, we should provide them food from natural sources, adding these ingredients in a balanced diet. So that they can have complete development and can fulfil their family and social responsibilities well. Prof. Vikas Pathak Dean, College of Veterinary Sciences & Animal Husbandry welcomed and congratulated the visitors and remembered Dr. S.K. Talpatra. On this occasion, the University's Director of Research, Prof. Vinod Kumar, shared a brief biography of Dr. S. K. Talpatra and also informed that from next year, Dr. S. K. Talpatra Scholarship will be started for PhD students.

Dr. C.M. Singh Memorial Oration Lecture

On February 28th, 2024, in DUVASU famous animal pathologist, Dr. C.M. Singh memorial oration lecture was organized. The event was organized in the Deen Dayal Auditorium under the guidance and direction of the Hon'ble Vice-Chancellor of the University, Prof. Anil Kumar Srivastava. The chief guest of the memorial address was Dr. Mangala Rai, Former Director General, Indian Council of Agricultural Research (Former DG-ICAR), New Delhi and Former Vice-Chancellor of Govind Ballabh Pant University of Agriculture and Technology, Pantnagar. In his address, the chief guest remembered the contribution of Dr. Chintamani Singh in Veterinary Science and paid tribute to him. He motivated the teachers and students to take inspiration from Dr. Singh and move forward by following his footsteps. He said that there has been a significant increase in animal husbandry, poultry farming and their production in our country. The credit for which goes to eminent veterinary scientists like Dr. Chintamani Singh. He said that today the availability of milk, curd, ghee, eggs etc. in our country is the result of the research and implementation of animal scientists.

Hon'ble Vice-Chancellor of the University, Prof. Anil Kumar Srivastava recalled the contributions of Dr. Singh and called for inspiration from him. He said that Dr. Singh has made important contribution in the diagnosis and prevention of various types of diseases of animals. On this occasion, Dr. Ramesh Somvanshi, former Head, Division of Pathology, Indian Veterinary Research Institute, Izatnagar, Bareilly, said that the Dr. C.M. Singh Trust provides the best PhD Thesis Award in the University. Dean, Faculty of Veterinary Medicine, Professor Vikas Pathak welcomed and felicitated the visitors. Director Research, Professor Vinod Kumar presented a brief summary of the biography of Dr. Chintamani Singh. On this occasion, Vice Chancellor of Orissa University of Agriculture and Technology, Bhubaneswar, Professor Pravat Kumar Raut, Director of National Mustard Research Institute, Bharatpur, Dr. P.K. Rai, Dr. C.M. Singh's daughter Smt. Shashi Singh and his son-in-law Col. Ravi Kumar Singh and all the Deans, Directors, teachers and students of the University were present.

PARTICIPATION OF FACULTY MEMBERS IN INTERNATIONAL AND NATIONAL CONFERENCES/ SYMPOSIUM/ TRAINING (2023-24)

Name of the faculty member	Title of the event	Date
International Conference		
Dr. Abhinov Verma	International workshop on 'One Health' organized by Department of Biochemistry, IDP-NAHEP, DUVASU, Mathura, 281001 (U.P.) .	December 13th-15th, 2023
Dr. Ajay Pratap Singh	International workshop on "Quality and safety audits of food from animal origin". Organized by Department of Livestock Products Technology, DUVASU -281001 (U.P.).	December 20th-22nd, 2023
Dr. Ambika Arun	International workshop on 'One Health' organized by Department of Biochemistry, IDP-NAHEP, DUVASU, Mathura, 281001 (U.P.) .	December 13th-15th, 2023
Dr. Ambika Sharma	Seminar series on "Innovation and impact in rare diseases: RNA therapeutics make sense"-delivered by Professor Sue Fletcher on T WBG.02 Docklands Campus, West Building, University of East London.	September 11th, 2023
Dr. Ambika Sharma	65th London Biological Mass Spectrometry Meeting at Harvard Lecture Theatre, UEL, University Square Stratford, 1 Salway Road, London.	September 21st, 2023
Dr. Amit Kumar	International workshop on "Quality and safety audits of food from animal origin". Organized by Department of Livestock Products Technology, DUVASU -281001 (U.P.).	December 20th-22nd, 2023
Prof. Arun Kumar Madan	International Conference on Natural Resource Management for sustainable crop production: A Tool to Combat over Climatic Changes (ICNRM-2023) at ITM University, Gwalior .	May 12th–13th, 2023
Dr. Barkha Sharma	International workshop on "Quality and safety audits of food from animal origin". Organized by Department of Livestock Products Technology, DUVASU-281001 (UP).	December 20th-22nd, 2023
Dr. Barkha Sharma	International workshop on 'One Health' organized by Department of Biochemistry, IDP-NAHEP, DUVASU, Mathura, 281001 (U.P.) .	December 13th-15th, 2023
Dr. Barkha Sharma	104th Conference of CRWAD, held at Chicago, Illinois, USA.	January 20th – 23rd, 2024
Dr. Barkha Sharma	Participated in Institute of Food Technology Annual Event and Expo-2023 at McCormick Place, Chicago, Illinois, USA.	July 16th – 19th, 2023
Prof. Brijesh Yadav	International workshop on "Quality and safety audits of food from animal origin". Organized by Department of Livestock Products Technology, DUVASU -281001 (UP).	December 20th-22nd, 2023
Dr. Chirag Singh	International workshop on "Quality and safety audits of food from animal origin". Organized by Department of Livestock Products Technology, DUVASU -281001 (UP).	December 20th-22nd, 2023
Dr. Jitendra Tiwari	International training on "DNA repair inhibitors targeting MTH1 and OGG1 in parasite *Trypanosoma* species at SciLifeLab, Karolinska Institute, Stockholm, Sweden under the Institutional Development Plan of DUVASU - NAHEP in the laboratory of Professor Thomas Helleday, Soderberg Professor of Transnational Medicine, Science for Life Laboratory, Karolinska Institute, Stockholm, Sweden.	August 21st – October 31st, 2023

Dr. Jitendra Tiwari	International workshop on 'One Health' organized by Department of Biochemistry, IDP-NAHEP, DUVASU, Mathura, 281001 (U.P.) .	December 13th-15th, 2023
Dr. Mamta	International workshop on 'One Health' organized by Department of Biochemistry, IDP-NAHEP, DUVASU, Mathura, 281001 (U.P.) .	December 13th-15th, 2023
Dr. Meena Goswami Awasthi	"Food labelling workshop" sponsored by Robert M. Kerr Food and Ag Products Center, OSU, Stillwater, U.S.A.	June 7th -8th, 2023
Dr. Meena Goswami Awasthi	Regional Meat conference organized by American Meat Science Association at University of Minnisotta, St. Paul, USA.	June 25th -28th, 2023
Dr. Meena Goswami Awasthi	"Basic HACCP Accredited workshop" sponsored by Robert M. Kerr Food and Ag Products Center, OSU, Stillwater, U.S.A.	July, 13th - 14th, 2023
Dr. Meena Goswami Awasthi	International Food Technology Annual event and expo in Chicago, U.S.A.	July 16th -19th, 2023
Dr. Mokshata Gupta	International workshop on "Quality and safety audits of food from animal origin". Organized by Department of Livestock Products Technology, DUVASU -281001 (UP).	December 20th-22nd, 2023
Dr. Parul	International workshop on 'One Health' organized by Department of Biochemistry, IDP-NAHEP, DUVASU, Mathura, 281001 (U.P.) .	December 13th-15th, 2023
Dr. Pawanjit Singh	VII Annual Convention of Society of Veterinary Biochemists and Biotechnologists of India (SVBBI) & International Symposium on "Multiomics to One Health: Challenges and Way Forward in Biomedical Research". ICAR-Indian Veterinary Research Institute (IVRI), Izatnagar.	December 14th-15th, 2023
Dr. Pradeep Kumar	International workshop on "Quality and safety audits of food from animal origin". Organized by Department of Livestock Products Technology, DUVASU -281001 (UP).	December 20th-22nd, 2023
Dr. Rajkumar Singh Yadav	International workshop on "One Health" organised by DUVASU, Mathura, (UP).	December 16th-18th, 2023
Dr. Rajneesh Sirohi	International conference entitled "Natural Resource Management for sustainable Crop Production: A Tool to Combat over Climatic Changes" held at School of Agriculture, ITM University Gwalior (M.P.).	May 12th – 13th, 2023
Shri Rakesh Goel	International workshop on Quality and Safety audits of food from Animal origin organized by DUVASU Mathura.	December 20th - 22nd, 2023
Dr. Ram Dev Yadav	International workshop on "Quality and safety audits of food from animal origin". Organized by Department of Livestock Products Technology, DUVASU -281001 (UP).	December 20th-22nd, 2023
Prof. Rashmi Singh	First International Joint Conference of Association of Public Health Veterinarian (APHV) and Veterinary Public Health Association of Nepal (VPHAN) and XVth Biennial Symposium of APHV on "Role of Public Health Veterinarians in environmentally sensitive, low - and middle- income countries achieving health security through One Health concept" at Kathmandu, Nepal.	September 29th – 30th, 2023
Prof. Rashmi Singh	64th Annual International Conference of the Association of Microbiologists of India (AMI) on 'Microbes for life- Lifestyle for the environment: a strategy for wellbeing' at Bundelkhand University, Jhansi, U.P.	December 1st – 3rd, 2023
Dr. Shalini Vaswani	9th ANS Symposium will be held at the Embassy Suites by Hilton St. Augustine Beach, 300 A1A Beach Blvd., St. Augustine, FL 32080.	October 12th – 13th 2023

Dr. Shalini Vaswani	57th Dairy Production Conference held at Straughn IFAS Extension Professional Development Center, 2142 Shealy Drive, Gainesville, FL 32608.	November 2nd, 2023
Dr. Shriprakash Singh	Two-day conference entitled "2023 CVM Fall conference on theme One Health" held at College of Veterinary Medicine, Oklahoma State University, Stillwater, Oklahoma, USA .	November 9th - 10th, 2023
Prof. S.K. Yadav	2nd International conference on "Prospects and challenges of environment and biological sciences in food production system for livelihood security of farmers" (ICFPLS-2023).	September 18th – 20th, 2023
Dr. Soumen Choudhury	International Workshop on "Quality and Safety Audits of Foods from Animal Origin" organized by DUVASU, Mathura.	December 20th - 22nd, 2023
Dr. Supriya Sachan	International workshop on 'One Health' organized by Department of Biochemistry, IDP-NAHEP, DUVASU, Mathura, 281001 (U.P.) .	December 13th-15th, 2023
Dr. Udit Jain	First International Joint Conference of Association of Public Health Veterinarian (APHV) and Veterinary Public Health Association of Nepal (VPHAN) and XVth Biennial Symposium of APHV on "Role of Public Health Veterinarians in environmentally sensitive, low - and middle- income countries achieving health security through One Health concept" at Kathmandu, Nepal.	September 29th – 30th, 2023
Dr. Udit Jain	3 days international training on "Quality and safety audits of foods of animal origin" under IDP, organized by DUVASU, Mathura .	December 20th - 22nd, 2023
Dr. Varsha Gupta	International workshop on 'One Health' organized by Department of Biochemistry, IDP-NAHEP, DUVASU, Mathura, 281001 (U.P.) .	December 13th-15th, 2023
Dr. Vinay Kishor Tiwari	International workshop on "Quality and safety audits of food from animal origin". Organized by Department of Livestock Products Technology, DUVASU -281001 (UP).	December 20th-22nd, 2023
Dr. Vinod Kumar Singh	International workshop on "Quality and safety audits of food from animal origin". Organized by Department of Livestock Products Technology, DUVASU -281001 (UP).	December 20th-22nd, 2023
Dr. Yajuvendra Singh	International workshop on "Quality and safety audits of food from animal origin". Organized by Department of Livestock Products Technology, DUVASU -281001 (UP).	December 20th-22nd, 2023
National Conference		
Dr. Abhinov Verma	National Conference of Indian Society for Buffalo Development (ISBD) and Symposium on 'Modern approaches for sustainable buffalo production in the scenario of climate change' organized by Department of Animal Physiology, COVSc, DUVASU, Mathura,	October 27th - 28th, 2023
Dr. Abhinov Verma	XXXVII Annual convention & National Symposium on "Recent Advances in Veterinary Anatomy and their Applications for Improvement of Animal Health and Production Organized by Department of Veterinary Anatomy, College of Veterinary Science, Sri Venkateswara Veterinary University, Tirupati (A.P.) .	December 5th - 7th, 2023
Dr. Ajay Kumar	Workshop on NARES-Blended Learning Platform (BLP) held at dated 30-31 October, 2023 organized by DUVASU, Mathura.	October 30th – 31st, 2023
Dr. Ajay Kumar	One day Brainstorming session on "Scaling Up of Innovative Extension Models for Viksit Bharat" organized by department of Veterinary Extension, College of Veterinary Science & Animal Husbandry, DUVASU, Mathura .	February 20th, 2024

Dr. Ajay Kumar	One day brainstorming session on "Economic Use of Unproductive Animals" organized by Department of Livestock Production Management (LPM), College of Veterinary Science & Animal Husbandry, DUVASU, Mathura .	February 22nd, 2024
Dr. Ajay Pratap Singh	National Conference of Indian Society for Buffalo Development (ISBD) and Symposium on 'Modern approaches for sustainable buffalo production in the scenario of climate change' organized by Department of Physiology, COVSc & AH, DUVASU, Mathura .	October 27th - 28th, 2023
Dr. Ajay Pratap Singh	Brainstorming session on "Emerging trends in Nano Biotechnology" Jointly Organized by College of Biotechnology and Department of Microbiology, DUVASU, Mathura -281001 (UP).	December 15th, 2023
Dr. Ajay Pratap Singh	Brainstorming Session on Transboundary Animal Diseases Way Forward for Prevention and Control Organized by Department of Veterinary Pathology, DUVASU, Mathura -281001 (UP).	February 19th, 2024
Dr. Ambika Sharma	National conference of Indian society for Buffalo Development (ISBD) and Symposium on Modern approaches for sustainable buffalo production in the scenario of climate change.	October 27th - 28th, 2023
Dr. Amitav Bhattacharyya	15th Edition of Poultry India-Knowledge Day 2023 at Novotel, Hitex City, Hyderabad, India.	November 21st, 2023
Dr. Amitav Bhattacharyya	World Veterinary Poultry Association (India) Conference at ICAR-NIANP, Bengaluru.	February 15th-16th, 2024
Prof. Archana Pathak	National Conference of Indian Society for Buffalo Development (ISBD) and Symposium on 'Modern approaches for sustainable buffalo production in the scenario of climate change' organized by Department of Animal Physiology, COVSc, DUVASU, Mathura .	October 27th - 28th, 2023
Prof. Archana Pathak	XXXVII Annual convention & National Symposium on "Recent Advances in Veterinary Anatomy and their Applications for Improvement of Animal Health and Production Organized by Department of Veterinary Anatomy, College of Veterinary Science, Sri Venkateswara Veterinary University, Tirupati (A.P.) .	December 5th - 7th, 2023
Prof. Archana Pathak	2nd Veterinary and Animal Science Congress and 2nd Annual Convention of Association of Animal Scientists and National Symposium held at Apollo College of Veterinary Medicine, Jaipur, Rajasthan.	February17th - 19th, 2024
Prof. Arun Kumar Madan	Two days Shiksha Manthan Program at CJMU, Kanpur.	July 8th – 9th, 2023
Prof. Arun Kumar Madan	Participated in NAAC presentation at Raj bhavan, Lucknow, UP.	July 24th, 2023
Prof. Arun Kumar Madan	National conference of ISBD and symposium on "Modern approaches for sustainable buffalo production in the scenario of climate change".	October 27th - 28th, 2023
Dr. Ashish Srivastava	4th Annual Convention of VIPM at SKAUST Jammu.	December 18th-19th, 2023
Prof. Atul Prakash	National Symposium of Indian Society for Buffalo Development (ISBD) on "Modern approaches for sustainable buffalo production in the scenario of climate change".	October 27th - 28th, 2023
Prof. Atul Prakash	23rd Annual Conference of Indian Society of Veterinary Pharmacology & Toxicology (ISVPT)-2023 and National Symposia on "Integrated Animal Health Care System: Opportunities and	November 2nd - 4th, 2023

	Challenges and Exploring New Avenues for Pharmacologists and Toxicologists from Employability Perspective" .	
Prof. Atul Prakash	International Workshop on "Quality and Safety Audits of Foods from Animal Origin" organized by DUVASU, Mathura.	December 20th - 22nd, 2023
Dr. Avneesh Kumar	National Conference of Indian Society for Buffalo Development and Symposium on Modern Approaches for sustainable Buffalo Production in the Scenario of Climate Change organized by DUVASU, Mathura .	October 27th - 28th, 2023
Dr. Avneesh Kumar	Management development program entitled Faculty development program for the faculty members of IDP-NAHEP, DUVASU, Mathura organized by IIM, Lucknow.	December 26th - 30th, 2023
Prof. Brijesh Yadav	Fourth Annual Convention of Animal Physiologist Association and National Conference on Advance Physiological Strategies for sustainable Livestock Production and Reproduction, Avikanagar, Rajasthan.	March 1st – 2nd, 2024
Dr. Barkha Sharma	National Conference of Indian Society for Buffalo Development and Symposium on Modern Approaches for Sustainable Buffalo Production in the Scenario of Climate Change held at COVS & AH, DUVASU, Mathura.	October 27th – 28th, 2023
Prof. Brijesh Yadav	Industry Scientist Farmer's Interface" organized by ICAR-CIRG, Makhdoom, Mathura.	March 16th, 2023
Prof. Brijesh Yadav	21st NAVS Convocation-cum-scientific convention on strategies for enhancing productivity of dairy animals" organized by GADVASU and NAVS.	July 1st to 2nd, 2023
Prof. Brijesh Yadav	2 days Shiksha Manthan Program at CJMU, Kanpur.	July 8th – 9th, 2023
Prof. Brijesh Yadav	NAAC presentation at Raj bhavan, Lucknow, UP.	July 24th, 2023
Prof. Brijesh Yadav	1 day symposium on National and international Accreditation of Universities of UP held at Rajbhawan Lucknow.	September 14th, 2023
Prof. Brijesh Yadav	10th annual convention of SVSBT and National symposium on Recent biotechnological advances in health and management of livestock, poultry and companion animals" organized by COVSc, Mhow, Indore, NDVSU .	October 5th - 7th, 2023
Prof. Brijesh Yadav	National conference of ISBD and symposium on "Modern approaches for sustainable buffalo production in the scenario of climate change".	October 27th - 28th, 2023
Prof. Brijesh Yadav	National workshop on Atlas on Climate Change Adaptation in South Asian Agriculture" organized by organized by ICAR-NDRI Karnal.	November 21st, 2023
Dr. Chandan Kumar	1 day brainstorming session on "Economic Use of Unproductive Animals" organized by Department of Livestock Production Management (LPM), College of Veterinary Science & Animal Husbandry, DUVASU, Mathura .	February 22nd, 2024
Dr. Dilip Kumar Swain	Fourth Annual Convention of Animal Physiologist Association and National Conference on Advance Physiological Strategies for sustainable Livestock Production and Reproduction, Avikanagar, Rajasthan.	March 1st – 2nd, 2024
Dr. Dilip Kumar Swain	One day DST-SERB wokshop on -Mitigating climate change impact on livestock production through strategic transformative approaches: Department of Veterinary Physiology and	November 21st, 2023

	Biochemistry, Veterinary College and Research Institute, Salem, TANUVAS, Chennai.	
Dr. Jitendra Singh Gandhar	1st Clinical Case Conference of Veterinary Internal and Preventive Medicine (VIPM) Society, ANDUAT, Kumarganj, Ayodhya .	March 15th - 16th, 2024
Dr. Mamta	1 day Brainstorming session on "Scaling Up of Innovative Extension Models for Viksit Bharat" organized by department of Veterinary Extension, College of Veterinary Science & Animal Husbandry, DUVASU, Mathura .	February 20th, 2024
Dr. Mamta	1 day brainstorming session on "Economic Use of Unproductive Animals" organized by Department of Livestock Production Management (LPM), College of Veterinary Science & Animal Husbandry, DUVASU, Mathura .	February 22nd, 2024
Dr. Meena Goswami Awasthi	National conference and symposium on "Modern approaches for sustainable buffalo production in the scenario of climate change".	October 27th - 28th, 2023
Dr. Mukul Anand	Industry Scientist Farmer's Interface" organized by ICAR-CIRG, Makhdoom, Mathura.	March 16th, 2023
Dr. Mukul Anand	National conference of ISBD and symposium on "Modern approaches for sustainable buffalo production in the scenario of climate change".	October 27th - 28th, 2023
Dr. Muneendra Kumar	20th Biennial International Conference 2024 on "Sustainable animal nutrition for global health and production: Innovation and directions" by ANSI, Karnal and Department of Animal Nutrition, Madras Veterinary College, Chennai Tamil Nadu .	January 23rd – 25th, 2024
Dr. Neeraj Kumar Gangwar	"ISBD, symposium on "Modern Approaches for sustainable buffalo production in the scenario of climate change" DUVASU, Mathura .	October 27th t-28th, 2023
Prof. P.K. Shukla	15th Edition of Poultry India Knowledge Day 2023 at Novotel, Hitex City, Hyderabad, India .	November 21st, 2023
Prof. P.K. Shukla	World Veterinary Poultry Association (India) Conference at ICAR-NIANP, Bengaluru .	February 15th-16th, 2024
Dr. Padma Nibash Panigrahi	National conference of ISBD and symposium on modern approaches for sustainable buffalo production in the scenario of climate change at DUVASU, Mathura .	October 27th - 28th, 2023
Dr. Parul	National conference of Indian Society for Buffalo development and symposium on Modern approaches for sustainable buffalo and production in the scenario of climate change. ISBD, DUVASU, Mathura.	October 27th - 28th, 2023
Dr. Pawanjit Singh	National conference of Indian society for Buffalo Development (ISBD) and Symposium on Modern approaches for sustainable buffalo production in the scenario of climate change.	October 27th - 28th, 2023
Dr. Rajkumar Singh Yadav	National Symposium of Indian Society for Buffalo Development (ISBD) On "Modern approaches for sustainable buffalo production in the scenario of climate change".	October 27th - 28th, 2023
Dr. Rajkumar Singh Yadav	23rd Annual Conference of Indian Society of Veterinary Pharmacology & Toxicology (ISVPT)-2023 and National Symposia on "Integrated Animal Health Care System: Opportunities and Challenges and Exploring New Avenues for Pharmacologists and Toxicologists from Employability Perspective".	November 2nd - 4th, 2023
Dr. Rajneesh Sirohi	1 day brainstorming session on "Economic Use of Unproductive Animals" organized by Department of Livestock Production	February 22nd, 2024

	Management (LPM), College of Veterinary Science & Animal Husbandry, DUVASU, Mathura .	
Shri Rakesh Goel	National Conference of Indian Society for Buffalo Development and Symposium on Modern Approaches for sustainable Buffalo Production in the Scenario of Climate Change organized by DUVASU, Mathura .	October 27th - 28th, 2023
Shri Rakesh Goel	Panellist in Brainstorming session Emerging trends in Nanobiotechnology organized by DUVASU Mathura .	December 15th, 2023
Shri Rakesh Goel	Management development program entitled Faculty development program for the faculty members of IDP-NAHEP, DUVASU, Mathura organized by IIM, Lucknow.	December 26th - 30th, 2023
Prof. Rashmi Singh	Siksha Manthan organised by Raj Bhawan UP, Kanpur.	July 8th - 9th, 2023
Prof. Rashmi Singh	XXVII Annual Convention of ISVIB and National Conference on "Leveraging Emerging Biotechnologies for One Health" held at SKUAST, Kashmir.	July 27th - 29th, 2023
Prof. Rashmi Singh	Chintan Shivir, DUVASU, Mathura .	August 29th, 2023
Prof. Rashmi Singh	National Conference of Indian Society for Buffalo Development (ISBD) and Symposium on 'Modern approaches for sustainable buffalo production in the scenario of climate change' organized by Department of Physiology, COVSc & AH, DUVASU, Mathura .	October 27th - 28th, 2023
Prof. Rashmi Singh	Brainstorming Session on 'Transboundary Animal Diseases Way Forward for Prevention and Control' Organized by Department of Veterinary Pathology, DUVASU, Mathura -281001 (UP).	February 19th, 2024
Prof. Rashmi Singh	Seminar on 'One health concepts: commercial utilization of carcasses to safeguard one health' organised by Brooke India and NAVS (India), New Delhi.	March 19th, 2024
Dr. Renu Singh	"ISBD, symposium on "Modern Approaches for sustainable buffalo production in the scenario of climate change" DUVASU, Mathura .	October 27th - 28th, 2023
Dr. Ruchi Tiwari	National Conference of Indian Society for Buffalo Development (ISBD) and Symposium on 'Modern approaches for sustainable buffalo production in the scenario of climate change' organized by Department of Physiology, COVSc & AH, DUVASU, Mathura .	October 27th - 28th, 2023
Prof Sanjay Purohit	24th Indian Veterinary Congress and 31st Annual Conference of IAAVR and National Symposium on "Livestock Health and Poulty: A Paradigm Change to Maximize Productivity for Sustainable Farmers' Livelihood" organized by College of Veterinary Sciences, LUVAS, Hisar, Haryana from 7-8 February 2024.	February 7th - 8th, 2024
Dr. Sanjay Kumar Bharti	2nd Veterinary and Animal Science Congress and 2nd Annual Convention of Association of Animal Scientists & National Symposium on Technology intervention for improving animal health and productivity.	February 17th - 19th, 2024
Dr. Sarvajeet Yadav	NAAC presentation at Raj bhavan, Lucknow, UP.	July 24th, 2023
Dr. Sarvajeet Yadav	National conference of ISBD and symposium on "Modern approaches for sustainable buffalo production in the scenario of climate change".	October 27th - 28th, 2023
Dr. Sarvajeet Yadav	4th Annual Convention of Animal Physiologist Association and National Conference on Advance Physiological Strategies for	March 1st – 2nd, 2024

	sustainable Livestock Production and Reproduction, Avikanagar, Rajasthan.	
Dr. Shankar K. Singh	National Conference of Indian Society for Buffalo Development (ISBD) and Symposium on Modern Approaches for Sustainable Buffalo Production in the Scenario of Climate Change (ISBDCON 2023) organized by DUVASU, Mathura.	October 27th - 28th, 2023
Dr. Shankar K. Singh	International Workshop on "Quality and Safety Audits of Foods from Animal Origin" organized at DUVASU, Mathura.	December 20th - 22nd, 2023
Dr. Shankar K. Singh	40th Annual Convention of ISVM and the National Conference on "Multifaceted approaches for integrating veterinary medicine and one health for a holistic future" held at College of Veterinary and Animal Sciences, Mannuthy, Thrissur, Kerala.	February 22nd - 24th, 2024
Dr. Shriprakash Singh	National Conference of Indian Society for Buffalo Development (ISBD) and Symposium on 'Modern approaches for sustainable buffalo production in the scenario of climate change' organized by Department of Animal Physiology, COVSc, DUVASU, Mathura.	October 27th - 28th, 2023
Dr. Shyama N. Prabhu	National Conference of Indian Society for Buffalo Development (ISBD) and Symposium on 'Modern approaches for sustainable buffalo production in the scenario of climate change' organized by Department of Animal Physiology, COVSc, DUVASU, Mathura.	October 27th - 28th, 2023
Dr. Soumen Choudhury	National Conference of Indian Society for Buffalo Development (ISBD) and Symposium on 'Modern approaches for sustainable buffalo production in the scenario of climate change' organized by Department of Animal Physiology, COVSc, DUVASU, Mathura.	October 27th - 28th, 2023
Dr. Soumen Choudhury	23rd Annual Conference of Indian Society of Veterinary Pharmacology & Toxicology (ISVPT)-2023 and National Symposia on "Integrated Animal Health Care System: Opportunities and Challenges and Exploring New Avenues for Pharmacologists and Toxicologists from Employability Perspective".	November 2nd - 4th, 2023
Dr. Supriya Sachan	32nd National Congress of Veterinary Parasitology, hosted by IAAVP at Bihar Veterinary College, Patna.	November 29th - December 1st, 2023
Dr. Supriya Sachan	2nd Annual Convention of Association of Animal Scientists and National Symposium organized by Apollo College of Veterinary Medicine Jaipur and Association of Animal Scientists.	February 17th – 19th, 2024
Dr. Udit Jain	Workshop on NARES-Blended learning programme (BLP) organized by ICAR, DUVASU, Mathura.	October 30th - 31st, 2023
Dr. Udit Jain	Brain storming session entitled "Emerging trends in Nanobiotechnology" organized by College of Biotechnology and Department of Veterinary Microbiology, DUVASU, Mathura.	December 15th, 2023
Dr. Varsha Gupta	National Conference of Indian Society for Buffalo Development (ISBD) and Symposium on 'Modern approaches for sustainable buffalo production in the scenario of climate change' organized by Department of Animal Physiology, COVSc, DUVASU, Mathura.	October 27th - 28th, 2023
Prof. Vikas Pathak	National Conference of Indian Society for Buffalo Development (ISBD) and Symposium on 'Modern approaches for sustainable buffalo production in the scenario of climate change' organized by Department of Animal Physiology, COVSc, DUVASU, Mathura.	October 27th - 28th, 2023
Prof. Vikas Pathak	2nd Veterinary and Animal Science Congress and 2nd Annual Convention of Association of Animal Scientists & National	February 17th - 19th, 2024

	Symposium on Technology intervention for improving animal health and productivity.	
Prof. Vijay Pandey	National Conference of Indian Society for Buffalo Development (ISBD) and Symposium on 'Modern approaches for sustainable buffalo production in the scenario of climate change' organized by Department of Animal Physiology, COVSc, DUVASU, Mathura .	October 27th - 28th, 2023
Dr. Vijay Kumar	National Conference of Indian Society for Buffalo Development (ISBD) and Symposium on 'Modern approaches for sustainable buffalo production in the scenario of climate change' organized by Department of Animal Physiology, COVSc, DUVASU, Mathura .	October 27th - 28th, 2023
Dr. Vijay Kumar	Brainstorming session Emerging trends in Nanobiotechnology organized by DUVASU Mathura .	December 15th, 2023
Dr. Vijay Kumar	Brainstorming session on scaling up of Innovative extension models for viksit Bharat organized by Department of Veterinary and animal Husbandry extension education, DUVASU, Mathura .	February 20th, 2024
Prof. Vinod Kumar	20th Biennial International Conference 2024 on "Sustainable animal nutrition for global health and production: Innovation and directions" by ANSI, Karnal and Department of Animal Nutrition, Madras Veterinary College, Chennai Tamil Nadu .	January 23rd – 25th, 2024
Dr. Vinod Kumar Singh	National Conference of Indian Society for Buffalo Development (ISBD) and Symposium on 'Modern approaches for sustainable buffalo production in the scenario of climate change' organized by Department of Physiology, COVSc & AH, DUVASU, Mathura .	October 27th - 28th, 2023
Dr. Vinod Kumar Singh	Brainstorming session on "Emerging trends in Nano Biotechnology" Jointly Organized by College of Biotechnology and Department of Microbiology, DUVASU, Mathura -281001 (UP).	December 15th, 2023
Dr. Yajuvendra Singh	Workshop on NARES-Blended Learning Platform (BLP) held at dated 30-31 October, 2023 organized by DUVASU, Mathura.	October 30th – 31st, 2023
Dr. Yajuvendra Singh	1 day brainstorming session on "Economic Use of Unproductive Animals" organized by Department of Livestock Production Management (LPM), College of Veterinary Science & Animal Husbandry, DUVASU, Mathura .	February 22nd, 2024
National Training		
Dr. Ajay Kumar	Collaborative online training program on "Prospects and Applications of Artificial Intelligence in Livestock Sector organized by Guru Angad Dev Veterinary & Animal Sciences University, Ludhiana & MANAG, Hyderabad.	July 19th - 21st, 2023
Dr. Ajay Kumar	Management Development Programme at IIM, Lucknow.	December 26th - 30th, 2023
Dr. Ajay Pratap Singh	Five-days Faculty Development training at Indian Institute of Management, Lucknow.	December 26th - 31st, 2023
Dr. Amit Kumar	"Orientation Programme" for the newly recruited faculty at DUVASU, Mathura.	January 3rd - 15th, 2024
Prof. Archana Pathak	Massive Open Online Course (MOOC) on digital teaching offered by ICAR-NAARM, Hyderabad.	October 1st - 31st, 2023
Dr. Avneesh Kumar	Participated in five days short term course on "Academic Research writing and Publishing" in online mode, organized by NIT, Patna .	July 17th - 21st, 2023

Dr. Avneesh Kumar	Participated in collaborative online training program on "Prospects and applications artificial intelligence in livestock sector19-21 July, 2023, GADVASU, Ludhiana and Mange Hyderabad .	July 19th - 21st, 2023
Dr. Avneesh Kumar	11-days online training program on "Research Data Analysis Using Essential Statistical Techniques" organized by the Department of Animal Genetics and Breeding, College of Veterinary and Animal Sciences, Kishanganj, Bihar Animal Sciences University, Patna .	December 4th to 15th, 2023
Dr. Avneesh Kumar	International workshop on Quality and Safety audits of food from Animal origin organized by DUVASU Mathura .	December 20th - 22nd, 2023
Dr. Avneesh Kumar	One week capacity building program titled "Phylogenetics for beginners: Tea under Tree Module-1_V1.1" in online mode, organized by Department of Fish Genetics and Reproduction, College of Fisheries, Central Agriculture University, Lembucherra, Tripura.	December 20th - 26th, 2023
Prof. Brijesh Yadav	"Orientation Programme" for the newly recruited faculty at DUVASU, Mathura.	January 3rd - 15th, 2024
Prof. Desh Deepak Singh	"Orientation Programme" for newly recruited faculty held Veterinary University (DUVASU), Mathura.	January 3rd - 15th, 2024
Dr. Dilip Kumar Swain	Short course on "Technological innovation in Assisted Reproductive Technologies for the improvement of Caprine germplasm" at ICAR-CIRG, Mathura.	February 5th - 14th, 2024
Dr. Kavisha Gangwar	"Orientation Programme" for newly recruited faculty held Veterinary University (DUVASU), Mathura .	January 3rd - 15th, 2024
Dr. Mamta	Management Development Programme at IIM, Lucknow.	December 26th - 30th, 2023
Dr. Mokshata Gupta	"Orientation Programme" for newly recruited faculty at DUVASU, Mathura.	January 3rd - 15th, 2024
Dr. Neeraj Kumar Gangwar	"Digital Teaching Techniques course (MOOC), NAARM, Hyderabad .	October 1st - 31st, 2024
Dr. Padma Nibash Panigrahi	Faculty development training programme on Management development programme at IIM, Lucknow.	December 26th - 30th, 2023
Dr. Parul	Faculty Development Programme at Indian Institute of Management, Lucknow, UP.	December 26th - 30th, 2023
Dr. Pradeep Kumar	Completed six weeks on line course on "Current trends in treatment and control of parasitic diseases of livestock and poultry" organized by agMOOCs.	December 19th, 2023- February 9th, 2024.
Dr. Pradeep Kumar	Completed 5 days faculty development programme from Indian Institute of Management Lucknow organized by IDP-NAHEP, DUVASU, Mathura .	December 26th - 30th, 2023
Dr. Rajkumar Singh Yadav	Faculty Development Programme, Organised by IIM Lucknow (UP).	December 26th - 30th, 2023
Dr. Ram Dev Yadav	"Orientation Programme" for newly recruited faculty at DUVASU, Mathura.	January 3rd - 15th, 2024
Dr. Ruchi Tiwari	21 days ICAR Winter school training programme on "One Health approach to combat AMR, Zoonoses and food safety" at PGIVER, Jaipur.	December 1st - 21st, 2023

Dr. Shanker K. Singh	Recent Developments in Livestock Phenome Data Recording, Analysis and Interpretation in the Era of Genomics; ICAR-National Research Centre on Camel, Bikaner.	January 3rd - 12th, 2024
Dr. Supriya Sachan	Orientation programme organized for the newly recruited faculty organized by College of Veterinary Sciences and Animal Husbandry, DUVASU, Mathura.	January 3rd - 15th, 2024
Dr. Udit Jain	3 days online lecture series on "Alternatives to antibiotics for control of bacterial infections" organized by COVSc, Rampura Phul, GADVASU, Ludhiana.	October 9th - 11th, 2023
Dr. Vijay Kumar	Collaborative online training program on Livelihood opportunities in PIG Husbandry organized by ICAR-NRC on Pig, and Mange Hyderabad.	May 23rd - 25th, 2023
Dr. Vijay Kumar	Collaborative online training program on "Dairy Farming a profitable venture" by KVAFSU, Bidar and Mange Hyder abad.	June 20th - 22nd, 2023
Dr. Vijay Kumar	Collaborative online training program on "Prospects and applications artificial intelligence in livestock sector19-21 July, 2023, GADVASU, Ludhiana and Mange Hyderabad.	July 19th - 21st, 2023
Dr. Vijay Kumar	Collaborative online training program on Recent trend in Animal Health and Nutrition organised by RAJUVAS, Bikaner and Mange Hyderabad.	July 26th – 28th, 2023
Dr. Vijay Kumar	Participated in MOOC on Digital Teaching Techniques held during 01-31 October 2023 offered by ICAR-NAARM, Hyderabad.	October 1st -31st, 2023
International Training		
Dr. A K Tripathi	90 days Overseas Training Programme under IDP-NAHEP on "Pedagogy and Clinical Instruction in Equine Internal Medicine" at College of Veterinary Medicine, 205 McElroy Hall Stillwater, Oklahoma State University 74078, U.S.A.	September 10th - December 8th, 2023
Dr. Ambika Sharma	Faculty Foreign Deputation International Training at University of East London, United Kingdom) Sponsored by Institutional Development Plan-NAHEP, DUVASU, Mathura, UP.	July 3rd - October 2nd, 2023
Dr. Amitav Bhattacharyya	Overseas Faculty Training Program at Gyeongsang National University, Republic of Korea.	March 25th – June 22nd, 2023
Dr. Amit Kumar Jaiswal	Three months training attended in Department of Pathobiology, College of Veterinary Medicine, University of Illinois at Urbana Champaign, IL, USA.	March 1st - May 31st 2023
Prof. Archana Pathak	Three months International Training at Western College of Veterinary Medicine, University of Saskatoon, Canada on 'Immunohistochemistry of Pulmonary Pathobiology'	March 5th – June 3rd, 2023
Prof. Arun Kumar Madan	15 days of short-term International Training at the College of Veterinary Medicine, Oklahoma State University.	November 27th - December 11th, 2023
Dr. Avneesh Kumar	One-month international workshop on Bioinformatics Data Science with R and mySQL in online mode organized by Decode Life.	April 15th - May 16th, 2023
Dr. Barkha Sharma	International training as visiting scholar for Three (03) months duration at College of Veterinary Medicine, University of Illinois - Urbana Champaign, Illinois, USA under IDP-NAHEP, DUVASU Mathura.	May 16th – August 13th, 2023

Prof. Brijesh Yadav	Three months training at Agricultural Systems and Microbial Genomics lab, Dept of Clinical Studies, School of Veterinary Medicine, University of Pennsylvania, USA.	February 3rd – May 3rd, 2023
Dr. Sanjay Kumar Bharti	International Faculty Training Programme under IDP-NAHEP at the College of Agriculture, Food & Environment Science, Department of Dairy and Food Science, South Dakota State University (SDSU), SD, USA.	August 1st - October 31st, 2023
Shri Rakesh Goel	International Workshop on one Health organized by DUVASU, Mathura.	December 13th - 15th, 2023
Dr. S.P. Singh	3 months residential overseas training program in Oklahoma state University, Stillwater, Oklahoma, USA under ICAR, NAHEP -IDP of DUVASU, Mathura.	September 10th - December 8th, 2023
Dr. S.P. Singh	International Workshop on one Health organized by DUVASU, Mathura.	December 13th - 15th, 2023
Dr. Shalini Vaswani	Three months Overseas Training at University of Florida, Gainesville, Florida USA.	September 29th– December 27th 2023
Dr. Shalini Vaswani	Small Ruminant Short Course & Ram Test Sale at Straughn IFAS Extension Professional Development Centre, 2142 Shealy Drive, Gainesville, FL 32608 on Friday, September 29, 2023 at 9:00 AM - Saturday, September 30, 2023.	September 30th, 2023
Dr. Shanker K. Singh	Overseas Training through IDP-NAHEP at Dermatology, Department of Veterinary Clinical Medicine, College of Veterinary Medicine, Veterinary Teaching Hospital University of Illinois at Urbana-Champaign, USA.	March 1st - May 31st 2023
Dr. Rajneesh Sirohi	90 days International Training in "Research pedagogy and instructions in Livestock Production Management and Animal Agriculture Economics" organized by Oklahoma state university, Stillwater, Oklahoma (USA).	September 28th – December 28th 2023
Dr. Meena Goswami Awasthi	International Faculty Training Programme under IDP-NAHEP at Department of Animal and Food Sciences, Oklahoma State University, Stillwater, U.S.A.	March 15th – September 10th, 2023
Dr. Mukul Anand	50 days of training, at the University of Florida, Rainesville, Florida, USA.	September 27th – November 19th, 2023
Dr. Mukul Anand	International Training at Shinshu University, Faculty of Agriculture Minamiminowa, Kamiina, Nagano, Japan.	March 28th – June 28th 2023
Prof. Vijay Pandey	Overseas Training under IDP-NAHEP on "Proteomics and metabolomics approaches for the identification of novel biomarkers for the metabolic and infectious diseases of animals" at Laboratory of Proteomics, Department of Internal Diseases, Faculty of Veterinary Medicine, University of Zagreb, Heinzelova, Zagreb, Croatia.	November 16th - December 30th, 2023
Prof. Vikas Pathak	International Faculty Training Programme under IDP-NAHEP at Department of Animal and Food Sciences, Oklahoma State University, Stillwater, U.S.A.	September 19th - October 3rd, 2023

STUDENT WELFARE

STUDENTS WELFARE

1. Yoga Day

Keeping up with the spirits of the nation celebrating the Yoga Day, the University, Yoga organized a special Yoga Shivir on 21st June, 2023 on the 9th International yoga day. More than 1000 participants including Hon'ble Vice-Chancellor Prof. (Dr.) Anil Kumar Srivastava, faculty, staff member and students attended the camp conducted by a yoga expert Shri Arjun Rana.

2. Scholarship

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 2023-24 an amount of Rs. 2,11,000.00 was disbursed to 06 meritorious students. 12 Students received National Talent Scholarship (NTS) of ICAR. The University also forwarded 343 students applications for the award of scholarship offered by the Department of Social Welfare, Govt. of UP.

3. Fresher's Day (College of Veterinary Science) (Dated: 30-09-2023)

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. The second year students of College of Veterinary Science & Animal Husbandry organized fresher's party for newly admitted students of 2023-24 batch. 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 welcome party addressed and blessed the students.

4. Fresher's Day (College of Biotechnology) (Dated: 19-10-2023)

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. The second year students of college of Biotechnology organized fresher's party for newly admitted students of 2023-24 batch. 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 welcome party addressed and blessed the students.

5. Fresher's Day (Institute of Para-Veterinary Science) (Dated: 31-10-2023)

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. The second year students of Institute of Para-Veterinary Science organized Fresher's Party for newly admitted students of 2023-24 batch. 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 welcome party addressed and blessed the students.

6. Annual Sports Day

Two days 21st Annual Sports of Uttar Pradesh Pandit Deen Dayal Upadhyaya Pashu Chikitsa Vishwavidhyalaya Evam Go Anusandhan Sansthan (DUVASU), Mathura was organized on Marchth 11-12th, 2024. The event was inaugurated by Prof. Anil Kumar Srivastava Hon'ble Vice-Chancellor of the University 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 this event a number of sports like football, volleyball, hockey, table-tennis, badminton, chess, kho-kho, kabaddi, cricket and athletics were organized. On second day, some fun games like slow cycling, musical chair, tug of war were also organized in which students from constituent colleges and institution of University participated. The event was organized by president, extra-curricular, Dr. Gulsan Kumar and prize were distributed by Vice-Chancellor of the University.

7. T10 Cricket Tournament-2023 from May 19, 2023 to June 26, 2023

Tennis Ball T10 Cricket Tournament-2023 was organized in DUVASU, Mathura from May 19th, 2023 to June 26th, 2023. A total of eight teams of students of Veterinary College, Biotechnology College, and Institute of Para Veterinary Science participated in the tournament with great enthusiasm. All the matches were played in Round Robin format among the teams. The final match of T10 Cricket Tournament-2023 was played between teams of 4th Professional BVSc&AH and 2nd Professional BVSc&AH students on June 16th, 2023. Team 4th Professional BVSc&AH won the T10 Cricket Tournament-2023 trophy by beating the 2nd Professional BVSc&AH in a thrilling final match. The prizes to the winners, runner up teams and players of the tournament were distributed by Prof. Anil Kumar Srivastava, Honorable Vice Chancellor, DUVASU, Mathura, Prof. Vijay Pandey, Counselor Cricket, Dr. Gulshan Kumar, Incharge Games and Sports, Dr. Rajneesh Sirohi, Incharge Student Welfare and Mr. J.N. Pal, PTI of the University, coordinated successful organization of the T10 Cricket Tournament-2023.

8. 1st state level Inter Agricultural/Veterinary Universities Youth Festival: "Aahwaan 2023"

The inaugural ceremony of the 1st State Level Inter Agricultural/Veterinary Universities Youth Festival, hosted with grace by DUVASU, Mathura, unfolded on December 21st, 2023. Prof. P.K. Shukla, Academic Coordinator of IDP NAHEP and Prof. Atual Saxena, Principal Investigator of IDP NAHEP, graced the occasion as the distinguished guest of honor. Engaging in a vibrant display of talent, four agricultural/veterinary universities from Uttar Pradesh converged to partake in an array of events spanning literary, theatrical, fine arts, singing, and dancing categories. With unwavering enthusiasm, students showcased their prowess, embodying the belief that art serves as a unifying force, bridging geographical divides. The valedictory ceremony, honored by Prof. Dr. A.K. Srivastava, Hon'ble Vice Chancellor, represented the culmination of festivities and success. Demonstrating their outstanding performance, students from DUVASU, Mathura, joyfully claimed the prestigious overall champion's trophy.

9. NCC and NSS

During the year 2023-24, 22 and 36 NCC cadets appeared in 'B' and 'C' certificate examinations respectively. 32 NCC- registered students participated in an NCC Camp organized from October 23rd to November 1st, 2023 at Universal College, Hathras, UP. NCC cadets presented Guard of Honour to Her Excellency Smt. Anandiben Patel Ji, Governor of Uttar Pradesh in 13th Convocation of the University on March 4th, 2024. They also presented Guard of Honour to the Hon'ble Vice Chancellor of the University on Independence Day, 2023 and Republic Day,2024.

During 2023-24, the NSS Unit of DUVASU Mathura was actively engaged in various impactful initiatives aimed at community welfare and student development. Commencing with a Tree Plantation drive on June 6th, 2024, the NSS student's efforts have consistently focused on environmental stewardship. Notably, the Amrit Kalash Yatra on October 13th, 2023 promoted cultural awareness, complementing the "Meri Mati Mera Desh". In line with our commitment to societal health, a Blood Donation program was successfully conducted on October 2nd, 2023. Additionally, our participation in Swachchta Abhiyan during Sewa Pakhwada on October 1st, 2023 underscored our dedication to cleanliness and hygiene. Further initiatives included the Jagrukta Rally in Choli Village Mahavan and multiple Cleanliness Drives within our campus in September 2023. Moreover, activities such as Plantation Drives, Awareness Rallies, and Voter Awareness programs have continued to foster a culture of civic responsibility among our students. The NSS Unit remains steadfast in its mission to empower the community through meaningful engagement and service-oriented activities.

10. Shree Anna Cooking Competition

A cooking competition was organized for girl students at Krishna Hostel on 26th February 2024. The theme of the competition was "International Millet Year", so the students prepared various dishes using various millets. Eight girls each from each girl's hostel viz, Sarojini, Kasturba, Jayanti, Krishna and Shastri PG hostels participated in the competition. The girls demonstrated many dishes prepared from millet like bajra laddu, savan kheer, bajra tikki, ragi soup, Bajra khichdi, idli, cheela, chaat etc. The cooking work was done under the supervision of the respective hostel superintendents, Dr. Varsha Gupta, Dr. Shalini Vaswani, Dr. Rashmi, Dr. Parul, and Dr. Renu Singh. The dignitaries present on the occasion included Professor Sarvjeet Yadav, Director IPVS, Professor Vikas Pathak, Dean, Faculty of Veterinary Medicine, Professor Arun Kumar Madan, Registrar, Professor Archana Pathak, Dean Post Graduate Education, Professor Rashmi Singh, Dean Biotech, and Dr. Rajneesh Sirohi, In-charge Students Welfare. All the participants were encouraged by distributing appreciation certificates.

OTHER HIGHTLIGHTS AND ACTIVITIES

OTHER HIGHLIGHTS AND ACTIVITIES

1. Entrance Examination

The University successfully conducted entrance examinations for the admission in different academic programmes. Undergraduate entrance examination-2023 (UGEE-2023) Prelim examination of Pre Veterinary Test (PVT) was conducted on June 25th, 2023 at eight different centers of Uttar Pradesh viz; Prayagraj, Kanpur, Lucknow, Mathura and Bareilly districts. Total 2856 candidates applied for the examination, out of which 728 candidates cleared the examination for the next phase of competition. The PVT-Mains was conducted at Mathura in which total 593 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 July 09th , 2023, in which total 320 candidates had applied and 234 candidates appeared in the examination. University also conducted PGEE for admission in MVSc and PhD program on November 26th, 2023. 647 candidates applied for MVSc and 22 for PhD, out of which 355 candidates appeared for MVSc and 06 for PhD.

2. Independence Day Celebration

The University celebrated 77th Independence Day on the auspicious morning of August 15th, 2023. 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, Chief Guest of the occasion. The celebration began with the hoisting of the national flag by the chief guest followed by the national anthem. On August 15, 2023, the University's officers, faculty, staff, and students commemorated the 77th anniversary of the country's independence with immense enthusiasm and reverence. The Honorable Vice-Chancellor of DUVASU, Prof. A. K. Srivastava, who also served as the Chief Guest, raised the national flag. This was succeeded by offering floral tributes to Mahatma Gandhi. The entire university community, including students, staff, faculty, and their families, actively participated in this patriotic celebration.

3. Pandit Deen Dayal Upadhyay Jayanti Celebration

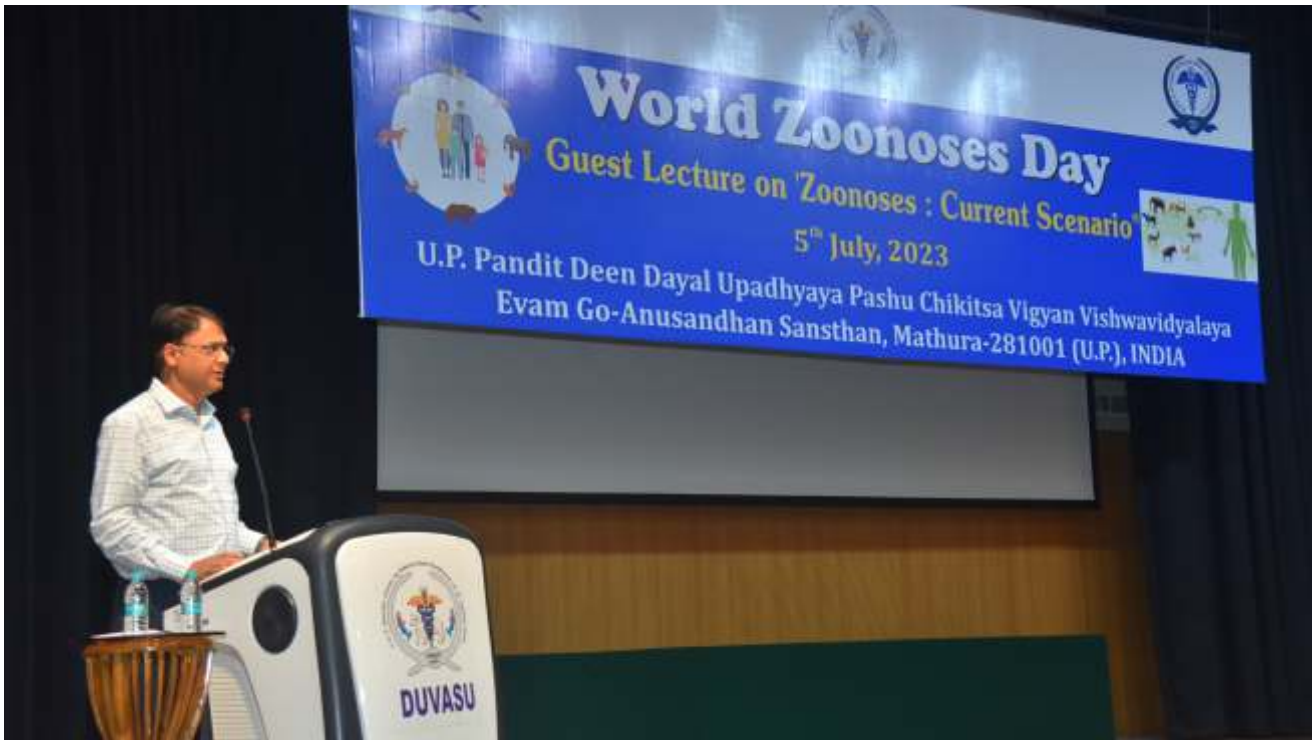
To mark the 107th birth anniversary of Pandit Deen Dayal Upadhyay ji, the University observed September 25 as Antyodaya Diwas. Antyodaya, a concept pioneered by Upadhyay ji, signifies the upliftment of the most marginalized individuals. During the event, Hon'ble Vice Chancellor Prof. A. K. Srivastava reflected on Upadhyay ji's principle of integral humanism, advocating for a society devoid of class, caste, and conflict. The ceremony was attended by members of the university's administration, faculty, staff, and students.

4. Gandhi Jayanti Celebration

On October 2nd, 2023, the birth anniversary of Gandhi ji and Lal Bahadur Shastri ji was celebrated at the University, with a gathering that included officers, teachers, students, and staff. Prof. A. K. Srivastava, the Hon'ble Vice-Chancellor of DUVASU, graced the occasion as the Chief Guest. The event commenced with the unveiling of portraits of Gandhi ji and Shastri ji, followed by attendees offering floral tributes. During his address, Prof. A. K Srivastava highlighted the enduring relevance of Gandhi ji's teachings in the contemporary context and elaborated on their significant impact on India's ongoing journey of progress and development. On this occasion a blood donation camp was organized jointly by the university and 1 UP R&V SQN NCC, Mathura where in 28 volunteers donate the blood for noble cause. University celebrated Mahatma Gandhi 154thbirth anniversary on October 2nd , 2023 in auditorium. 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. On this auspicious occasion Hon'ble Vice Chancellor was the chief guest.

5. World Zoonosis Day Celebration

College of Biotechnology organised World Zoonoses Day on July 5th, 2023. The event was themed on "Zoonoses: Current Scenario". The Chief Guest of this event was an eminent Doctor and public health specialist "Dr. Sanjeev Upadhyaya", who has served in renowned organizations like UNICEF, WHO and other government organizations. In his deliverance to students and faculty members of DUVASU, he addressed



many opportunities in the different areas of public health and management.

6. Hindi Diwas Celebration

The College of biotechnology organized Hindi Diwas on September 14th to honor the adoption of Hindi as the official language of India. In this event student's of our college participated in a Hindi essay writing competition themed on "Importance of science in the field of education". Jyoti Singh and Subhi Tiwari, secured 1st and 2nd positions respectively while Pachan Shukla, stood 3rd position.

7. Blood Donation Camp

The Blood donation camp was organized jointly by the University and 1 UP R&V SQN NCC, Mathura on October 02nd , 2023 where 28 volunteers donated the blood for noble cause.

8. World Egg Day

Department of Poultry Science, College of Veterinary Science and Animal Husbandry, DUVASU, Mathura celebrated world egg day on October 13th , 2023. On this occasion, a speech competition on 'Eggs for a healthy future' and poster making competition on 'Debunking myths related to eggs' was organized for the undergraduate and post graduate students and the winners were awarded with prizes. It was attended by faculty and students of the University. Prof. P. K. Shukla, Dean, College of Veterinary Science and Animal Husbandry, DUVASU, Mathura was the Chief Guest on the occasion. He emphasized on the importance of eggs as a source of nutrients in midday meal schemes and the strength of poultry products to boost immunity. A short video clip titled 'Debunking myths related to eggs' prepared by Dr. Pruthvi S. Gulhane, MVSc. student of the department was displayed to the audience. Thereafter, World Egg Day was celebrated by cake cutting.

9. University Foundation Day

22nd Foundation day of Uttar Pradesh Pandit Deen Dayal Upadhyaya Pashu Chikitsa Vishwavidhyalaya Evam Go Anusandhan Sansthan (DUVASU), Mathura was celebrated with oration lectures of two distinguished speakers viz., Dr Bhupendra Nath Tripathi, Vice-Chancellor, SKUAST, Jammu and Kashmere on October 25th, 2023 and Dr T. K. Dutta, Director, ICAR-Central Institute for Research on buffaloes, Hisar, Haryana on October 26th, 2023. Prof. (Dr.) Col. A.K. Gahlot graced the prestigious event. Prof. Anil Kumar Srivastava Hon'ble Vice-Chancellor of the University addressed the august gathering of University officers and faculty members.

10. MOU signed between two International Universities and DUVASU

The MOU signed between Oklahoma State University's College of Veterinary Medicine, Stillwater, Oklahoma, USA, represented by Professor Jerry R. Malayer, the Senior Associate Dean for Research & Graduate Education and DUVASU Mathura on November 3rd , 2023, as well as the subsequent MOU got inked on November 16th, 2023, between DUVASU Mathura and Purdue University, United States, represented by Dr. Willie Reed, Dean of Purdue University. The agreements serve as platforms for capacity building and professional development, providing students and faculty with international experience and access to new resources. By fostering interdisciplinary cooperation and expanding networks, the partnerships enable scholars to grow professionally and contribute to the advancement of veterinary science. In essence, the recent MOUs underscore the transformative potential of international collaboration in addressing complex challenges and driving innovation within the veterinary science domain, while also promoting cultural exchange and mutual understanding among diverse communities.

11. Research Collaboration:

Department of Veterinary Physiology collaborated with Dr. Md. Morshedur Rahman, Professor, Department of Dairy and Poultry Science, Bangbandhu Sheikh Mujibur Rahaman, Agriculture University, Bangladesh for research collaboration in the area of Climate Change. Department also worked in collaboration with Dr Vijay Pal Singh, Institute of Genomics and Integrative Biology, CSIR, New Delhi in the area of antimicrobial resistance in dogs and cattle and also published two papers. Bio-Climatology lab was visited by Professor Jerry, Dean Oklahoma State University USA; Professor Suresh Mittal, Prude University, USA and Dr Pratik Banerjee, University of Illinois, USA.

12. Republic Day

The University celebrated 75th Republic day on the auspicious morning of January 26th ,2024. Students, Staff and Faculty members filled with a feeling of patriotism and dedication gathered in the main ground. The Guard of Honour was presented by 1 UP R&V SQN NCC, Mathura as a mark of respect to the Hon'ble Vice-Chancellor, DUVASU, Mathura Chief Guest of the occasion. The Celebration began with the unfurling of the Indian National Flag by the Chief Guest followed by the National Anthem.

13. Amdedkar Jayanti

The birth anniversary of the principal architect of the Indian Constitution Dr. Bhimrao Ambedkar was celebrated on April 14t^{h}, 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 & Animal Husbandry Dr. P.K. Shukla extended the words of inspiration from Baba Saheb's life.

14. Review meeting of the 'Internal Quality Assurance Cell' (IQAC)

Review meeting of the 'Internal Quality Assurance Cell' (IQAC) of the University was held on February 5th , 2024 at Uttar Pradesh Pandit Deen Dayal Upadhyaya Pashuchikitsa Vishvavidyalay evam Go Anusandhan Sansthan (DUVASU), Mathura, U.P., under the chairmanship of Prof. Anil Kumar Srivastava, Hon'ble Vice-Chancellor, DUVASU, Mathura, Dr. Sanjay Singh, Director General, Uttar Pradesh Council of Agricultural Research (UPCAR), Lucknow and Dr. M.B. Chetty, Vice-Chancellor, Sanskriti University, Mathura. In the review meeting, the Vice Chancellor of the University, Prof. Shrivastava directed all the Deans, Directors and Head of Departments of the University to complete the process of NAAC evaluation of the University as per

guidelines of University Grants Commission (UGC). In this review meeting, Dr. Chetty discussed about various aspects of NAAC assessment such as curriculum, assessment of students leaning, research, innovation and extension education, university infrastructure, student's interest, operational leadership and management alongwith best practices of the University. In the review meeting, Prof. Brijesh Yadav, Coordinator, IQAC presented the suggestions made by external experts in the previous meeting. External experts suggested all the Deans, Directors and Teachers of the University to strengthen the functioning of the University by adopting the guidelines given by the University Commission for NAAC evaluation.

15. Mahila Adhyayan Kendra organized meeting for Rural Women

Mahila Adhyayan Kendra of the University organized a meeting for rural women of adopted villages - Shahjadpur, Block - Farah and Bandi Block-Baldev on February 7th, 2024,. Kumari Shweta Singh, SDM, Chhata, Mathura was chief guest and Dr. Pratibha Sachan, Deputy Chief Veterinary Officer, Sadar, Mathura was guest of honour. Chief Guest, Ms. Shweta Singh inspired the women of Gram Sabha to educate the girls and made them aware about various schemes of state and central government for the benefit of women and girls. On this occasion, Dr. Pratibha Sachan inspired women to become self-reliant by earning income through animal husbandry along with sharing information about related government schemes. On this occasion, Deputy Chief Medical Officer, Mathura Dr. Bhudev Singh gave detailed information about the symptoms and treatment of patients suffering with tuberculosis. On this occasion, 'Nutrikit' were distributed to recovered patients of tuberculosis containing millet, pulses, soybean oil, almonds, milk powder etc.

16. Best Department, Best Teacher and Best Research Thesis Awards

Best department, best teacher and best research thesis were selected in DUVASU, Mathura on February 12th, 2024 during Deekshotsav Mah. Three best thesis awards from M.V.Sc and two for PhD were also distributed in the University Convocation ceremony. The winner of M.V.Sc best thesis award in Basic Veterinary Science was Lawale Pranita Murlidhar, best thesis award in Veterinary Para Clinical subjects was given to Kavisha Gangwar and the winner of best thesis award in Animal Production Sciences was Pooja Pandey. Similarly, the winner of PhD best thesis award in Basic Veterinary Sciences was Dr. Rashmi of Veterinary and Animal Husbandry Extension Education Department whereas PhD best thesis award in Veterinary Para Clinical subjects was given to Dr. Pradeep Kumar of Department of Veterinary Parasitology. Award for best

Department was given to the Department of Veterinary Physiology and Best teacher award of DUVASU was also distributed during the convocation to Prof. Brijesh Yadav (Veterinary Physiology) and Dr. Shalini Vaswani (Animal Nutrition).

17. Scientific Advisory Committee meeting of Krishi Vigyan Kendra

A meeting of the Scientific Advisory Committee of Krishi Vigyan Kendra was held on February24th, 2024. The meeting was presided over by Hon'ble Vice-Chancellor of the University Prof. Anil Kumar Srivastava. In his presidential address, Prof. Srivastava said that the objective of the University is to serve the farmers and double their income. He said that along with farming, it is very important to promote animal husbandry, poultry, fishery and goat rearing. In the program, Dr. Sanjay Singh, Director General, Uttar Pradesh Council of Agricultural Research (DG, UPCAR), mentioned that farming should be done as a business. In which income should be increased by using new species and new technology. He laid emphasis on promoting groundnut and maize crops in the district. Prof. Vikas Pathak, Dean, College of Veterinary Science & Animal Husbandry said that the University and the Agricultural Science Centre are working together in the interest of farmers and animal husbandry.

18. 13th Convocation of the University

In the able chairmanship of Hon'ble Governor of Uttar Pradesh and Chancellor of the University Smt. Anandiben Patel, the 13th convocation of the University was held on March 4th, 2024. Dr. Rameshwar Singh, Vice Chancellor, Bihar Animal Science University, Patna was the chief guest of the event. Chancellor of the University inaugurated the event by Jal Bharo Anushthan. Prof. A.K. Srivastava, Vice-Chancellor of the University gave welcome address and presented the progress report of the University. By remembering Pt. Deen Dayal Updhyaya Ji and his contribution towards the society, the chief guest of the event Dr. Rameshwar Singh gave is insightful speech. In his speech, Dr Singh highlighted about the current challenges faced by Indian agriculture sector. He also emphasized on One Health concept for a sustainable livestock production system. In this event, degrees were awarded to 79 Veterinary Graduates, 27 Graduates of Biotechnology, 32 Post Graduates and 04 Doctor of Philosophy. Hon'ble Governor Smt. Anandiben Patel congratulated all the students and wished them for their future endeavors. While addressing the students, she talked about importance of patience and perseverance in life. As around 65% of the award winners were female, Hon'ble Governor appreciated the University for significant female participation. She also appreciated the female students for their academic excellence as an example of women empowerment. In her speech she discussed about critical issues like malnutrition and motivated the students to work towards its mitigation. She also threw light upon importance of milk consumption by pregnant women. Hon'ble Governor appreciated the efforts of Mahila Adhyan Kendra unit of the University which is actively working for development of rural women. Additionally, she also discussed about stray and unproductive animal management, biogas generation and organic farming. To honor students' overall performance, various medals were distributed to the brilliant students of the University among which 14 gold medals, 04 silver medals and 02 bronze medals were distributed by Hon'ble chancellor of the University. Story books, drawing books, pencil box with pencil, eraser and sharpener, crayon colour packets and refreshment box with apple, orange, biscuit, cakes and buttermilk were distributed to 25 students of primary schools. Tricycle, swing horse, numbers, alphabets, fruits, animal blocks, puzzle, balls, clay- rings, story books of Panchatantra, educational maps, white boards with marker and duster, kidney shaped tables and chairs were distributed to 10 anganwadi workers during the convocation.

19. Basant Panchami Celebration

Saraswati pooja was celebrated on Basant Panchimi on February 14th, 2024 in University Library in the gracious presence of Prof. A.K. Srivastava, Hon'ble Vice-chancellor, Prof. Vikas Pathak, Dean, COVSc&AH and Prof. A.K. Mandan, Registrar of the University. It was attended by faculty members, officers, staff and students of the University. On this occasion Prof. Srivastava motivated the faculty and students to utilize Library facilities for up gradation of their academics and general performance.

AWARDS AND RECOGNITIONS

Name of candidate	Name of award	Event	Date
Dr. Alok Kumar Singh	3rd Poster Presentation Award	32nd NCVP at BASU, Patna	November 29th-December 1st , 2023
Dr. Amit Singh	Best Poster Presentation	National Conference of Indian Society for Buffalo Development and Symposium on Modern Approaches for Sustainable Buffalo Production in the Scenario of Climate Change organized by Indian Society for Buffalo Development	October 27th - 28th, 2023
Dr. Amit Kumar Jaiswal	3rd Poster Presentation Award	National conference of Indian society for buffalo development at DUVASU, Mathura	October 27th - 28th, 2023
Dr. Amit Kumar Jaiswal	3rd Poster Presentation Award	32nd NCVP at BASU, Patna	November 29th-December 1st , 2023
Dr. Amit Kumar Jaiswal	Letter of Appreciation	Society for research and development in Ayush	March, 2024
Dr. Amit Shukla	Best Research Paper Award	Indian Society of Veterinary Pharmacology & Toxicology (ISVPT)	November. 2nd-4th, 2023
Dr. Ashish Srivastava	2nd Prize in Oral paper presentation	4th Annual Convention of VIPM at SKAUST Jammu	December 18th -19th 2023
Dr. Barkha Sharma	Best Oral Paper presentation	National Symposium of Indian Society for Buffalo Development on Modern Approaches for sustainable buffalo production in the scenario of climate change.	October 27th - 28th, 2023
Dr. Barkha Sharma	Co-Chairman of technical session	National Conference of Indian Society for Buffalo Development and Symposium on Modern Approaches for Sustainable Buffalo Production in the Scenario of Climate Change held at DUVASU, Mathura	October 27th - 28th, 2023
Dr. Barkha Sharma	Certificate of Appreciation	International Workshop on "Quality and safety Audits of Foods from Animal Origin", at Dept of LPT, COVS&AH, DUVASU, Mathura	December 20th -22nd , 2023
Dr. Barkha Sharma	Citation and Vice chancellor Appreciation Award-2023	For services in the capacity of Recruitment Officer, DUVASU, by the Hon'ble VC, DUVASU, Mathura	January 26th, 2024
Dr. Barkha Sharma	Certificate of Honour	Brainstorming session on 'Transboundary Animal Diseases: Way Forward for Prevention and Control' organized by Department of Veterinary Pathology, COVS & AH, DUVASU, Mathura	February 19th, 2024
Prof. Brijesh Yadav	Awarded Membership of National Academy of Veterinary Science	NAVS Convocation, Ludhiana	July 1st -2nd, 2023
Prof. Brijesh Yadav	Eminent Scientist of the Year 2022	National Environmental Science Academy, India	December 14th-16th, 2023

Prof. Brijesh Yadav	Acted as a panelist in the Brainstorming	Economic use of unproductive Animals, DUVASU, Mathura	February 22nd, 2024
Prof. Brijesh Yadav	Acted as Co-chairman	Forth APA convention and National Conference, Avikanagar, Rajasthan.	March 1st -2nd , 2024
Prof. Brijesh Yadav	Best Teacher Award	13th Convocation of DUVASU, Mathura	March 4th, 2024
Prof. Brijesh Yadav	Acted as panelist	Industry Scientist Farmer Interface held at CIRG, Makhdoom	March 5 th 2024.
Prof. Brijesh Yadav	CCSEA Nominee in 6 universities/institutes	CCSEA, Government of India, New Delhi	2023-24
Dr. Dilip Kumar Swain	Dr. D.N. Mullick Mid Carrier Award	Society of Animal physiologist of India	May 3rd -5 th , 2023
Dr. Dilip Kumar Swain	Best Research Paper Award	Animal Physiologist Association	March 1st -2nd , 2024
Dr. Dilip Kumar Swain	Mid-career Scientist Award	Animal Physiologist Association	March 1st -2nd , 2024
Dr. Jitendra Tiwari	Best Research Contribution Award for the research area of "Molecular Parasitology"	6th International Conference on Veterinary and Livestock	July 28th -29th , 2023
Dr. Jitendra Tiwari	1st Best Poster Presentation Award	National Conference of ISBD organized by DUVASU	October 27th - 28th, 2023
Dr. Kavisha Gangwar	Best MVSc thesis award	Convocation	March 4th , 2024
Dr. Meena Goswami Awasthi	Membership certificate of National Academy of Veterinary Science	21st Convocation of National Academy of Veterinary Science cum Scientific Convention on "Strategies for enhancing productivity of dairy animals at GADVASU, Ludhiana	01st-02nd July, 2023
Dr. Meena Goswami Awasthi	Membership certificate of IFT networking and engagement membership. U.S.A.	International Food Technology Annual event and expo in Chicago, U.S.A.	July 16th -19th, 2023
Dr. Meena Goswami Awasthi	Best oral presentation (first)	National conference of Indian Society for Buffalo Development and Symposium on Modern approaches for sustainable buffalo production in the scenario of climate change at DUVASU, Mathura	October 27th - 28th, 2023
Dr. Neeraj Kumar Gangwar	Co-chairman in ISBD symposium	Symposium on Modern approaches for sustainable buffalo production in the scenario of climate change at DUVASU, Mathura.	October 27th - 28th, 2023
Dr. Neeraj Kumar Gangwar	Certificate of appreciation	Symposium on Modern approaches for sustainable buffalo production in the scenario of climate change at DUVASU, Mathura.	October 27th - 28th, 2023
Dr. Neeraj Kumar Gangwar	Best Research Paper Award	Indian Society of Veterinary Pharmacology & Toxicology (ISVPT)	November. 2nd-4th, 2023

Dr. Parul	First Best Oral presentation Award in the 4th session	National conference of Indian Society for Buffalo development and symposium on Modern approaches for sustainable buffalo and production in the scenario of climate change. ISBD, DUVASU, Mathura.	October 27th - 28th, 2023
Dr. Parul	Karntijyoti Savitri Phule Women's Achievers Award-2024	Outstanding individual accomplishment and distinguished veterinary service to the nation on the occasion of Republic of India	January 26th, 2024
Dr. Pradeep Kumar	3rd Poster Presentation Award	National conference of Indian society for buffalo development at DUVASU, Mathura	October 27th - 28th, 2023
Dr. Pradeep Kumar	3rd Poster Presentation Award	32nd NCVP at BASU, Patna	November 29th- December 1st , 2023
Dr. Pradeep Kumar	Best PhD thesis award	Convocation	March 4th , 2024
Shri Rakesh Goel	Certificate of Commendation	For delivering lecture in training by Nanaji Deshmukh Veterinary Science University, Jabalpur	September 25th-29th , 2023
Shri Rakesh Goel	Panelist	Brainstorming session on Emerging trends in Nanobiotechnology organized by DUVASU Mathura	December 15th, 2023
Prof. Rashmi Singh	Delivered M R Dhanda Oration lecture	XV Biennial Symposium of Association of Public Health Veterinarian (APHV) at Kathmandu, Nepal	September 29th – 30th , 2023
Prof. Rashmi Singh	Best Oral Presentation Award	For the presentation entitled, "Food animals as a source of anti microbial resistant bacteria" in the 64th Annual International Conference of the Association of Microbiologists of India (AMI) on 'Microbes for life- Lifestyle for the environment: a strategy for well being at Bundelkhand University, Jhansi, UP	December 1st - 3rd , 2023
Prof. Rashmi Singh	Acted as panelist	Brainstorming Session on 'Transboundary Animal Diseases Way Forward for Prevention and Control' Organized by Department of Veterinary Pathology, DUVASU, Mathura -281001 (UP)	February 19th, 2024
Dr. Rashmi	Best Poster Presentation (2)	National Conference of Indian Society for Buffalo Development and Symposium on Modern Approaches for Sustainable Buffalo Production in the Scenario of Climate Change organized by Indian Society for Buffalo Development	October 27th - 28th, 2023
Dr. Rashmi	Team Manager of student contingent of DUVASU	State Level Inter Agricultural/Veterinary University Youth festival "Aahwaan -2023''	December 21st - 23rd, 2023
Dr. Rashmi	Certificate of Honour, Co-organizing Secretary	Brainstorming Session-Scaling Up of Innovative Extension Models for Viksit Bharat	February 20th, 2024
Dr. Rashmi	Certificate of Appreciation	Deekshotsav Maah	February 26th, 2024

Dr. Rashmi	Best PhD Award	University Award	
Dr. Renu Singh	Louis Pasteur award	All India writing competition on "All for 1 one health for All" on the occasion of rabies day	September 28th, 2023
Dr. Renu Singh	Dr. G.L Jain award	All India writing competition on "Innovative technology & practices transforming India's poultry farming sectors	October 12th, 2023
Dr. Ruchi Tiwari	PISRF- Fellowship Award 2023	2nd International conference on "Prospects and challenges of environment and biological sciences in food production system for livelihood security of farmers" (ICFPLS-2023).	September 17th –19th , 2023
Dr. Ruchi Tiwari	Rapporteur	2nd International conference on "Prospects and challenges of environment and biological sciences in food production system for livelihood security of farmers" (ICFPLS-2023) by ICAR-CIARI, Andaman & Nicobar, Port Blair, India	September 17th –19th , 2023
Dr. Ruchi Tiwari	Commendable faculty award	In the field of Veterinary during 2nd Faculty Research Award ceremony by Careers360 at Teen Murti Bhavan, New Delhi	October 6th, 2023
Dr. Ruchi Tiwari	Rapporteur	National Conference of Indian Society for Buffalo Development (ISBD) and Symposium on "Modern Approaches for sustainable buffalo production in the scenario of climate change" at DUVASU, Mathura, UP, India.	October 27th - 28th, 2023
Prof. RP Pandey	Oral best Third award	24th Indian Veterinary Congress and 31st Annual Conference of IAAVR and National Symposium on "Livestock Health and Poultry: A Paradigm Change to Maximize Productivity for Sustainable Farmers' Livelihood" organized by College of Veterinary Sciences, LUVAS, Hisar, Haryana	February 7th - 8th, 2024
Prof. Sanjay Purohit	Chairman of Session	24th Indian Veterinary Congress and 31st Annual Conference of IAAVR and National Symposium on "Livestock Health and Poultry: A Paradigm Change to Maximize Productivity for Sustainable Farmers' Livelihood" organized by College of Veterinary Sciences, LUVAS, Hisar, Haryana	February 7th - 8th, 2024
Prof. Sanjay Purohit	Oral best Third award	24th Indian Veterinary Congress and 31st Annual Conference of IAAVR and National Symposium on "Livestock Health and Poultry : A Paradigm Change to Maximize Productivity for Sustainable Farmers' Livelihood" organized by College of Veterinary Sciences, LUVAS, Hisar, Haryana	February 7th - 8th, 2024
Dr. Sanjay Kumar Bharti	Best oral presentation (first)	2nd Veterinary and Animal Science Congress & 2nd Annual Convention of Association of Animal Scientists & National Symposium on Technology intervention for improving animal health and productivity at Apollo	February 17th - 19th, 2024

		College of Veterinary Medicine, Jaipur (Rajasthan)	
Prof. S.K Singh	Best Poster Presentation (2)	National Conference of Indian Society for Buffalo Development and Symposium on Modern Approaches for Sustainable Buffalo Production in the Scenario of Climate Change organized by Indian Society for Buffalo Development	October 27th - 28th, 2023
Prof. Sarvajeet Yadav	Fellow	Animal Physiologists Association	March 1st -2nd , 2024
Prof. Sharad Kumar Yadav	Chairman of Session-V	2nd International conference on "Prospects and challenges of environment and biological sciences in food production system for livelihood security of farmers" (ICFPLS-2023) by ICAR-CIARI, Andaman & Nicobar, Port Blair, India	September 17th –19th, 2023
Dr. Shalini Vaswani	Best Teacher Award (2023)	In the convocation ceremony 2024	March 4th, 2024
Dr. Shanker K. Singh	Patent granted on Essential Oil Based Formulation for Control of *Rhipicephalus microplus* Tick	Government of India	February 14th , 2024
Dr. Shanker K. Singh	Dr. D C Blood Gold Medal Award -2023	40th Annual Convention of ISVM and the National Conference	February 22nd - 24th, 2024
Dr. Soumen Choudhury	Member	National Academy of Sciences, India (INDIA)	December 3rd, 2023
Dr. Soumen Choudhury	Associate Fellow	Indian Society of Veterinary Pharmacology & Toxicology (ISVPT)	November. 2nd-4th, 2023
Dr. Soumen Choudhury	Best Oral Presentation Award	Indian Society of Veterinary Pharmacology & Toxicology (ISVPT) during 23rd Annual Conference of ISVPT-2023 at RAJUVAS, Bikaner.	November. 2nd-4th, 2023
Dr. Soumen Choudhury	Best Research Paper Award	Indian Society of Veterinary Pharmacology & Toxicology (ISVPT)	November. 2nd-4th, 2023
Dr. Supriya Sachan	Young scientist	2nd Annual Convention of Association of Animal Scientists and National Symposium organized by Apollo College of Veterinary Medicine Jaipur and Association of Animal Scientists	February 17th–19th, 2024
Dr. Supriya Sachan	Judge / Panelist for essay and poem writing competition	Deekshotsav Mah-2024	February 5th-March 4th, 2024
Dr. Udit Jain	Certificate of Appreciation	Judging for Best innovative ideas for 75th Azadi ka Amrit Mahotsav, Innovative Bharat 2.0 at BSA college of Engineering & Technology, Mathura	September 17th, 2023
Dr. Udit Jain	Joint secretary of Executive Committee of "Association of	Joint international symposium and XV biennial symposium of APHV on "Role of Public Health Veterinarians to achieve Health	September 29th -30th , 2023

	Public Health Veterinarian"	Security through One Health Approach". organized by VPHAN and APHV in Kathmandu, Nepal	
Dr. Udit Jain	Co-Chairman	Poster session in National Conference of ISBD and Symposium on Modern approaches for sustainable buffalo production in the scenario of climate change, organized by DUVASU, Mathura	October 27th - 28th, 2023
Dr. Udit Jain	Panelist and Rapporteur	Brain storming session entitled "Emerging trends in Nanobiotechnology" organized by College of Biotechnology and Department of Veterinary Microbiology, DUVASU, Mathura	December 15th , 2023
Dr. Udit Jain	Certificate of Appreciation	3 days International training on "Quality and safety audits of foods of animal origin" under IDP, organized by DUVASU, Mathura.	December 20th -22nd , 2023
Dr. Vijay Kumar	Panelist	Brainstorming session Emerging trends in Nanobiotechnology organized by DUVASU Mathura.	December 15th, 2023
Prof. Vinod Kumar	ANSI Fellow Award	20th Biennial International Conference 2024 on "Sustainable animal nutrition for global health and production: Innovation and directions " by ANSI , Karnal and Department of Animal Nutrition, Madras Veterinary College, Chennai Tamil Nadu.	January 23rd - 25th, 2024
Prof. Vinod Kumar	ANSI Paper Award	20th Biennial International Conference 2024 at Madras Veterinary College, Chennai Tamil Nadu.	January 23rd - 25th, 2024
Prof. Vikas Pathak	Best oral presentation (first)	National conference of Indian Society for Buffalo Development and Symposium on Modern approaches for sustainable buffalo production in the scenario of climate change at DUVASU, Mathura.	October 27th - 28th, 2023
Prof. Vikas Pathak	Best oral presentation (first)	2nd Veterinary and Animal Science Congress & 2nd Annual Convention of Association of Animal Scientists & National Symposium on Technology intervention for improving animal health and productivity at Apollo College of Veterinary Medicine, Jaipur (Rajasthan).	February 17th - 19th, 2024
Prof. Vikas Pathak	National Fellow of Association of Animal Scientists	2nd Veterinary and Animal Science Congress and 2nd Annual Convention of Association of Animal Scientists & National Symposium on Technology intervention for improving animal health and productivity at Apollo College of Veterinary Medicine, Jaipur (Rajasthan)	17th -19th February 2024

RESEARCH PUBLICATIONS

Research Article(s)

1. Agrawal H, Tripathi AK, Jaiswal M, Panigrahi PN, Sharma A and Dhuriya S. (2023) Evaluation of the status of trace minerals and immunoglobulin G in calves of Indian zebu cattle suffering from acute undifferentiated diarrhea. *Indian Journal of Veterinary Medicine*. 43(1):75-77
2. Agrawal I, Sharma B and Varga C. (2024) Space-Time Clustering and Climatic Risk Factors for Lumpy Skin Disease of Cattle in Uttar Pradesh, India, 2022. *Transboundary and Emerging Diseases* Volume 2024, Article ID 1343156, 10 pages
3. Agrawal S, Singh AP, Singh R, Prabhu SN and Agrawal J (2023). Recovery of carbapenem resistant endometrial bacterial isolates from postpartum endometritis in dairy cattle. *Journal of Indian Veterinary Association*, 21(3).
4. Agrawal V, Das G, Jaiswal A, Jayraw AK, Jatav G, Shakya M and Goyal G (2023). Efficacy of buparvaquone in PCR confirmed concurrent infection of *Trypansoma evansi* and *Theileria annulata* in buffaloes. *Buffalo Bulletin*. 42 (2): 125-127.
5. Akash R, Gupta D, Suresh CP, Shukla A, Gangwar NK, Choudhury S (2022). Sepsis differentially regulates expression of CYP_{450} isoforms in liver and kidney of mice. *Journal of Veterinary Pharmacology & Toxicology*. 21(2):53-58.
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8. Anand M, Yadav S, Vaswani S, Dahariya R and Chaudhary 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.
9. Anand M, Yadav S, Yadav B, Dahariya R and Chaudhary D. (2023). Study to evaluate the time dependent changes in frozen-thaw goat spermatozoa prior to insemination. *Journal of Animal Research*,13 (01): 121-125.
10. Baghel M, Sharma D, Singh SP, Pandey V and Kumar A. (2023). Molecular characterization of complete coding sequence of the MBL1 gene in the Indian Buffalo (Bubalus bubalis) breed. *Veterinarski Arhiv* 93 (2): 169-190.
11. Bahuguna S, Seema H, Supriya, Uma S, Dhruvendra S, Smruti R and Parkash V. (2023). Effect of different fertility levels on growth and production potential of rice genotypes. *International Journal of Plant & Soil Sciencevo*. l35(17):539-548.
12. Bais U, Jain U, Basak G, Parul S and Sharma B. (2023). Detection of *Escherichia coli* in dogs and cats of different locations of Braj, Mathura. *Indian Journal of Veterinary Public Health*. 9(1):37-41
13. Bist P, Sharma B, Kumar A, Singh SP, Jain U, Goswami M, Mishra RP and Basak G. (2023). Seasonal effect on the prevalence of virulence genes of non-O157 verotoxic *E.coli* sero groups in faeces of cattle calves. *Indian Journal of Animal Sciences* 93 (11): 1046–1052
14. Dhuriya S, Chauhan A, Singh S, Jaiswal M, Tripathi AK. (2023). Successful therapeutic management of acute organophosphate poisoning in horse: A case report. *Indian Journal of Veterinary Medicine*. 43(1):86-88
15. Ezung NZ, Singh R, Giridharan B, Saravanan KM, Balachandar V, Phukan MM, Senthilkumar V, Nandhakumar R and

Sundaram K M (2023). A Study of Interspecies Transmission and Reassortment Events in Rotaviruses from Cattle in Pant Nagar, Uttarakhand, India. *International Journal of Human Genetics*, 23(2-3): 131-139. DOI: 10.31901/24566322.2023/23.2-3.856

16. Gangwar K, Yadav BK, Gangwar NK, Sachan V. (2023). Histopathological and immuno-histochemical analysis of testicular tumour in a dog. *Veterinary Practitioner* 24(2): 236-237.
17. Gangwar K, Yadav BK, Srivastav A, Negi A, Suresh CS, Pandey H, Gangwar NK, Prabhu SN and Singh R. (2024). Epidemiological, cytological and haemato-serological analysis of canine mammary gland tumours. *International Journal of Advance Biochemistry Research* 8(2): 127-133.
18. Gangwar, K. Yadav BK, Gangwar NK, Sachan V. (2023). Cystic endometrial hyperplasia and pyometra complex. *The Indian J. Animal Reproduction* 44 (2): 78-91.
19. Jaiswal AK, Shanker D, Singh A. Kumar P, Agrawal V and Singh S K, (2023) ITS Targeted Molecular Characterization and Phylogenetic Analysis Of Caprine Amphistomes from Uttar Pradesh (North India) *Haryana Vet*. 62(SI-2), 22-25.
20. Jaiswal M, Singh S, Panigrahi PN, Tripathi AK and Sagar R. (2023). Ivermectin toxicity in a dog: A case report. *Indian Journal of Veterinary Medicine*. 43(1):101-102
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24. Kumar M, Kumar V, Singh Y, Srivastava A, Kushwaha R, Vaswani S, Kumar A, Khare S, Yadav B, Yadav RK, Sirohi R and Shukla PK. (2023). Does the peroral chromium administration in young Hariana calves reduce the risk of calf diarrhea by ameliorating insulin response, lactose intolerance, antioxidant status, and immune response. *Journal of Trace Elements in Medicine and Biology*, doi:https://doi.org/10.1016/j.jtemb.2023.127313
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26. Kumar R, Goswami M and Pathak V. (2023). Enhancing microbiota analysis, shelf-life, and palatability profile in affordable poultry byproduct pet food enriched with diverse fibers and binders. *Journal of Animal Research*, 13 (05): 01-17.
27. Kumar R, Goswami M, Pathak V and Singh A. (2024). Effect of binder inclusion on poultry slaughter house byproducts incorporated pet food characteristics and palatability. *Animal Nutrition and Feed Technology*, 24: 177-191.
28. Kumar R, Goswami M, Pathak V, Verma AK and Rajkumar V. (2023). Quality improvement of poultry slaughter house byproducts based pet food with incorporation of fiber rich vegetable powder. *Exploratory Animal Medical Research*, 13 (1): 54-61.
29. Kumar S, Goswami M, Pathak V, Verma AK, Rajkumar V and Sharma B. (2023). Comparative physico-chemical, textural, colour and sensory characteristics of yogurt prepared from indigenous goat and cow milk. *Indian Journal of Small Ruminants*, 29 (1):109-112.
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in clinical pet. *Dog Practice*. 5(9):2582-3183.

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42. Quadri SA, Singh SP, Kharche SD, Pathak J, Saxena A, Soni YK and Swain D. (2023). Different effects of sugars and methods to preserve post-thaw functional properties of cryopreserved caprine spermatogonial stem cells. *Cells tissues organs*. 212(5), 399–415.
43. Raghav H, Bhattacharyya A, Shukla PK, Sirohi R, Jadhav PR, Bondar BB and Kherde AR (2023). Effect of different feeding levels of berseem on production performance of coloured Chabro chicken. *Indian Journal of Poultry Science*. 58(3): 221-224.
44. Raghav H, Bhattacharyya A, Shukla PK, Sirohi R, Jadhav PR, Bondar BB and Kherde AR. (2023). Effect of different feeding levels of berseem on production performance of coloured Chabro chicken. *Indian Journal of Poultry Science*. 58(3): 231"234.
45. Ranjan R, Sharma K, Kumar M, Swain DK, Singh SP, Kharche SD, Singh MK and Chauhan MS. (2023). IGF-1 stabilizes goat sperm

mitochondrial transmembrane potential and reduces DNA fragmentation. *Cryo letters*, 44(6), 327–332.

46. Reddy P Vishnu V, Kumar G and Purohit S (2023). Transcorneal ultrasonographic morphometry of eyes in Sahiwal calves. *Ruminant Science* 12(1):171-176.

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50. Shubhasini Dhuriya, Manu Jaiswal, A.K. Tripathi (2023) Successful Therapeutic Management of Canine Lymphoma: A Case Report. *Indian J. Vet. Med.* 43(1):91-93

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differentiation of intestine in Indian goats (*Capra hircus*). *Anatomia Histologia Embryologia*. 2023:00:1-9.

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Review Article(s)

1. Gurvinder, Jain U, Parul, Sharma B, Aaryman and Ravi (2023). One health perspective on antimicrobial resistance. *Indian Journal of Veterinary Public Health*. 9(2): 12-19

2. Pal M, Lema AG, Megersa AT, Jain U and Thangavelu L (2023). Current understanding on Avian Influenza and its public health impact: A comprehensive review. *International Journal on Infectious Diseases and Epidemiology*. 4(1): 1-8

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ESTATE OFFICE

S.No.	Details of work	Working Organization	Total Sanctioned Amount	Status of Work
1	Mono Blok Motor repair of Sump House	Tender Rate	13,269	Complete
2	Civil Repairing Work (H. No. 06/06 & 05/06)	Tender Rate	79,202	Complete
3	H. No. B-3, Pipe Line Change & Connect to main line	Tender Rate	18,000	Complete
4	H. No. LAQ-10, Door Change, Other Civil Repairing Work	Tender Rate	55,550	Complete
5	Nation Flag Establishment	Tender Rate	7,31,081	Complete
6	Sumersavil repairing of Deendayal Sabhagaar	Tender Rate	10,307	Complete
7	Nalkoop motor repair of near Nand Bhawan	Tender Rate	18,270	Complete
8	UPS Supply cabin Change of Deendayal Sabhagaar	Tender Rate	2,91,624	Complete
9	MCCB Change in Deendayal Sabhagaar	Tender Rate	88,087	Complete
10	Generator D.G. & alternator repairing	Tender Rate	1,49,845	Complete
11	Electronic renovation in College of Biotech lab	Tender Rate	7,28,501	Complete
12	Constructions	Govt. Agency	11,81,500	In progress
13	Electronic renovation in LFC	Tender Rate	2,41,000	Complete
14	Civil renovation in LFC (Dairy)	Tender Rate	28,55,000	Complete
15	Approach Road renovation front of Clerk Quarters	Tender Rate	5,57,000	Complete
16	Baade vali motor repairing	Tender Rate	18,820	Complete
17	Generator repairing (V.C. Camp office)	Tender Rate	9,200	Complete
18	250KVA Transformer, BCB cabling etc. works	Tender Rate	3,14,500	Complete
19	400AMP electric panel (International Hostel)	Tender Rate	2,93,946	Complete
20	Transformer repairing (Bada)	Tender Rate	19,251	Complete
21	Electric Wiring (pathology)	Tender Rate	1,03,389	Complete
22	Civil repairing & renovation (House No. E-17/20)	Tender Rate	80,000	Complete
23	Water tanki Change & Aluminum partisan (Para vet building)	Tender Rate	1,48,603	Complete
24	Electric Fault repairing (New Campus)	Tender Rate	1,89,756	Complete
25	Water supply point & Line (Library)	Tender Rate	81,906	Complete
26	Door change (House No. D-52)	Tender Rate	7,919	Complete
27	Apron repairing (C-5)	Tender Rate	42,000	Complete
28	Water Tanki Change (C-2 Dairy Farm)	Tender Rate	7,334	Complete
29	Door Change & Plaster repairing (LAQ-06)	Tender Rate	23,907	Complete
30	Tiles, Kota Stone & Plaster (D-24)	Tender Rate	49,958	Complete
31	Toilet repairing & Convert to ladies toilet etc.	Tender Rate	71,053	Complete
32	VIP Guest to ADM Bhawan all building painting & touching work	Tender Rate	15,09,893	Complete
33	Door Change (D-51)	Tender Rate	11,985	Complete
34	Water supply work (LFC)	Tender Rate	1,04,518	Complete
35	Door and window repairing(house no. Clerk-6)	Tender Rate	86,000	Complete
36	Electrical repairing work (LFC)	Tender Rate	4,31,310	Complete
37	Anatomy lecturer hall distemper work	Tender Rate	2,79,615	Complete

38	Repairing & renovation work (LPM)	Tender Rate	3,14,763	Complete
39	Aluminium partisan & window Glass work (VPH lab)	Tender Rate	1,85,590	Complete
40	Window Jali work (Houns No. E-2/20, 3/20, 10/20, 17/20)	Tender Rate	14,180	Complete
41	Approach road interlocking work (Goat farm)	Tender Rate	2,13,659	Complete
42	Electric work (KVK)	Tender Rate	2,74,316	Complete
43	Painting work & Glass panel, PVC Panel work fisheries building (front & R.H.S Side)	Tender Rate	14,99,092	Complete
44	Approach road interlocking work (C-Type house)	Govt. Agency	9,34,500	In progress
45	Approach road interlocking work (Lab Assistant house)	Govt. Agency	12,23,000	In progress
46	Electric repairing work	Tender Rate	97,114	Complete
47	Electric repairing work	Tender Rate	58,929	Complete
48	Electric repairing work (extension department)	Tender Rate	3,55,000	Complete
49	Fibber Shed, Flooring & other civil works (surgery)	Govt. Agency	10,60,000	In progress
50	Under Ground Cabling (Clerk house)	Tender Rate	4,36,820	Complete
51	Electric panel repairing (Baade wale nalkoop)	Tender Rate	3,41,020	Complete
52	Electric renovation (Deendayal hostel)	Tender Rate	3,05,769	Complete
53	Wiring renovation (Nalkoop yantric awas)	Tender Rate	68,454	Complete
54	Approach road (Krishna hostel)	Govt. Agency	15,71,000	In progress
55	Repairing, painting & Glass work Only front, RHS & LHS (LPT Building)	Tender Rate	6,97,901	Complete
56	Repairing, painting & water supply line work (C-14)	Tender Rate	1,44,710	Complete
57	Painting work (B-3)	Tender Rate	79,174	Complete
58	Repairing, painting & water supply line work (A-6)	Tender Rate	3,83,733	Complete
59	Repairing & painting only first floor (fisheries building)	Tender Rate	13,34,177	Complete
60	Repairing & renovation work (Gautam hostel)	Tender Rate	5,23,906	Complete
61	Repairing, painting (postmartum Bawan)	Govt. Agency	6,64,500	In progress
60	Approach road (postmartum Bawan)	Govt. Agency	5,30,500	In progress
61	Electric work (Goat farm)	Tender Rate	7,95,825	Complete
62	Electric work	Tender Rate	6,00,425	Complete
63	Repairing, door & window work (House no. C-15)	Tender Rate	1,29,356	Complete
64	Electric work	Tender Rate	7,91,873	Complete
65	Electric work	Tender Rate	4,61,619	Complete
66	Electric work	Tender Rate	92,087	Complete
67	Electric work	Tender Rate	1,01,088	Complete
68	Repairing & renovation work (pathology department)	Govt. Agency	6,12,000	In progress
69	Repairing & renovation work (Microbiology)	Govt. Agency	7,80,000	In progress
70	Wast water line work (Deendayal hostel)	Tender Rate	2,84,602	Complete
71	Tiles work, painting, plaster, jail etc (shastri hostel)	Tender Rate	9,91,691	Complete
72	Floor tiles, painting etc. (Nehru hostel)	Tender Rate	7,07,927	Complete
73	Electric work (ETT lab)	Tender Rate	17,057	Complete
74	Civil work (ETT lab)	Tender Rate	12,63,405	Complete
75	Civil work (DBT Project)	Tender Rate	3,28,613	Complete
76	Civil work (Goat farm)	Tender Rate	1,70,239	Complete
		Total	3,23,42,713	

FINANCIAL STATUS

(in lacs)

S. No.	Budget Source	Salary	Contingency	Total
1.	State Government	5716.46	1800	7516.46
	KVK	99.00	0	99.00
	Other project IDP (NAHEP) FMD EVM AICRP DIMISCA		11.00 298.00 8.00 5.77 8.85 11.00	342.62
2.	ICAR Development SCSP Subplan Internship NTS		68.00 12.91 15.24 10.93	107.08
3.	University Receipt		992.75	992.75
			Total	9057.91

RIGHT TO INFORMATION ACT

In compliance of the order of Govt. of Uttar Pradesh and provision of RTI Act, 2005, PIO received 58 applications out of which 42 applications were cleared and 16 are under consideration during 2023-24.

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.)