

2023-24

Annual Report



बिहार पशु विज्ञान
विश्वविद्यालय

BIHAR ANIMAL SCIENCES
UNIVERSITY



Annual Report

2023-24



Bihar Animal Sciences University, Patna

Website : www.basu.org.in

Follow us on:



YouTube





Annual Report 2023-24

- **Guidance**

Dr. Inderjeet Singh
Vice Chancellor, BASU, Patna

- **Correct Citation**

Bihar Animal Sciences University, Patna
Annual Report 2023-24

- **Chief Editor**

Dr. J.K. Prasad
Registrar
Bihar Animal Sciences University, Patna

- **Editors**

Dr. Purushottam Kaushik
Dr. R.K. Jaiswal
Dr. Dharendra Kumar
Dr. Chayna Singha Mahapatra
Dr. Poornima Gumasta
Dr. Manjari Pandey
Dr. A.K. Jha
Dr. Y.S. Jadoun
Dr. Sarvjeet Kaur
Dr. Abhed Pandey
Ms. Aishwarya Sharma

- **Editorial Designing**

Sri Satya Kumar
Public Relations Officer, BASU, Patna

PREFACE

It gives me immense pleasure to present the **Annual Report of Bihar Animal Sciences University, Patna for the academic year 2023–24**. The report is a reflection of the University's continued commitment towards excellence in education, research, extension and service to the livestock, dairy and fisheries sectors of Bihar.

The year under review witnessed meaningful progress across the University's academic and research programmes, clinical and diagnostic services, farmer outreach, technological interventions and institutional development. The University continued to strengthen its academic ecosystem through improved teaching-learning practices, timely conduct of examinations, postgraduate and doctoral education, capacity building of faculty and students, and greater exposure to emerging areas of animal and allied sciences.

Research and innovation remained at the heart of the University's activities. Significant work was undertaken in animal health, genetics and breeding, livestock production, reproductive biotechnology, dairy technology, food safety and fisheries. The successful advancement of **Embryo Transfer and In-vitro Fertilization technology**, including the birth of Bihar's first IVF calf, *Tanuja*, followed by *Vaidehi*, represents a significant milestone in the University's efforts towards genetic improvement and enhanced livestock productivity.

The University also continued to strengthen its connect with farmers and rural communities. Through infertility camps, animal health programmes, farmer trainings, awareness programmes, digital advisory services and technology dissemination, scientific knowledge was taken from the laboratory and classroom to the field. Initiatives such as **e-Kisan Samadhan** and the **BASU Feed mobile application** demonstrate the University's commitment to accessible, technology-enabled extension services.

The constituent institutions of the University made significant contributions to their respective fields. Sanjay Gandhi Institute of Dairy Technology continued to support human resource development, research and value addition in the dairy sector, while the College of Fisheries, Kishanganj strengthened fisheries education, research and farmer-oriented activities in the Seemanchal region.

The achievements recorded in this report are the result of the collective efforts of our faculty members, scientists, officers, staff and students. I place on record my sincere appreciation for their dedication and commitment. I also acknowledge the valuable support extended by the Government of Bihar, ICAR, partner institutions, industry, farmers and other stakeholders.

As we move forward, Bihar Animal Sciences University remains committed to building a vibrant ecosystem of **knowledge, innovation and service**, and to contributing meaningfully to sustainable livestock, dairy and fisheries development in Bihar.

Dr. Inderjeet Singh
Vice-Chancellor

Bihar Animal Sciences University, Patna



Annual Report 2023-24

Index

S. No.	Particulars	Page No.
1	Executive Summary	1-2
2	Introduction	3
3	Office of Registrar	4-9
4	Office of Finance Comptroller	10
5	Bihar Veterinary College, Patna	11-69
6	Sanjay Gandhi Institute of Dairy Technology, Patna	70-99
7	College of Fisheries, Kishanganj	100-113
8	College of Veterinary and Animal Sciences, Kishanganj	114-160
8	Dean, Post graduate Studies	161-168
9	Directorate of Research	169-204
10	Directorate of Extension Education	205-211
11	Students Welfare Activities	212-219

Annual
Report
2023-24

The **Annual Report 2023–24** presents an overview of the academic, research, extension, clinical, technological and institutional activities of Bihar Animal Sciences University, Patna during the period **1 April 2023 to 31 March 2024**.

Academic Development

During the year, the University continued to strengthen its academic programmes across Veterinary and Animal Sciences, Dairy Technology and Fisheries. The Academic Council remained instrumental in regulating academic programmes, curriculum, examinations, degrees, fellowships and other academic matters. The examination system was further streamlined through centralised examinations, strengthened confidentiality and security measures, improved tabulation and retotalling mechanisms, and better coordination among constituent colleges.

The University continued to promote postgraduate and doctoral education. During 2023–24, Bihar Veterinary College had **15 Ph.D. students on roll**, while Sanjay Gandhi Institute of Dairy Technology had **16 M.Tech. students** across Dairy Technology, Dairy Chemistry and Dairy Microbiology.

Research and Innovation

Research remained a major thrust area, with projects covering animal health, antimicrobial resistance, veterinary microbiology, animal genetic resources, livestock products technology, reproductive biotechnology, dairy science and fisheries. Several externally funded and network projects were undertaken during the year.

A landmark achievement was recorded in **advanced reproductive biotechnology**. During the year, 73 ovum pickup sessions resulted in the recovery of 1,325 oocytes and production of 122 embryos, with 69 embryos transferred to recipient cows. The birth of Bihar's first IVF calf, **“Tanuja,” on 17 January 2024**, followed by **“Vaidehi” on 9 February 2024**, marked an important achievement for the University.

Veterinary Healthcare and Diagnostics

The University continued to provide veterinary clinical and diagnostic services to animal owners. During 2023–24, the Veterinary Clinical Complex handled **15,513 clinical cases**, while the Department of Surgery and Radiology conducted **384 surgical interventions**. The advanced diagnostic laboratory processed **9,927 clinical samples**, using facilities including haematology, biochemistry, ELISA, PCR and real-time PCR. Disease surveillance and monitoring activities were also undertaken, including examination of bovine serum samples under FMD surveillance and the National Animal Disease Control Programme.

Dairy Education, Research and Value Addition

Sanjay Gandhi Institute of Dairy Technology continued to contribute technological advancement in the dairy sector. During 2023–24, **93 students** were enrolled in the B.Tech. Dairy Technology programme.

The Institute undertook research in milk processing, value addition and development of innovative dairy products. Work included development of a milk-based nutribar and other value-added products, alongside studies related to milk production and dairy management.

Fisheries Development

The College of Fisheries, Kishanganj continued to strengthen fisheries education, research and extension. During the year, **four NFDB-sponsored training programmes** were organised on aquaculture, ornamental fish rearing and breeding, hatchery production and soil and water quality management, benefiting **100 progressive farmers** from the Seemanchal region.

The College also organised the national conference on “**Transforming Rural Poverty to Prosperity through Sustainable Fisheries**”, along with a Fish Fair and farmer-scientist interaction activities, providing an important platform for knowledge exchange and sectoral development.

Extension and Farmer Outreach

Farmer-centric extension continued to be one of the University's major priorities. **Twenty-six infertility camp-cum-awareness seminars were organised in 13 aspirational districts**, providing farmers with scientific advice, treatment and medicines.

The University expanded digital extension through **e-Kisan Samadhan**, under which farmers could interact with University experts regarding livestock health, reproduction and management issues.

The University also promoted technology-based advisory services through the **BASU Feed mobile application**, developed in Hindi and English to help dairy farmers formulate least-cost balanced rations using locally available feed ingredients.

Capacity Building and Outreach

Training and capacity-building programmes were conducted for farmers, rural youth, entrepreneurs, FPO representatives and other stakeholders. The activities covered dairy farming, goat farming, livestock management, value addition and allied enterprises. Krishi Vigyan Kendra, Jamui alone conducted **118 training programmes involving 3,778 participants** during the reported period.

Recognition and Institutional Visibility

The University's faculty members and students received several awards, recognitions and professional honours during the year. Faculty members also participated in national and international conferences, workshops and professional bodies, contributing to the University's academic and research visibility.

Conclusion

The year **2023–24** was marked by continued institutional growth, academic advancement, research innovation and expansion of farmer-oriented services at Bihar Animal Sciences University. From advanced reproductive technologies and veterinary diagnostics to dairy innovation, fisheries development and digital extension, the University continued to translate knowledge into practical solutions.

The achievements documented in this Annual Report demonstrate the University's growing role in strengthening the **livestock, dairy and fisheries economy of Bihar**. With continued emphasis on excellence, innovation, collaboration and field-level impact, BASU remains committed to serving the State through quality education, impactful research and responsive extension services.

INTRODUCTION

About the University

Bihar Animal Sciences University (BASU) was established by Government of Bihar with its headquarter at Patna vide Act No. 15 of 2016 and notified on 29th of August 2016 in Bihar Gazette. This University was carved out from Bihar Agricultural University, Sabour by transferring two of its Patna located constituent colleges, namely Bihar Veterinary College and Sanjay Gandhi Institute of Dairy Technology. A new College of Fisheries and College of Veterinary and Animal Sciences was established at Kishanganj in 2018 and 2022 respectively. Apart from the three main constituent Colleges, Govt. of Bihar has transferred Exotic Cattle Breeding Farm Patna, Central Poultry Farm Patna and Government Buffalo Farm Sipaya (Gopalganj) as well to this University to expand the horizon of University, and strengthen research and extension activities for effective outreach to different stake-holders, especially resource poor farmers and livestock owners.

The University is located close to Jai Prakash Narayan International Airport, Patna, therefore, has the advantage of excellent air and rail connectivity to important cities and town.

The basic objectives of University are to impart quality education in Veterinary Sciences and Animal Husbandry including poultry, fisheries, dairy technology and allied subjects to promote advancements in learning, undertake basic and applied research, and render extension services in an endeavor to make these sectors of rural economy as sustainable sources of self-employment and social empowerment for poverty alleviation. University is also striving to establish partnerships with national institutes, different State agricultural universities, industry and other entities working in the field of animal husbandry, fisheries, dairying and allied sectors.

Mandate of the University:

- To impart quality education in Veterinary Science & Animal Husbandry including poultry, fisheries, dairy technology and allied sectors; and facilitate an organized process of life-long learning;
- To undertake basic and applied research on various aspects of animal health and production, dairy, fisheries and allied sectors;
- Extension activities to disseminate practical scientific knowledge related to veterinary and animal sciences, fisheries and dairy technology to ultimate stake-holders especially rural masses to promote these sectors as sustainable source of rural economy;
- To facilitate and ensure qualitative and continuous improvement in teaching and learning processes and impart hands on training to graduate and postgraduate students;
- To develop linkage and partnership with industry and other entities working in areas of animal sciences, fisheries and dairy technology;
- To render quality diagnostic and treatment services to animal owners in Super-Specialty Veterinary Hospital;
- To impart hands on training and undertake capacity building and skill-development programmes to field veterinarians in state of the art veterinary hospital and diagnostic laboratories; and
- Such other purposes as envisaged by the University or Government from time to time.

*Annual
Report*
2023-24



Office of Registrar

Bihar Animal Sciences University, Patna-800014

ACADEMIC CELL

Information pertains to Academic office (01.04.2023 to 31.03.2024) for incorporation in Annual Report-2023-24:-

Academic Council:

The Academic Council of the University considers, recommends/approves and regulates the different academic programmes being offered by the University, including intake capacity in each academic programme, course curricula, examination reforms, award of degrees and certificates including honorary degrees, award of fellowships, medals and stipends for UG and PG students. It also approves the recommendations of Board of Studies of different Faculties.

Member of Academic Council:

1.	Vice-Chancellor, Bihar Animal Sciences University, Patna	Ex-officio
2.	Director Resident Instruction, Bihar Animal Sciences University, Patna	Member
3.	Director Research, Bihar Animal Sciences University, Patna	Member
4.	Director Extension Education, Bihar Animal Sciences University, Patna	Member
5.	Dean, Bihar Veterinary College, Patna	Member
6.	Dean, Sanjay Gandhi Institute of Dairy Technology, Patna	Member
7.	Dean, College of Fisheries, Kishanganj	Member
8.	Dean, College of Veterinary and Animal Sciences, Kishanganj	Member
9.	University Librarian-cum-Information Officer, Bihar Animal Sciences University, Patna	Member
10.	Student Welfare Officer, Bihar Animal Sciences University, Patna	Member
11.	Dr. S. P. Sahu, Head, Department of Livestock Production and Management, Bihar Veterinary College, Patna	Member
12.	Dr. Sanjeev Kumar, Head, Department of Dairy Technology, Sanjay Gandhi Institute of Dairy Technology, Patna	Member
13.	Dr. Abhishek Thakur, Head, Department of Fish Processing Technology, College of Fisheries, Kishanganj	Member
14.	Dr. Pankaj Kumar Singh, Deputy Director Research, Bihar Animal Sciences University, Patna	Member
15.	Dr. Jahagir Badshah, Chairman-cum-Professor, Department of Dairy Engineering, Sanjay Gandhi Institute of Dairy Technology, Patna	Member
16.	Dr. Birendra Kumar, Associate Prof., Deptt. of Animal Genetics and Breeding, Bihar Veterinary College, Patna	Member
17.	Dr. Rakesh Kumar, Associate Prof. Deptt. of Dairy Microbiology, Sanjay Gandhi Institute of Dairy Technology, Patna	Member
18.	Dr. R.K. Sohane, Director Extension Education, Bihar Agricultural University, Sabour	Member

19.	Dr. A.K. Singh, Joint Director (Academic), ICAR-National Dairy Research Institute, Karnal	Co-opted Member
20.	Dr. S.K. Mendiratta, Joint Director (Academic), ICAR-Indian Veterinary Research Institute, Izzatnagar	Co-opted Member
21.	Dr. Sarvajit Yadav, Prof. & Head and Former Director Extension., DUVASU, Mathura	Co-opted Member
22.	Dr. Narrotam Prasad Sahu, Joint Director, Central Institute of Fisheries Education, Mumbai	Co-opted Member
23.	Registrar, Bihar Animal Sciences University, Patna	Member Secretary

Academic Council held during 01.04.2023 to 31.03.2024:

Sl. No.	Particular	Date
1.	19 th Meeting of Academic Council	14.04.2023
2.	18 th Meeting of Academic Council	07.10.2023
3.	17 th Meeting of Academic Council	11.01.2024

ADMINISTRATIVE CELL

Information pertains to the Administration office (01.04.2023 to 31.03.2024)

Board of Management (BOM) is the Chief Executive body of the University.

The Powers and functions of the Board of Management are as hereunder: -

- (i) to consider and approve the financial requirements, estimates and the budget of the University;
- (ii) to hold and control the property and the funds of the University and issue any general directive on behalf of the University;
- (iii) to accept or transfer any property on behalf of the University;
- (iv) to administer funds placed at the disposal of the University for the purpose intended;
- (v) to arrange for the investment and withdrawal of the funds of the University;
- (vi) to borrow money for capital investments with prior approval of the State Government and make suitable arrangements for its repayment;
- (vii) to accept on behalf of the University trusts, bequests and donations;
- (viii) to consider and approve the recommendations of the Academic, Research and Education Extension Councils where required;
- (ix) to direct in respect to the form and use of the common seal of the University;
- (x) to appoint such committees and bodies as it may deem necessary and determine the terms of reference their context in accordance with the provisions of this Act and the Statutes;
- (xi) to consider and approve the establishment of a new Department, Centre or Research Station/ sub-station or abolition of any one thereof or otherwise reconstitution of Department, Research Stations or centre on the recommendation of the Academic Council;
- (xii) to consider and approve establishment of a new college or faculty, amalgamation of two or more colleges or faculties into a single college or faculty or abolition of a college or faculty or reconstitution of any of the existing faculties on the recommendation of the Academic Council;
- (xiii) to approve the recommendations for appointment of officers/officials of the University and teachers of the rank of Associate Professor and above in the prescribed manner;
- (xiv) creation of various posts in the University and its Colleges, institutions and centres;
- (xv) To perform such other functions as may be assigned to it by Statutes;

Constitution of Board of Management:

Vice-Chancellor, BASU, Patna	Ex-Officio Chairperson
Principal Secretary/Secretary, Department of Animal and Fisheries Resource of the State Government;	Member
Principal Secretary/Secretary, Finance Department of the State Government or his nominee;	Member
Principal Secretary/Secretary, Department of Agriculture of the State Government;	Member
Director, Animal Husbandry, Department of Animal and Fisheries Resource of the State Government;	Member
Director, Fisheries , Department of Animal and Fisheries Resource of the State Government;	Member
Director, Dairy Development, Department of Animal and Fisheries Resource of the State Government;	Member
Two eminent educationists / scientists from the field of Veterinary and Animal Sciences to be nominated by the Chancellor;	Member
One progressive farmer from the jurisdiction of the University to be nominated by the State Government;	Member
One distinguished agro-industrialist to be nominated by the State Government;	Member
One outstanding woman social worker having background of rural advancement to be nominated by the State Government;	Member
One representative from the Indian Council of Agricultural Research either from Education Division or Animal Science Division to be nominated by the Council;	Member
One Director in rotation to be nominated by the Vice-Chancellor;	Member
One Dean faculty in rotation to be nominated by the Vice-chancellor;	Member
Registrar	Ex-Officio Non-Member Secretary

Board of management meeting held during 14/04/2023 to 31/03/2024

- 22nd Meeting of the Board of Management held on 16th January, 2024.
- 23rd Meeting of the Board of Management held on 11th March, 2024.

RECRUITMENT CELL

1. APPOINTMENT OF UNIVERSITY OFFICER AND ADMINISTRATIVE POSITION THROUGH DIRECT RECRUITMENT :

S. No.	Name of the post	Advertisement No.	Appointed
1	Student Welfare Officer-cum-Placement Officer, BASU, Patna	Empl. Notice No.-04/2022 (06.07.2022)	Dr. Ajay Kumar Sharma
2	Dean, SGIDT, Patna	Empl. Notice No.-09/2023	Dr. Umesh Singh
3	Dean, CoF, Kishanganj	Empl. Notice No.-01/2024	Dr. V.P. Saini

2. APPOINTMENT OF TEACHERS IN DAIRY FACULTY (SGIDT, PATNA) EMPL. NOTICE NO.12/2023 :

S. No.	Name	Name of the post	Name of the department	Category against which selected
1	Dr. Lalit Mohan Bal	Associate Professor	Dairy Engineering (Agriculture Engineering)	UR
2	Dr. Anamika Das	Associate Professor	Dairy Chemistry	UR (F)
3	Dr. Writdhama G Prasad	Associate Professor	Dairy Technology	EBC
4	Ms. Yogita Sharma	Assistant Professor	Dairy Business Management (Agricultural Economics)	EBC
5	Dr. Anupama Rani	Assistant Professor	Dairy chemistry	BC (F)
6	Dr. Mukesh Kumar	Assistant Professor	Dairy Extension	SC
7	Ms. Sonam Kumari	Assistant Professor	Dairy Technology	BC

3. APPOINTMENT OF TEACHERS IN VETERINARY FACULTY (BVC, PATNA AND COVAS, KISHANGANJ) EMPL. NOTICE NO. 06/2023 :

S. No.	Name	Name of the post	Name of the department	Name of the College	Category against which selected
1	Dr. Sumit Singhal	Professor	VGO	BVC, Patna	UR
2	Dr. Archana Kumari	Professor	VSR	BVC, Patna	SC
3	Dr. Sahadeb Dey	Professor	VMD	BVC, Patna	UR
4	Dr. Nirbhay Kumar	Professor	VPT	BVC, Patna	UR (F)
5	Dr. Pankaj Kumar	Professor	VPA	BVC, Patna	SC
6	Dr. Sanjiv Kumar	Professor	VPP	BVC, Patna	EWS (Open Merit Basis)
7	Dr. Riyaj Ahmed Siddique	Professor	VBC	BVC, Patna	UR
8	Dr. Birendra Kumar	Professor	AGB	BVC, Patna	SC

S. No.	Name	Name of the post	Name of the department	Name of the College	Category against which selected
9	Dr. Anup Kumar Tewari	Professor	Vety. Parasitology	CoVAS, Kishanganj	UR
10	Dr. Narendra Kumar	Professor	Vety. Pathology	CoVAS, Kishanganj	BC (F)
11	Dr. Suresh Dinkar Kharche	Professor	VGO	CoVAS, Kishanganj	EWS (Open Merit Basis)
12	Dr. Ranveer Kumar Sinha	Associate Professor	VCC (VMD)	BVC, Patna	UR
13	Dr. Ranveer Kumar Sinha	Associate Professor	VCC (VMD)	BVC, Patna	BC
14	Dr. Savita Kumari	Associate Professor	Vety. Microbiology	BVC, Patna	UR (F)
15	Dr. Awadhesh Prajapati	Associate Professor	Vety. Microbiology	BVC, Patna	UR
16	Dr. Neelam Kushwaha	Associate Professor	VMD	CoVAS, Kishanganj	UR
17	Dr. Ajay Kumar Rai	Associate Professor	Vety. Microbiology	CoVAS, Kishanganj	EWS (Open Merit Basis)
18	Dr. Samikshya Sarangi	Assistant Professor	Veterinary Anatomy	CoVAS, Kishanganj	UR(F)
19	Dr. Manish Arya	Assistant Professor	Veterinary Surgery and Radiology	CoVAS, Kishanganj	(EWS) Open Merit Basis
20	Dr. Suchita Kumari	Assistant Professor	Veterinary Parasitology	CoVAS, Kishanganj	WBC
21	Dr. Anuj Singh	Assistant Professor	Animal Nutrition	CoVAS, Kishanganj	(EWS) Open Merit Basis

5. APPOINTMENT OF TEACHERS IN FISHERIES FACULTY (COF, KISHANGANJ):

S. No.	Name	Name of the post	Name of the department	Category against which selected	Advertisement No.
1	Dr. Abhed Pandey	Associate Professor	Aquaculture	UR	EMPL. NOTICE NO. 08/2022
2	Dr. Khairnar Sachin Onkar	Associate Professor	Fish Genetics and Breeding	(EWS) Open Merit Basis	–
3	Dr. Abhishek Kumar	Assistant Professor	Aquaculture	SC	EMPL. NOTICE NO. 11/2023
4	Mr. Uday Kumar	Assistant Professor	Aquaculture	EBC	–
5	Mr. Vivek Kumar	Assistant Professor	Aquaculture (Aquaculture Engineering)	BC	–
6	Ms. Saba Nabi	Assistant Professor	Fisheries Economics & Statistics	UR (F)	–
7	Mr. Pankaj Kumar	Assistant Professor	Aquatic Animal Health Management	SC (F)	–

6. FOLLOWING ADJUNCT PROFESSORS EMPANELLED, BIHAR ANIMAL SCIENCES UNIVERSITY, PATNA

The Advertisement for Empanelment of Adjunct Professor was uploaded on university website on 30.12.2023. Altogether 19 Professors are empanelled as per the recommendation of the selection cum search committee followed by approval of Hon'ble Vice Chancellor and notified vide No.-561/Reg./Rect./BASU, Patna dated 09.03.2024 :

S. No.	Veterinary faculty	S. No.	Fisheries faculty
1	Dr. Arup Ratan Sen	11	Dr. Mrinal Kanti Datta
2	Dr. Shantibhushan Jha	12	Dr. S.M. Shivaprakasha
3	Dr. Naresh Kumar Sood	13	Prof. (Dr.) B. Manoj Kumar
4	Dr. Alka Tomar	14	Dr. G. Vidya Sagar Reddy
5	Dr. Ashok Kumar Verma	15	Prof. Ramendra Kumar Majumder
6	Dr. Arup Kumar Das	16	Dr. B.K. Sharma
7	Dr. Vineet Bhasin	17	Dr. Atul Kumar Jain
8	Dr. Suresh Dinkar Kharche	18	Prof. (Dr.) H Shivananda Murthy
9	Dr. Niranjana Lal	19	Dr. K. Riji John
10	Dr. Gopal Dhinakar Raj		

Content for Annual Report from External Examination & Evaluation Cell, BASU for the Academic Year 2023-24

Steps taken to Strengthen the working system of Examination Cell, BASU, Patna during 2023-24:

- Examinations have been conducted timely as per Academic Calendar in centralised manner following strict regulations including confidentiality & security in question paper sending, coding & decoding during answer booklet evaluation & publication of results.
- Formation of New Committee Members time to time for efficient Tabulation & Retotalling for minimising the errors in results publication.
- Introduction of Answer Booklets (Set- A main & Set- B supplementary) for conduction of internal examinations of all the four colleges of the University has been implemented and booklets are regularly supplied to the respective colleges for conduction of U.G., P.G. & Ph.D. internal examination.
- The synchronisation of Academic Calendars and table evaluation of B.Tech. (D.T.) of SGIDT, Patna and B.F.Sc. of COF, Kishanganj have been achieved significantly. It leads to successfully publication of results mostly within 15 working days after completion of examination.

Annual Report 2023-24



Annual
Report
2023-24



Office of Finance Comptroller

University Budget for 2023-24

a) Financial Support from Govt. of Bihar (Rs. In lacs)

Sl. No.	Scheme	Salary	Infrastructure Development	Contingency	Total	Expenditure
1.	Non-Plan	4019.08	100.00	1581.00	5700.08	5905.83
2.	Plan & COF	2650.00	1850.00	2300.00	6800.00	1922.78
Total		6669.08	1950.00	3881.00	12500.08	7828.61

b) Financial Support from ICAR, Externally funded projects and Others

Resources

Sl. No.	Budget Head	Sanctioned Amount (Rs. In lacs)	Expenditure (Rs. In lacs)
1.	PSP Project	33.00	28.27
2.	ETT Project	-----	129.71
3.	ICAR Projects Grant	81.90	73.50
4.	ICAR Grant Education Division	47.91	47.91
5.	Central Projects Grant	60.89	34.91
Total		223.70	314.30

c) Financial Support from ATARI

Sl. No.	Heads	Amount (Rs. In lacs)	Expenditure (Rs. In lacs)
1.	KVK Jamui	273.59	251.85

d) Revenue Generation from all sources by Agriculture University including off campus college: 282.50 (Rs. In Lakh)

*Annual
Report*
2023-24



Bihar Veterinary College, Patna



Research Achievements

1. Diagnostics

1.1 Rapid detection of Escherichia coli Associated with bovine Mastitic Milk Using Oligonucleotide Conjugated Gold Nanoparticle

- The technique was planned to detect E. coli genomic DNA using GNP conjugated probe. The Fim H gene-specific probe was designed and 5' thiol-modified probe was used for conjugation with GNP. The sensitivity of the assay was from a sample containing 0.895 µg/ml to 8.95 ng/ml of PCR amplicon of the Fim H gene and from 9.948 µg/ml to 9.948 ng/ml of genomic DNA and from the E. coli culture containing 1.2 x 10⁹ CFU/mL to 1.2 x 10⁶ CFU/ml. To determine the specificity, The GNP oligo probe assay was applied to the genomic DNA isolated from E. coli, Salmonella, Lactobacillus, Streptococcus agalactiae, Aeromonas, and Staphylococcus. This assay was able to differentiate E. coli and non-E. coli genomic DNA by the naked eye without using any sophisticated instrument. This method is rapid and convenient and can be accomplished within 30-40 min and a significant color change that is easily recognized by the naked eye and is suitable for the detection of E. coli genomic DNA from clinical samples

1.2 Evaluation of proliferative and apoptotic markers in Canine Mammary Tumors (CMT) for diagnosis and prognosis:

The study was aimed to establish the diagnostic and prognostic implications for Canine Mammary Tumors (CMT) and evaluate a panel of immunohistochemical biomarkers. Conducted on 60 dogs with mammary neoplasia at the Veterinary Clinical Complex of Bihar Veterinary College, the study focused on the intensity and distribution of immunostaining for diagnostic (HER-2), proliferative (PCNA, P-53, and Ki-67), apoptotic (caspase-3 and Bcl-2), and prognostic (CK) biomarkers across various histological types of CMT. The results revealed a strong correlation between diagnostic, proliferative, and apoptotic markers in higher grades of different histotypes of CMT. The study concluded that

simultaneous assessment of these markers offers deeper insights into tumor aggression and pathomorphological behavior. The use of two panels of four markers (Set-I: HER-2/neu, Ki-67, P53, and Caspase-3; Set-II: HER-2/neu, PCNA, Bcl-2, and CK) holds significant importance for prognostic, diagnostic, and therapeutic decisions regarding CMT. Therefore, assessing biomarker expression in tissue samples holds diagnostic and prognostic significance, aiding in determining the appropriate treatment approach for canine mammary tumors.

2. Molecular characterization of microorganisms

- Isolation and characterization of lactobacilli with probiotic potential were carried out. A total of 52 lactobacilli were isolated from different sources such as faecal sample of calves, kids and human infant. All the isolates were confirmed by PCR amplification of 23S-16S rRNA spacer gene and were further characterized for probiotic characters of isolates. out of 52 isolates 17 lactobacillus isolates showed potential for probiotics.
- A total of 33 Salmonella isolates were isolated and confirmed by 16S rRNA PCR from chicken meat, chevon, pork and human faeces. The study reports S. Typhimurium in 69.70% of cases while Salmonella serovar Enteritidis in 12.12% and 18.18% untypable. The isolates were found to carry invA gene (90.91%), stn (84.85%), pef gene (57.58%) and sopB gene in (66.67%).
- A total of 28 Escherichia coli isolates were isolated from pus samples canine pyometra and vaginal swab of healthy bitches and were confirmed by PCR targeting 16S rRNA gene. By partial sequencing and NCBI BLAST analysis 18 isolates from canine pyometra were identified as Escherichia coli, 03 as Proteus mirabilis and one each as Providencia rettgeri, Morganella morganii and Bacillus stratosphericus.

3. Development of alternate systems of therapy:

The Department of Veterinary Pharmacology & Toxicology has scientifically validated certain Ayurvedic medicines and Unani medicines in collaboration with Government Ayurvedic College, Patna and Government Tibbi College, Patna with whom BASU, Patna is having official MoU. Four validations of alternate systems of therapy have been made: Scientific validation of two Ayurvedic medicines viz. Arbudahar Rasa and Bhallatakafor anticancer potential in mammary tumour model in Wistar rats. Scientific validation of two Unani medicines viz. Izkhirfor nephroprotection and Irsa for hepatoprotection in Wistar rats.

Apart from above studies, in house research on alternate systems of medicines have also been conducted. Antipyretic and antimicrobial activity of Loban (Styrax bezoin) were studied and validated the therapeutic use of loban for treatment of fever and in Klebsiella pneumonia infection. Anticonvulsant effect of Brahmi and Shatavari individually as well as mixture of both were studied. Combination have very good efficacy in experimentally induced seizure model in rat. Wound healing effect of Tridax procumbens alone and in combination with gold nanoparticle in Wistar rat was done. A very significant wound healing effect was found in gold fabricated methanolic extract of Tridax procumbens. Antidiabetic effect of different herbs were studied (Tinosporacardifolia, Gymnemasylvertre, Safufziabatus) in experimentally induce diabetes in Wistar rats. These studies may further be extended for the development of polyherbal formulation as an alternate system of therapy in animals.

4. Disease monitoring and surveillance

4.1. Seromonitoring and surveillance of FMD under Livestock Health and Disease Control Programme (LHDCP)

- Two outbreaks of Foot and Mouth Disease (FMD), confirmed to be of serotype O, were recorded in April 2023. Both incidents were reported in Rohtas, affecting cattle with a morbidity rate of 12.50%, however, no mortality was recorded.

- Under the FMD serosurveillance program, 3,059 bovine serum samples were collected at random as per the sampling plan from various parts of the Bihar state and analyzed. The r3AB3 NSP-ELISA (DIVA) test was used to determine the apparent prevalence of NSP-antibodies (NSP-Ab) in the bovine population, which is an underlying indicator of FMD virus exposure regardless of vaccination status. The overall seropositivity (DIVA positive) was found to be 21.08% of the samples tested, which is lesser than the previous year's seroprevalence of 27.64%.
- In 2023-24, a total of 8,081 serum samples were tested using Solid Phase Competitive ELISA (SPCE) under the NADCP to evaluate the effectiveness of immunization and to assess herd immunity. In the pre-vaccination samples, the protective titre was present in 12.98%, 5.80%, and 7.28% of animals for serotypes O, A, and Asia1, respectively. In the post-vaccination samples, the percentages increased to 40.09%, 36.04%, and 29.98% for serotypes O, A, and Asia1, respectively. Serum samples collected from both cattle and buffalo demonstrated good seroconversion and antibody titers in post-vaccination samples. The cattle exhibited a stronger response compared to buffalo.

4.2. Screening clinical samples for Theileria in cattle and mycoplasmosis in goat

- The diagnostic unit of BVC screened the blood samples for theileriosis in cattle and reported that out of a total of 537 samples screened by PCR, Theileriaorientalis showed percent positivity of 4.09%. A total 570 goat sera samples screened for CCPP showing % positivity for mycoplasma antibodies at 17.19%.

4.3 Prevalence of Canine Renal Insufficiency: A Ten-Year Retrospective Study in Patna

This study aimed to evaluate the incidence of renal insufficiency in dogs presented to the Veterinary Clinical Complex at Bihar Veterinary College in Patna from May 2012 to March 2022. Various epidemiological factors, including age, sex, breed, and season, to identify trends associated with this condition were analysed. The study included dogs showing clinical signs of renal insufficiency, such as changes in urine production, increased urination frequency, vomiting, and abdominal discomfort. Renal disorder was confirmed through kidney function tests and ultrasonography. Over the 10-year study period, 5,700 suspected cases were examined, and 317 cases (5.55%) with creatinine levels above 5 mg/dL were selected for further retrospective analysis. The findings indicated that male dogs were more frequently affected and that the incidence rate increased with age. The highest incidence rate was observed in November (16.72%), while the lowest was in April (4.42%). The condition was most prevalent from September to November. Among the breeds, Pomeranians had the highest incidence rate (32.18%), while Beagles, Rottweilers, and St. Bernards had the lowest (1.26% each).

4.4 Study on status of acaricide resistance in tick population of Bihar

The work aimed to determine the status of acaricide resistance in ticks of Bihar. Procedure for in vitro propagation of Rhipicephalus sp. and Hyalommasp. ticks were standardized in the laboratory. Live engorged female ticks from cattle and buffaloes body and from the animal sheds of organized and unorganized farms were collected by two stage stratified sampling method from Banka and Patna districts of Bihar. Three tick species were found to be prevalent in livestock of these districts i.e., Rhipicephalus microplus, Hyalommaanatolicum and Rhipicephalus sanguineus. Using experimental bioassay (AIT, LPT, LIT) resistance in ticks were determined using different concentrations of the deltamethrin, cypermethrin, malathion, fenvalerate and ivermectin. Dose response data was analyzed by probit method. The 50% (LC50) and 95% (LC95) lethal concentrations of deltamethrin, cypermethrin, malathion,

fenvalerate and ivermectin against ticks was determined by applying regression equation analysis to the probit-transformed data of mortality. Resistance factor (RF) was determined and on the basis of RF, the resistance status of the ticks was classified as susceptible ($RF \leq 1.4$), level I ($RF = 1.5-5.0$), level II ($RF = 5.1-25.0$), level III ($RF = 26-40$) and level IV ($RF \geq 41$). Ticks from Banka district have showed resistance to Ivermectin and Deltamethrin while they were susceptible to Cypermethrin, Malathion and Fenvalerate. Ticks from Patna district showed high resistance to Deltamethrin and initiation of resistance against Ivermectin and while they were susceptible to Cypermethrin, Malathion and Fenvalerate.

5. Clinical and surgical interventions

- Comparative analysis of Herniorrhaphy and synthetic mesh for surgical management of hernia in animal was studied. The use of prosthetic material for hernioplasty is required when the hernia ring size exceeds 3 cm in diameter. Herniorrhaphy and synthetic mesh were applied in 10 clinical cases each. Use of hernioplasty with acellular matrix prepared from caprine rumen was found successful in the surgical management of hernia in animals.

Successful surgical management of perineum haematoma and vaginal tear in a cow was achieved under Epidural anaesthesia using 2% Lignocaine Hcl.



- Bilateral mandibular fracture in dogs were successfully repaired by orthopedic wiring without any serious post-operative complications.



- A highly unusual goat artificial limb prosthesis was applied for the first time in a doeling at Out Patient Department of Veterinary Surgery and Radiology, Veterinary Clinical Complex, Bihar Veterinary College, Patna. Design of the prosthesis is suitable for her stay to make it more comfortable and easier for her to lie down in particular and now mostly she is weight bearing on it and showing natural gait after a few days.



- Management of corneal ulcer in canine using canine amniotic membrane: Canine amniotic membrane was prepared for management of corneal ulcer in canine. Along with amniotic membrane, also started application of bulbar conjunctival flap for repair of corneal ulcer. Both technique is effective for management of corneal ulcer. Since corneal ulcer is one of most common diseases of eyes and may causes blindness in dog. Acellular matrix was prepared from caprine rumen for the abdominal defect in bovines and caprine. Since, the abdominal wall defects are very common; occurs due to congenital defect or trauma in animal. The use of prosthetic material for hernioplasty is required when the hernia ring size exceeds 3 cm in diameter. Synthetic mesh is costly and also causes inflammation, adhesion, exudation and microbial infection at the of application. Used different anaesthetic protocol in different species for reduce the mortality in these animals. Different anaesthetic protocol like combination of zoletil and butorphanol used in cats to reduce the anaesthetic complication.

6. Environmental pollutants/ xenobiotics and their impact on animal health and production:

Under the ICAR's All India Network Project on “Livestock and Poultry Products Safety”, monitoring of drugs and other xenobiotics was performed in milk and meat samples collected from different districts of Bihar. It was grossly concluded that milk and meat produced in Bihar state is safe for human consumption as the Hazard Index calculated on the basis of samples analyzed by HPLC was within the safer side.

7. Clinical and diagnostic services provided

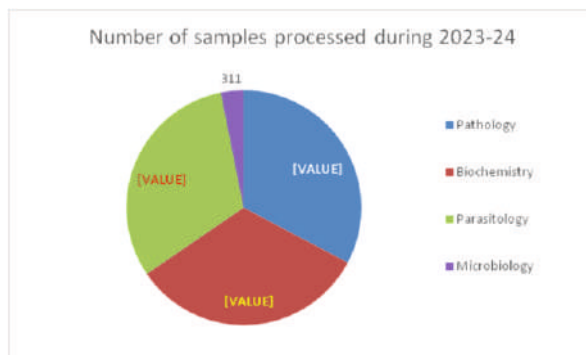
7.1. Clinical services provided by Bihar Veterinary College

College Veterinary Clinical Complex having good facility of Ultrasonography, X-ray (CR System), Haematological Tests, Biochemical test, Pathological tests and Parasitological tests. During the year 2023-24 VCC treated 15513 clinical Cases of animals. Besides 384 surgical interventions were performed by the department of surgery and radiology whereas department of Gynecology performed 118 surgical Intervention in VCC.

7.2. Animal disease diagnostic services provided by Bihar Veterinary College

The college has a full-fledged advance diagnostic laboratory facility to cater diagnostic support to Veterinary Clinical complex, BVC, BASU, Patna. The laboratory hosts a number of high end diagnostic instruments viz., Haematology analyzer, Dry-chemistry analyzer, ELISA, PCR and Real time PCR machines. In the laboratory, clinical samples are processed for desired hematological, biochemical, parasitological and microbiological investigations under the supervision of faculty members from

Department of Veterinary Microbiology, Veterinary Pathology, Veterinary Parasitology and Veterinary Microbiology. During the period under report i.e., from April, 2023 to March, 2024, a total of 9,927 clinical samples were processed for various clinical parameters.



8. Genetic studies related to disease resistance, production and reproduction in livestock

- The Bihar Veterinary College is one of unit of Network project on Animal Genetic Resources (AnGRs). The college under this project has documented 21 Ethno Veterinary Medicine (EvM)/Traditional Veterinary Practices from 15 different districts of Bihar. Major practices documented were related with the treatment of digestive disorders.

Characterization work on Champaran goat population has been started with data on 766 goats covering 222 households from 4 blocks (Bagaha – 1, Bagaha – 2, Gaunaha and Ramnagar) of West Champaran district, as per the NBAGR format under the project AnGRs. Seven Animal Genetic Resource Awareness camps in seven different districts (West Champaran, Banka, Khagaria, Chhapra, Vaishali, Kishanganj and Purnea) of Bihar were organised. In these programmes 24 awareness lectures were delivered and livestock farmers were provided with medicinal supplements. Passport information on the Champaran goat population and Banka cattle population was also collected. Few potential populations of buffalo, cattle, pony, goat and chicken were identified for characterization in future. Data were also collected in project “Phenotypic and Genetic Characterization of Goats of West Champaran, Bihar” on Goat population of West Champaran.



9. Use of Embryo Transfer Technology (ETT) and Invitro Vitro Fertilization (IVF) technology to enhance Milk Production and Productivity among Non-descript and descript breeds of Bihar:

Under the Rashtriya Gokul Mission, Government of India IVF Lab was established at Livestock Farm Complex, Bihar Veterinary College, Bihar Animal Sciences University, Patna. In the year 2023-24, total 73 Ovum Pickup sessions were done from which 1325 oocytes were aspirated from Sahiwal and Red Sindhi Cows. From these oocytes a total of 122 embryos were produced, out of which 69 were transferred in the recipient cows. Till the April 2024, total 07 Pregnancies were established through IVF-Embryo Transfer.

Bihar's First IVF Calf (female) was born at Bihar Animal Sciences University, Patna- On the Jan 17th 2024 named as "Tanuja". The second IVF calf (Vaidehi) was born on 09th Feb, 2024. The Principal Investigator of ETT and IVF Project is Dr J. K. Prasad. The team behind the success included Dr. Dushyant Yadav, Dr. S. K. Sheetal, Dr. Sumit Singhal, Dr. Pramod Kumar, Dr. Ajeet Kumar, Dr. C. S. Azad and Dr. S. P. Sahu.

Milestone of the project- Our Lab has set up a new standard in the field of Ovum Pick-Up with the highest number (127) of oocytes recovery from single Sahiwal cow without any hormonal stimulation.

With the standardization and renovation of old IVF lab, all the lab procedures are standardized, however, a New IVF lab is under construction with all modern facilities and equipments. The University is now ready to serve the Livestock owner of Bihar at their doorstep.

कामयाबी | बिहार पशु विज्ञान विधि के वैज्ञानिकों ने किया कमाल, उन्नत नस्ल की बछिया की संख्या बढ़ाने को प्राथमिकता

आईवीएफ तकनीक से साहिवाल नस्ल की दूसरी बछिया का जन्म

पटना, कार्यालय संवाददाता। बिहार में कुत्रिम गर्भाधान की आईवीएफ तकनीक से साहिवाल नस्ल की दूसरी बछिया का जन्म हुआ। एक महीने पहले भी साहिवाल नस्ल की बछिया का जन्म हुआ था, जिसका नाम तनुजा रखा गया है। बिहार पशु विज्ञान विधि के आईवीएफ प्रयोगशाला के वैज्ञानिकों ने इसमें सफलता प्राप्त की है। अने सालों कुछ दिनों में और कई बछियाँ का जन्म आईवीएफ तकनीक से होगा। यह उपनिष्ठा प्रदर्शित करेगा है, क्योंकि केन्द्र और राज्य सरकार नस्ल सुधार के लिए अतिवृत्ति करके उदर रहे हैं। इस कार्यालय में कमजोर नस्ल के बछियों को पैदा होने से रोकना और उन्नत नस्ल की बछिया की जन्म से जन्म संख्या बढ़ाने को प्राथमिकता दी जा रही है।



बिहार पशु विज्ञान विधि के आईवीएफ प्रयोगशाला में जन्मी साहिवाल नस्ल की बछी।

आईवीएफ लैब में चल रहा काम, जल्द ही और भी सफलता मिलेगी

परियोजना के मुख्य-अध्यक्ष एवं टीम डॉ. जेके प्रसाद ने कहा कि आईवीएफ तकनीक से अने बछी दिनों में पूरे प्रदेश में नस्ल सुधार में बहुत ज्यादा प्रगति होगी। परियोजना के निष्पादन से जुड़े वैज्ञानिक डॉ. दुष्यंत यादव ने बताया कि आईवीएफ लैब में लगातार काम चल रहा है और जल्द ही और भी सफलता मिलेगी। परियोजना से जुड़े अन्य वैज्ञानिक डॉ. एसके श्रीराम, डॉ. आनंद, डॉ. प्रमोद कुमार, डॉ.

01 महीने पहले भी साहिवाल नस्ल की बछिया का जन्म हुआ

आईवीएफ तकनीक से गर्भ के बाहर ही निर्मित मादा भ्रूण की उपलब्धता होगी

विश्वविद्यालय में चल रही आईवीएफ प्रयोगशाला

विधि में बात रही भारत सरकार की परियोजना 'राष्ट्रीय गोकुल मिशन' के तहत भ्रूण प्रसारण सह आईवीएफ प्रयोगशाला की स्थापना बिहार पशु विज्ञान विश्वविद्यालय में की गई है। इस परियोजना प्रयोगशाला में कार्यरत वैज्ञानिकों के निरंतर प्रयास से साहिवाल, रेड सिन्धी इत्यादि उच्च क्षमता वाली देसी मादाँ के आईवीएफ तकनीक के माध्यम से गर्भ के बाहर ही निर्मित मादा-भ्रूण की उपलब्धता हो सकेगी, जो कि राज्य में मादा-भ्रूणों में नस्ल सुधार के लिए मौल का पाथर साबित होगा।

तकनीक के फायदे

इन्विट्रो फर्टिलाइजेशन तकनीक से जन्मा दुध देने वाली उन्नत नस्ल की मादाँ से एक वर्ष में बड़ी संख्या में बछिया-बछड़े प्राप्त किए जा सका है। इस तकनीक में मादा के अंडाणु निकालकर आनुवंशिक लैब में पूरी प्रक्रिया को अंजम दिया जाता है। एम्ब्रियो विकसित होने पर उसे कम उन्नत नस्ल की मादा में प्रतिस्थापित किया जाता है। दूसरी मादा की भ्रूणिक पोस्टर यानी सेलेक्ट मादा की रहती है।

अजित, डॉ. राहु, डॉ. सिद्धांत भी इस संयोजन में महत्वपूर्ण भूमिका अदा कर रहे हैं। परियोजना की सकल क्रियान्वयन में डॉ. सुमित कुमार, डॉ. अमरेंद्र किशोर इत्यादि वैज्ञानिकों का भी भरपूर सहयोग रहा। विधि के कुलपति डॉ. रामेश्वर सिंह ने भी वैज्ञानिकों को बधाई देते हुए आईवीएफ तकनीक को आईवीएफ लैब तक ले जाने की अपील की तथा किसानों के हित में किया गया एक सकारात्मक कदम बताया।

जल्द ही पशुपालकों के द्वार पर होगा भ्रूण प्रत्यारोपण

जागरण विशेष - पशु पालन का अत्यंत लोकप्रिय व्यवसाय बनने वाली पशुपालकों के लिए अत्यंत सुखदायक है। अनेकों मादाँ से आसानी से भ्रूण का प्राप्तिकरण करने के लिए पशुपालकों को अब बड़ी जगह की आवश्यकता नहीं पड़ेगी। राष्ट्रीय गोकुल मिशन योजना के तहत पशुपालकों के द्वार पर जल्द ही उनकी मादाँ में भ्रूण का प्राप्तिकरण किया जाएगा। बिहार पशु विज्ञान विश्वविद्यालय विश्वविद्यालय की और से पशुपालकों के द्वार पर उनकी मादाँ में भ्रूण का प्राप्तिकरण किया जाएगा। इसके लिए वेबिटी बन रही है। भ्रूण प्राप्तिकरण करने की तकनीक प्रयोगशाला में भूरी लकड़ निकालना कर रहे हैं। सुखदायक से दुग्धाल के लीवर पर प्राप्तिकरण किया जाएगा। डिजिटल प्रगति होने के बाद इसे सुख किया जाएगा। नई प्रयोगशाला का भवन भी निर्माणाधीन है।

सुख मादाँ का भ्रूण में होगा अंतराधान - सफलता में दुग्धाल के लीवर पर सुख मादाँ में भ्रूण का प्राप्तिकरण मादाँ में किया जाएगा। प्राप्तिकरण के पहले मादाँ की बछियाँ की जांचेगी। बछियाँ में यह देखे जा रहा कि मादाँ प्राप्तिकरण के योग्य है कि नहीं। एक प्राप्तिकरण पर 20 से 25 अंडाणु सफलतापूर्वक हो सकते हैं।



आईवीएफ तकनीक से जन्मी साहिवाल नस्ल की बछी तनुजा और वैदेही।

किएलडीए ने दिया बोजेट

राष्ट्रीय गोकुल मिशन की योजना के तहत बिहार सरकार के बिहार पशुपालन विकास अभियान (बीएएल) के माध्यम से बिहार पशु विज्ञान विश्वविद्यालय को बोजेट दिया है। आईवीएफ तकनीक के माध्यम से भ्रूण का प्राप्तिकरण किया जाएगा। बीकानेर ब्रॉडबैंड का उपयोग कर टेस्ट ट्यूब वाली पैक की जाएगी। इस माध्यम से अनेक नस्ल की मादाँ की संख्या बढ़ेगी।

बीकानेर ब्रॉडबैंड का उपयोग करने शुरू

दिनी तक भ्रूण प्रयोगशाला में बिहार किया जाता है। और जिला स्तर पर अने के बाद उसे मादाँ में प्राप्तिकरण किया जाता है। दुग्धाल में बछियाँ नस्ल के भ्रूण का प्राप्तिकरण किया जाएगा। - डॉ. रामेश्वर सिंह, कुलपति, बिहार पशु विज्ञान विश्वविद्यालय

बिहार पशु विज्ञान विश्वविद्यालय को मिले अतिरिक्त सफलता

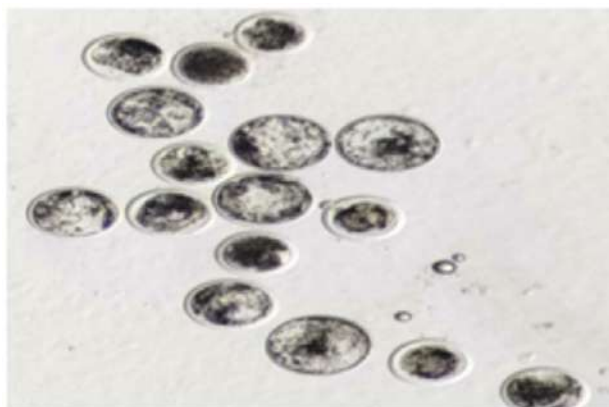
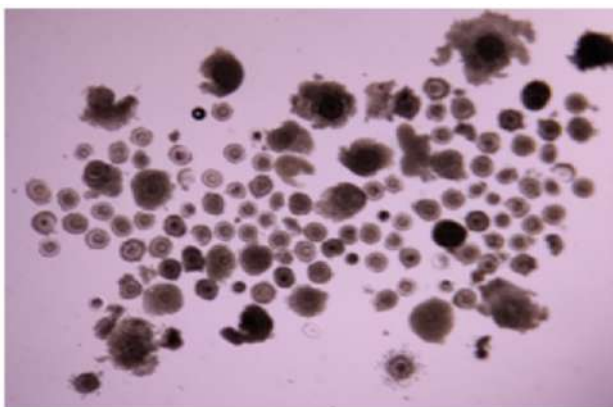
राष्ट्रीय गोकुल मिशन योजना के तहत भ्रूण प्रसारण करने के लिए विश्वविद्यालय प्रयोगशाला करने के लिए पैक की और से अतिरिक्त सफलता प्राप्त होगी। इस मादाँ की भ्रूण प्राप्तिकरण, लैब, प्रक्रियाएं अति उपकरणों पर शुरू करने हैं। 20 कनीड सफलता की योजना में अनेक नस्ल के पशु भी शामिल हैं, जो अनेक सुख देंगे। और मादाँ के प्रक्रिया-विधि का शुरू शुरू विश्वविद्यालय कर रहा है।

पशुपालकों के द्वार पर मादाँ में भ्रूण का प्राप्तिकरण करने के लिए

विधि की रही है। जल्द ही इसे सुख किया जाएगा। जल्द ही से आईवीएफ तकनीक से भी साहिवाल नस्ल की बछी बिहार पशु विज्ञान विश्वविद्यालय के द्वार की गर्भ में जन्मी है। - डॉ. जेके प्रसाद, टीम, बिहार पशु विज्ञान विश्वविद्यालय



Bihar's First IVF Calf- Tanuja“Tanuja”



Highest number of oocytes (127) from single Cow

10. Extension interventions in livestock production systems

10.1 Infertility camp-cum- Awareness seminar organized under Pashudhan Jagriti Abhiyan

Bihar Veterinary College, Patna coordinated and organized 26 animal infertility camp –cum- awareness seminar at 13 aspirational districts of Bihar. Out of 13 district, events of 9 districts were organized by BVC, Patna and events of 4 districts were organized with the help of CoVAS, Kishanganj. This was a Govt. of India sponsored programme under Rashtriya Gokul Mission. The programme was appreciated by farmers and stakeholders with lot of appraisal by people representatives and electronic and print media. In each programme more than 250 farmers were made aware about causes of infertility and their solution. Significant number of animals were also treated for various diseases and disorder in the health camp and free of cost medicines were also distributed among farmers.



10.2 Students training at NDRF bihta on disaster management

Fourth year students of Bihar Veterinary College, Patna were trained on Disaster Management as a part of their VERU course, a special course offered by Bihar Veterinary College, Patna to provide specific type of learning to protect themselves as well as animals at the time of emergency. Bihar Veterinary College, Patna is pioneer in the disaster management for animals with establishment of 1st Veterinary Emergency Response Unit (VERU) in India. The state of Bihar is very much prone to natural disasters such as flood and draught. The students are subject to lecture series as well as practical simulation to response at the time of emergency. Students were visited at NDRF Bihta on 16.08.2023 where they were demonstrated various types of equipments related to rescue at the time of emergency.



10.3 Training on commercial broiler poultry farming:

The college has organized training on commercial broiler poultry farming to the farmers of Bihar. Under this we have organized 09 Training programmes for different groups of poultry farmers, in which 350 farmers were trained and get benefitted. The training programme involved the major aspects such as management, feeding, disease diagnosis, transportation etc. A WhatsApp group of farmers were also created to resolve their issues and provide suggestions as and when required. Regular advice is being given for their issues related to mortality and decreased performance.

10.4 Distribution of poultry chicks among farmers

Under Poultry seed project running at Bihar Veterinary College, Patna, poultry chicks and other inputs were distributed among schedule caste farmers. 650 farmer families were benefited of which 15 farmers adopted it as their business and started to rear 300-500 birds and generating good income from the sale of meat and eggs.

10.5 Awareness for prevention and control of zoonoses among peoples

On the occasion of world zoonoses day department of Veterinary Public Health and Epidemiology, Bihar Veterinary College in collaboration with department of Community Medicine, Indira Gandhi Institute of Medical Sciences, Patna organized awareness programme. The programme was organized in the campus of I.G.I.M.S. the students of IGIMS and BVC awared the general mass about the role of zoonoses in human life through a unukaddnatak.



10.6. Organization of Dog Show, Cat Show, Goat Show

Bihar Animal Sciences University in association with Indian Veterinary association organized a Dog and cat show on 18th Feb.2024 at the Bihar Veterinary College premises. This event showcased many breeds of dogs and cats, including several rare breeds. About 90 dogs and 22 cats of different breeds were participated in the show. Dr. M.Haq, Principal, J.I.S. Veterinary College, Hooghly, Dr. Pankaj Kumar, Veterinary Officer, C.I.D., Jharkhand, Dr. Dalip Kumar, Veterinary Officer, rajgir Zoo safari, Dr. Shankar Dayal, Principal Scientist, I.C.A.R. Patna and Dr. Gautam Kumar, Veterinary Officer, I.T.B.P. were the jury members of the dog and cat show. Dr. Anup Das, Director ICAR-RCER, Patna was the Chief guest for the event. Dr. Rameshwar Singh the then Vice-Chancellor, BASU and Dr. J.K. Prasad, Dean Bihar Veterinary College along with senior officials of the university honored the winners. Dr. Sumit Singhal and Dr. Moin Ansari was the Organizing secretary for the Dog and cat show respectively while Dr. Vivek Kumar Singh and Dr. Bhavna acted as Co-Organizing Secretaries of the Dog and cat show respectively.

The college has also organized a goat show to encourage the goat farmer in the state for scientific management and rearing of goats for better income generation.



Glimpses of Goat show held at BVC during 19th Feb 2024



Glimpses of Dog show held at BVC during 18th Feb 2024

10.7 Lectures video uploaded on ICAR-Agridiksha portal

The Agridiksha portal of ICAR provides an interactive platform and facilitates teachers to leverage digital technology and application for improved learning outcomes. It also provides quality teaching material to students. The Bihar Veterinary College regularly uploads the lectures and talks to the portal and contributes maximally for the upload of lecture videos. As per the data available on the portal, the Bihar Animal Sciences University, Patna stands on 3rd position in terms of number of videos uploaded on the Agri-DIKSHA portal.



11. Establishment of Vermicompost Demonstration Unit at Livestock Farm Complex, BVC under SC-SP Plan 2022-23

A Vermicompost Demonstration Unit (100' x 20' x 7') constructed at Livestock Farm Complex of Bihar Veterinary College, Patna by utilizing the fund of SC-SP under Capital Head and Skill Development for Training Sub Head with the cost of Rs. 1,49,835.00 (Rupees one lakh forty-nine thousand eight hundred thirty five only). This Vermicompost Demonstration Unit contained 36 vermicompost pits for production of Vermicompost on large scale. This Vermicompost Demonstration Unit is very beneficial for hand on practices during organization of trainings on Vermicomposting for Schedule Caste farmers. Total vermicompost production till March, 2024 was 128 quintal.



Technology released/ Transfer

1. Department of Veterinary Animal Husbandry & Extension "BASU Eco-Poultry Cages" (O.O. No. 63/DR Cell/BASU, Patna, dated, 05.02.2024) developed under National Agriculture Science Fund (NASF) project of ICAR. The technology is transferred to 350 famers in the year 2023-24.





Bamboo cage at farmers door



Bamboo cage at farmers door

2. Department of Livestock Products Technology, BVC Patna has developed different food product and these technologies has been released by Bihar Animal Sciences University.



BASU Chicken Litti



BASU Chevon Litti



BASU Mixed Non Veg Litti



BASU Millet Kheer



BASU Thekua



BASU Flavoured Paneer



BASU Belgrami



BASU Paneer Pickle



BASU Whey Soup

12. Release of “BASU Feed” app for Dairy animals by BVC, Patna

The Department of Animal Nutrition, Bihar Veterinary College, Patna has developed an Animal Nutrition mobile app named “BASU Feed” for dairy farmers in Hindi and English. With the help of this mobile app, farmers can formulate the least-cost balanced ration for different physiological stages of their livestock using locally available feed ingredients. To benefit a greater number of farmers, this app has been promoted among dairy farmers through different organizations working in the field of livestock production. This app has been inaugurated by Hon. Chief Minister, Bihar Sri Nitish Kumar in the presence of Secretary, Animal Husbandry Dr. N. Vijaya Lakshmi during Bihar Dairy and Cattle Expo-2023.



13. Conference organized during at Bihar Veterinary College

(A) 32nd National Congress of Veterinary Parasitology

32nd National Congress of Veterinary Parasitology and National Symposium on “Sustainable Control of Parasitic Diseases for Improved Productivity of Livestock in Current Scenario”. This was organized under the umbrella of Indian Association for the advancement of Veterinary Parasitology (IAAVP). The congress was inaugurated by the chief guest, Principal Secretary, Dept. of Animal and Fisheries Resources, Govt. of Bihar, Dr. N. Vijaya Lakshmi in the presence of Hon'ble Vice Chancellor, Bihar Animal Sciences University, at Sardar Patel Bhawan, Patna, Dean Bihar Veterinary College. Patna Dr. J.K. Prasad, Organising Secretary, Dr. Ajit Kumar, President IAAVP Dr. A. Sangaran and General Secretary IAAVP, Dr. Anish Yadav. Dr. Bhaskaran Ravi Latha delivered Dr. S.C. Dutt memorial Keynote address. The symposium five technical sessions with lead papers, oral and poster presentations. 300 delegates from different states, SAUs, ICAR institutes and other national institutes including SSB participated in the congress. A total of ten lead papers, 81 oral presentations and 42 poster presentations were made and discussed various issues.

Finally the congress was concluded with the Valedictory function in the presence of Shri Sumit Kumar Singh, Hon'ble Minister, Dept. of Science, Technology and Technical Education, Govt. of Bihar. The following recommendation emerged out of the congress:

- There is need for advanced research on *Theileria orientalis* and *T. annulata*.
- There is urgent need for epidemiological studies on the prevalence of parasitic diseases to generate data on a national level, based on which integrated control measures can be planned accordingly.
- To focus on integrated parasite control to overcome the anthelmintic and acaricidal resistance.
- Implementation of one health approach to control parasitic infestation.



(B) 2nd National Conference of SPFCA

Society for Promotion of Farm and Companion Animal organized 2nd National Conference on “Enhancing Farmer's Income by Livestock, Poultry and Aqua Farming through Sustainable and Eco-Friendly Smart Technologies and Practices” at Bihar Veterinary College, BASU, Patna from 28-29, February, 2024. The National Conference deliberated upon themes such as Sustainable Animal Production including wild life, Animal health and food safety, nutritional challenges in livestock and poultry, One health approach and practices, Role of Dairy sector and food processing in enhancing farmer's income and Fisheries & Aquaculture: Technology, Innovation and its Dissemination. The conference was attended by approximately 175 researchers, teachers, post-graduate research scholars, entrepreneurs, progressive farmers and policy planners involved in promotion of farm and companion animals from across the

Country. They discussed some of the burning issues through a series of theme talks, plenary lectures and technical sessions. The following recommendation emerged out of the conference:

1. Focus on reducing stray cattle and handling emerging diseases like LSD.
2. Emphasis should be given on fodder production to overcome the fodder scarcity.
3. Emphasis should be given on IVF calf production from indigenous breeds of cattle to augment milk production.
4. Due to climate change, parasitic diseases control is getting difficult. To handle this situation, Common alternative approaches that can be employed including pasture management, selective breeding for host resistance, nutrition-parasite interaction etc. for control of parasitic infestation.
5. Focus on Ornamental fisheries should be emphasised in Bihar to shape it as entrepreneurship venture.



Awards and Recognition

Best teacher award conferred to the faculties of Bihar Veterinary College:

Name & Designation	Professional Year	Awarding bodies
Dr. Pramod kumar	1 st Year	Bihar Veterinary College, Patna
Dr. Deepak Kumar	2 nd Year	Bihar Veterinary College, Patna
Dr. Pankaj Kumar (Ext)	3 rd Year	Bihar Veterinary College, Patna
Dr. Rajesh Kumar	4 th Year	Bihar Veterinary College, Patna

Best Paper (Oral/Poster) Presentation awards conferred to the faculties of Bihar Veterinary College:

Name of Faculty	Details of Conference
Dr Md Moin Ansari	5th ICAAAS, Society for scientific development in agriculture and technology (SSDAT) Meerut (2023)
Dr. Gyandev Singh	Society of veterinary biochemists and biotechnologists of India (SVBBI) held at IVRI, Izatnagar (2023)
Dr. J. P. Gupta	National conference of ISBD-2023 held at DUVASU, Mathura (2023)
	National conference of IAAVP held at BASU, Patna (2023)

Name of Faculty	Details of Conference
	Indian society for sheep and goat production and utilization (ISSGPU) (2024)
Dr. Mritunjay Kumar	XXXII National congress of veterinary parasitology (NCVP) held at BVC, Patna (2023)
	Clinical case conference of veterinary internal mMedicine, held at ANDUAT, Kumarganj, Ayodhya (2024)
	2nd National conference of society for promotion and farm animal (SPFCA), held at BVC, Patna. (2024)
Dr. PallavShekhar	2nd National conference of society for promotion and farm animal (SPFCA), held at BVC, Patna. (2024)
	XXXII National congress of veterinary parasitology (NCVP), held at BVC, Patna (2023)
	Society of veterinary biochemists and biotechnologists of India (SVBBI) held at IVRI, Izatnagar (2023)
Dr. Pankaj Kumar	Indian society for veterinary medicine (2023)
	3rd National conference on livelihood and food security through agriculture and applied sciences, held at Ranchi
Dr. Pankaj Kumar Singh	2nd National conference of society for promotion of farm and companion animals, BASU, Patna (2024)
Dr. Ranveer Kumar Sinha	4th Annual convention of veterinary internal society and national symposium held at SKUAST-Jammu (2023)
Dr. Saroj Kumar Rajak	3rd National conference on livelihood and food security through agriculture and applied sciences, held at Ranchi
Dr. G. K. Choudhary	Best Poster Presentation Awards in XXII Annual Conference of Indian Society of Veterinary Pharmacology and Toxicology organized by RAJUVAS, Bikaner
Dr. Shyma KP	32nd National congress on veterinary parasitology held at Patna (2023)
	National conference as part of vibrant Gujarat- Bharatiya vigyan sammelan held at Ahmedabad (2023)
Dr. Sonam Bhatt	4th Annual convention of veterinary internal society and national symposium held at SKUAST-Jammu (2023)
Dr. Vivek Kumar Singh	2nd National conference of society for promotion of farm and companion animals, held at BASU, Patna (2024)
	XXXII national congress of veterinary parasitology (NCVP) held at BVC, Patna (2023)

Name of Faculty	Details of Conference
	Clinical conference of veterinary internal and preventive medicine, Ayodhya
	VII annual convention of SVBBI held at IVRI Izatnagar (2023)
Dushyant Yadav	2nd National conference of society for promotion of farm and companion animals, BASU, Patna (2024)
Aakanksha	5th ICAAAS, Society for scientific development in agriculture and technology (SSDAT) Meerut (2023)
	6th NOCCC (2023)
	Indian society for veterinary surgery (2023)
Dr. Kumari Anjana	Young Women Scientist Award on the occasion of 6th international conference “Holistic Innovations and Technological Advances for sustainable Agriculture” (HITASA-24). Organized by SR University, Warangal, Just Agriculture Education Group & ISAHRD, Chandigarh.

Faculties honored at various scientific forum (Chaired / co-chaired in scientific session / conference/ expert group /workshop/member in editorial board of journal / Fellow Member of Scholars Academic & Scientific Society/ Rapporteur/ Jury member)

Name of Faculty	Details
Dr. Pankaj Kumar	Fellow of Scholars Academic & Scientific Society-2023.
Dr. Shyma KP	Dr. N.S. Ruprah memorial Oration Award of IAAVP for the outstanding contribution in Veterinary Entomology during 32nd National Congress on Veterinary Parasitology and National Symposium at BASU, Patna, 2023.
Dr Sanjay Kumar Bharti	Fellow IAVA Award In admiration of the services rendered to the Discipline of Veterinary Anatomy & IAVA on 05th December 2023 during XXXVII Annual Convention at Tirupati (A.P.)
Dr. S. P. Sahu	Co-Chairman of technical session in National conference SPFCA, held at BVC, BASU, Patna during 28-29.02.2024.
Dr. S. P. Sahu	Chairman of Executive Committee in Bihar Dairy & Cattle Expo-2023 held at BVC, Patna, 21-23.12.2023
Dr. Pankaj Kumar (Ext)	Chaired a technical session in 3rd National Conference on Livelihood and Food Security through Agriculture and Applied Sciences on 5th November, 2023 at Ranchi.
Dr Rohit Kumar Jaiswal	Rapporteur in 2nd SPFCA Conference held at BVC, Patna
Dr. Gargi Mahapatra	- Joint Secretary of Society for Promotion of Farm and Companion Animals. - Member of organizing committee of 2nd National Conference on the theme Enhancing Farmer's Income by Livestock, Poultry and Aqua farming through Sustainable and Eco-Friendly Smart Technologies and Practices.

Name of Faculty	Details
Dr Md Moin Ansari	Zonal Secretary (East)- Indian Society for Veterinary Surgery, Hisar for the year 2023-2025.
Dr Shushma Kumari	Appointed as External member(s) for the Board of Studies of FVAS, IAS, RGSC, BHU for two years from May, 2023-25.
Dr. Purushottam Kaushik	- Vice President of Society for Promoton of Farm and Companion Animals - Member editorial Board of Indian Journal of Veterinary Public Health. - Co-Chairman of technical session in National conference SPFCA, held at BVC, BASU, Patna during 28-29.02.2024.
Dr. Nirbhay Kumar	Acted as Co-Chairman in XXII Annual Conference of ISVPT and National Symposia organized by RAJUVAS, Bikaner, Rajsthan from November 02-04, 2023
Dr. G.K. Choudhary	- Acted as Co-Chairman in XXII Annual Conference of ISVPT and National Symposia organized by RAJUVAS, Bikaner, Rajsthan from November 02-04, 2023. - Co-Chairman in National Seminar on Animal Husbandry in Ancient India: A Scientific Analysis; organized by Bihar Veterinary College, Bihar Animal Sciences University, Patna, from 19-20, January 2024.
Dr. Rashmi Rekha Kumari	- Editor: International journal of Livestock Research - Section Editor: Research & Reviews: Journal of Veterinary Science and Technology, (OpenAccess) ISSN: 2319-3441 - Editorial Panel: EC Veterinary Science, https://www.econicon.com/veterinary-science-editorial-panel.php (Open Access) - Fellow & Associate Fellow by Academy of Science for Animal Welfare, Bareilly.

Other awards conferred to the faculty members

Name	Award Details
Dr. Md Moin Ansari	- Outstanding Researcher in Veterinary physiotherapy and Rehabilitation, Global Outreach Healthcare Award-2023, Jaipur. - Dr. C.M. Singh” Shalihotra” Pratibha Samman-2023.
Dr. Gyandev Singh	Ram Singh Memorial Award-2023
Dr. Ankesh Kumar	Certificate of recognition Award from AFTEFS (Agricultural Forum for Technical Education of farming Society) ANDUAT, Kumarganj, Ajodhya (UP)
Dr. Pankaj Kumar Singh	CLFMA Award 2023 64th National Symposium 2023 of Compound Livestock Feed Manufacturers Association (CLFMA) at New Delhi
Dr. Sanjay Kumar	- Vice-President conferred by Animal Nutrition Association, India for 2024-26. - Appreciation award by BVC, BASU, Patna for Dairy Expo 2023-24.

Name	Award Details
Dr. Kaushalendra Kumar	Associate Fellow Award conferred by Animal Nutrition Association of India during ANSICON-2024 held at TANUVAS, Chennai.
Dr. Birendra Kumar	Distinguished scientist Award - for outstanding contribution in the field of Animal Genetics and Breeding by society for Agriculture Innovation and Development, Ranchi.
Dr. S. P. Sahu	Certificate of Appreciation for successful organization of Bihar Dairy & Cattle Expo-2023 by Dean, BVC, Patna
Dr. Sushma Kumari	Excellence in research – “Outstanding Woman Researcher Award” in Livestock Products Technology on 02.03.2024 by “Venus International Foundation” in Chennai.
Dr Rohit Kumar Jaiswal	Certificate of Appreciation awarded by BASU for 4th Inter College Sports Meet held at Kishanganj Campus, BASU.
Dr. Pankaj Kumar	Appreciation letter for Bihar Dairy & Cattle Expo-2023, held at 21.12.2023 to 23.12.2023, BASU, Sports Ground, Patna
Dr. Aakanksha	- Best article awards for Success story for the case study Surgical management of umbilical hernia in calves published in The science world - Appreciation letter for contribution in State level Bihar Dairy & Cattle Expo 2023, from Dean, BVC, Patna - Appreciation award received during 46th ISVS annual conference held at OUAT, Bhubanwshwar.

Best Stall award/ Krishi Mela/ Extension award

Faculty Members	Details of mela /activities
Dr. S. P. Sahu Dr. D. N. Singh Dr. Suchit Kumar Dr. Dushyant Kumar Dr. Ranjana Sinha Dr. Manmohan Kumar	- Received Certificate of Merit (1st Position) in categories of Sirohi Goat during Goat Show-2024. - Received Certificate of Merit (2nd Position) in categories of Sirohi Goat during Goat Show-2024. - Certificate of Consolation for milking animal categories (HF Cross) during Bihar Dairy & Cattle Expo-2023. - Certificate of Consolation for milking animal categories (Murrah/Nili-Ravi buffalo) during Bihar Dairy & Cattle Expo-2023. - Certificate of Consolation for milking animal categories (Sahiwal/Red Sindhi) during Bihar Dairy & Cattle Expo-2023.
Bihar Veterinary College was awarded with Best Stall Award in Agriculture Fair organized by Dr. RPCAU, Pusa, Samastipur during 24.02.2024 to 26.02.2024,	

Linkages and Collaboration in India and Abroad Including Funded Projects (AICRP, All India Network Programmes, DBT, ICAR, NAIP, Other funded, International Collaborative)

Title of the Project	Name of the PI & Associated Co-PI	Date of Start and period	Sanctioned funds (Rs. in lakhs)
Network Project on Animal Genetic Resources	PI: Dr. J. P. Gupta Co-PIs: Dr. Ramesh Kr Singh Dr. Birendra Kumar Dr. R. K. Nirala Dr. Dharendra Kumar	18.9.2023	14 Lakhs
National Animal Disease Epidemiology Network	PI: Dr. Pankaj Kumar Co-PI: Dr. Pallav Shekhar Dr. P. Kaushik	01.10.2021	3.0 Lakhs
Establishment of Embryo Transfer Technology laboratory with IVF facility to enhance milk production and productivity among non-descript and descript breeds of Bihar	PI: Dr. J. K. Prasad Co-PIs: Dr. Pramod Kumar Dr. S. P. Sahu Dr. Sumit Singhal Dr. C. S. Azad DR. S. K. Sheetal Dr. Dushyant Yadav	30.09.2023 (3 Years)	2014 Lakh
LHDCP-FMD Collaborating centre, Patna	PI: Dr. Manoj Kumar	01.04.2023	6.00 Lakhs
Online Pest and Disease Management for Crops & Livestock – Development of Image Database for artificial intelligence (AI) based Mobile App	PI: Dr. Manoj Kumar	2021	4.26 Lakhs
National Centre for Veterinary Type Cultures (NCVTC)	PI: Dr. Pankaj Kumar	2023	1.0 Lakhs
An observational investigation of the frequency of pathogenic bacteria and antibiotic resistance at the Patna Zoo.	PI: Dr. Manoj Kumar	15.02.2024	8.36 Lakhs
The combined effect of Quercetin and Platelet Rich Plasma in Semen extender for improved antibacterial efficacy and membranes repairing potential of cryopreserved buck semen	PI: Dr. Alok Kumar Co-PIs: Dr. J. K. Prasad Dr. Pramod Kumar Dr. Ajeet Kumar Dr. Anjay	08.09.2023 (3 Years)	24.73 Lakh

Title of the Project	Name of the PI & Associated Co-PI	Date of Start and period	Sanctioned funds (Rs. in lakhs)
Bio-fabricated Gold Nano-Particle based improved semen extender to augment the post-thaw quality of goat semen	PI: Dr. Alok Kumar Co-PI: Dr. J. K. Prasad Dr. Ajeet Kumar Dr. Deep Narayan Singh Dr. D. Sengupta	01.04.2023 (3 Years)	130 Lakhs
Rapid Techniques for Differentiation of Slaughtered Versus Dead on Arrival Food Animal Meat	PI: Dr. R. K. Jaiswal Co-PIs: Dr. Sushma Kumari Dr. Gargi Mahapatra Dr. Anjay Dr. Ajeet Kumar Dr. Sanjay Kumar	13.09.2023 (3 Years)	23.69 Lakhs
Poultry Seed Project (ICAR-DPR Hyderabad)	PI: Dr. Pankaj Kumar Co-PI: Dr. Puspendra K. Singh	2009	50 Lakhs for 2023-24
All India Network Project on AMR in Fisheries and Livestock (Indian Network of Fisheries and Animal Antimicrobial Resistance)	PI: Dr. P. Kaushik Co-PI: Dr. S.S Roy Dr. Anjay Dr. Nirbhay Kumar Dr. Anil Kumar	2024	10 Lakh/Years

List of research publications in reputed journals

- Ahmad, T., Kumar, Y., Muzaddadi, A. U., Kumar, V., Singhal, S., Kumar, D., Talukder, S., Chand, S., Devadason, I. P., & Biswas, A. K. (2024). extraction and characterization of collagen hydrolysate from buffalo (*Bubalus Bubalis*) skin including its antioxidant properties and antiarthritic effect. *Waste and Biomass Valorization*, 1-15.
- Azad, C. S., Prasad, J. K., Nirala, R. K., Sengupta, D., & Sheetal, S. K. (2023). Freezability effect on seminal characteristic of Bachaur bull in Bihar. *Journal of Veterinary Pharmacology And Toxicology*, 22(1), 15-17.
- Azad, C. S., Sengupta, D., Sheetal, S. K., Kumar, A., & Kumar, A. (2024). Clinical management of postpartum uterine prolapse in goats. *International journals of Veterinary Sciences & Animal Husbandry*, 9(2), 4-6.
- Begum S. S., Hussain, M., Kumar, S., Bharti, S. K. & Malik, M. (2023). Degnala disease in buffaloes and cattle: A clinical review. *International Journal of Veterinary Sciences and Animal Husbandry*, 8(4), 164-166.
- Bhagat, N. R., Kumar, S., Kumari, R., & Bharti, V. K. (2023). A review on rumen anaerobic fungi: current understanding on carbohydrate fermentation and roughages digestion in ruminants. *Applied Biochemistry and Microbiology*, 59(3), 231-249.

6. Bharti, S. K., Kumar, A., Kumar, A., Kumar, A., Safi, A. K., & Singh, R. K. (2023). Degnala disease in buffaloes and cattle: A clinical review. *International Journal of Veterinary Sciences and Animal Husbandry*, 8(4), 164-166.
7. Bhavna, Kumar, R., Kumari, A., & Bharti, S. K. (2023). Surgical Management of Dystocia due to Acaudate Fetus in Rabbit Doe. *The Haryana Vet*, 62(SI), 104-105.
8. Choudhary, G. K., Nirala, R. K., Kumar, N., Archana, Choudhary, P. K., Kumar R. and Singh, S. P. (2023). Reactive oxygen nitrogen species and antioxidant, *Indian Journal of Veterinary Pharmacology and Toxicol.*, 22(1): 1-7.
9. Debbarma, A., Pandit, S., Jas, R., Baidya, S., Nandi, A., Mandal, S. C., Batabyal, S., Kumar, M., De, A., & Mandal, M. (2023). Prevalence of naturally occurring theileriosis in cattle of Tripura, India. *Indian Journal of Animal Health*, 62(1), 107-113.
10. Debnath, J., Debnath, S., Sarkar, D., Debroy, B., Kumar, M., & Das, A. K. (2023). Genetic characterisation of indigenous duck of Tripura state in India using microsatellite markers. *Tropical Animal Health and Production*, 55(3), 198.
11. Gautam, A. K., Ray, S., Das, P., Mandal, A. K., Tudu, N. K., & Sinha, M. K. (2024). Age specific anatomical studies on the medulla oblongata in post-hatch broiler chicken. *Indian Journal of Veterinary Sciences & Biotechnology*, 20(2), 117.
12. Gautam, A. K., Ray, S., Das, P., Mandal, A. K., Tudu, N. K., Singh, D., Islam, M. M., & Rana, T. (2024). Age-related anatomical variation and morphometric studies on the optic tectum in post-hatch broiler chicken. *Anatomia, Histologia, Embryologia*, 53(1), e13002.
13. Kumar, A., & Prasad, J. K. (2023). Upshot of washing of Prepuce on bacterial load of semen and its consequences on semen quality in Sahiwal bulls. *Journal of Livestock Science*, (14), 190-197.
14. Kumar, A., Bhatt, S., Kumar, A., & Rana, T. (2023). Canine rabies: An epidemiological significance, pathogenesis, diagnosis, prevention, and public health issues-Review. *Comparative Immunology, Microbiology and Infectious Diseases*, 97, 101992.
15. Kumar, A., Bhatt, S., Kumar, P., Anjana, K., & Archana, K. A. (2023). Co-infection with theileriosis and anaplasmosis in a holstein friesian crossbred cattle and its therapeutic management. *International Journal of Veterinary Sciences and Animal Husbandry*, 8(3), 16-18.
16. Kumar, A., Kumar, K., Kumar, S., Ali, I., Kumar, D., & Sharma, R. K. (2023). Pancreatic lesions under different pathological conditions and its correlation with poultry diseases. *The Pharma Innovation Journal*, 12(6), 2134-2137.
17. Kumar, A., Kumar, P., Bhatt, S., Kumar, A., Singh, G. D., & Kumar, A. (2023). Theileria annulata induced bilateral ocular signs in cattle and its successful therapeutic management: A Case report. *Iranian Journal of Parasitology*, 18(3), 404-407.
18. Kumar, A., Kumar, P., Bhatt, S., Singh, V. K., & Kumar, A. (2023). Diagnosis and therapeutic management of anaplasmosis in a cross bred goat- A case report . *Haryana Vet*, 62(SI-2), 167-168.
19. Kumar, A., Prasad J. K., & Kumar, A. (2023). A rare case of unilateral Bartholin gland cyst in a jersey cow. *The Haryana vet*, 62(2), 146-147.
20. Kumar, A., Prasad, J. K., Verma, S., Gattani, A., Singh, G. D., & Singh, V. K. (2024). Evaluation of uterine antioxidants in bitches suffering from cystic endometrial hyperplasia-pyometra complex. *Polish Journal of Veterinary Sciences*, 27(1), 43-52.
21. Kumar, B. (2023). Therapeutic management of babesiosis in a horse. *Intas polivet*, 24(1), 116-117.

22. Kumar, B., Kumar, R., & Kumari, A. (2023). Clinical management of corneal ulcer by chemical cauterization using silver nitrate. *Journal of AgriSearch*, 10(1), 85-86.
23. Kumar, B., Kumari, A., Kumar, P., & Kumar, N. (2023). Multiorgan dysfunction in dogs due to babesiosis and its therapeutic management with azithromycin plus clindamycin combination. *International Journal of Veterinary Sciences and Animal Husbandry*, 8(4), 324-328.
24. Kumar, B., Sinha, R. R. K., Nirala, R., Kumar S., Kishor A., Sahu, S. P., Mandal, Kumar, A., & Yashveer, V. (2023). Study on utilization pattern of manpower in the management of livestock farm operations. *International Journal of veterinary sciences and animal husbandry*, SP-8(4), 13-15.
25. Kumar, C., Kumar, A., Kumar, A., Archana, Shekhar, P., & Kumar, A. (2023). Study on effect of tert-butyl hydroquinone on Red Sindhi bull semen cryopreservation. *Ruminant Science*, 12(1), 143-148.
26. Kumar, K., Kumar, A., Kumar, S., Shekhar, P., Tiwari, R., & Sharma, R. K. (2023). Histochemical studies of pancreatic disorders in chabro and vanraja chicken. *Journal of AgriSearch*, 2, 127-130.
27. Kumar, K., Kumar, A., Kumar, S., Singh, N. K., Tiwari, R., Kumar, P., & Sharma, R. K. (2023). Pancreatic pathology in poultry diseases with special reference to histochemistry in Chabro and Vanraja chicken. *Journal of Experimental Zoology India*, 26(2), 2441-2445.
28. Kumar, K., Sengupta, D., Sheetal, S. K., & Azad, C. S. (2023). Induction of parturition using mifepristone and misoprostol in bitch with single pup syndrome. *The Indian Journal of Animal Reproduction*, 44(1), 69-71.
29. Kumar, K., Sengupta, D., Sheetal, S. K., & Kumar, A. (2023). Vaginal cytology: Method for detection of estrus in canine. *The Pharma Innovation Journal*, 12(3), 1493-1494.
30. Kumar, K., Sinha, R. R. K., Singh, P. K., Kishor, A., Kumar, P., Chauhan, S. S., & Kumar, R. (2023). Effects of organic selenium and probiotic supplementation on the performance of indigenous and crossbred dairy cows during summer in the tropics. *Ruminants*, 3(2), 158-171.
31. Kumar, M., Debnath, J., Debbarma, A., & Lalrinkima, H. (2023). Molecular prevalence of tick-borne haemoprotozoan diseases in cattle of North Eastern state of Tripura, India. *Journal of Parasitic Diseases*, 47(1), 68-72.
32. Kumar, P., Kumar, A., Azad, C. S., & Sheetal, S. K. (2023). Studies on different physical characteristics of mongrel dog semen. *Journal of Livestock Science*, 14, 104-108.
33. Kumar, S. K., Kumar, P., Singh, P. K., Rani, D., & Bharti, R. (2024). Impact of ATMA training programmes in Animal Husbandry sectors on the knowledge level of farmers in Muzaffarpur district of Bihar. *International journal of Advanced Biochemistry Research*, 8(2), 190-193.
34. Kumar, S., Bhushan, B., Kumar, A., Panigrahi, M., Bharati, J., Kumari, S., Kaiho, K., Banik, S., Karthikeyan, A., Chaudhary, R., & Dutt, T. (2024). Elucidation of novel SNPs affecting immune response to classical swine fever vaccination in pigs using immunogenomics approach. *Veterinary Research Communications*, 48(2), 941-953.
35. Kumar, S., Puspendra, Tiwari, R., Singh, S., Kumar, P., & Rajak, S. K. (2024). Agriculture information needs of the farmers in Uttar Pradesh. *International journal of Advanced Biochemistry Research*, SP8(2), 190-193.
36. Kumar, S., Sahu, S. P., Kumari, S., Sinha, R. R. K., Kumar, P., Kumar, S., & Kumar, K. (2024). Effects of liquid whey supplementation with water on egg production and egg quality in layer chickens. *Indian Journal of Animal Research*, 58(6), 1053-1057.
37. Kumar, S., Shekhar, P., Kumar, A., Bhatt, S., Singh, V. K., & Das, A. K. (2023). Clinico-therapeutic studies on haemonchosis in Goats. *Indian Journal of Animal Research*, 1, 6.
38. Kumari, B., & Sinha, R. R. K. (2023). Effect of mineral mixture and by pass fate supplementation milk yield and composition in lactating cattle. *The Haryana Veterinarian*

39. Kumari, S., Anjay, Kumari, S., & Singh, H. (2023). Antimicrobial susceptibility profiling of *Staphylococcus aureus* from bovine clinical mastitis milk samples: Antimicrobial susceptibility profiling of *S. aureus*. *Journal of AgriSearch*, 10(4), 270-274.
40. Kumari, S., Anjay, Kumari, S., Nirala, R. K., & Bhoomika. (2023). Phenotypic and genotypic detection of MRSA isolated from bovine clinical and sub clinical mastitis. *The Pharma Innovation*, SP-12 (10), 1990-1993.
41. Kumari, S., Biswas, S., Kumar, S., Sinha, R. R. K. & Bhardwaj, V. (2023). Assessment of shelf-life under refrigerated conditions (4±1 °C) of patties from goat by-product: Rumen meat. *The Pharma Innovation*, SP-12(8), 1380-1382.
42. Kumari, S., Kumar, S., & Sahu, S. P. (2023). Effects of sensory attributes of chicken nuggets. *The Pharma innovation*, 12(SP-8), 986-988.
43. Manjusha K. M., Mehra, S., Chaithra, S. N., Aakanksha, Khan, S., Saxena, A., Kumar, R., & Pawde, A. M. (2023). Successful surgical management of congenital umbilical hernia complicated with diaphragmatic hernia in a one-month-old German shepherd pup. *Indian Journal of Veterinary Surgery*, 44(1), 72.
44. Manjusha, K. M., Kinjavdekar, P., Amarpal, Kumar, R., Khan, S, Islam, Aakanksha, Pawde, A. M., Saxena, A. C., & De, U. K. (2023). Evaluation of dexmedetomidine with and without butorphanol in tiletamine-zolazepam anesthetized dogs for ovariohysterectomy. *Indian Journal of Veterinary Surgery*, 44(2), 95-99.
45. Manjusha, K. M., Sharun, K., Aakanksha, Verma, N. K., Rahman, A. T., Kumar, S. D., Saxena, A. C., Kumar, R., Amarpal, Pawde, A. M., & Singh, V. (2023). Successful surgical management of ocular squamous cell carcinoma through orbital exenteration in a 12-year-old horse. *Journal of Indian Veterinary Association*, 21(3), 84-88.
46. Nirala, R., Tomar, A., Sinha, R. R. K., Yashveer, V., Bhadauria, P., & Miranda, C. (2023). Economic analysis of culling in Vrindavani cows: Culling in Vrindavani cows. *Journal of AgriSearch*, 10(3), 196-200.
47. Nirala, R., Yashveer, V., Tomar, A. K. S., Sinha, R. R. K., Paswan, Kumari, R., Kumar, D. & Kumari, S. (2024). Analysis of rearing cost of Vrindavani heifers at different stages of growth. *Progressive Research: An international Journal*, 19(1), 37-41.
48. Nirala, R.K., Raj, P., Kumari, A., Archana, Choudhary, G. K. & Kumar, P. (2023). "Haematological effect of methanolic extract of Aloe vera in Wistar rats. *Progressive Research: An International Journal*. 19(1):70-72.
49. Paregi, A. B., Ankuya, K. J., Srivastava, A. K., Chaudhary, A. P., Chauhan, H. D., Ashwar, B. K., & Gupta, J. P. (2023). A study on the breeding practices followed by dairy farmers in tribal area of North Gujarat region. *Indian Journal of Animal Production and Management*, 39(2), 107-113.
50. Parsani, H. R., Shyma, K. P., Patel, J. A., Chaudhary, N. R., & Patel, M. K. (2023). Efficacy of a homeopathic complex (Masta-forte+ Actino Cure) and antibiotics in treatment of bovine clinical mastitis. *International Journal of Bio-resource and Stress Management*, 14(4), 637-642.
51. Patel, J. R., Patil, S. S., Pawar, M. M., Gami, Y. M., & Gupta, J. P. (2023). Effect of sunflower oil supplementation on milk production, composition, fatty acid profile and blood metabolites of Mehsana buffaloes. *Asian Journal of Dairying, Foods & Home Sciences* 10.18805/ajdf. DR-2039.
52. Patel, M. K., Parsani, H. R., & Shyma, K. P. (2024). In vitro detection of acaricidal resistance status of *Rhipicephalus microplus* against Fenvalerate and Flumethrin from Banaskantha, Gujarat, India. *International Journal of Veterinary Science and Animal Husbandry*, 9(2), 536-541.

53. Patel, M. K., Patel, J. A., Parsani, H. R., & Shyma, K. P. (2023). Prevalence of gastrointestinal parasites at an organised sheep farm. *The Pharma Innovation, SP-11*(5), 162-165.
54. Pawar, M. M., Patil, S. S., Panchasara, H. H., Patel, J. R., Ahuja, L. C., Raut, A. S., Modi, C. P., & Gupta, J. P. (2023). Effect of rumen-protected choline supplementation on production performance and haemato-biochemical profile of Kankrej cows. *Indian Journal of Dairy Science*, 76(1), 73-77.
55. Pradeep, Jisna, K. S., Mehra, S., Aakanksha, Chandra, P., Chaithra, S. N., Alifsha, B., & Saxena A.C. (2023). Diagnosis and management of dystocia due to gastroschisis in a Pug. *Indian J. Vet. Surg*, 44(1), 76.
56. Priyambada, Kumari, S., Archana, Kumari, S., Kumar, P., & Kumar, R. (2023). Isolation, characterization, and antibiotic sensitivity testing of *Escherichia coli* strains from poultry eggs in and around Patna, India. *Indian Journal of Animal Health*, 62(2), 228-232.
57. Pusp, A., Kumari, A., Tiwary, R., Kumar, B., Ansari, M. M., Kumar, R., & Bhavna (2023). Haemodynamic and haemato-biochemical changes with ketamine, propofol and ketofol as constant rate infusion anesthesia for elective ovariectomy in dogs. *Indian Journal of Animal Research*, 1, 5.
58. Ranjan, A., Komal, Gattani, A., & Kumar, A. (2023). Blood biochemical profile of Asian elephant (*Elephas maximus*) in captive. *Hayana Veterinarian*, 62(1), 106–108.
59. Ranjan, P., Kumar, S., Kumar, K., Singh, P. K., Kumar, P., Sinha, R. R. K., & Kumari, R. (2023). Effect of dietary supplementation of tannins, probiotics and antibiotic growth promoters on growth performance of broiler chicken. *Indian Journal of Animal Sciences*, 93(6), 655-658.
60. Saha, R. S. (2023). Microbiological survey of ethnic ready-to-eat street food Wahan Mosdeng (Pork vorta) of Tripura. *Journal of Veterinary Public Health*, 19(1), 37-40.
61. Sahu, R., Kumar, D., Sohane, R. K., Kumar, R., Kumar, A., Mandal, S. K. & Sahu, J. (2023). Crop establishment and nutrient management for production sustainability in rice (*Oryza sativa*)-wheat (*Triticum aestivum*) system in eastern India. *The Indian Journal of Agricultural Sciences*, 93(10), 1114-19.
62. Sathwara, R. N., Gupta, J. P., Chaudhari, J. D., & Patel, P. A. (2023). Effect of some non-genetic factors on productive and reproductive traits of Mehsana buffaloes. *Buffalo Bulletin*, 42(3), 383-389.
63. Sharma R. K., Kumar, R., Prasad, J., Sahi, B., & Kumar, K. (2023). Efficacy of Anthelmintics against gastro-intestinal nematodes in crossbred dairy cattle. *The Pharma Innovation*, 12(6), 1920-1921.
64. Sharma, R. K., Singh, V., Kumar, K., Kumar, P., & Shyma, K. P. (2023). Effect of worm management practices on anthelmintic resistance in GI nematodes of goat in Patna, Bihar. *Journal of Experimental Zoology India*, 26(2), 2419.
65. Sharma, R., Singh, V., Kumar, A., Kumar, P., Shyma, K. P., & Kumar, K. (2023). Anthelmintic resistance in gastro-intestinal nematodes of goat with reference to feeding and grazing practices in Patna district of Bihar. *Journal of AgriSearch*, 2, 124-126.
66. Singh, G. D., Gattani, A., Kumar, A., & Kumar, A. (2023). Cardiac and physico-chemical responses to xylazine and fentanyl analgesia in *Bubalus bubalis*. *Buffalo Bulletin*, 42(4), 587-595.
67. Singh, M. K., Kumar, S., Singh, S. K., Sharma, R. K., Prakash, A., Prasad, S., Singh, S., Yajuvendra, S., & Singh, D. N. (2023). Body weights and growth rates in indigenous chicken breeds of India. *World's Poultry Science Journal*, 79(4), 867-878.

68. Singh, P. K., Prasad, S. K., Shekhar, A., Kumar, S., Kumar, K., Kumar, P., & Ganguly, B. (2023). Effect of different vitamin E sources on growth performance, nutrient utilization, anti-oxidant status and carcass characteristics in broiler chicken. *The Indian Journal of Animal Sciences*, 93(5), 475-480.
69. Singh, P. K., Shekhar, A., Kumar, K., Kumar, S., Kumar, P., & Ganguly, B. (2023). Comparative efficacy of synthetic and herbal emulsifiers in broiler chicken fed energy-restricted diet. *The Indian Journal of Animal Sciences*, 93(04), 359-365.
70. Sinha, R. K., Kumari, B., Das, A. K., Kumar, A., Bhoomika., & Singh, V. K. (2023). Influence of parity, stage of lactation, lactation strength and quarter position on intramammary infection in dairy cattle. *The Pharma Innovation*, 12(4), 844-848.
71. Sinha, R., Singh, D. N., Kumar, M., Yadav, D., Kumari, S., & Ranjan, A. (2023). Detection of lameness in dairy cattle and buffalo using digital infra-red thermography. *The Pharma Innovation*, 12(6), 4054-4058.
72. Sirohi, M., Rajneesh, Kumar, A., Singh, D. N., Singh, Y., & Tyagi, M. (2023). Neem as herbal alternative for controlling parasitism in livestock. *Indian Journal of Agriculture Business*, 9(2), 63-68.
73. Srivastava, A. K., Patel, J. B., Chaudhary, A. P., Ankuya, K. J., Chauhan, H. D., Patel, V. K., Pawar, M. M. & Gupta, J. P. (2023). Pre-partum feeding and elimination behaviour of Kankrej cows at an organized farm. *Indian Journal of Animal Production and Management*, 37(4), 278-284.
74. Tiwari, S., Singh, Y., Sirohi, R., Singh, D. N., Kumar, A., & Kumar, M. (2024). Behavioural pattern as indicator of different stages of estrus in sahiwal cows. *Indian Journal of Animal Production and Management*, 40(1), 18-22.
75. Vidyarthi, A. K., Biswas, S., Banerjee, R., Patra, G., Bhattacharyya, D., Mahapatra, G. & Sangam, A. (2023). Antioxidant potential of fruit-based phytochemical on the quality attributes and the shelf-life of Chevron nuggets. *Asian Journal of Dairy and Food Research*, 1-7.
76. Yashveer, V., Nirala, R., Sinha, R. R. K., Kumari, S., Kumar, D., & Bhadauria, P. (2004). Evaluation of growth, production and reproduction performance of Dahlem Red and their crosses with native breeds in the agro climatic conditions of Bihar. *Progressive Research: An international Journal*, 19(1), 31-36.

Abstract/full invited papers presented in conferences/trainings, etc

- 1) Aakanksha, Kumar, R., and Tiwary, R. (2023). Successful surgical management of intussusception in a pregnant cow. 46th Annual congress of ISVS and National symposium on emerging trend on farm, companion and wild animal surgery.
- 2) Aakanksha, Kumar, R., Tiwary, R., and Kumar, S. (2023). Chemotherapeutic management of extra-genital canine transmissible venereal tumor in a dog. 46th Annual congress of ISVS and National symposium on emerging trend on farm, companion and wild animal surgery.
- 3) Aakanksha, Mehra, S., Chaithra, S. N., Singh, B. P., Manjusha, K. M., Kumar, R., Saxena, A. C., Pawde A. M., and Amarpal. (2023). Surgical management of ectopic ureter and ureterocele: case report of two dogs. 46th Annual congress of ISVS and National symposium on emerging trend on farm, companion and wild animal surgery.
- 4) Anjay, Kaushik, P., Roy, S.S., Bhoomika, Kumar, A., Kumari, S., Yadav, S., Singh, S. and Rani, N. (2024). Whole genome sequence analysis and Biocontrol study of *S. aureus* phages isolated from sewage sample. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna

- 5) Anjay, Kaushik, P., Roy, S.S., Bhoomika, Singh, S. and Rani, N. (2023). Isolation and characterization of phage(s) targeting MDR food borne pathogens. International symposium and Annual conference of Indian Association of Veterinary Public Health Specialists (IAVPHS), 7th-8th December, 2023 held at LUVAS, Hissar.
- 6) Ansari, M.M., Makhdoomi, D.M. and Shafi, A. (2023). Acute effect of keyhole spaying on lipid peroxidation and some antioxidant balance in bitches. 46th ISVS Compendium, Odhisa. SAS-30.
- 7) Ansari, M.M., Makhdoomi, D.M. and Shafi, A. (2023). Effect of splash block on pain response using lignocaine hydrochloride, ropivacaine hydrochloride and their combination in dogs undergoing keyhole ovariohysterectomy. 46th ISVS Compendium, Odhisa. ANS-37.
- 8) Azad, C.S., Prasad, J.K., Sheetal, S.K., Sengupta, D. and Singhal, S. (2024) A study of seminal characteristics of Bachaur bull semen on storage at 5°C. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 9) Behera Amrita (2023) "Comparative study of lipid droplet-associate protein, perilipin2 in canines and humans" was presented in SVBBI-2023 held on 14-15 December 2023 at Indian Veterinary Research Institute, Bareilly.
- 10) Behera Amrita (2023) "Erythrocytic dynamics in theileria naturally affected cattle" was presented in 32nd NCVP 2023 held on 29 Nov-1st Dec, 2023 at Bihar Veterinary College, Patna.
- 11) Behera Amrita (2023) "Perilipin 2 deletion impairs LD metabolism and cancer progression" was presented in SVBBI-2023 held on 14-15 December 2023 at Indian Veterinary Research Institute, Bareilly.
- 12) Behera Amrita, (2023) "Lipidomics approach to investigate canine mammary tumour" was presented in SVBBI-2023 held on 14-15 December 2023 at Indian Veterinary Research Institute, Bareilly.
- 13) Bhardwaj Himalaya (2023) "Assesment of Red Blood Cell changes and Oxidative stress levels in cattle naturally affected with Babesia" was presented in 32nd NCVP 2023 held on 29 Nov-1st Dec, 2023 at Bihar Veterinary College, Patna.
- 14) Bharti, A., Kumar, B., Kumar, D. and Singh, R. K. (2024). Effect of managemental system on Fertility and Hatchability of Desi birds of North-Eastern Bihar. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 15) Bharti, S.K., Gautam, A.K. and Choudhary, R.K. (2023) Plastination of female reproductive tract of black bengal goat: An innovative teaching module. XVII Annual Convention of Indian Association of Veterinary Anatomists and National Symposium on "Recent advances in veterinary anatomy and their applications for improvement of animal health and production" 5th-7th December, 2023 held at College of Veterinary Science Sri Venkateswara Veterinary University, Tirupati.
- 16) Bharti, S.K., Kumar, V. and Gautam, A.K. (2023) Gross and histological studies on the spleen of adult Kadaknath chicken. XVII Annual Convention of Indian Association of Veterinary Anatomists and National Symposium on "Recent advances in veterinary anatomy and their applications for improvement of animal health and production" 5th-7th December, 2023 held at College of Veterinary Science Sri Venkateswara Veterinary University, Tirupati.

- 17) Bharti, S.K., Kumar, V. and Gautam, A.K. (2023) Gross morphometrical study of the stomach of adult kadaknath chicken. XVII Annual Convention of Indian Association of Veterinary Anatomists and National Symposium on "Recent advances in veterinary anatomy and their applications for improvement of animal health and production" 5th-7th December, 2023 held at College of Veterinary Science Sri Venkateswara Veterinary University, Tirupati.
- 18) Bhatt T, Gupta J.P., Chaudhari J.D., Sathwara R.N., Srivastava A.K., Rathod B.S., Patel P.A. and Prajapati M.N. (2023). Genetic and Non-genetic factors affecting reproduction traits in Mehsana buffaloes Under field progeny testing. Compendium of Proceedings of ISBDCON-2023. Modern Approaches for Sustainable Buffalo Production. Held at DUVASU, Mathura.
- 19) Bhatt, S., Kumar, A., Mandal, R.S.K., Kumar, A., Das, A.K. and Bhavna. (2024). Successful treatment of ascites associated with Canine Ehrlichiosis in a Labrador puppy. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 20) Bhatt, S., Kumar, A., Mandal, R.S.K., Kumar, A., Kumari, J., Das, A.K. and Bhavna.(2023). Clinical management of nasal oestrosis in a crossbred goat. In: Compendium of National Congress of Veterinary Parasitology 'Sustainable control of parasitic disease for improved productivity of livestock in current scenario' organized by BASU, Patna held on 29 th Nov. to 1 st Dec., 2023.
- 21) Bhavna, Kumar, K., Kumari, A., Kumar, A., Singhal, S. and Yadav, D. (2024). Fetal and uterine herniation through lateral abdominal wall causing dystocia in a spitz bitch. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 22) Bhavna, Shekhar, P., Kumar, V., Kumari, A., Tarana and Ragini. (2024). Simultaneous incidence of pyometra and ascites in a female golden retriever and its successful management. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 23) Chaithra, S. N., Gopinathan, A., Singh, K., Manjusha, K. M., Arya, M., Aakanksha, Mehra, S. and Alifsha, B. (2023). Conjunctival grafting for the management of descemetocoele in an american pit bull. 6th National online clinical case conference.
- 24) Chaudhari J.D., Gupta, J.P., K.J. Ankuya and Pawar, M.M. (2023). Characterization of the camel breeding practices in North Gujarat. Sixth Bhartiya Vigyan Sammelan (BVS)-2023, organized by Government of Gujarat and Vigyan Bharati in collaboration with Sardarkrushinagar Dantiwada Agricultural University, Sardarkrushinagar.
- 25) Choudhary, G. K. Singh, S. P., Ahmad, A. H. and Kumar, A. (2023). Effects of Gandh Paalashi (*Hedychium spicatum*) on the expression of hepatic genes associated with biotransformation, antioxidant and immune systems in WLH cockerels fed indoxacarb, XXII Annual Conference of Indian Society of Veterinary Pharmacology and Toxicology and National Symposia organised by RAJUVAS, Bikaner, Rajasthan from November02-04, 2023, page 68.
- 26) Choudhary, G. K., Singh, S. P. Kumar, Ahmad, A. H., Nirala, R. K., Archana, Choudhary, P. K. and Kumar. N. (2023). Exploring *Hedychium spicatum* rhizome power as alternative to health promoting agents in poultry” SPFCA2 National Conference 2024 (NCL-06).
- 27) Choudhary, G. K., Singh, S. P. Kumar, R. R., Kumar, N., Nirala, R. K., Archana, Choudhary, P. K. and Sharma, R. K. (2023). In-vitro Antioxidant and Anthelmintic Properties of Rhizome

- Extracts of *Hedychium spicatum*. 2023. 32 nd National Congress of Veterinary Parasitology and National Symposium on “Sustainable Control of Parasitic Disease for Improved Productivity of Livestock in Current Scenario” organized by Bihar Animal Sciences University, Patna under the aegis of Indian Association for the Advancement of Veterinary Parasitology (IAAVP) from 29th November -1 st December, 2023, pages-54.
- 28) Choudhary, P. K., Ishwar, A. K., Kumar, P., Srivastav, A. and Choudhary, G.K.(2024). Effect of Exogenous melatonin and different photoperiod on triiodothyronine(T3) and Thyroxine (T4) in Chhotanagpuri Ewe. Compendium SPFCA 2nd National Conference on Enhancing Farmers Income by Livestock, Poultry, Aqua farming through Sustainable and Eco-friendly Smart Technologies and practices from 28 th -29 th February, 2024 organised by Society for Promotion of Farm and Companion Animals, Bihar Veterinary College, Bihar Animal Sciences University, Patna, Pages- 19.
 - 29) Choudhary, R.K., Sivagnanam, S., Bharti, S.K., Singh, N.K., Gautam, A.K. and Singh, M.K. (2023) Novel method of preparing plastinated organs. XVII Annual Convention of Indian Association of Veterinary Anatomists and National Symposium on "Recent advances in veterinary anatomy and their applications for improvement of animal health and production" 5th-7th December, 2023 held at College of Veterinary Science Sri Venkateswara Veterinary University, Tirupati.
 - 30) Darji, M., Brahmkshatri, B.P., Gupta, J.P., Saha, S., Chaudhari, J., Chaudhari, A. and Dhara, G. (2023). Estimation of Genetic Component for Milk Yield Traits in Mehsana Buffaloes Under Heat Stress Conditions. Compendium of Proceedings of ISBD CON-2023. Modern Approaches for Sustainable Buffalo Production. Held at DUVASU, Mathura.
 - 31) Deep, A., Kumari, A., Tiwary, R., Ansari, M.M., Bhavna, Kumar, P., Singh, S. and Kumar, M. (2023). Wound morphometry and physio-biochemical indices in diabetic wistar rats using platelet rich plasma and nano silver gel on full thickness wound. 46th ISVS Compendium, Odhisa. SAS-30.
 - 32) Deep, A., Kumari, A., Tiwary, R., Ansari, M.M., Bhavna, Kumar, P., Singh, S. and Kumar, M. (2023) Wound morphometry and physio-biochemical indices in diabetic wistar rats using platelet rich plasma and nano silver gel on full thickness wound. 46th Annual Congress of ISVS, Dec. 2023
 - 33) Dhakad, R, Chaudhary, A.P., Gupta, J.P. and Tiwari, S (2023). Effect of Non-Genetic factors on Reproduction Performance of Mehsana Buffalo at Organised Farm. Compendium of Proceedings of ISBD CON-2023. Modern Approaches for Sustainable Buffalo Production. Held at DUVASU, Mathura.
 - 34) Islam, Saxena, A. C., Aakanksha, Hoque, M., Kumar, R., Kumar, A., Kinjavdekar, P., and Amarpal. (2023). Comparison of left ventricular volume (IVV) estimated through monoplane (msmod) and biplane (bsmod) simpson's method of disc with teichhloz's m-mode method (tmm) in dogs having lv chamber enlargement. 46th Annual congress of ISVS and National symposium on emerging trend on farm, companion and wild animal surgery.
 - 35) Jaiswal, R. K., Mendiratta, S. K., Talukder, S., Chand, S., Mishra, V., Ojha, S. and Prasad, G. B. (February, 2024). Post slaughter pH and temperature correlation for determining the quality of buffalo meat under different handling conditions. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
 - 36) Jisna, Pradeep, Mehra, S., Aakanksha, Saxena, A. C., Kumar, B., Patra, M. K., and Ghosh, S. K. (2023). Successful management of dystocia due to fetal congenital gastroschisis in pug. 6th National online clinical case conference.

- 
- 37) Kishor, A., Sheetal, S.K., Kumar, K., Singhal, S. and Sharma, R.K. (2024) Management of egg-bound condition in a parrot: A case study 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 38) Kumar A., Kumar, A., Sheetal, S.K., Azad, C.S., Sengupta, D., Bhavna and Kumar, A.. (2023). Approximate study of hormonal and biochemical profile on super stimulatory response between GnRH and CIDR based superovulatory protocols in Sahiwal cows. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 39) Kumar Ajeet, (2024) "Rapid detection of Escherichia coli associated with bovine mastitic milk using oligonucleotide conjugated gold nanoparticle" was presented in 2nd National Conference of SPFCA held on 28-29 February, 2024 at Bihar Veterinary College, Patna.
- 40) Kumar, A., Kumar, A., Sheetal, S.K., Sengupta, D., Azad, C.S., Bhavna and Kumar, A. (2024) Approximate study of hormonal and biochemical profile on super stimulatory response between GnRH and CIDR based super ovulatory protocols in Sahiwal cows. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 41) Kumar, A., Kumar, A., Sheetal, S.K., Sengupta, D., Kumar, A. and Bhatt, S. (2024) Relative study of super stimulatory response between GnRH and CIDR based super ovulatory protocols in Sahiwal cows. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 42) Kumar, A., Mandal, R.S.K., Bhatt, S., Kumar, A., Bharti, S.K., Das, A.K. and Kuma, M.' (2023) Canine babesiosis and its therapeutic management in dog-a case report. 32nd National Congress of Veterinary Parasitology and National Symposium on "Sustainable Control of Parasitic Diseases for Improved Productivity of Livestock in Current Scenario, 29 November-01 December, 2023, held in BASU, Patna
- 43) Kumar, A., Prasad, J.K., Kumar, N., Anand, M., Singhal, S. and Singh, D.N. (2024) Effect of quercetin in buck semen on seminal attributes at post thaw stage of cryopreservation 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 44) Kumar, A., Prasad, J.K., Verma, S., Mishra, V., Singh, D.N. and Singhal, S. (2024) Standard dietary advice for pets: A meaningful insight for pet parents in current scenario. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 45) Kumar, D., Singh, P.K. and Kumar, A. (February 2024). Strategies for round the year green fodder availability by small and marginal farmer. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 46) Kumar, D., Singh, P.K., and Kumar, A. (February 2024). Strategies for round the year green fodder availability by small and marginal farmer. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 

- 47) Kumar, K., Kumar, S., Kumar, K., Kumar, D., Singh, P. K., Koley, S., Kumari, S., Kumar D., Kumari, R., and Sinha, R. R. K. (February 2024). Effect of dietary supplementation of Curcuma longa and Coriandrum sativum powder on performance of broiler chicken. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 48) Kumar, K., Sengupta, D., Kumar, A., Yadav, D., Sheetal, S.K. and Bhavna (2024) Delivered a foetus by using mifepristone and cloproeseny in a bitch. 6th National Online Clinical Case Conference, April 25-27, 2023.
- 49) Kumar, K., Sengupta, D., Singhal, S., Sheetal, S.K. and Bhavna (2024) Medical management of closed pyometra in a bitch. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 50) Kumar, K., Sengupta, D., Singhal, S., Sheetal, S.K. and Bhavna. (2024). Medical management of closed pyometra in a bitch. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 51) Kumar, N., Sinha, R. R. K., Kumar, S., Nirala, R. K. and Kishor, A. (2024) Effect of supplementation of citric acid and dextrose on economics of broiler production. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 52) Kumar, R., Aakanksha, and Tiwary, R. (2023). Comparative evaluation of hip denervation and epitalis oil for management of hip dysplasia in canines. 46th Annual congress of ISVS and National symposium on emerging trend on farm, companion and wild animal surgery.
- 53) Kumar, R., Aakanksha, Kumar, M., Singh M. K. and Kumar, D. (2023). Surgical management of nasal schistosomiasis in cross-breed cattle. 5th International conference in hybrid mode on innovative and current advance in agricultural and allied sciences.
- 54) Kumar, R., Aakanksha, Kumari, A., Bhavana and Tiwary, R. (2023). Surgical management of pervious urachus in two new calves. 5th International conference in hybrid mode on innovative and current advance in agricultural and allied sciences.
- 55) Kumar, R., Aakanksha, Kumari, A., Bhavna and Tiwary, R.. (2023). Surgical management of pervious urachus in two new calves. 5th International conference of ICAAAS, 10-16 July 2023.
- 56) Kumar, R., Aakanksha, Tiwary, R., Kumar, A., and Akshansh. (2023). Surgical management splenic haemangio-sarcoma in a female dog. 46th Annual congress of ISVS and National symposium on emerging trend on farm, companion and wild animal surgery.
- 57) Kumar, R., Aakanksha, Tiwary, R., Ansari, M. M. and Singh, M. K. (2024). Surgical management of bilateral mandibular fracture in dogs. 2nd SPFCA,
- 58) Kumar, R., Aakanksha, Tiwary, R., Kumar, M. and Ansari, M. M. (2024). Successful surgical management of perineum haematoma and vaginal tear in a cow. 2nd SPFCA
- 59) Kumar, R., Aakanksha, Tiwary, R., M. K. Singh and Bhavna (2023). Surgical repair of recto- vaginal fistula with atresia ani in a cow calf. 5th International conference in hybrid mode on innovative and current advance in agricultural and allied sciences.
- 60) Kumar, R., Aakanksha, Tiwary, T., Singh, M.K. and Bhavna. (2023). Surgical repair of congenital recto-vaginal fistula with atresia ani in a cow calf. 5th International conference of ICAAAS, July 2023.

- 61) Kumar, S., Kumar, B., Kumar, A., Aakanksha, Nisha, A and Kumari. J. (2024). Diagnostic evaluation and therapeutic management of dilated cardiomyopathy in a golden retriever dog: A case report in 1st Clinical case conference of Veterinary internal and preventive medicine.
- 62) Kumari, A., Bhavna and Tiwary, R. (2024). Surgical management of sialocoel in a crossbred dog: A case report 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 63) Kumari, A., Kaushik, K., Anjay and Bhoomika. (2024) MIC based detection of colistin resistance in E. coli isolates from livestock including cattle, buffalo, goat and chicken in Patna, District, Bihar. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 64) Kumari, A., Tiwary, R., Ansari, M.M., Bhavna, Kumar, M. and Raj, R. (2024). Physical therapy for sciatic nerve paralysis in a Labrador dog. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 65) Kumari, A., Tiwary, R., Deep, A., Ansari, M.M., Kumar, M., Raj, R. and Bhavna (2023). Successful surgical management of cerebral coenurosis (Gid) in goat. National Congress of Veterinary Parasitology 'Sustainable control of parasitic disease for improved productivity of livestock in current scenario' organized by BASU, Patna held on 29 th Nov. to 1 st Dec., 2023.
- 66) Kumari, P., A.K., Gautam, A.K., Bharti, S.K., Sinha, M.K. and Choudhary, R.K. (2023) Gross anatomical and morphomatrical studies on the brain of black bengal goat. XVII Annual Convention of Indian Association of Veterinary Anatomists and National Symposium on "Recent advances in veterinary anatomy and their applications for improvement of animal health and production" 5th-7th December, 2023 held at College of Veterinary Science Sri Venkateswara Veterinary University, Tirupati.
- 67) Manjusha, K. M., Mehra, S., Chaithra, S. N., Aakanksha, Khan, S., Saxena, A. C., Amarpal, Kumar, R., and Pawde, A. M. (2023). Successful surgical management of congenital umbilical hernia complicated with diaphragmatic hernia in a one-month-old german shepherd pup. 6th National online clinical case conference.
- 68) Mehra, S., Manjusha, K. M., Chaithra, S. N., Sarkar, V. K., Aakanksha, Singh, B. P., Sakshi, Kumar, V., Saxena, A. C. and Kumar, R. (2023). Diagnosis and successful surgical management of paraprostatic cyst in german shepherd dogs. 46th Annual congress of ISVS and National symposium on emerging trend on farm, companion and wild animal surgery.
- 69) Nirala R.K., Anjana, Archana, Kumari R.R "Evaluation of antioxidants Potential of EmblicaOfficinalis in Wistar Rats." National conference of ISVPT-2023 (EP-OP-20)
- 70) Roy, S.S., Chakraborty, S., Kaushik, P., Anjay and Bhoomika. (2024). Cross sectional studies on microbial quality and foodborne pathogens isolated from Shidal, an ethnic fermented fish product of Tripura. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 71) Roy, S.S., Debnath, B.C., Angom, B., Kaushik, P., Anjay and Bhoomika. Novel approach to study the zoonotic Cryptosporidium spp. in water sources of Tripura. (2023). 32nd National Congress of Veterinary Parasitology and National Symposium on Sustainable control of Parasitic diseases for improved productivity of livestock in current scenario organized by BASU, Patna on 29th Nov. to 1st Dec., 2023.

- 72) Safi, A.K., Sinha, M.K., Singh, M.K., Bharti, S.K. and Gautam, A.K. (2023) Morphological and morphometrical studies of testes in jamunapari goat. XVII Annual Convention of Indian Association of Veterinary Anatomists and National Symposium on "Recent advances in veterinary anatomy and their applications for improvement of animal health and production" 5th-7th December, 2023 held at College of Veterinary Science Sri Venkateswara Veterinary University, Tirupati.
- 73) Sengupta, D, Singhal, S., Sheetal, S.K. and Azad, C.S. (2024) Complicated case TVT in a labrador bitch: A case report. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 74) Sheetal, S.K., Sengupta, D., Singhal, S., Azad, C.S. and Kumar, K. (2024) Different treatment protocols for transmissible venereal tumor in male dogs. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 75) Shyma, K.P., Chaudhary, N.R. and Parsani H.R.. (2023). Assessment of acaricide resistance in single and multi-host ticks from different agro-climatic zones of Gujarat and its management. 32nd National Congress of Veterinary Parasitology 'Sustainable control of parasitic disease for improved productivity of livestock in current scenario' organized by BASU, Patna held on 29 th Nov. to 1 st Dec., 2023.
- 76) Singh, D. N., Kumar, S., Sinha, R., Kumar, M. and Sahu, S. P. (2024). Effect of management intervention to improve birth weight, growth performance in Black Bengal goat under organized farm condition. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 77) Singh, H., Anjay, Kaushik, P., Roy, S.S. and Bhoomika (2024). Multidrug resistance profiling of Salmonella isolates from foods of animal origin and humans. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 78) Singh, P. K., Kumar, P., Rajak, S. K. (2023) Perceived empowerment of the Poultry farming through Vanraja poultry based backyard poultry farming. 38th Indian Poultry Science Association Conference (IPSACON) and National Symposium, 13-15 September, Srinagar.
- 79) Singh, S., Aakanksha, Kumar, S., Akshansh, Kumar, P., and Gopal, M. A. (2023). Surgical management of Testicular Tumor in a Pomeranian dog. National Clinical Case Conference on A new era of diagnosis and therapeutic approaches to combat the animal diseases.
- 80) Singh, V.K., Shekhar, P., Singh, G.D., Kumar, M., Namrata, Kumar, A. and Bhavna. (2023). A serological survey and haemato-biochemical evaluation of tick-borne pathogens in dogs. National Congress of Veterinary Parasitology 'Sustainable control of parasitic disease for improved productivity of livestock in current scenario' organized by BASU, Patna held on 29 th Nov. to 1 st Dec., 2023.
- 81) Sinha, M.K., Safi, A.K., Bharti, S.K., Gautam, A.K. and Singh, M.K. (2023) Anatomical study of the digits of hind limbs in goat. XVII Annual Convention of Indian Association of Veterinary Anatomists and National Symposium on "Recent advances in veterinary anatomy and their applications for improvement of animal health and production" 5th-7th December, 2023 held at College of Veterinary Science Sri Venkateswara Veterinary University, Tirupati.

- 82) Sinha, M.K., Safi, A.K., Gautam, A.K., Bharti, S.K., Singh, M.K. and Kumari, P. (2023) Histological studies on the adrenal gland of adult non-descript goat of Bihar. XVII Annual Convention of Indian Association of Veterinary Anatomists and National Symposium on "Recent advances in veterinary anatomy and their applications for improvement of animal health and production" 5th-7th December, 2023 held at College of Veterinary Science Sri Venkateswara Veterinary University, Tirupati.
- 83) Thakur, S. K., Sahu, S. P., Sinha, R. R. K., Kumar, S., Nirala, R. K. and Kishor, A. (2024). A study on poultry farming practices prevalent in Bihar. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 84) Tudu S.K., Kumar N., Ali I., Archana, Ravi Kumar, Anjana K and Nirala R.K. "Antidiabetic and antioxidant potential of hydroethanolic extract of Piper beetle Linn. in streptozotocin induced diabetic rats". National conference of ISVPT-2023 (EP-OP-06)
- 85) Yadav, D., Kumar, M., Kumar, S., Sinha, R., Bhavna and Sahu, S.P. (2023). Pervaginal delivery of nape posture fetus in goat. National Conference of ISSAR, Dec. 2023.
- 86) Yadav, D., Sheetal, S. K., Prasad, J. K., Azad, C. S., Kumar, P., Singhal, S., Kishor, A. and Sahu, S. P. (2024). First IVF Sahiwal calf of Bihar: A success story. 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna
- 87) Yadav, D., Sheetal, S.K., Prasad, J. K., Azad, C. S., Bhavna, Kumar, P., Kumar, A., Singhal, S., Sahu, S. P., Kishor, A. and Kinkar, D. K. (2023). Ultrasound guided oocytes recovery in sahiwal cow without hormonal stimulation. National Conference of ISSAR, Dec. 2023.
- 88) Yadav, D., Sheetal, S.K., Prasad, J.K., Azad, C.S., Kumar, P., Singhal, S., Kishor, A. and Sahu, S.P. (2024) First IVF Sahiwal calf of Bihar: A success story 2nd SPFCA National Conference on Enhancing Farmers income by Livestock, Poultry and Aqua Farming through sustainable and ecofriendly smart technologies and practices, 28-29 Feb., 2024 held in BASU, Patna.

Book published:

S No.	Authors/Editors	Year	Title	Publisher	ISSN/ISBN
1	Birendra Kumar Alok Bharti	2023	Genetic Profiling of Heat Shock Protein 70 Gene in Indian Buffalo. Pages 120.	Lambert Academic Publishing	ISBN: 978-620-5-50230-3
2	J K Prasad Pankaj Kumar Singh Jay Prakash Gupta	2024	Animal Husbandry Practices in Ancient India: A Scientific Analysis	Bihar Veterinary College, BASU, Patna	ISBNB No. 978-81964254-9-4
3	Dushyant Yadav	2023	Research Methodology in Extension Education	E.D.U. Publishers Lucknow	ISBN: 978-81-973209-8-9
4	J K Prasad M M Ansari Pallav Shekhar Sumit Singhal G K Chaudhary YS Jadoun DN Singh V K Singh	2023	Compendium on Dog and Cat Healthcare and Management	Bihar Veterinary College, BASU, Patna	Publication Cell No. BVC/PC/19

S No.	Authors/Editors	Year	Title	Publisher	ISSN/ISBN
5	JK Prasad Anjay R K Jaiswal	2023	Pre-independence history: Bihar Veterinary College	Bihar Veterinary College BASU, Patna	-
6	J.K. Prasad Nirbhay Kumar R.K. Nirala G.K. Choudhary Archana, Kumari Anjana R.R. Kumari	2023	High Performance Liquid Chromatography: Basics and Applications in Research	Bihar Veterinary College, BASU, Patna	978-81-964254- 5-6
7	J.K Prasad, P. K Singh, J. P Gupta	2023 -24	Animal husbandry practices in ancient India: A scientific analysis	Bihar Veterinary College, BASU, Patna	978-81-964254- 9-4

Book chapters

1. Archana, G.K. Chaudhary, R. K. Nirala and Kumari Anjana (2024). HPLC versus HPTLC. In High Performance Liquid Chromatography: Basics and Applications in Research. Published by Bihar Veterinary College, Patna. ISBN No. 978-81-964254-5-6. Pg no. 73-78.
2. Behera A, Himalaya B and Kumar A (2023). Production of Recombinant Proteins in Heterologous Host. In Microbial Biotechnology. Integrated Publications, New Delhi. Pg no: 119-128.
3. Bhardwaj H, Behera A and Kumar A (2023). Real Time PCR. In Microbial Biotechnology Integrated Publications, New Delhi. Integrated Publications, New Delhi; ISBN no: 978-93-5834-024-2; Pg no: 59-65.
4. Bhatt S, Kumar A (2023). Rickettsial Diseases. In Key Questions in Preventive Farm Animal Medicine (Volume 2), CABI, ISBN-13:9781800624733, pp.1-42.
5. Bhavna, Kumar K, Kumar A, and Bhatt S. (2023). Reproductive cycles. In MCQ: veterinary gynaecology, obstetrics and assisted reproduction, Narendra Publishing House.
6. D.N.Singh, Ranjana Sinha, Manmohan Kumar and Suchit Kumar (2024). Care & Management of Neonates of Dog & Cat. Compendium on Dog and Cat Healthcare and management. Publication Cell No. BVC/PC/19. Pg no 78-81.
7. G. K. Choudhary, Nirbhay Kumar, Archana and P.K. Choudhary (2024). Chromatographic techniques: Types and Applications In High Performance Liquid Chromatography: Basics and Applications in Research. Published by Bihar Veterinary College, Patna. ISBN No. 978-81-964254-5-6. Pg no. 6-19.
8. G. K. Choudhary, R. K. Nirala, Nirbhay Kumar and Archana (2024). Extraction of Samples for HPLC Analysis. In High Performance Liquid Chromatography: Basics and Applications in Research. Published by Bihar Veterinary College, Patna. ISBN No. 978-81-964254-5-6. Pg no. 52-58.
9. Gautam AK, Sinha MK, Bharti SK and Kumar A (2023). Biological system of dogs and cats and its clinical management. In Developments microbiology introduction to diseases, diagnosis, and management of dogs and cats, Academic Press (Elsevier). ISBN 978-0-443-18548-9 Pg no.19-33.

10. Kishor SS and Singhal S (2023).Pashu prajanan sambhandhi samasyae evam unka nidana. In Dairy vavysaya evam prabhandhan, Diksha Arts & Prints, Patna.
11. Kumar A and Kumar A (2023)Diseases of Reproductive System. In Key questions in clinical farm animal medicine (Volume 2), CABI, ISBN-13:9781800624795, pp.83-126.
12. Kumar A, Bhatt S, Archana and Rana T (2023).Drugs for therapeutic application in goat - trends in clinical diseases, production and management of goats In Trends in clinical diseases, production and management of goats: clinical diseases of goats (vol-2), Academic Press (Elsevier), pp.537-552.
13. Kumar A, Kumar A and Bhatt S (2023).Diseases of digestive system. In Key questions in clinical farm animal medicine (Volume 1), CABI, ISBN-13: 9781800624764, pp.311-352.
14. Kumar A, Rana T, Bhatt S and Kumar A (2023).Insecta Infestations in Dogs and Cats. In Principles and practices of canine and feline clinical parasitic diseases, Wiley Blackwell., ISBN: 9781394158249, pp.61-72.
15. Kumari Anjana, Nirbhay Kumar, Rashmi Rekha Kumari and Ramesh Kumar Nirala (2024). HPLC Columns: Chemistry and Types. In High Performance Liquid Chromatography: Basics and Applications in Research. Published by Bihar Veterinary College, Patna. ISBN No. 978-81-964254-5-6. Pg no. 28-38.
16. Nirbhay Kumar, G.K. Choudhary, Jitendra Kumar and Amrita Sinha (2024). Chromatographic techniques: An Introduction. In High Performance Liquid Chromatography: Basics and Applications in Research. Published by Bihar Veterinary College, Patna. ISBN No. 978-81-964254-5-6. Pg no. 1-5.
17. Nirbhay Kumar, Pooja Prasad, Bushra Suraiya and Rashmi Ranjan (2024). High Performance Liquid Chromatography: An Introduction. In High Performance Liquid Chromatography: Basics and Applications in Research. Published by Bihar Veterinary College, Patna. ISBN No. 978-81-964254-5-6. Pg no. 20-27.
18. Nirbhay Kumar, R.R. Kumari, Shyamla, Durdna Halim and Rashmi Ranjan (2024). LCMS and GCMS: Principles and Applications. In High Performance Liquid Chromatography: Basics and Applications in Research. Published by Bihar Veterinary College, Patna. ISBN No. 978-81-964254-5-6. Pg no. 79-91.
19. Nirbhay Kumar, S.K. Vishwakarma, Raman Ranjan, G.K. Choudhary, M. Kumari, P.K. Sahu, S. Maity, R. Ranjan, Shyamla and A. Sinha (2024). Pashu Ayurveda: Past, Present and Future. In Animal Husbandry Practices in Ancient India: A Scientific Analysis. Published by Bihar Veterinary College, BASU, Patna. ISBN No. 978-81-964254-9-4. Pg no. 100-126.
20. R. K. Nirala, Kumari Anjana, Archana and Rashmi Rekha Kumari (2024). Method development in HPLC. In High Performance Liquid Chromatography: Basics and Applications in Research. Published by Bihar Veterinary College, Patna. ISBN No. 978-81-964254-5-6. Pg no. 67-72.
21. R.R. Kumari, Kumari Anjana, Shyamla and Pankaj Kumar (2024). HPLC Detectors. In High Performance Liquid Chromatography: Basics and Applications in Research. Published by Bihar Veterinary College, Patna. ISBN No. 978-81-964254-5-6. Pg no. 39-51.
22. Rajak SK, Kumar A, Rani D and Kumar SS (2023). Profitable farming business and marketing strategy for financial benefit of goat production. In Trends in clinical diseases, production and management of goats: microbial pathogenesis of goats (vol.1), Academic Press (Elsevier), ISBN: 978-0-443-23696-9, pp.217-232

23. Singh A, Singh SV, Anjay, Kumar D, Kumari R, Mahesh MS and Yadav PK (2023). Prevention (including vaccination schedule) and control of important diseases of livestock and poultry. In Handbook of Livestock and Poultry Production and Management, Narendra Publishing House.
24. Singh DN (2023). Application of managemental practices to control subclinical parasitism in livestock farming. In Recent advances in agricultural sciences and technology), Dilpreet Publishers, New Delhi. ISBN 978-93-91995-07-2. Page no. 1365-1370.
25. Singh DN (2023). Important Indian and Exotic breeds of Cattle, buffalo, sheep, goat, swine and Poultry. In A Handbook of Livestock & Poultry Production and Management, Narendra Publishing House. ISBN: 978-93-5651-697-7. Page no. 17-92.
26. Singh RK, Gupta JP, Soni Kand Bharti SK (2023). दुधारू पशुओं के उच्च प्रजनन क्षमता प्राप्ति के विभिन्न घटक. In Vital Biotech Publication.
27. Singh RK, Soni K, Gupta JP and Bharti SK (2023) विभिन्न पशुधन उत्पादन प्रणाली एवं प्रजनन निधि, In Vital Biotech Publication.
28. Singh A, Singh SV, Anjay, Kumar D, Kumari R, Mahesh MS and Yadav PK (2023). Introduction of livestock and poultry diseases. In Handbook of livestock and poultry production and management. Narendra Publishing House, Delhi.
29. Yadav D (2023). Reproduction in farm animals and poultry. In Handbook of livestock and poultry production and management. Narendra Publishing House, Delhi.
30. Prasad J K, Anjay, Jaiswal RK (2023). Glorious history of Bihar Veterinary College. In Animal Husbandry Practices in Ancient India: A Scientific Analysis. BVC Patna.
31. Sumit Singhal, J. K. Prasad, Alok Kumar, Dushyant Yadav, Bhavna (2023). दुधारू पशुओं में प्रजनन प्रबंधन की सम्पूर्ण जानकारी. 42/2024/DEE/BASU. Pg no 42-49.
32. Sumit Singhal, Alok Kumar, Bhavna, Dushyant Yadav (2023). दुधारू पशुओं में कृत्रिम गर्भाधान. 42/2024/DEE/BASU. Pg no 50-51.
33. Bhavna, Sumit Singhal, Pallav Shekhar, Archana Kumari, Sonam Bhatt, Vivek Kumar (2024). Canine Vaginal Cytology: An Important Diagnostic Tool. IN: Compendium on Dog and Cat Healthcare and management. Publication Cell No. BVC/PC/19. Pg no 44-49.
34. Alok Kumar, J.K. Prasad, Sonika Verma, Vaidehi Mishra, Deep Narayan Singh and Sumit Singhal (2024). Standard dietary advice for pets: A meaningful insight for pet parents in current scenario. IN: Compendium on Dog and Cat Healthcare and management. Publication Cell No. BVC/PC/19. Pg 78-81.
35. सुमित सिंघल, जयकिषन प्रसाद, दीपनारायण सिंह, मृत्युंजय कुमार, केशव कुमार एवं अलोक कुमार (2024). बकरियों का स्वास्थ्य प्रबंधन. 43/2024/DEE/BASU. Pg no 31-34
36. सुमित सिंघल, शैलेन्द्र किशोर शीतल, केशव कुमार एवं दीपनारायण सिंह (2024). बकरियों का प्रजनन प्रबंधन. 43/2024/DEE/BASU. Pg no 35-36.
37. सुमित सिंघल, केशव कुमार, विवेक सिंह, ज्ञान देव सिंह और पल्लव शेखर (2024). बकरियों की प्राथमिक चिकित्सा, परजीवी रोग नियंत्रण, डिवाइसिंग और टीकाकरण. 43/2024/DEE/BASU. Pg no 37-41.
38. अलोक कुमार और सुमित सिंघल (2024). बकरियों में कृत्रिम गर्भाधान I. 43/2024/DEE/BASU. Pg no 46-48.

Popular article published:

1. AnsariMM (2023). Rabies: all for one-one health for all. Pashudhan Praharee (online) 1-10.
2. AnsariMM (2023). Veterinarians are essential health workers. Pashudhan Praharee. 03.
3. BeheraA, BhokerA, JasrotiaN and BiswalP (2024). Gender dynamics in animal husbandary- Women's role in livestock farming. Pashudhan Praharee (online).
4. Behera A, Biswal P, Bhoker A and Jasrotia N (2024). Climate change and animal husbandary: Adopting farming practices for resilience. Pashudhan Praharee (online).
5. Behera A, Jasrotia N, Biswal P and Bhoker A (2024). Revolutionising animal husbandary: The tech frontier in farming. Pashudhan Praharee (online) March.
6. Behera A, Rani S, YadavSP, KumarM, Bhardwaj H and KumarA (2024). The vital role of molecular biology in disease diagnosis. Pashudhan Praharee (online).
7. Behera A, Sahu G and PandeyVK (2024). Embracing sustainability: A guide to implementing eco-friendly practices in livestock farming. Pashudhan Praharee (online).
8. Behera A, Sahu G and PandeyVK (2024). Unravelling canine metabolic diseases: Understanding, management and hope. Pashudhan Praharee (online).
9. Behera A, Sahu G and PandeyVK (2024). Unveiling the hidden link: How biochemistry paves the way for one health. Pashudhan Praharee (online).
10. Behera A, YadavSP, KumarM, RaniS, Bhardwaj H and KumarA (2024). Challenges and opportunities in organic livestock farming. Pashudhan Praharee (online).
11. Bhatt S, Mandal RSK, Kumar A, Bhavna, Das AK (2024). Common health problems in geriatric dogs. Compendium on dog and cat-healthcare and management, 05-07.
12. Bhavna, Singhal Sumit, ShekharP, KumariA, BhattS and Kumar V (2023). Canine vaginal cytology: An important diagnostic tool. Compendium on dog and cat healthcare and management, BVC/PC/19, 44-49.
13. Kumar A, Bhatt S, ManadalRSK, ShekharP and Kumar A (2023). Decoding canine parvoviral enteritis an inclusive guide for pet owners, BVC/PC/19 Publication Cell, Bihar Veterinary College.
14. Nirbhay Kumar, R.R. Kumari, Shyamla, Durdana Halim and Rashmi Ranjan (2023). LCMS and GCMS: Principles and applications. In High Performance Liquid Chromatography: Basics and Applications in Research
15. Pramod Kumar, Pankaj Kumar Choudhary, Anandita Srivastava and G.K. Choudhary, Post monsoon care and management of farm animals. AgriGate- An International Multidisciplinary e-Magazine; 03(08):43-44.
16. KumarA, PrasadJK, VermaS, MishraV, Singh DN and Singhal S (2023). Standard dietary advice for pets: A meaningful insight for pet parents in current scenario. Compendium on dog and cat healthcare and management, BVC/PC/1, 78-81.
17. KumarD, BhadauriaP, KumarA, Kuamr Rand Sohane RK (2024). Round the year green fodder production model for small and marginal farmers of Bihar. Indian farming, 74(03):35-39.
18. Kumar M and Shekhar (2023). Maveshion me kilni ki samasyayen aur samadhan. Pahupalan Darshika, 1(2):14-15.
19. Kumar M, Kumar M, Sinha RK, Das AK and Mondal, RK (2023). Disease management in farm animals. Just Agriculture, 4:2.
20. Kumar M, Sinha RK, Shekhar P, Singh VK, Kumar B and Das AK (2024). Vaccines and

- vaccinations in dogs and cats. Compendium on dog and cat-healthcare management, Publication Cell, Bihar Veterinary College, BVC/PC/19, 82-85.
21. Kumar P, Kumar A, Sharma RK, Kumari S and Kumari A (2023). Epidemiology, treatment and control of theileriosis in cattle. Pashudhan Praharee (online).
 22. KumarS, YadavD and Sinha R (2023). Sexing of semen. The Science world, 3(09).
 23. Kumari A, AnsariMM, ShekharP, TiwaryR, SinghGD, Bhavna, KumariS, KumarM, and KumarR (2024). Neurological disorders in cats. Compendium on dog and cat-healthcare and management, 37-40.
 24. KumariB, KumariA, Sinha RK, DalmiaK, DasAK and NarayanUP (2023).Gramin astar per dugdha padartho se bannae wali bhartiya mithaio ka nirman. Krishak Sandesh, 42: 11.
 25. KumariB, KumariA, Sinha RK, DalmiaK, DasAK and NarayanUP (2023).Pashuo me Rabies rog: Prarthmik Upchar. Krishak Sandesh,42: 11.
 26. Kumari P, Vijay MK and Singh PK (2023). Potential use of seaweed in poultry feed. Poultry Line, 67-69.
 27. Kumari P, Vijay MPand Singh PK (2024). Aflatoxin: A dangerous substance in poultry feed. Just Agriculture.
 28. Kumari S (2023). Benefits of consuming chicken meat with skin. Pasudhan Praharee (online).
 29. Kumari S (2023). Care of milk during collection, storage and processing. Directorate of Extension Education, BASU, Patna.
 30. Kumari S (2023). Value addition of various dairy products. Directorate of Extension Education, BASU, Patna.
 31. Kumari S (2023). Eggs: A real basket foe healthy nutrients. Pasudhan Praharee (online).
 32. Kumari S, Jaiswal RK and Mahapatra G (2023).Swatch Dugdh Utpadan. Directorate of Extension Education, BASU, Patna.
 33. Mandal RSK, Bhatt S, Kumar A and Kumar M (2024). Behavioural disorder in dogs and cats and its management. Compendium on dog and cat-healthcare management, 8-12.
 34. Sahu R, Kumar D, Sohane RK and Kumar R (2023). Roof rain water harvesting: An innovative approach towards resource conservation: Indian Farming, 73(07):18-21.
 35. Sharma RK (2023). Grism ritu main dudharu pashuyon ki dekhbhal : Bachaw avam Upchar. Vindhy Krishi, Sanukatakank, 17: 1-3.
 36. Sharma RK (2023). Varsha ritu main dudharu pashuyon ki dekhbhal. Vindhy Krishi, Sanukatakank, 17:1-3.
 37. Shekhar P, Bhatt Sand Singh VK (2024). Pashuo ke Sadharan Rog evam Prathmik upchar. Scientific Goat Farming, 43.
 38. ShekharP, Jitendra P, Singh VK, KumarM, Namrata and Kumari A (2023). Canine Lymphoma(CL)- An emerging concern in Pets. Compendium on dog and cat-healthcare management, 93-95.
 39. SinghDN (2023). Care andmanagement of neonates of dog and cat. Compendium of dog & cat health care and management, 1-4.
 40. SinghDN (2023). Innovative technology & practices transforming India's poultry farming sector. Pashudhan Prahri (online) May.
 41. SinghDN (2023). Management of dairy cow during transition period.Indian Farmer, 10:436-439.

42. SinghDN (2023). One world, One health: Prevent zoonosis. Pashudhan Prahri (online) June.
43. Singh GD, Singh VK and Kumar M. (2024). The crucial role of dental hygiene in canine and feline health. Compendium on dog and cat-healthcare management, 63-65.
44. Singh VK, Sinha VK, Singh GD, Kumar M and Namrata (2024). Grooming in pets: pros and cons, Compendium on dog and cat-healthcare management, 86-89.
45. Sinha R and Kumar S (2023). Monitoring the various type of animal behavior in dairy farm. Indian Farmer, 10 (06).
46. Sinha R,Devi I, Tiwari S, Khosla Kand Kumari S (2023). Management approaches to improve reproductive efficiency in dairy cattle. Indian Farmer, 10(05).
47. SinhaR, KumarM, Kumar SandYadav D (2023). Management practices for clean milk production. Indian Farmer, 10 (06).
48. Sinha R, Kumari S, Kumar S, and Khosla K (2023) Monitoring the various type of animal behaviour in dairy farm. Indian Farmer, 10(06).
49. SinhaRK, ShekharP, KumariB, Singh VK, DasAK, Kumar Mand Mandal SR (2023). Management of ear infections in dogs.Publication Cell, Bihar Veterinary College, PC/10.
50. Yadav D (2023). DNA barcoding - A Diagnostic tool for parasitic diseases. The Science World, 3(12): 4179-4184.
51. Rashmi Rekha Kumari, Pankaj Kumar*, Manoj Kumar Tripathi and Jaspreet Singh. Goat health and sustainable goat farming in eastern India. Indian Farming 73(07): 29-32: July 2023
52. Yadav D (2023).Host manipulation by parasite: An Insight. The Science World, 3(12): 4173-4178.
53. Yadav D (2024). RNA interference and their application in veterinary parasitology The Science World, 4(01):188-191.
54. Sumit Singhal, Alok Kumar, Bhavna, Dushyant Yadav (2024) दुधारू पशुओं में कृत्रिम गर्भाधान (42/2024/DEE/BASU Pp 50-51).
55. Sumit Singhal, J. K. Prasad, Alok Kumar, Dushyant Yadav, Bhavna(2024) दुधारू पशुओं में प्रजनन प्रबंधन की सम्पूर्ण जानकारी (42/2024/DEE/BASU Pp 42-49).
56. दीपनारायण सिंह, रंजना सिन्हा, मनमोहन कुमार, ज्ञानदेव सिंह एवं सुमित सिंघल (2024) डेयरी पशुओं का आवास प्रबन्धन(42/2024/DEE/BASU Pp 110-114).
57. मृत्युंजय कुमार, सुमित सिंघल, रवि शंकर मंडल, अरविन्द कुमार दास एवं अनिल कुमार दुधारू पशुओं में डीवर्मिंग एवं टीकाकरण(42/2024/DEE/BASU Pp 39-41).
58. मृत्युंजय कुमार, सुमित सिंघल, बिपिन कुमार, दीप नारायण सिंह एवं विवेक सिंह;2024द्ध दुधारू पशुओं में प्राथमिक चिकित्सा(42/2024/DEE/BASU Pp 34-38).
59. गोविन्द कुमार चौधरी, आर. के. निराला, पंकज कुमार चौधरी, अर्चना, आर. के. शर्मा एवं प्रमोद कुमारण वर्षा ऋतुओं में दुधारू पशुओं की देखभाल, विंध्य कृषि संयुक्तांक, का. हि. वि. वि., कृषि विज्ञान केन्द्र, 17(1-3):134-142-
60. मृत्युंजय कुमार, सुमित सिंघल, विवेक सिंह, ज्ञानदेव सिंह एवं पल्लव शेखर (2024) डेयरी पशुओं में पशु स्वास्थ्य एवं रोग प्रबंधन (42/2024/DEE/BASU Pp 30-33).
61. अलोक कुमार एवं सुमित सिंघल (2024) बकरियों में कृत्रिम गर्भाधान (43/2024/DEE/BASU pp Pp 46-48).

62. सुमित सिंघल, केशव कुमार, विवेक सिंह, ज्ञानदेव सिंह एवं पल्लव शेखर (2024) बकरियों की प्राथमिक चिकित्सा, परजीवी रोग नियंत्रण, डिवाइसिंग एवं टीकाकरण (43/2024/DEE/BASU Pp 37-41).
63. सुमित सिंघल, शैलेन्द्र किशोर शीतल, केशव कुमार एवं दीपनारायण सिंह (2024) बकरियों का प्रजनन प्रबन्धन (43/2024/DEE/BASU Pp 35-36).
64. सुमित सिंघल, जय किशन प्रसाद, दीपनारायण सिंह, मृत्युंजय कुमार, केशव कुमार एवं अलोक कुमार (2024) बकरियों का स्वास्थ्य प्रबन्धन (43/2024/DEE/BASU Pp 31-34).
65. Anjay and Bhoomika (2023) जूनोटिक रोग और प्रबंधन. Bihar Animal Sciences University. 978-81-964254-6s.
66. Dharmendra Kumar (2023) पशु पोषण: डेयरी व्यवसाय और प्रबंधनरू सामान्य प्रश्नोत्तर, 1:01-07, BASU, Patna.
67. रश्मि रेखा कुमारी, निर्भय कुमार, पंकज कुमार, मंजू कुमारी, पशुओं में मिर्गी रोग के प्रकार, कारण और उपचार, अक्षय खेती | 2023,
68. गोविंद कुमार चौधरी, आर. के. निराला, पंकज कुमार चौधरी, अर्चना, आर. के. शर्मा और प्रमोद कुमार, "वर्षा ऋतु में दूधारू पशुओं की देखभाल" विंध्य कृषि संयुक्तांक संस्करण | 17, अंक 1-3 2023 |
69. डॉ. कुमारी अंजना, डॉ. रमेश कुमार निराला, डॉ. निर्भय कुमार, डॉ. अर्चना, डॉ. अंकिता, डॉ. रोहित कुमार यादव, डॉ. कुमार निर्मल, "डेयरी पशुओं में पादप विषाक्तता" |, Dir. Ext. BASU
70. धर्मेन्द्र कुमार ए एवं संजय कुमार (2024) साइलेज द्वारा सालो भर हरा चारा प्रबंधन Training manual scientific dairy farming. 100-105, DEE, BASU, Patna.
71. धर्मेन्द्र कुमार एवं कौशलेन्द्र कुमार (2024) हे द्वारा हरा चारा संरक्षण Training manual scientific dairy farming. 89-91, DEE, BASU, Patna.
72. धर्मेन्द्र कुमार एवं पंकज कुमार सिंह (2024) छोटे और सीमांत किसानों द्वारा साल भर हरे चारे की उपलब्धता के लिए रणनीतिया Training manual scientific dairy farming. 92-99, DEE, BASU, Patna.
73. धर्मेन्द्र कुमार, रश्मि कुमारी एवं शंखानाथ कोले (2024) डेयरी पशुओं का लागत प्रभावी संतुलित आहार प्रबंधन Training manual scientific dairy farming. 80-88, DEE, BASU, Patna.
74. धर्मेन्द्र कुमार, पंकज कुमार सिंह, शंखानाथ कोले एवं संजय कुमार (2024) बकरी का आहार प्रबंधन. Training manual on scientific dairy farming. 53-61, DEE, BASU, Patna.
75. वीरेन्द्र कुमार, आलोक, भारती शंकर दयाल एवं रमेश कुमार सिंह (2023) बटेर पालन—कम लागत बेहता मुनाफा The Science World, 3(11), 2942-2946.
76. अभय कुमार, आलोक भारती, वीरेन्द्र कुमार, रमेश कुमार सिंह (2024) समन्वित कृषि प्रणाली प्रबन्धन, Trends in Agriculture Science, 2(11).
77. जय प्रकाश गुप्ता, विरेन्द्र कुमार, रमेश कुमार सिंह, सोनी कुमारी एवं संजय कुमार (2023) दुधारू पशुओं के आनुवंशिक सुधार में रिकॉर्ड कीपिंग दुग्ध सरिता, 32-33.
78. रमेश कुमार सिंह, जय प्रकाश गुप्ता, विरेन्द्र कुमार, सोनी कुमारी, संजय कुमार भारती, रवि कान्त कुमार, रंजन कुमार सिंह एवं आलोक कुमार (2023) दुधारू पशुओं के उच्च प्रजनन क्षमता प्राप्ति के विभिन्न घटक कृषि प्रवाहिका, 10
79. रमेश कुमार सिंह, सोनी कुमारी, विरेन्द्र कुमार, जय प्रकाश गुप्ता, संजय कुमार भारती, रवि कान्त कुमार, रंजन कुमार सिंह एवं आलोक कुमार (2023) विभिन्न पशुधन उत्पादन प्रणाली एवं प्रजनन नीति कृषि प्रवाहिका 10, 26-28

80. रमेश कुमार सिंह, जय प्रकाश गुप्ता, सोनी कुमारी, विरेन्द्र कुमार, संजय कुमार भारती, रवि कान्त कुमार, . रंजन कुमार सिंह एवं आलोक कुमार (2024) दुग्ध उत्पादन वृद्धि के आनुवांशिक सुधार नीति एवं योजनाएँ कृषि प्रवाहिका 3, 29-31
81. रमेश कुमार सिंह, जय प्रकाश गुप्ता, सोनी कुमारी, संजय कुमार भारती, विरेन्द्र कुमार, रवि कान्त कुमार, रंजन कुमार सिंह एवं आलोक कुमार (2024) दुधारु पशु प्रजनन के प्रमुख कारक कृषि प्रवाहिका 3, 32-34
82. रमेश कुमार सिंह, जय प्रकाश गुप्ता, संजय कुमार भारती, सोनी कुमारी, विरेन्द्र कुमार, रवि कान्त कुमार, रंजन कुमार सिंह एवं आलोक कुमार (2024) पशु चयन एवं उत्पादन परीक्षण की प्रक्रिया कृषि प्रवाहिका 3, 34-36,
83. सोनी कुमारी, आलोक भारती, रंजन कुमार सिंह एवं मुकेश कुमार (2024) भारत की गाय एवं भैंस की उन्नत नस्लें व्यवसायिक पशुपालन एवं दुग्ध उत्पादन 43-51
84. Deep Narayan Singh, Suchit Kumar, Ranjana Sinha, Manmohan Kumar, Dushyant Yadav (2023) डेयरी अपशिष्ट प्रबंधन. वैज्ञानिक डेयरी फार्मिंग प्रशिक्षण पुस्तिका, 23, 106-109.
85. Deep Narayan Singh (2023) डेयरी पशुओं का आवास प्रबंधन. वैज्ञानिक डेयरी फार्मिंग प्रशिक्षण पुस्तिका, 24, 110-114.
86. Deep Narayan Singh (2023) नियमित डेयरी संचालन पद्धतियां. वैज्ञानिक डेयरी फार्मिंग प्रशिक्षण पुस्तिका, 25, 115-119.
87. Deep Narayan Singh (2023) बकरियों का स्वास्थ्य प्रबंधन. वैज्ञानिक डेयरी फार्मिंग प्रशिक्षण पुस्तिका, 06, 31-34.
88. Deep Narayan Singh (2023) बकरियों का प्रजनन प्रबंधन. वैज्ञानिक बकरी पालन प्रशिक्षण पुस्तिका । 07, 35-36.
89. Deep Narayan Singh, Dr. Suchit Kumar, Dr. Ranjana Sinha, Dr. Manmohan Kumar (2023) बकरियों में अपशिष्ट प्रबंधन. वैज्ञानिक बकरी पालन प्रशिक्षण पुस्तिका । 11, 49-52.
90. Deep Narayan Singh (2023) बकरियों में आवासीय प्रबंधन । वैज्ञानिक बकरी पालन प्रशिक्षण पुस्तिका । 13, 62-64.
91. Deep Narayan Singh (2023) नियमित बकरी संचालन पद्धतियां । वैज्ञानिक बकरी पालन प्रशिक्षण पुस्तिका । 14, 65-70.
92. Deep Narayan Singh Dr. Suchit Kumar (2023) भारत में बकरी के मांस और दूध उत्पादन में सुधार के लिए प्रजनन रणनीतियाँ । वैज्ञानिक बकरी पालन प्रशिक्षण पुस्तिका । 24, 119-123.
93. Deep Narayan Singh (2023) दूधारु पशुओं में प्राथमिक चिकित्सा । वैज्ञानिक डेयरी फार्मिंग प्रशिक्षण पुस्तिका । 34-38.
94. Deep Narayan Singh (2023) एक स्वास्थ्य में पशुधन की भूमिका । पशुपालक मित्र । 3(3), 14-16
95. Deep Narayan Singh (2023) नर पशुओं का बधियाकरण । पशुपालक मित्र । 3(2), 3-5
96. Deep Narayan Singh (2023) प्राकृतिक आपदाएँ और पशु प्रबंधन की भूमिका । पशुपालक मित्र । 3(3): 14-16.
97. Deep Narayan Singh (2023) संक्रमणकाल के दौरान डेयरी पशुओं का प्रबंधन । त्रैमासिक पत्रिका पशुपालन दर्शिका । 2, 07-10.

98. Deep Narayan Singh(2023) डेयरी पशुओं में प्रजनन संबंधी समस्या का प्रबंधन। पशुधन प्रहरी ऑनलाइन पत्रिका।
99. धर्मेन्द्र कुमार, पंकज कुमार सिंह, संजयकुमार एवं कौशलेन्द्र कुमार (2023) हाईड्रोपोनिक –उत्तम हराचारा उत्पादन तकनीकरू दूध सरिता, 16-19.
100. धर्मेन्द्र कुमार और पंकज कुमार सिंह (2023). साइलेज द्वारा हरे चारे का संरक्षणरू पशुपालन दर्शिका। 1,3-4.
101. धर्मेन्द्र कुमार और दिनेश कुमार (2023). यूरिया मिनरल मोलासेस ब्लॉक : पशुपालन दर्शिका। 1:3-5
102. धर्मेन्द्र कुमार और रीता सिंह (2024) अनुपयोगी जमीन से साल भर हरे चारे का प्रबंधन: कृषक संदेश, कृषि विज्ञान केंद्र ISSN: 2320-6950'
103. धर्मेन्द्र कुमार, एस. बी. सिंह और अंजनी कुमार (2023) पशुधन हेतु पानी की आवश्यकताएँ और उसके गुणवत्ता का महत्व: कृषक संदेश, कृषि विज्ञान केंद्र. ISSN: 2320-6950
104. पंकज कुमार और राज किशोर शर्मा (2023). दूधारू पशुओं में ऐनाप्लाजमोसिस रोग की लक्षण, रोकथाम और उपचार। पशुधन प्रहरी।
105. पंकज कुमार और राज किशोर शर्मा (2023). पशुओं में बाह्य परजीवी से नुकसान, बचाव और उपचार। पशुधन प्रहरी।
106. संजय कुमार भारती, पी. कौशिक, अंजय और भूमिका (2023). मानवों में पशुजन्य रोगों का नियंत्रण। कृषिप्रवाहिका। E ISSN: 2583-0430

Training manual / compendium/Periodical

Authors/Editors	Title	Publisher
S. Ahmad, P.K. Singh, S.S. Bhat, N.H. Mir, R.S. Chaurasia and R.A. Sah	Recent Trends in Sustainable Livestock and Crop Production Technologies vis-à-vis Climate Change	Diilpreet Publishers & Distributors, H.O: F-198, Vishnu Garden, New Delhi-110018
D. Yadav, S. Kumar, P. Kumar and S.P. Sahu	Practical Manual of Livestock Farm Practices	Bihar Veterinary College, Patna
A. Kumar, A. Behera and H. Bhardwaj	Training Manual on Basic Molecular Biology Based Techniques in Research	Bihar Veterinary College, Patna
Jitendra Mehta Prince, K. M Sharma M. K Sinha, S K Bharti	Agrospheres	Vital publisher, Rajasthan
S.P. Sahu, A. Kishor, R.K. Nirala, R.R.K. Sinha and S. Kumar	Practical Manual of Livestock Production Management Paper-I	Bihar Veterinary College, Patna
A. Kumar, P. Kumar, R.K. Sharma and K.P. Shyma	Compendium of Abstracts (32 nd National Congress of Veterinary Parasitology and National Symposium on “Sustainable Control of Parasitic Diseases for Improved Productivity of Livestock in Current Scenario”	Bihar Veterinary College, Patna

Authors/Editors	Title	Publisher
A. Kumar, P. Kumar, R.K. Sharma and K.P. Shyma	Compendium of Lead Papers (32 nd National Congress of Veterinary Parasitology and National Symposium on “Sustainable Control of Parasitic Diseases for Improved Productivity of Livestock in Current Scenario”	Bihar Veterinary College, Patna
Md.M. Ansari, Mithilesh Kumar, Archana Kumari, Rajesh Kumar, Ramesh Tiwary and G. D Singh	Practical manual of veterinary surgery and radiology, Paper –I	Bihar Veterinary College, Patna
J. K. Prasad, Md.M. Ansari, Pallav Shekhar, Sumit Singhal, G. K. Choudhary, Y.S Jadon, D. N. Singh and Vivek Kr. Singh	Dog and cat – Healthcare and management	Bihar Veterinary College, Patna
P. Kumar, S.K. Rajak and P.K. Singh	Practical manual of third professional year, Veterinary & A.H. Extension Education	Bihar Veterinary College, Patna
P. Kaushik, Anjay and Bhoomika	Practical Manual of Veterinary Public Health & Epidemiology Paper-I,	Bihar Veterinary College, Patna
J.K.Prasad, V.K.Sexana, S.K. Bharti, D. Yadav, R.K. Jaishwal and N. Kumar	The College Magazine	Bihar Veterinary College, Patna
J.K.Prasad, P. Kumar, N. Kumar, P.Kaushik, S.K. Bharti and Archana	Memorabilia	Bihar Veterinary College, Patna
J.P. Gupta, R.K. Singh, V. Kumar, D. Kumar and R.K. Nirala	Bihar ke sthanik pashudhan sanpanda	Bihar Veterinary College, Patna

Extension bulletins Leaflets/ folders

Title	Authors/Department	Publication Details
दुग्ध उत्पादन वृद्धि के अनुवांशिक सुधार नीतियाँ और योजनाएँ	Department of VAHEE,	e-ISSN: 2583 – 0430 कृषि-प्रवाशह का : ई-समाचार पत्रिका, (2023) विषय3, अंक10, 26-28 Article ID: 312
दूधारू पशु प्रजनक के प्रमुख कारक	Department of VAHEE	e-ISSN: 2583 – 0430 कृषि-प्रवाशह का : ई-समाचार पत्रिका, (2023) विषय3, अंक10, 26-28 Article ID: 313
पशु चयन और उत्पादन की परीक्षण प्रक्रिया	Department of VAHEE	e-ISSN: 2583 – 0430 पशुओं में बांझपन के कारण तथा उपचार, (2023) विषय 3, अंक10, 26-28 Article ID: 314
पशुओं में बांझपन के कारण तथा उपचार	सुमित सिंहल, पंकज सिंह, सरोज कुमार रजक, जे. के. प्रसाद	Published under PJA-AKAM by BVC Patna
दूधारू पशुओं में मदकालव और मद की पहचान एवं लाभ	जे. के. प्रसाद, सुमित सिंहल, पंकज सिंह, सरोज कुमार रजक	BVC Patna

Title	Authors/Department	Publication Details
Zoonoses	Department of VPHE,	BVC, Patna
Rabies Lets Know	Department of VPHE	BVC, Patna
रेबीज— आइये जाने	Department of VPHE	BVC Patna
जूनोटिक ट्यूबरकुलोसिस: इसे समझें और टी.बी. से बचें	Department of VPHE	BVC Patna

Radio / TV talks

Name of Scientist	Topic	Programme
Ajeet Kumar	जानवरों में होने वाले संक्रामक रोगों का रोकथाम और उसका उपचार	TV talk
Dr Manjoj Kumar	गर्मी के मौसम में दूधारू पशुओं की देखभाल	Krishi Darshan DD Bihar
Dr Manjoj Kumar	पशुओं के संक्रामक रोग और मनुष्यों पर प्रतिकूल प्रभाव	Krishi Darshan DD Bihar
Dr. Pankaj Kumar	पशुओं में अंतःपरजीवी और बाह्य परजीवी का प्रबंधन	TV talk
Dr, R.K. Sharma	Barsat main Bakrio ki Dekhbhal	TV talk
Dr, R.K. Sharma	Barsat ke dino main Pashuyon main Honewale Mukhya Parjiwi Rog'	TV talk
Dr.Pankaj Kumar Singh	बरसात के दिनों में पशुओं का आहार प्रबंधन	Krishi Darshan Programme, DD, Patna
Dr. Pankaj Kumar Singh	बरसात के दिनों में पशुओं का आहार प्रबंधन	Krishi Darshan Programme, DD, Patna
Dr. Pankaj Kumar Singh	ठंड के मौसम में पशुधन का प्रबंधन	Krishi Darshan Programme, DD, Patna
Dr. Pankaj Kumar Singh	ठंड के मौसम में गाय-भैंस की दूध की बढ़ोतरी कैसे करें	Krishi Darshan Programme, DD, Patna
Dr. Pankaj Kumar Singh	गर्मी के दिनों में दूधारू पशुओं का प्रबंधन	Krishi Darshan Programme, DD, Patna
Dr. Pankaj Kumar Singh	ठंड के मौसम में गाय-भैंस की दूध की बढ़ोतरी कैसे करें	Krishi Darshan Programme, DD, Patna
Dr. Pankaj Kumar Singh	गाय-भैंस के दूध में फैट और एसएनएफ की कमी का समाधान	Krishi Darshan Programme, Door Darshan, Patna
Dr. Pankaj Kumar Singh	गर्मी के दिनों में पशुओं का आहार प्रबंधन	Doordarshan, Patna
Dr Sushma Kumari	Dudh ke utpado ke mulyasanvardhan se aay."	Prasar Bharti, DDK, Patna
Dr. G. K. Choudhary	बातचीत: उन्नत ढंग से बकरी पालन	आकाशवाणी वाराणसी

पशुओं से मनुष्यों तक टीबी रोग का संक्रमण

बिहार पर विज्ञान विप्लवविद्यालय द्वारा चलाई गयी टीवी जागरूकता अभियान

पटना (रासासं):
टीवी आज भी
विश्व भर में
मनुष्यों में होने
वाली एक
जानलेवा बिमारी
है। विश्व स्वास्थ्य



संगठन के अनुसार सालाना दुनिया भर में 1.3 मिलियन लोगों की जान टीबी के संक्रमण से जाती है। भारत सरकार के स्वास्थ्य एवं परिवार कल्याण विभाग के द्वारा जारी एक रिपोर्ट के अनुसार 24.2 लाख टीबी संक्रमित मरीजों की पहचान वर्ष 2022 में की गई। इस संदर्भ में प्रत्येक वर्ष 24 मार्च को अलग नागरिकों को टीबी रोग के बारे में जागरूक करने हेतु विश्व टीबी दिवस मनाया जाता है इस अवसर पर पशु शोक स्वास्थ्य एवं महामारी विज्ञान विभाग एवं प्रसार शिक्षा निदेशालय, बिहार पशु विज्ञान विश्वविद्यालय पटना ने 18 एवं 19 मार्च को जूनोटीक टीबी जो पशुओं से मनुष्यों में फैलता है, के बारे में जन जागरूकता कार्यक्रम का आयोजन पटना जिला स्थित बंदिपुर गाँव के पशुपालकों, किसानों एवं विश्वविद्यालय स्थित पशु फार्म में करवा करने वाले लोगों के बीच किया गया। इस कार्यक्रम में पशुपालकों, जानवरों की देखभाल करने वाले किसानों एवं महिलाओं को जूनोटीक टीबी के जानवरों से फैलने एवं इससे बचाव के बारे में जानकारी दी गई। इस अवसर पर बिहार पशु चिकित्सक महाविद्यालय के तुल्य वर्ष के छात्र एवं छात्राओं द्वारा नुक़ाड़ नष्ट के माध्यम लोगों के बीच जागरूकता फैलाई गयी। कार्यक्रम का संयोजन डॉ. पी. कौशिक एवं शिवनी सहा रीय ने किया। डॉ. अरुण एवं डॉ. भूमिका ने शैलों को फैलने से बचाने में स्वच्छता के महत्व पर प्रकाश डाला। पटना से लपटा जवाबिल लविकाइल दिल्ली से बारापट

पशुओं से मनुष्यों को हो सकता है टीबी का संक्रमण

पटना . बिहार पशु विज्ञान विश्वविद्यालय में पशुओं से मनुष्यों में होने वाली टीबी बीमारी पर जागरूकता कार्यक्रम हुआ। बादिपुर गांव के पशुपालकों, किसानों एवं विश्वविद्यालय स्थित पशु फार्म में कार्य वालों के बीच इसे लेकर चर्चा की गयी। पशुपालकों, जानवरों की देखभाल करने वाले किसानों एवं महिलाओं को जूनेटिक टीबी के जानवरों से फैलने एवं उससे बचाव के बारे में जानकारी दी गयी। संचालन डॉ. पी. कौशिक एवं शिवली साहा रॉय ने किया। डॉ अंजय एवं डॉ भूमिका ने रोगों को फैलने से बचाने में स्वच्छता के महत्व पर प्रकाश डाला।

कृषि विज्ञान केन्द्र सीतामढ़ी में पशुधन शिविर का आयोजन

गोपनीय दस्तावेज़

[illegible][illegible]

विश्व पशुचिकित्सा विश्वविद्यालय
एनएमएल मुंबई में आयोजित
होने वाले प्रथम सम्मेलन, डॉ. वि-
वेक सिंह, ही मुंबई स्थित के
एनएमएल के अध्यक्ष प्रोफ.
श्रीराम प्रसाद (एनएमएल मुंबई)

मित्रों ने कहा कि वे बहुत ही
बहुल हैं। बहुत बड़े, लंबे, बाल
मित्रों के साथ, लंबे हैं। मित्रों
के बहुत विभिन्न विभिन्न
मित्रों के साथ वे बहुत ही
मित्रों के साथ बहुत ही

ये सब समुदाय खुदों का
ले काफी करते हैं। सभी समु-
दायों में शिक्षा, स्वास्थ्य, कला
केन्द्रों का निर्माण हो रहा है।
सभी समुदायों में एक-एक
समिति का निर्माण हो रहा है।


**दैनिक
भास्कर**

नवादा / शेखपूरा भास्कर 05-10-2023

पशु बांझपन शिविर दी गई जानकारी

fruit flycatcher | *collared flycatcher*[illegible]

अपनी प्रतीति में विमान

पुष्पें उपजाऊ उपजाऊ, पशुपालन को
सहाय्य करवाई । औद्योगिकरण का
सहाय्य करना कृषिपालन का
अर्थिक को सहाय्य करे किसानों
आजकारी किसानों को बी बी
मासिकता में भरणपालन पर
मिळीकाल परकीकरी करीकरी
को सुकरी सुकरी, भरणपालन
किसानों करकी करकी, करकी
मिळी, करकी मिळी, करकी
करकी मिळी करकी करकी
करकी करकी, करकी मिळी, करकी
करकी करकी

पशुओं का निशुल्क उपचार
रक्षा दल का भी हुआ
वितरण

[illegible]

ने मंगल लग्न में विवाह करने में
मेरी सहायता में आने की
विचार के अभाव में जो जिस
लिए अलग ही लड़कन और
लगाव बनाए। उन्होंने प्यार
जड़ान की जगह पर ही की
जड़ान तक की संबंधित बर
आदि-दिशेक उमरा, टुट्टा
कुमार ने जगह की तुलना प्यार
जड़ान में सम्पूर्ण इति किन्तु
जगह लय पर संबंधित नहीं
मेरी सहायता में आने की
इति का सम्पूर्ण करना यहाँ है

[illegible][illegible]
**दैनिक
भास्कर**

गया भास्कर 05-12-2023

**खानपान की गड़बड़ी से पशुओं में
बढ़ रहा है बांझपन : डॉ. मृत्युंजय**

first first(er) person

[illegible]

**प्रत्येक पंचायत में लगे पशुधन
जागरूकता शिविर**

[illegible]

मनीष कुमार मिश्र, राधवीर कुमार यादव, समीर कुमार मिश्र समेत दो दलितों से अधिकतर पढ़ाईवाले मौजूद थे।

दूध उत्पादन में राज्य में बेगूसराय सर्वोपरि : सर्वेश

[illegible]

संस्थानों की संवर्धित करने विधान पत्रिका

पड़ता है, जिला पशुसंरक्षण प्रदाधिकारी एवं पशु स्वास्थ्य अधिकारी प्रदाधिकारी ने बेमुरसावा जिले के पशुओं में बाइसन की समस्या की मुख्य कारण पशुपालकों में जहनकारी का अभाव और प्रशिक्षण की कमी को बताया, मुख्य अतिथि के तौर पर उपस्थित किसान पार्षद ने बेमुरसावा जिले को दूध उत्पादन में राज्य में सर्वोपरि बताया, परंतु अमर हातों के

किराहती को हरियाणा एवं पंजाब के पशुपालक किराहती में तुलना की जाये, तो उनके कुछ उत्पादन की क्षमता विचार में कम है। जरूरत है पशुपालकों को नयी तकनीकों की जानकारी के साथ-साथ अन्य सुविधाएँ मुहैया कराने की। इस जागरूकता सैमिनार में 200 से अधिक किराहती ने दूरनीलेरी कार्यक्रम में भाग लिया।

List of Research Projects / Service Projects funded by University

Sl. No.	Projects	PI (*) and associated Co- PI	Project Duration		Duration (Year)	Budget (Rs. in lakh)
			From	To		
1	Molecular prevalence of Haemoprotozoal and rickettsial disease of bovine	Dr. Pankaj Kumar*	04.02.2022	03.02.2024	2	4.5
2	Evaluation of probiotic potential and antimicrobial efficacy of Lactobacillus spp. isolates from gastrointestinal tract of animals and human	Dr. Bhoomika* Dr. P. Kaushik Dr. Vivek Kumar Singh	04.02.2022	03.02.2024	2	3.6
3	Preparation and evaluation of canine food prepared from using locally available feed resources and poultry by-products	Dr. Pankaj K. Singh* Dr. Pallav Shekhar Dr. Sushma Kumari	04.02.2022	03.02.2024	2	3.75
4	Isolation and characterization of bacteriophages targeting food borne pathogens from sewage samples of livestock farm	Dr. Anjay* Dr. P. Kaushik Dr. Ajeet Kumar	30.05.2019	29.11.2023	4	8
5	Development and quality evaluation of flavoured Paneer	Dr. Sushma Kumari* Dr Gargi Mahapatra	04.02.2022	05.08.2024	2	1.1
6	Impact of physiotherapy in rehabilitation of clinical cases of neuro-muscular disorders in animals.	Dr. Archana Kumari* Dr. Rajesh Kumar Dr. Ramesh Tiwari	04.02.2022	05.08.2024	2.5	2.21
7	Evaluation of autologous and heterologous platelet-rich fibrin application on cutaneous wound healing in dogs	Dr. Gyan Dev Singh*	04.02.2022	05.08.2024	2.5	3
8	Biofabrication of gold nanoparticles and its antiproliferative effect in cell line	Dr. Ajeet Kumar*	28.08.2018	01.06.2024	6	7

Sl. No.	Projects	PI (*) and associated Co- PI	Project Duration		Duration (Year)	Budget (Rs. in lakh)
			From	To		
9	Evaluation of Proliferative and apoptotic markers in Canine mammary tumour for diagnosis and prognosis	Dr. Kaushal Kumar* Dr. R. Tiwary Dr. G D Singh Dr. P. Shekhar Dr. D. Kumar	14.11.2019	13.09.2024	5	9.38
10	Colorimetric detection of E. coli, Streptococcus spp. and Staphylococcus aureus isolated from mastitis milk samples by optical biosensing using oligonucleotide- Gold Nanoparticles	Dr. Ajeet Kumar*	14.11.2019	01.11.2024	5	12.5
11	Dietary supplementation of phytase and xylanase on performance and egg quality of Vanaraja layer bird fed on wheat bran-based diet.	Dr. Kaushalendra Kumar* Dr. Amrendra Kishor Dr. Suchit Kumar	04.02.2022	01.02.2025	3	2
12	Phenotypic and Genetic Characterization of Goats of West Champaran, Bihar	Dr. R.K. Singh* Dr. J. P. Gupta Dr. Birendra Kumar Dr. R.K. Nirala Dr. Dharendra Kumar	01.09.2023	31.08.2025	2	3.75
13	Detection of polymorphism in MHC class II genes and their association with theileriosis in cattle	Dr. Soni Kumari* Dr. Shyma K.P Dr. S.P. Sahu	01.09.2023	31.08.2025	2	2.5
14	Comparative global gene expression profile of interaction of host against natural infection of theileria in crossbred and indigenous cattle	Dr. J. P. Gupta* Dr. R.K. Singh Dr. Soni Kumari	01.09.2023	31.08.2026	3	6.3
15	Pilot study on standardisation of dietary supplementation of Litchi seed (Litchi Chinensis) in Chicken feed	Dr. Pankaj K. Singh* Dr. Kaushalendra Kumar Dr. Dharmendra Kumar	01.09.2023	31.08.2025	2	2

Sl. No.	Projects	PI (*) and associated Co- PI	Project Duration		Duration (Year)	Budget (Rs. in lakh)
			From	To		
16	Utilization of Poultry Waste for Organic Manure Production: Development of a Model Unit	Dr. Kaushalendra Kumar* Dr. Chandrahas Dr. R. R.K. Sinha	01.09.2023	31.08.2025	2	3.75
17	Effect of feeding non-conventional green fodder (Dimeria ornithopoda) and Saccharum munj on productive performance of Goat	Dr. Dharmendra Kumar* Dr. Pankaj K. Singh Dr. Deep N. Singh Dr. Sanjay Kumar	01.09.2023	31.08.2025	2	5.9
18	Preparation of permanent histological slide of all major organs of domestic animals and bird: Indispensable resource in Anatomy education” (Service project)	Dr. A. K. Gautam* Dr. S. K. Bharti Dr. R. K. Choudhary Dr. M. K. Sinha*	04.09.2023	03.09.2025	2	2.45
19	Preservation of organs of domestic animals by plastination technique to improve teaching of anatomy and preparation of eco-friendly museum specimens	Dr R. K. Choudhary * Dr S.K. Bharti, Dr. A.K. Gautam Dr M.K. Singh	04.09.2023	03.09.2025	2	2.25
20	Preparation of Osteological Museum of Domestic Animals including Birds	Dr. S. K. Bharti* Dr. A.K. Gautam Dr. R. K. Choudhary	04.09.2023	03.09.2025	2	2.5
21	Assessment of Poultry Waste Management Practices at poultry farms and commercial hatcheries in Bihar	Dr. Puspendra Kumar Singh*	01.09.2023	31.08.2025	2	3.3
22	Improvement of Conception in Repeat Breeder Cows Following Hormonal Treatment and Development of Accessory Corpus Luteum	Dr. S. K. Sheetal* Dr. Sumit Singhal Dr. S. P. Sahu	02.09.2023	1.09.2025	2	3

Sl. No.	Projects	PI (*) and associated Co- PI	Project Duration		Duration (Year)	Budget (Rs. in lakh)
			From	To		
23	Sudy on diagnosis of alopecia in dog with special reference to etiology, trichometry and histologic Alteration” undertaken as pilot study	Dr. Bipin Kumar*	12.09.2023	11.09.2024	1	1.5
24	Molecular detection and assessment of oxidative stress in bovine Theileriosis carrier cattle encompassing Patna District of Bihar	Dr. Anil Kumar*	01.09.2023	31.08.2026	3	3.35
25	Generation of Microbial resources and Prevalence study of pathogens of poultry origin in Bihar	Dr. S. K. Gupta*	05.09.2023	04.09.2025	2	7
26	Antibacterial and Wound Healing properties of Bioadhesives from biomass derived Carbon Dots	Dr. Manoj Kumar*	18.09.2023	17.09.2025	2	3.25
27	Study on status of acaricide resistance in tick population of Bihar”	Dr. Shyma K.P* Dr. Ajit Kumar Dr. Pankaj Kumar Dr. Pallav Shekhar	01.09.2023	31.08.2026	3	3.55
28	Development of Parasitological Museum” (Service Project)	Dr. Pankaj Kumar* Dr. Ajit Kumar Dr. R. K. Sharma Dr. Anil Kumar Dr. Imran Ali	01.09.2023	31.08.2026	3	4.25
29	Pilot study on Anthelmintic Resistance in Gastro-intestinal Nematodes in Cattle	Dr. R.K.Sharma* Dr. Pankaj Kumar Dr. Pankaj Kumar	01.09.2023	31.08.2025	2	2
30	Development of Staining Protocol for Co-Localizing Zn and Ag in Nucleolar organizing regions as a tool for assessing aggressiveness of superficial tumours in animals	Dr. Sanjiv Kumar* Dr. Kaushal Kumar Dr. Rajesh Kumar	02.09.2023	01.09.2026	3	2.4

Sl. No.	Projects	PI (*) and associated Co- PI	Project Duration		Duration (Year)	Budget (Rs. in lakh)
			From	To		
31	Development of Pathological Museum for gross-changes in organs in different disease condition	Dr. Imran Ali* Dr. Sanjiv Kumar Dr. Kaushal Kumar Dr. Deepak Kumar	05.09.2023	04.09.2026	3	2.8
32	Evaluation of bubaline and caprine acellular matrix in repair of abdominal wall defects in animals	Dr. Rajesh Kumar* Dr. Aakanksha, Dr. Manoj K. Singh Dr. Ajit Kumar	02.09.2023	01.09.2025	2	3.5
33	Development of device for diagnosis and prevention to access metallic foreign body and Surgical management of Traumatic Pericarditis in Bovine	Dr. Ramesh Tiwary*	04.10.2023	03.10.2026	3	7
34	Augmenting fertility and oocyte recovery rate in bovine by feeding Omega-3 rich fatty acid (flax seed) enriched diet	Dr. Dushyant Yadav* Dr. S. K. Sheetal Dr. S. P. Sahu	02.09.2023	01.09.2025	2	3.4
35	Strategies for improving the IVF embryo production and assessment of subsequent pregnancy development in bovine	Dr. Sumit Singhal* Dr. D. Sengupta Dr. S. K. Sheetal Dr. Dushyant Yadav	20.12.2023	19.12.2025	2	5.6
36	Evaluation of Trefoil Factor (TFF1 & TFF3) as a biomarker in canine mammary tumour and development of ELISA for its estimation in serum	Dr. H. Bhardwaj* Dr. Ajeet Kumar Dr. G. D. Singh Dr. Deepak Kumar	21.08.2023	20.08.2026	3	4
37	Pathological analysis of mortalities in higher body weight broiler chicken during transportation	Dr. Sanjiv Kumar* Dr. Sanjay Kumar Dr. Sushma Kumari Dr. Imran Ali	17.05.2023	16.05.2025	2	3.71

Sl. No.	Projects	PI (*) and associated Co- PI	Project Duration		Duration (Year)	Budget (Rs. in lakh)
			From	To		
38	Development and Evaluation of Improved Backyard Poultry Germplasm	Dr. Soni Kumari* Dr. R.R.K Sinha Dr. Kaushlendra Kumar Dr. Birendra Kumar Dr. R. K. Jaiswal	16.03.2024	15.03.2027	2	
39	Evaluation of proliferative and apoptotic markers in CMT for diagnosis and prognosis	Dr. Kaushal Kumar* Dr. R. Tiwary Dr. G D Singh Dr. P. Shekhar Dr. D. Kumar	16.11.2019	15.11.2023		

Participation of scientists in conferences, workshops, symposia, trainings, etc. in India and abroad

Name of faculty	Title of conf/workshop etc.	Date	Venue
Dr. Pankaj Kumar Singh, Dr. Sankhant Koley	Workshop on Academic Management System by Directorate of Resident Instruction cum Dean PGs.	7-11 Aug, 2023	BASU, Patna
Dr. J.P. Gupta Dr. Soni Kumari	MOOC on Agricultural Statistics in Practice, online Commonwealth of learning and ag MOOCs	11 July – 31 Aug 2023	Online Commonwealth of learning
Dr. Soni Kumari	Three-day international workshop on statistical data analysis using SPSS at dept. of research and publications	1-3 Sept 2023	A2Z EduLearning Hub LLP
Dr. Soni Kumari	3 days Virtual Orientation Programme	13-15 Sept 2023	BASU, Patna
Dr. J. P. Gupta	3 days Virtual orientation programme,	13-15 Sept 2023	BASU, Patna
Dr. J. P. Gupta Dr. R. K. Singh Dr. Soni Kumari Dr. Birendra Kumar Dr. Sanjay Kumar	Workshop on NARES- Blended Learning Plattform (BLP)	20 Sept 2023	BASU, Patna
Dr. Nirbhay Kumar, Dr. G.K. Choudhary, Dr. R.K. Nirala	XXII Annual Conference of Indian Society of Veterinary Pharmacology and Toxicology and National Symposia	November 02-04, 2023	RAJUVAS, Bikaner, Rajasthan
Dr. R. K. Singh Dr. Soni Kumari	Online training on Basic Bioinformatics Tools for Genome Analysis	16 -20 Oct 2023	ICAR-NBAGR, Karnal

Name of faculty	Title of conf/workshop etc.	Date	Venue
Dr. R. K. Singh	MOOC on Digital Teaching Techniques	1-31 Oct 2023	ICAR-NAARM
Dr. Saroj K. Rajak	3rd National Conference on Livelihood and Food Security through Agriculture and Applied Sciences	5 Nov 2023	Ranchi, Jharkhand
All Faculty, BVC BASU	32nd National Congress of Veterinary Parasitology and National Symposium	29 Nov- 1 Dec 2023	Bihar Veterinary College, B. A.S.U., Patna
Dr. S K Bharati Dr Ratnesh Chaudhary	XVII Annual Convention of Indian Association of Veterinary Anatomists and National Symposium	5-7 Dec 2023	C.V.Sc., S.V.V.U., Tirupati (A.P)
Dr. Anjay	International symposium and Annual conference of Indian Association of Veterinary Public Health Specialists (IAVPHS).	7-8 Dec 2023	LUVAS, Hisar
Dr. Anjay	MOOC course of WHO <u>“Water, sanitation and hygiene for the prevention and care of neglected tropical diseases”</u> .	8 Dec 2023	WHO
Dr. Pankaj Kumar Singh Dr. Sankhanth Koley Dr. Sanjay Kumar Dr. Kaushalendra Kumar and Dr. Dharmendra Kumar	Bihar Dairy and Cattle expo	21-23 Dec, 2023	BASU, Patna
Dr. Soni Kumari Dr. R K Jaiswal Dr D N Singh Dr Amrita Behera Dr. Ranjana Dr. V K Singh	Workshop on “Viksit Bharat @ 2047- Voice of Youth”	11 Dec 2023	Raj Bhavan, Patna
Dr. Ajeet Kumar Dr. Amrita Behera Dr. Himalaya Bhardwaj	7th annual international symposium of SVBBI-2023	14-15 Dec 2023	
Dr. Bhoomika	ICAR Sponsored Winter School on Mitigation Strategies to manage AMR and Zoonoses to ensure food safety.	18 Dec 2023- 7 Jan 2024	C.V.A.Sc. G.B.P.U.A&TPa ntnagar
Dr. J. P. Gupta Dr. R. K. Singh Soni Kumari Birendra Kumar	National Seminar on “Animal Husbandry in Ancient India: A scientific Analysis”	19-20 Jan 2024	BVC, Patna in collaboration with Heritage Society, Patna

Name of faculty	Title of conf/workshop etc.	Date	Venue
Dr. Kaushalendra Kumar	20th Biennial International Conference of ANSI.	23-25 Jan 2024	TANUVAS, Chennai
All faculty, BVC participated in the conference	Annual Conference of Society for Promotion of Farm and companion Animal	28-29 Feb 2024	BVC, Patna

Workshops, seminars, summer / winter schools, short courses, trainings, etc. convened at Bihar veterinary College, Patna

Programme	Details	Duration	Name of Organizer
Hand on Training	10 Days Hand on Training on “High Performance Liquid Chromatography”	30th January to 8th February, 2024	Dr. Nirbhay Kumar, Dr. G.K. Choudhary, Dr. R.K. Nirala Dr. Archana Dr. Kumari Anjana Dr. R.R. Kumari
Training Programme	Personality development training programme on yoga and emotional dimension for personality development	10 Aug 2023	Dr. S. S Roy
Training Programme	Scientific commercial broiler farming	29 Sept 2023	Dr. Kaushalendra Kumar
Workshop	Preparation of plastinated biological specimens for teaching and museum purpose	03-06 Oct 2023	Dr. S.K. Bharti Dr. R.K. Choudhary
Training Programme	Layer and broiler farming	01-06 Nov 2023	Dr. Kaushalendra Kumar
Training Programme	Layer and broiler farming	11-16 Dec 2023	Dr. Kaushalendra Kumar
Training Programme	Hands on training programme on basic molecular biology based techniques in research	27- 29 Dec 2023	Dr. Ajeet Kumar and Dr. Amrita Behera
National Conference	Enhancing farmers income by livestock, poultry and aqua farming through sustainable and eco-friendly smart technologies and practices	28-29 Feb 2024	Dr. S.K. Bharti
National Seminar	Animal Husbandry in Ancient India: A Scientific Analysis	19-20 Jan., 2024	Dr Rohit Kumar Jaiswal Dr Gargi Mahapatra,

List of distinguished visitors

1. Prof.(Dr.) P.L. Gautam, Hon'ble Chancellor, Dr. Rajendra Prasad Central Agricultural University Pusa, Samastipur – 848 125, Bihar, India & Former DDG-ICAR
2. Prof. (Dr.) Manmohan Singh Chauhan, Hon'ble Vice Chancellor, G. B. Pant University of Agriculture and Technology, Pantnagar
3. Prof. (Dr.) Nazir Ahmad Ganai, Hon'ble Vice Chancellor Sher-e-Kashmir University of Agricultural Sciences and Technology, Kashmir
4. Prof. (Dr.) Indrajeet Singh, Hon'ble Vice-Chancellor, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana
5. Padam Shri, Prof.(Dr.) K K Sarma Prof. & Head, The Department of Veterinary Surgery & Radiology, College of Veterinary Science, Khanapara, Guwahati
6. Prof.(Dr.) Munmun Sarma Prof. Veterinary Anatomy, College of Veterinary Science, Khanapara, Guwahati
7. Dr S Sivagnanam Professor and Head, Department of Anatomy, Veterinary College & Research Institute, Tamilnadu
8. Padam Shri Prof. (Dr.) Jagdish Prasad, Hon'ble Former Director General, Health Govt. of India
9. Dr Ishwer Singh, Prof. & Head, Department of Veterinary Anatomy, College of Veterinary Science, Pantnagar
10. Dr. Vineet Bhasin, Ex. Assistant Director General (ADG), ICAR, New Delhi
11. Dr Indramani Nath, Prof and Head, The Department of Veterinary Surgery & Radiology, College of Veterinary Science, OUAT, Bhubneshwar.
12. Dr TK Gahlot, Former Professor and Head, College of Veterinary Science, Bikaner.

Any other relevant information such as infrastructure development (such as Farm / Engineering / Medical Sections / Farm/ VCC/ Feed Technology Unit/ Farm Workshop/ Bioinformatics/ Communication Centre/ Central Data Cell / Kisan Call Centre / ATIC / Sale of livestock products by LPT etc.)

1. Celebration of world veterinary day:

Bihar veterinary College, Patna has organized different student activities for student such as students quiz, Animal welfare camps, free anti rabies vaccination for pet lovers and nukkadnatak, on 29th April 2023.

2. e- Kisan Samadhan:

A WhatsApp group is being handled by Dr. Saroj Kumar Rajak for instant solution to the livestock farmers through messages and zoom meetings on every 1st and 3rd Saturday of the month.

3. Live with Science: A unique seminar series:

The college has initiated a unique seminar series “Live with Science” which is co-ordinated by Dr. Pankaj Kumar, Professor Vet Microbiology, on first and third Saturday of every month where faculty members present a talk on scientific or any other relevant area of science.

Details of Lecture held during the year 2023-24

Sr.No	Name of Speakers	Date	Topic
1	Dr. Rajesh Kumar Associate Professor, VSR	06/05/2023	Physiotherapy in healthcare and rehabilitation
2	Dr. Sanjay Kumar Associate Professor, ANN	20/05/2023	Potential of dairy sector in India in boosting farmers welfare

Sr.No	Name of Speakers	Date	Topic
3	Dr. Sanjay Kumar Associate professor, LPM	17/06/2023	Latest technology in Livestock Farming
4	Dr. Bipin Kumar Associate Professor, VMD	01/07/2023	Changing environment and its impact on animal health
5	Dr. Ramesh Tiwary Associate Professor, VSR	15/07/2023	Evolution of stem cell science to combat health security
6	Dr. Nirbhay Kumar Associate Professor, VPT	19/08/2023	Drug discovery from medicinal plants: Challenges and opportunities
7	Dr. Vivek Kumar Assistant Professor, VCC	02/09/2023	An academic perspective of EQ and IQ
8	Dr. Kaushlendra Kumar Associate Professor, ANN	16/09/2023	Impact of climate change on livestock production
9	Dr. R. K. Nirala Assistant Professor, LPM	30/09/2023	Myths Vs Reality
10	Dr. Seuli Saha Roy Professor, VPHE	02/03/2024	Yoga, Meditation and Pranayama for smart and healthy living
11	Dr. Dushyant Yadav Assistant Professor, LFC	16/03/2024	Digital teaching and Learning

1. Students Orientation Programme:

Bihar Veterinary College had organized Orientation Programme for first year B.V.Sc. & A.H. students of BVC, Patna on 15th Dec., 2023. In this programme introduction of students, awareness about hostel rules, library timings, and academic rules were discussed among first year B.V. Sc. students.

2. Celebration of internatation yoga day:

The college has organized a yoga shivir for students and faculties on the occasion of world yoga day on 21st June 2023. It was organised to bring awareness among students, faculties and staffs about the Yoga and its benefits.

3. JRF tutorial classes for P.G inspiring students:

Bihar Veterinary College has initiated Tutorial Classes for JRF preparation for Internship students. Classes were arranged for students after consulting the students as per their preference suggested and we have in total conducted 42 rutorial lectures fir preparation of JRF. Two students got ICAR-JRF fellowship and 06 student got ICAR-SRF fellowship in the academic year 2023-24.

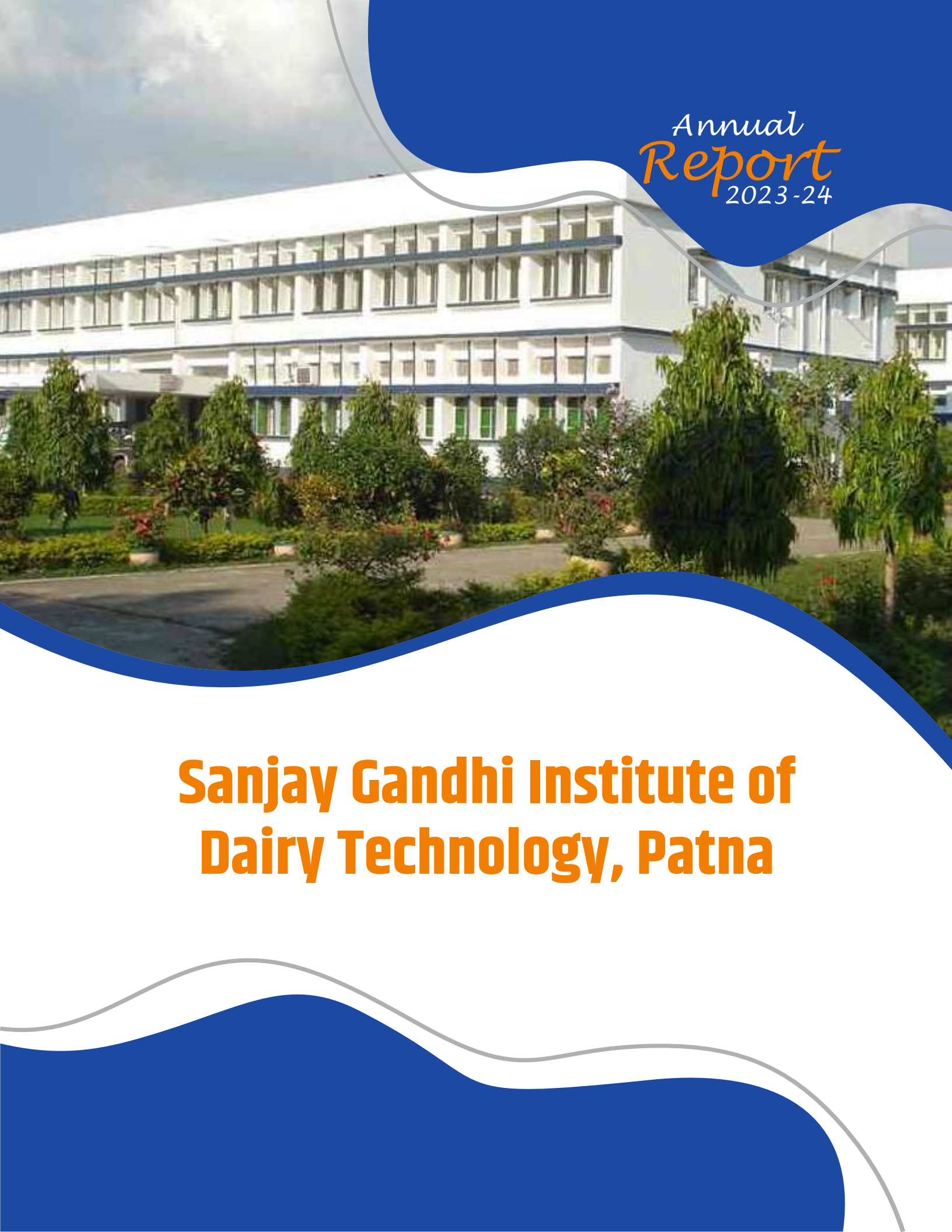
4. Expert advisory services provided by Bihar Veterinary College in the field of wild animal treatmaent, rescue and rehabilitation:

Faculty of Bihar Veterinary College, Patna provide advisory services for the establishment of Wildlife Hospital in Zoo Safari, Rajgir, Department of Environment, Forest and Climate

change, Bihar. Besides this the college also provides expert advisory services to the captive animals of Patna Zoo on routine basis.

5. **Dr. Nirbhay Kumar:-**Delivered invited external expert lectures at DUVASU, Mathura as remedial classes to UG students under NAHEP from 19th June to 24th June, 2023
6. **Dr. Nirbhay Kumar:-**Delivered invited external expert lectures (online) for remedial class to UG students of SKUAS&T, Jammu under NAHEP from 10th June to 13th June, 2023.
7. **Dr G. K. Choudhary:-**Delivered invited lectures at GADVASU, Ludhiana as remedial classes to UG students under NAHEP from 5th July to 6th July, 2023.





*Annual
Report*
2023-24

Sanjay Gandhi Institute of Dairy Technology, Patna

ANNUAL REPORT OF SGIDT(2023-2024)

1. Executive summary of SGIDT

Sanjay Gandhi Institute of Dairy Technology was approved and established vide resolution No. 2813, dated - 14 December, 1980 of Govt. of Bihar, under the aegis of Rajendra Agricultural University(RAU), Pusa, Samastipur. Subsequently, the institute was shifted from RAU, Pusa to ARI, Mithapur, Patna in 1986 and finally moved to its own campus at Jagdeo Path, Patna in the year 1999. The main objective was to provide qualified dairy professionals who could contribute to the ever-growing dairy industry of Bihar. After bifurcation of RAU, in the year 2010, the institute came under the purview of Bihar Agricultural University (BAU), Sabour, Bhagalpur. Now the College is a constituent unit of Bihar Animal Sciences University (BASU), Patna, which was established vide act of Bihar State (BASU Act No. 15 of 2016) notified through the gazette of Bihar on 29th August 2016.

Initially, a four-year degree programs of B. Sc. Dairy Technology was started to fulfil the manpower requirement of Dairy Industry and the first batch of undergraduate students in B. Sc. Dairy Technology was admitted in the year 1982 at Pusa.

The Institute runs a four-year Bachelor Degree Program in Dairy Technology [B. Tech. (D.T.)] and offers M. Tech. in Dairy Technology, M. Tech. in Dairy Microbiology, M. Tech. in Dairy Chemistry. Also, seats have been approved for M. Sc. in Dairy Extension and M. Sc. in Dairy Business Management. Till date it has produced more than 500 graduates who are serving in various capacities nationally and internationally. Presently there are six departments in the college viz.,

1. Dairy Technology
2. Dairy Engineering
3. Dairy Chemistry
4. Dairy Microbiology
5. Dairy Business Management
6. Dairy Extension Education

1.1 Mandates of the Institute:

- To train personnel in Dairy Technology and Dairy Husbandry in order to handle dairy development programs in the state of Bihar.
- To conduct under graduate and post graduate programs in the selected areas of Dairy Science as per requirement of the state.
- To carry out research in collaboration with related disciplines on various aspects of Dairy Science and Technology.
- To provide short term training to Dairy Farmers, Dairy Entrepreneurs and Dairy Technicians as and when required.
- To disseminate the scientific knowledge in relation to milk and milk products through extension education programs.

1.2. Students strength at SGIDT

In the academic session of 2023-2024, total 93 students from all four batches of B.Tech. (DT) program were on the roll. Total 05 postgraduate students were enrolled in the same session. The batch wise and program wise distribution of students are presented below:

B.Tech(Dairy Technology)						
Batch	Intake capacity	Present status	Male	Female	%Male	%Female
2020	30	24	22	2	91.67	8.3
2021	30	19	11	8	57.89	42.11
2022	40	22	14	8	63.63	36.37
2023	40	28	20	8	71.43	28.57
M.Tech(Dairy Technology)						
Batch	Intake capacity	Present status	Male	Female	%Male	%Female
2022	03	01	-	01	-	100
2023	03	-	-	-	-	-
M.Tech(Dairy Chemistry)						
Batch	Intake capacity	Present status	Male	Female	%Male	%Female
2022	02	01	01	-	100	-
2023	02	02	02	-	100	-
M.Tech(Dairy Microbiology)						
Batch	Intake capacity	Present status	Male	Female	%Male	%Female
2022	02	01	-	01	-	100
2023	02	-	-	-	-	-

2. Research achievements:

- Process standardization was done for preparation of herbal agathipeda incorporated with Sesbina grandiflora flower powder.
- Process standardization was done for development of composite milk nutribar.
- A ongoing Field Survey conducted under a research project on Feeding Pattern and Economics of Milk Production in Different Agro-climatic Zones of Bihar yielded valuable insights about cattle feeding patterns, milk production techniques, and their economic challenges in some of the blocks of Patna district.
- Development of Laddoo from Finger millet, Flax seed and Skim Milk Powder.

3. Awards and recognition:

Dr. Rakesh Kumar	Co-Chairman of Technical session in 2nd National Conference on 28.02.2024 in this conference at BVC, Patna. I am presently working as Vice-President of the SPFCA society, BASU, Patna.
Dr. Sanjeev Kumar	Awarded 1st position in poster presentation on “Effect of Packaging Materials on Quality Characteristics of Khoa based Ramdana Lai” in 11th International Conference on Fermented Foods, Health Status and Social Well-being organised by NHEU and SASNET-FF from 21-22 Nov, 2023 in Shillong, Meghalaya, India
	Chairman, Technical Session “EE: Extension approaches innovations surveys, dairy economics, dairy case studies” in 50th Dairy Industry Conference held at Hitex Exhibition Centre, Hyderabad during 04 to 06 March, 2024.
	Co-chairman, Technical Session-6 of 11th International Conference on Fermented Foods, Health Status and Social Well-being organised by NHEU and SASNET-FF from 21-22 Nov, 2023 in Shillong, Meghalaya, India

	Co-chairman, Academia, Industry, farmers interface meeting In 2nd National conferences on "Enhancing Farmer's Income by Livestock, Poultry and Farming through Sustainable and Eco-friendly Smart Technologies and Practices. Organized by "Society for Promotion of Farm and Companion Animal" (SPFCA) at Bihar Veterinary College, BASU, Patna from 28-29, February, 2024.
Dr. Y.S. Jadoun	Awarded certificate and memento for Lead Paper presentation on "Livestock Based Start-ups; Nurturing Employment Avenues for Farming Communities" in National Conference on "Smart Livestock Extension for Enhancing Farmers' Income - An Extension Bounty" during 12-14th October, 2023 at the Khalsa College of Veterinary and Animal Sciences (KCVAS), Amritsar, Punjab.
	Awarded First Prize for the "Best Exhibition Stall" during KISAN MELA at BAU-Sabour during 17-19 Feb, 2024 (Lead and coordinated the BASU-Team)
	Awarded Certificate and memento for Acted as Rapporteur in Session-V on "Role of dairy sector and food processing in enhancing farmers income" during 2nd National Conference of SPFCA on "Enhancing Farmer's Income by Livestock, Poultry and Aqua Farming through Sustainable and Eco-Friendly Smart Technologies and Practices" organized by SPFCA at Bihar Veterinary College, BASU, Patna from 28-29, February, 2024.
	Awarded Certificate and memento for Acted as Co-Chairman in Technical Session (Theme-I) in National Conference on "Smart Livestock Extension for Enhancing Farmers' Income - An Extension Bounty" during 12-14th October, 2023 at the Khalsa College of Veterinary and Animal Sciences (KCVAS), Amritsar, Punjab.
	Received Appreciation Letter for successfully organizing the BIHAR DAIRY & CATTLE EXPO-2023 (State Level Event)
	Received "Reviewer Excellence Award" in recognition of significant and outstanding contribution to the Journal and reviewing the research article on "Performance analysis of Murrah Buffalo based Livestock Production System in Changing Climate". Asian Journal of Dairy and Food Research (NAAS Rating: 5.44).
	Received "Reviewer Excellence Award" in recognition of significant and outstanding contribution to the Journal and reviewing the research article on "Significance of Draught Animals in India". Agricultural Reviews. (NAAS Rating: 4.84).
	Received "Reviewer Excellence Award" in recognition of significant and outstanding contribution to the Journal and reviewing the research article on "Present Status, Constraints, and Potentials of Mud-Crab Culture in West Bengal". BhartiyaKrishiAnusandhanPatrika. (NAAS Rating: 4.95).

Dr. JuiLodh	1st position in in poster presentation on “Optimization of process variables (curcumin level and heat treatment) for the preparation of antioxidant rich ghee using Central Composite Rotatable Design. In 2nd National conferences on "Enhancing Farmer's Income by Livestock, Poultry and Farming through Sustainable and Eco-friendly Smart Technologies and Practices. Organized by “Society for Promotion of Farm and Companion Animal” (SPFCA) at Bihar Veterinary College, BASU, Patna from 28-29, February, 2024
Mrs. Sarvjeet Kaur	Dr. Rameshwar Singh Best Oration Award in 2nd National conferences on "Enhancing Farmer's Income by Livestock, Poultry and Farming through Sustainable and Eco-friendly Smart Technologies and Practices. Organized by “Society for Promotion of Farm and Companion Animal” (SPFCA) at Bihar Veterinary College, BASU, Patna from 28-29, February, 2024.
Ms. Sonam Kumari	2nd position in oral presentation in 2nd National conferences on "Enhancing Farmer's Income by Livestock, Poultry and Farming through Sustainable and Eco-friendly Smart Technologies and Practices. Organized by “Society for Promotion of Farm and Companion Animal” (SPFCA) at Bihar Veterinary College, BASU, Patna from 28-29, February, 2024.

4. Publications

4.1 Research articles

1. A Kumari, Rashmi K G, AparnaSudhakarn V, Aswin S W and Niraj K Singh. 2024. Unveiling the health benefits of prebiotics: A comprehensive review. Indian Journal of Microbiology <https://doi.org/10.1007/s12088-024-01235-4>. (NAAS Rating: 9.00).
2. B.Nath, and D Bhattacharya. 2023. Historical pattern of rice productivity in India. Environment Conservation Journal 1(1): 1-7. (NAAS Rating: 5.01).
3. B K Bharti, A Das and B K Singh. 2024. Studies of colour measurement of herbal cow Ghee. International Journal of Advanced Biochemistry Research 8(1): 515-518 (NAAS Rating: 5.29).
4. B K Singh, B K Bharti, D C Sen. 2024. Studies on sensory characteristics of Danedar during storage. International Journal of Veterinary Science and Animal Husbandry. 9(1): 629-631 (NAAS Rating: 4.61).
5. D S Dhakre, D Bhattacharya and BholaNath. 2023. Analysis of Published works in Sangeet Galaxy e-Journal during 2012-2022: A Statistical Study. Sangeet Galaxy e-Journal 12(1): 5-19.
6. G Singh, J Singh, Y S Jadoun and R K Sharma. 2023. Value chain analysis and identification of risk spots for infectious disease control in the pig industry, Punjab, India. Indian Journal of Animal Health 63(1): 50-59. DOI: <https://doi.org/10.36062/ijah.2023.01923>. (NAAS Rating: 5.01).
7. J. Badshah, B K Bharti and A K Jha. 2023. Mechanization of Khoa and Khoa Based Sweets – A Review. Frontiers in Crop Improvement 11: 2375-2379.
8. J. Badshah, S. Kumar, Suryamani Kumar, B K Bharti and A K Jha. 2023. Study on sensory characteristics of paneer for process standardization from buffalo milk. Indian Journal of Dairy Science 76(5):427-432. (NAAS Rating: 5.95).
9. K S Swapna, V Vijayageeta, M Anupama, Diwakar Mishra and K J Rao. 2023. Effect of Oat Incorporation on Textural Parameters of Dough and Sensory Quality of Biscuits. Journal of Food and Dietetics Research 3(1):15-23.

10. M S Raman, D K Pant, A Singh, and Rohit Kumar. 2023. Competitiveness of Fruits' and Vegetables' Exports from India. *Economic Affairs* 68(3): 1379-1386. (NAAS Rating: 5.45).
11. N. Chaudhary, Niraj K Singh, Anuj Tyagi, Anuradha Kumari. 2023. A detailed analysis of codon usages bias and influencing factors in the nucleocapsid gene of Nipah Virus. *The Microbe* 1(2023) 100014. ISSN: 2950-1946.
12. R K Prajapati, K Goel, M Sharma, K J Rao, C N Pagote, R Bhardwaj R and Diwakar Mishra. 2023. Pivotal Role of Starch in Traditional Dairy Products. 2023. *Indian Journal of Dairy and Biosciences* 32:1-7.
13. R Saxena, D K Pant, P Sharma, R K Paul and Rohit Kumar. 2023. Sustaining long-term agricultural exports from India. *Current Science* 125(10): 1109-1115. (NAAS Rating: 7.00).
14. S Kumar, Suryamani Kumar, M Bumbadia and S K Singh. 2022. Prospects and functionality of bacterial exo-polysaccharides in dairy foods: A Review. *Journal of AgriSearch* 9(1):01-05. (NAAS Rating: 4.95).
15. S Jadhao, S Roshan, R S Kavitar, Diwakar Mishra, V Vijayageeta and K J Rao. 2023. Utilization of Catechu Extract as a Colouring Agent in Shrikhand. 2023. *Indian Journal of Dairy and Biosciences* 32:24-36.
16. S Joshi, Shikha Bathla, Anuradha Kumari, Arashdeep Singh and Kiran Bains. 2023. Effect of soaking and other treatments on the physico-chemical and nutritional profile of sterilized mung bean milk. *Agricultural Research Journal* 60(5): 732-739 (NAAS Rating: 5.16).
17. Y S Jadoun, Jaswinder Singh, J S Hundal, Rajesh Kasrija, S K Kansal, R K Sharma, and Navkiran Kaur. 2023. Effect of mineral mixture supplementation on productive and reproductive performance of buffaloes. *Indian Journal of Animal Nutrition*, 40 (3): 283-287. ISSN:0970-3209, ISSN: 2231-6744 (online), (NAAS Rating:5.19).
18. Y S Jadoun, Kulbir Singh, Jaswinder Singh, Rajesh Kasrija, S K Kansal and Navkiran Kaur. 2023. Adoption of Kitchen Gardening by Beneficiary Farmers Trained under Farmer FIRST Project Implemented by GADVASU, Ludhiana. *Journal of Community Mobilization and Sustainable Development* 18(3): 883-888. (Print ISSN 2230 – 9047, Online ISSN 2231 – 6736) (NAAS Rating: 5.02).

4.2 Technical papers/review articles/full invited papers in conferences/trainings

1. A K Thakur, Y S Jadoun and Pragya Bhadauria. 2023. Smart Livestock Extension Services; Reaching to Unreached Farming Community. National Conference “SVAHE –5” (2023) on “Smart Livestock Extension for Enhancing Farmers' Income - An Extension Bounty” held from 12th-14th October, 2023 at KCVAS, Amritsar, Punjab”. pp. 25-34 (Published in Compendium).
2. AKumari, Sumit A and Sonika C. 2023. Application of High-performance liquid chromatography for the analysis of low-calorie sweeteners VII Annual convention of the society and International symposium on “Multiomics to One health: challenges and way forward in Biomedical Research from 14-15 Dec, 2023 organized by IVRI-Bareilly.
3. A Kumari, Rashmi K G, Aparna Sudhakarn V, Aswin S W, Niraj K Singh. 2024. Unveiling the health benefits of prebiotics: A comprehensive review. *Indian Journal of Microbiology* <https://doi.org/10.1007/s12088-024-01235-4> (NAAS Rating: 9.00).
4. A Singh, Gurpreet Kaur Tulla and Y S Jadoun. 2023. ICT applications in extension teaching and technology adoption. *Multidisciplinary Portrait of Agriculture, Concept and Practices (Book)*, An anthology of delivered lectures during 21 National Orientation Course on “Teaching, Learning Evaluation Technology Program” (April 5-25, 2023). pp. 21-38 (ISBN No: 978-93-91995-10-2).

5. J Lodh, D C Sen and PSaha. 2023. Health benefits of goat milk. 56th Annual General Meeting & 64th National Symposium 2023. Organized by CLFMA OF INDIA (Association of Livestock Industry) in New Delhi from 18 -19th August, 2023, pp. 86-88.
6. J Lodh, D C Sen and R Kumari. 2024. Yak Rearing: Sign of Prosperity for High Altitude People. 57th Annual General Meeting & 65th National Symposium 2024, organized by CLFMA OF INDIA (Association of Livestock Industry), New Delhi.
7. P K Singh and Y S Jadoun. 2023. Methods of Data Collection, Interpretation and Report Writing. Multidisciplinary Portrait of Agriculture, Concept and Practices (Book), An anthology of delivered lectures during 21 National Orientation Course on “Teaching, Learning Evaluation Technology Program” (April 5-25, 2023). pp. 73-81. (ISBN No: 978-93-91995-10-2).
8. S Kumar, J Lodh, S Kumar, D Mishra and S K Singh. 2023. Value Addition to Milk at Cottage Level: A Way to Enhance Farmers Income 2023. 49th Dairy Industry Conference, Gandhinagar (16-18 March, 2023) pp. 18-20.
9. S Kumar, S Kumar, J Lodh, D Mishra and S Hati. 2023. Technological Application of Ultrafiltration Technology in The Manufacture of Cheese. 11th International Conference on “Fermented Foods, Health Status and Social Well-being”. Organized by Dept. of RDAP, North –Eastern Hill University, Shillong, Meghalaya, India & Swedish South Asian Network on Fermented Foods (SASNET-FF), Anand, Gujarat from 21-22, November, 2023.
10. S Kaur, Y S Jadoun, Akshith Sai Pabba and Pinky Preeti. 2023. Importance of Evaluating Extension Programs at Field Level. Multidisciplinary Portrait of Agriculture, Concept and Practices (Book), An anthology of delivered lectures during 21 National Orientation Course on “Teaching, Learning Evaluation Technology Program” (April 5-25, 2023). pp. 123-140. (ISBN No: 978-93-91995-10-2).
11. Y S Jadoun, A K Thakur, Amandeep Singh, Sarvjeet Kaur and R K Nirala. 2023. Employment Opportunities through Dairy based Enterprises. Multidisciplinary Portrait of Agriculture, Concept and Practices (Book), An anthology of delivered lectures during 21 National Orientation Course on “Teaching, Learning Evaluation Technology Program” (April 5-25, 2023). pp: 257-262. (ISBN No: 978-93-91995-10-2).
12. Y S Jadoun, A K Thakur, Jaswinder Singh, Pragya Bhadauria and Amandeep Singh. 2023. Livestock Based Start-ups; Nurturing Employment Avenues for Farming Communities. National Conference “SVAHE –5” (2023) on “Smart Livestock Extension for Enhancing Farmers' Income - An Extension Bounty” held from 12th-14th October, 2023 at KCVAS, Amritsar, Punjab”. pp. 243-249 (Published in Compendium).

4.3 Abstracts/papers presented in conferences/symposia

1. Abhay Kumar Dubey, Y S. Jadoun and Shubham Shandilya. 2023. Beyond the Pastures: Unveiling the Tech-Infused Future of Indian Dairying. 2nd National Conference of SPFCA on “Enhancing Farmer's Income by Livestock, Poultry and Aqua Farming through Sustainable and Eco-Friendly Smart Technologies and Practices” being organized by “Society for Promotion of Farm and Companion Animal” (SPFCA) at Bihar Veterinary College, BASU, Patna from 28-29, February, 2024. pp. 148-149. (Abstract Published in Conference Compendium, ISBN No: 978-81-959294-3-6).
2. Anuradha Kumari and Bimlesh M. 2024. Antioxidant activity of whey protein hydrolysate and its application in ice cream. 2nd National Conference on Enhancing Farmer's income by livestock, Poultry and aqua farming through sustainable and eco-friendly smart Technologies and Practices from 28-29 Feb 2024 organized by BASU, Patna

3. BholaNath. 2024. Innovative technologies in Indian dairying: A Bibliometric Analysis. 2nd National Conference of Society for Promotion of Farm and Companion Animals on 28-29 February, 2024, at BASU, Patna.
4. B K Bharti and A Das. Sensory analysis of herbal cow ghee incorporated with flaxseed oil and brahmi leaves. International conferences Abstract published, Himachal Pradesh.
5. B K Bharti, A Das and B K Singh. 2023. Chemical Properties of storage herbal cow ghee. International Conference Abstract, Gujarat, 2023.
6. B K Singh. 2023. Studies on Herbal AgathiPeda supplemented with Sesbania grandiflora Flower. 3rd International conference (ICCGFLLES-2023), pp.-372.
7. B K Singh. 2023. Chemical properties of storage herbal cow ghee. 3rd International conference (ICCGFLLES-2023), pp.-398.
8. B K Singh. 2023. Effect of chemical properties of Herbal Cow ghee during storage condition. 3rd national conference (LFSAAS-2023), pp.-49.
9. B K Singh. 2023. Sensory Analysis of Herbal cow ghee. 3rd national conference (LFSAAS-2023), pp.-84.
10. Diwakar Mishra. 2024. Drying of bitter gourd by using tray dryer. 2nd National Conference, SPFCA, 28-29 February, 2024, BASU, Patna
11. Diwakar Mishra. 2024. Effect of ginger incorporation on sensory attributes and shelf life of paneer. 2nd National Conference, SPFCA, 28-29 February, 2024, BASU, Patna
12. Diwakar Mishra. 2023. Effect of smoke on preservation of paneer. December 22-23, 2023, SInFoCon-2023, WBUAFS, Kolkata
13. Diwakar Mishra. 2023. Effect of raw garlic smoke on shelf life of paneer. National Seminar, 25th March 2023, VKIDFT, Mannuthy, Kerala
14. Jahangir Badshah, Rashmi Kumari and R K Kohli. 2023. Modeling of mass transfer characteristics with eddy diffusion in a horizontal thin film scraped surface heat exchangers under vacuum., 13th IDEA convention & international conference on "Recent advances in engineering applications for sustainable dairying" held on 13-14October 2023 at college of dairy science and technology, GADVASU, Ludhiana.
15. Jaspreet Kaur, Y S Jadoun, Jaswinder Singh, MandeepSingla and S K Kansal. 2023. "Awareness of Dairy Farmers about Animal Welfare Standards" in National Conference on "Smart Livestock Extension for Enhancing Farmers' Income - An Extension Bounty" is being held during 12th-14th October, 2023 at the Khalsa College of Veterinary and Animal Sciences (KCVAS), Amritsar, Punjab. pp. 132 (Published in Compendium: ISBN).
16. JuiLodh, K Khamrui, A Debnath, S Kapila, S and B Singh. 2023. Evaluation of Antioxidant Potential of Curcumin fortified Buffalo Ghee in Experimental Sprague Dawley Rats. In International conference on "Sustainable Innovation in Food Safety, Health & Nutrition" (SInFoCon-23). Organized by F/O Dairy Technology, West Bengal University of Animal & Fishery Sciences at Biswa Bangla Convention Centre, Kolkata from 22-23, December, 2023.
17. JuiLodh and K Khamrui. 2024. Optimization of process variables (curcumin level and heat treatment) for the preparation of antioxidant rich ghee using Central Composite Rotatable Design. In 2nd National conferences on "Enhancing Farmer's Income by Livestock, Poultry and Farming through Sustainable and Eco-friendly Smart Technologies and Practices. Organized by "Society for Promotion of Farm and Companion Animal" (SPFCA) at Bihar Veterinary College, BASU, Patna from 28-29, February, 2024.

18. Raj Kumar, B K Bharti and B K Singh. 2023. Studies on sensory characteristics on herbal agathipeda. International Conference Abstract, Ranchi, 2023.
19. Raj Kumar, B K Bharti and Bipin Kumar Singh. 2023. Effect of chemical properties of herbal cow ghee during storage condition. International Conference Abstract, Ranchi, 2023.
20. Rakesh Kumar and Binita Rani. 2024. Effect of feeding symbiotic products on the faecal flora of albino rats. Abstract in 2nd National Conference on “Enhancing Farmers Income by Livestock, Poultry and Aqua Farming through sustainable and Eco-Friendly Smart Technologies and Practices” organised by the Society for Promotion of Farm and Companion Animal during 28-29 February, 2024. pp. 130.
21. Rashmi Kumari, Heartwin A Pushpa Das, F MagdalineEljeeva Emerald. 2024. Investigation of the impact of electrospinning parameters on the characteristics of bioactive peptide nanofibers, 2024. 2nd National Conference, SPFCA, 28-29 February, 2024, BASU, Patna.
22. Rashmi Kumari, Heartwin A Pushpa Das, F MagdalineEljeeva Emerald and Saurabh Shankar Patel. 2023. Bioactive peptide nanofibre preparation using electrospinning. December 22-23, 2023, SInFoCon-2023, WBUAFS, Kolkata.
23. Rohit Kumar and BholaNath. 2024. Global Crustaceans' Export Competitiveness: Scanning from Indian Perspective. 2nd National Conference of Society for Promotion of Farm and Companion Animals on 28-29 February, 2024, at BASU, Patna.
24. Sahildeep Singh Bhinder, Y S Jadoun, Rajesh Kasrija and Prahlad Singh. 2023. “Study on Opinion of Local People regarding Stray Cattle on Public Health and Safety” in National Conference on “Smart Livestock Extension for Enhancing Farmers' Income - An Extension Bounty” is being held during 12th-14th October, 2023 at the Khalsa College of Veterinary and Animal Sciences (KCVAS), Amritsar, Punjab. pp. 131 (Published in Compendium)
25. Sanjeev Kumar, S Kumari, N Suman, SuryamaniKumar and JuiLodh. 2024. Innovations in low calorie traditional dairy products. Abstract in 2ndNational conferences on "Enhancing Farmer's Income by Livestock, Poultry and Farming through Sustainable and Eco-friendly Smart Technologies and Practices. Organized by “Society for Promotion of Farm and Companion Animal” (SPFCA) at Bihar Veterinary College, BASU, Patna from 28-29, February, 2024.
26. Shiv Raj Singh and BholaNath. 2024. Determinants of veterinary services in Bihar - Empirical results and policy implications. 2nd National Conference of Society for Promotion of Farm and Companion Animals organized by Bihar Veterinary College, Bihar Animal Sciences University, Patna on 28-29 February 2024.
27. Shubham Shandilya, Y S Jadoun and Abhay Kumar Dubey. 2023. Revolutionizing Dairy Farming Sustainability through Technological Innovations. 2nd National Conference of SPFCA on “Enhancing Farmer's Income by Livestock, Poultry and Aqua Farming through Sustainable and Eco-Friendly Smart Technologies and Practices” being organized by “Society for Promotion of Farm and Companion Animal” (SPFCA) at Bihar Veterinary College, BASU, Patna from 28-29, February, 2024. pp. 149. (Abstract Published in Conference Compendium, ISBN No: 978-81-959294-3-6).
28. Vimla Saran and Y S Jadoun. 2023. Entrepreneurs can help Promote Sustainable Organic Farm Production- Success Story of a Vermicompost& Mushroom Farmer from Punjab. National Conference on “Next Generation Agriculture-Organic and Natural Farming Pathways: Extension Strategies and Approaches. 28-30 January 2024, Organized by INSEE-Nagpur, ICAR-ATARI-Jabalpur, JNKVV-Jabalpur, MANAGE-Hyderabad, RCNOF-Nagpur, PRDIS-Hyderabad at ICAR-ATARI-Jabalpur (M.P). pp. 115 (Abstract Published in Conference Compendium).

29. Vimla Saran and Y S Jadoun. 2023. Relational Analysis Demographic Profile w.r.t. Dairy Farm Waste Management Practices. 2nd National Conference of SPFCA on “Enhancing Farmer's Income by Livestock, Poultry and Aqua Farming through Sustainable and Eco-Friendly Smart Technologies and Practices” being organized by “Society for Promotion of Farm and Companion Animal” (SPFCA) at Bihar Veterinary College, BASU, Patna from 28-29, February, 2024. pp. 118-119. (Abstract Published in Conference Compendium, ISBN No: 978-81-959294-3-6).
30. Vimla Saran and Y S Jadoun. 2023. SWOT Analysis of Dairy Farm Waste Management Practices. 2nd National Conference of SPFCA on “Enhancing Farmer's Income by Livestock, Poultry and Aqua Farming through Sustainable and Eco-Friendly Smart Technologies and Practices” being organized by “Society for Promotion of Farm and Companion Animal” (SPFCA) at Bihar Veterinary College, BASU, Patna from 28-29, February, 2024. pp. 111-112. (Abstract Published in Conference Compendium, ISBN No: 978-81-959294-3-6).
31. Vimla Saran, Y S Jadoun, Jaswinder Singh, MandeepSingla and R K Sharma. 2023. “Farm Waste Management Practices followed by Dairy Farmers of Punjab” in National Conference on “Smart Livestock Extension for Enhancing Farmers' Income - An Extension Bounty” is being held during 12th-14th October, 2023 at the Khalsa College of Veterinary and Animal Sciences (KCVAS), Amritsar, Punjab. pp. 88 (Published in Compendium).
32. Vimla Saran, Y S Jadoun. 2023. Vermicomposting: A Sustainable Solution for Waste Management and Resource Conservation. 11th National Seminar on “Transformative Agriculture and Sustainable Development: Rethinking Agriculture for a Changing World” 5 - 7 March, 2024, organized by Society for Community Mobilization for Sustainable Development in collaboration with MPUAT, Udaipur, Rajasthan. pp. 89 (Abstract Published in Conference Compendium).
33. Y S Jadoun. 2023. Value Chain Analysis of Goat Farming Practices in Bihar. 11th National Seminar on “Transformative Agriculture and Sustainable Development: Rethinking Agriculture for a Changing World” 5 - 7 March, 2024, organized by Society for Community Mobilization for Sustainable Development in collaboration with MPUAT, Udaipur, Rajasthan. Pp:114-115 (Abstract Published in Conference Compendium).

4.4 Books published

1. जयकिशनप्रसाद, योगेंद्रसिंहजादौन एवम् पंकजकुमार (2023). डेयरी व्यवसाय एवं प्रबंधनरू सामान्य प्रश्नोत्तरी. बिहार पशु विज्ञान विश्वविद्यालय, पटना. पृष्ठ संख्या:102 (ISBN NO: 978-81-964254-6-3).
2. Dinesh Kumar, Rashmi Kumari, M S Mahesh and P K Yadav. 2023. Handbook of livestock and poultry production and management. Narendra Publishing House, New Delhi. ISBN: 978-93-5651-697-7.

4.5 Training manual / compendium

1. अरविन्द कुमार ठाकुर, योगेंद्र सिंह जादौन, राकेश कुमार एवं सर्वजीत कौर (2024). वैज्ञानिक डेयरी फार्मिंग. बिहार पशु विज्ञान विश्वविद्यालय, पटना. पृष्ठ संख्यारू 140 (प्रकाशन संख्या): 42/2024/DEE/BASU).
2. अरविन्द कुमार ठाकुर, योगेंद्र सिंह जादौन, राकेश कुमार एवं सर्वजीत कौर (2024). वैज्ञानिक बकरी पालन. बिहार पशु विज्ञान विश्वविद्यालय, पटना. पृष्ठ संख्यारू 138 (प्रकाशन संख्या): 43/2024/DEE/BASU).

4.6 Book chapters published

1. Anuradha Kumari, Anamika Das, Niraj K S and Veena N. Physico-Chemical and Compositional Analysis of Condensed and Evaporated Milk. In: Goyal M R, Veena N and Mishra S K (eds) Analytical methods for milk and milk products. Volume 2. Apple Academic Press, USA, 03-51. (ISBN: 978-1-77491-309-3).
2. Anuradha Kumari and Yogendra S J. Dudhkigunvattakamahatwa. In: Dairy VyavsayeevampPrabhandhan: SamanyaProshnotri. Bihar Animal Sciences University, Patna. pp.44-49. (ISBN: 978-81-964254-6-3).
3. BholaNath, R K Gupta and R Bharti. 2023. Carbon Sequestration, Carbon Credit and Trading in Soil: Opinion, Trends and Opportunities. In: Technological Revolution for Environmental Conservation and Management: Boon or Bane for Sustainable Development. Bharti Publications, New Delhi. pp. 127-135. (ISBN: 978-81-19079-53-7).
4. Bilawal Singh, Amandeep Singh, Y S Jadoun, Pragya Bhadauria, and GurpreetKour. 2023. Strategies for Sustainable Climate Smart Livestock Farming. Adapting to Climate Change in Agriculture-Theories and Practices (Springers Book). pp:341-360. <https://doi.org/10.1007/978-3-031-28142-6>. (ISBN: 978-3-031-28141-9, ISBN: 978-3-031-28142-6 (e-Book).
5. B K Bharti. Goat milk and its Functional Properties. Choudhary Publishing Media, Ghaziabad (UP), 05. (ISBN: 978-81-963487-2-4).
6. B K Bharti, B K Singh and Jahangir Badshah. Chemical Composition and Functions of Different Constituents of Kulfi. Astha Foundation, Meerut (UP), 04. (ISBN: 978-81-958010-9-1).
7. B K Singh, B K Bharti and Rajnikant. 2023. Chemical composition, classification and Traditional Method of production of khoa. The science world, Dec2023, 3 (12): 4055-4066.
8. Chitra G, Prasad P, Anuradha Kumari and Hemant G. Analysis of Physico-chemical aspects of milk. In: Goyal M R, Veena N and Mishra S K (eds) Analytical methods for milk and milk products. Volume1. Apple Academic Press, USA. pp. 157-190. (ISBN: 978-1-77491-307-9).
9. C S Mukhopadhyay and Y S Jadoun. 2023. Promises and Premises of Applications of Artificial Intelligence in Animal Health. Biotechnological Interventions Augmenting Livestock Health and Production. Livestock Diseases and Management. Springer, Singapore. https://doi.org/10.1007/978-981-99-2209-3_18 (Print ISBN: 978-981-99-2208-6, Online ISBN: 978-981-99-2209-3).
10. Dinesh Kumar, Rashmi Kumari and P K Yadav. 2023. Classification of Feedstuffs, Nutrients and their Functions. Narendra Publishing House, New Delhi (ISBN: 978-93-5651-697-7).
11. JuiLodh, P Saha, and D C Sen. 2023. Milk Sweet Delicacies of Eastern India. In: Dairy in India: Dairy Year Book -2023 (ISBN: 978-81-963610-0-6). Sardana Publishers & Distributors, New Delhi, pp. 129-146.
12. JuiLodh, T Hazra and P Saha. 2023. Sheep Ghee: Chemistry, Technology and Functional Properties. In: Ghee: Chemistry, Technology and Processing (ISBN: 9781032119137), CRC Press (Taylor & Francis group), London, pp. 159-178.
13. P Saha, T Hazra and JuiLodh. 2023. Ghee manufacturing and Processing. In: Ghee: Chemistry, Technology and Processing (ISBN: 9781032119137), CRC Press (Taylor & Francis group), London, pp. 261-280.
14. Rashmi Kumari and Dinesh Kumar. 2023. Feed Ingredients used for Ration formulation for Livestock and Poultry. Narendra Publishing House, New Delhi (ISBN: 978-93-5651-697-7).
15. R Bharti, R K Gupta, K Pramanik and BholaNath. 2023. Weeds in Climate Change: Consequences and Its Implications to Management Efforts. In: Technological Revolution for Environmental Conservation and Management: Boon or Bane for Sustainable Development. Bharti Publications, New Delhi. pp. 109-117, (ISBN: 978-81-19079-53-7).

16. R K Gupta, K Pramanik, R Bharti and BholaNath. 2023. Climate Smart Agriculture (CSA): A Perspective for Sustainable Food Security. In: Technological Revolution for Environmental Conservation and Management: Boon or Bane for Sustainable Development. Bharti Publications, New Delhi. pp. 136-145. (ISBN: 978-81-19079-53-7).
17. Rohit Kumar, M S Raman, and S Chauhan. 2023. Agricultural Reforms in India. In: Ghosh P K, Das A, Saxena R, Banerjee K, Kar G, Vijay D (eds.) Trajectory of 75 years of Indian Agriculture after Independence. Springer, Singapore. https://doi.org/10.1007/978-981-19-7997-2_30.
18. R Saxena, S Chauhan, D K Ghosh, Rohit Kumar and A Das. 2023. Trends and Trajectory of Indian Agriculture. In: Ghosh P K, Das A, Saxena R, Banerjee K, Kar G, Vijay D (eds) Trajectory of 75 years of Indian Agriculture after Independence. Springer, Singapore. https://doi.org/10.1007/978-981-19-7997-2_1.
19. R Saxena, S K Srivastava, N Joshi, Rohit Kumar and M S Raman. 2023. Trajectory of Market Reforms. In: Ghosh P K, Das A, Saxena R, Banerjee K, Kar G, Vijay D (eds) Trajectory of 75 years of Indian Agriculture after Independence. Springer, Singapore. https://doi.org/10.1007/978-981-19-7997-2_26.
20. Sanjeev Kumar and Suryamani Kumar. 2023. Dudh se utpaditmulyabardhitpadarth. In: Dairy vyavsayevamprabandhan: samanayprasnotari (ISBN: 9788196425463). Bihar Animal Sciences University, Patna. pp. 27-37.
21. Sanjeev Kumar, JuiLodh, Suryamani Kumar and Diwakar Mishra. 2023. Risk analysis, assessment, practice and quality management in milk hygiene. In: The Microbiology, Pathogenesis and Zoonosis of Milk borne diseases (ISBN: 9780443138065). Elsevier Publishing Company. pp. 387-401.
22. Satishkumar C Parmar, Anuradha Kumari, Amit K Jain, Ahesanvarish Shaikh, Shriyesh Patel. Compositional analysis of Butter. In: Goyal M R, Veena N and Mishra S K (eds.) Analytical methods for milk and milk products. Volume1. Apple Academic Press, USA. pp. 287-308. (ISBN: 978-1-77491-307-9).
23. Shiv Raj Singh, A K Jha, S M. Feroze, Rohit Kumar and BholaNath. 2023. New avenues in Marketing of Agricultural Produce. Ariana Publisher, New Delhi. pp. 168-178, ISBN978-93-91995-10-2.
24. Sujeet K Jha and Y S Jadoun. 2023. Importance of Communication Skills in Modern Era. Recent Advances in Agricultural Sciences and Technology (Book). pp: 1134-1141. (ISBN: 978-93-91995-07-2).
25. Suryamani Kumar, Sanjeev Kumar, JuiLodh and Diwakar Mishra. 2023. Microbiology quality and safety in the dairy industry. In: The Microbiology, Pathogenesis and Zoonosis of Milk borne diseases (ISBN: 9780443138065). Elsevier Publishing Company. pp. 407-418.
26. Veena N, Anuradha Kumari, Ahesanvarish S, Shriyesh P, Satish K C P, Amit K J Chemical analysis of milk. In: Goyal M R, Veena N and Mishra S K (eds.) Analytical methods for milk and milk products. Volume1. Apple Academic Press, USA. Pp. 85-156. (ISBN: 978-1-77491-307-9).
27. Yogendra S J and Anuradha Kumari. SwachhdudhUtpadan. In: Dairy Vyavsayeevam Prabhandhan: SamanyaProshnotri. Bihar Animal Science University, Patna. pp.38-43. (ISBN: 978-81-964254-6-3)
28. Y S Jadoun, C S Mukhopadhyay, A Singh, N Kaur. 2023. E-Agriculture Diaspora: Heralding A New Era of Animal Farming and Agricultural Practices. Biotechnological Interventions Augmenting Livestock Health and Production. Livestock Diseases and Management. Springer, Singapore. https://doi.org/10.1007/978-981-99-2209-3_24. (Print ISBN 978-981-99-2208-6, Online ISBN 978-981-99-2209-3).

4.6 Monographs

1. Sonia Kumari, A K Jha and B K Bharti. 2024. Importance of HACCP in food industry. The Science World. Monthly e-Magazine.

4.7 Technical/semi-technical bulletins

1. अनुराधा कुमारी, बिनिता रानी, बिनोद कुमार भारती, योगेंद्र सिंह जादौन एवं नीराज कुमार सिंह (फरवरी 2024). "दूधकारा रासायनिक परीक्षण" (प्रकाशन संख्या):01/2024/DC/SGIDT).
2. अनुराधा कुमारी, बिनिता रानी, योगेंद्र सिंह जादौन एवं नीराज कुमार सिंह (फरवरी 2024). "दुग्ध उत्पादों का रासायनिक परीक्षण" (प्रकाशन संख्या):02/2024/DC/SGIDT).

4.8 Popular articles

1. Anuradha Kumari and A K Thakur. 2024. Dudh me hone wale milawataurskijanch. PasupalanDarsika (Jan-March 2024), Bihar Animal Science University, Patna.
2. Anuradha Kumari and Niraj K S. 2023. Jiwan me dudhkamahatwa. PasupalanDarsika (Oct-Dec 2023), Bihar Animal Science University, Patna.
3. B K Bharti. Lacopontin: A bioactive milk protein and its health benefits. The Science World, Monthly e-Magazine.
4. B K Bharti, Sonia Kumari, A K Jha and Jahangir Badshah. 2024. Flaxseed and its important constituents The Science World. Monthly e-Magazine.
5. Rashmi Kumari, Dinesh Kumar, N Upadhyay, P K Yadav and B Kumar. 2023. Improving animal feed availability to increase production in order to fulfill future protein demand, CLFMA OF INDIA, 64th Symposium, 18-19th Aug, 2023, New Delhi
6. Rashmi Kumari, Dinesh Kumar, N Upadhyay, P K Yadav and B Kumar. 2023. Detecting unwanted elements and frequent adulterants of feed qualitatively. In: Livestock & Feed Trends 21 (2): 97-99.
7. Y S Jadoun. 2023. Goat Farming: A Profitable Livestock Enterprise. AgriGate, A International Interdisciplinary monthly e-Magazine. 03(10): 398-403. (ISBN No:978-81-965582-9-1)
8. Y S Jadoun, Sarvejit Kaur, Rakesh Kumar and A K Thakur. 2023. Integrated Farming System (IFS): Source of Food and Livelihood Security. PashudhanPrahari (e-Publication, August 16,2023) (Integrated Farming System (IFS): Source of Food and Livelihood Security | Pashudhanpraharee).
9. Sonia Kumari, A K Jha and B K Bharti. 2024. पशुपालन एवं आंतरिक परजीवीरु रोग एवं प्रबंधन. The Science World. Monthly e-Magazine.
10. अरविन्द कुमार ठाकुर, योगेंद्र सिंह जादौन एवं पंकज कुमार (2023). षबिहार पशु विज्ञान विश्वविद्यालय की प्रसार गतिविधियाँरु एक नजर. पशुपालन दर्शिका (हिंदी पत्रिका).. 1(1): 1-2.
11. अरविन्द कुमार ठाकुर एवं योगेंद्र सिंह जादौन (2023). षबिहार पशु विज्ञान विश्वविद्यालय की प्रसार गतिविधियाँरु एक नजर. पशुपालन दर्शिका (हिंदी पत्रिका). 1(2): Pp: 36.
12. दिवाकर मिश्रा, जूही लोध, रश्मि कुमारी, संजीव कुमार एवं सूर्यमणि कुमार (2023). श्रीखंड बनाने की विधि., Pashupalakmitra, 3(4): 9. (ISSN: 2583-0511).
13. दिवाकर मिश्रा, जूही लोध, रश्मि कुमारी, संजीव कुमार एवं सूर्यमणि कुमार (2023). खोआ बनाने की विधि और पशुपालक मित्र, 3(4): 3-4. (ISSN: 2583-0511).

14. दिवाकर मिश्रा, रश्मि कुमारी, जूही लोध, संजीव कुमार एवं सूर्यमणि कुमार (2023). "दूध का पाश्चुरीकरण", पशुपालक मित्र., 3(3): 19-20. (ISSN: 2583-0511).
15. योगेंद्र सिंह जादौन एवं अरविन्द कुमार ठाकुर (2024). "गर्मी के मौसम में डेयरी पशुओं का प्रबंधन", पशुपालन दर्शिका (हिंदी पत्रिका).. 2(3):1-3.
16. योगेंद्र सिंह जादौन, सर्वजीत कौर, अभय कुमार दुबे एवं शुभम शांडिल्य (2024). "बकरी पालनरू एक परिचय", वैज्ञानिक बकरी पालन. (Training Manual). Pp:1-17 (प्रकाशन संख्या :43/2024/DEE/BASU).
17. योगेंद्र सिंह जादौन, संजय कुमार एवं अरविन्द कुमार ठाकुर (2024). बकरी पालनरू सामान्य जानकारीयां, वैज्ञानिक बकरी पालन. (Training Manual). Pp:124-131 (प्रकाशन संख्या:43/2024/DEE/BASU).
18. योगेंद्र सिंह जादौन, सर्वजीत कौर, अभय कुमार दुबे एवं शुभम शांडिल्य (2024). बिहार राज्य में डेयरी की स्थिति और दृष्टिकोणरू एक अवलोकन, वैज्ञानिक डेयरी फार्मिंग. (Training Manual). Pp:1-9 (प्रकाशन संख्या:42/2024/DEE/BASU).
19. योगेंद्र सिंह जादौन, प्रज्ञा भदौरिया एवं अरविन्द कुमार ठाकुर (2024). पशुपालकों के लिए बिहार सरकार की योजनाएँ, वैज्ञानिक डेयरी फार्मिंग.(Training Manual). Pp:52-58 (प्रकाशन संख्या:42/2024/DEE/BASU).
20. राकेश कुमार, योगेंद्र सिंह जादौन एवं बिनिता रानी (2023). जैविक दूध उत्पादन: भविष्य में पशुपालकों की आय के लिए सुनहरा विकल्प, लाइवस्टॉक टेक्नोलॉजी.. 13(4): 14-16.
21. शिवराज सिंह, अवधेश कुमार झा, रोहित कुमार एवं भोला नाथ (2024). बकरी आधारित एफपीओ का विपणन संबंध (Training Manual). Pp:71-79 (प्रकाशन संख्या: 43/2024/DEE/BASU).
22. शिवराज सिंह, अवधेश कुमार झा, रोहित कुमार एवं भोला नाथ (2024). बेहतर लाभ सृजन के लिए डेरी आधारित किसान उत्पादक संघ के विपणन संबंध (Training Manual). Pp:59-66 (प्रकाशन संख्या: 43/2024/DEE/BASU).
23. दिवाकर मिश्रा, जूही लोध, रश्मि कुमार, संजीव कुमार एवं सूर्य मणि कुमार (2023). फलों और सब्जियों के लिए प्रीकूलिंग का महत्व, पशुपालक मित्र., 3(3): 17-18. (ISSN: 2583-0511)
24. रश्मि कुमार, जूही लोध एवं दिवाकर मिश्रा (2023). दूध में मिलावट की जांच कैसे करें, पशुपालक मित्र., 3(2): 09-11. (ISSN: 2583-0511).
25. रश्मि कुमार, जूही लोध एवं दिवाकर मिश्रा (2023). दूध में मिलावट की जांच कैसे करें, पशुपालक मित्र., 3(2): 9-11

4.9 Extension bulletins

1. Jaivik Doodh Utpadan: Pashupalako ki aaydogunikare ka uttam vikalp in PashupalanDarshika, July- September 2023.

5. Radio/TV talks

1. Rakesh Kumar. Delivered a 30 minutes lecture as Dairy Expert in New India programme on "RastriyaGokul Mission" on Doordarshan.
2. BholaNath. Delivered a Radio talk on "FasalBima" on 15.02.2024 on 90.8 Green FM.

6. List of Research Projects / Service Projects

Sl. No.	Title of the Project	Name of the PI & Associates	Date of Start	Date of Completion
1.	Process optimization Low fat long life herbal vacuum packaged Paneer/soft cheese	PI: Dr. J. Badshah Co-PI: Ms. Rashmi Kumari, Ms. Sonia Kumari, Dr. B.K. Bharti	01/09/2023	31/08/2025
2.	Effect of ohmic heating on rheological properties and sensory attributes of skimmed milk and whole milk	PI: Ms. Rashmi Kumari Co-PI: Dr. J. Badshah, Dr. Sanjeev Kumar, Dr. JuiLodh	01/09/2023	31/08/2025
3.	Development of Finger millet, Flax seed and SMPbased RTE Supplementary Food	PI: Dr. Binita Rani		
4.	Value Chain Analysis of Goat Farming Practices in Bihar	PI: Dr. Y.S. Jadoun CoPIs: Dr. Rajesh Kumar Dr. Mukesh Kumar Dr. Bhola Nath Ms. Sarvjeet Kaur	01.09. 2023	31.08. 2026
5.	Development of Educationally Interactive Exhibits	PI: Ms. Sarvjeet Kaur CoPIs: Dr. YS Jadoun Dr. Rakesh Kumar	01.09. 2023	31.08. 2025
6.	Structural Transformation during the National Dairy Plan Phase - I in Bihar Dairy Sector vis-à-vis Indian Dairy Sector (Duration 2 years)	PI: Dr. Shiv Raj Singh, Associate Professor, DBM, SGIDT, Patna Co-PI : Dr. Awadhesh Kumar Jha, Associate Professor, DBM, SGIDT, Patna Dr. Rohit Kumar Assistant Professor, DBM, SGIDT, Patna	01.09.2023	Continue
7.	Technical and Economic Efficiency of Milk Producers in Different Agro-Climatic Zones of Bihar (Duration 2 years)	PI: Dr. Awadhesh Kumar Jha, Associate Professor, DBM, SGIDT, Patna Co-PI: Dr. Shiv Raj Singh, Associate Professor, DBM, SGIDT, Patna Dr. Rohit Kumar, Assistant Professor, DBM, SGIDT, Patna Dr. BholaNath, Assistant Professor, DBM, SGIDT, Patna	01.09.2023	Continue

Sl. No.	Title of the Project	Name of the PI & Associates	Date of Start	Date of Completion
1.	Process optimization Low fat long life herbal vacuum packaged Paneer/soft cheese	PI: Dr. J. Badshah Co-PI: Ms. Rashmi Kumari, Ms. Sonia Kumari, Dr. B.K. Bharti	01/09/2023	31/08/2025
2.	Effect of ohmic heating on rheological properties and sensory attributes of skimmed milk and whole milk	PI: Ms. Rashmi Kumari Co-PI: Dr. J. Badshah, Dr. Sanjeev Kumar, Dr. JuiLodh	01/09/2023	31/08/2025
3.	Development of Finger millet, Flax seed and SMPbased RTE Supplementary Food	PI: Dr. Binita Rani		
4.	Value Chain Analysis of Goat Farming Practices in Bihar	PI: Dr. Y.S. Jadoun CoPIs: Dr. Rajesh Kumar Dr. Mukesh Kumar Dr. Bhola Nath Ms. Sarvjeet Kaur	01.09. 2023	31.08. 2026
5.	Development of Educationally Interactive Exhibits	PI: Ms. Sarvjeet Kaur CoPIs: Dr. YS Jadoun Dr. Rakesh Kumar	01.09. 2023	31.08. 2025
6.	Structural Transformation during the National Dairy Plan Phase - I in Bihar Dairy Sector vis-à-vis Indian Dairy Sector (Duration 2 years)	PI: Dr. Shiv Raj Singh, Associate Professor, DBM, SGIDT, Patna Co-PI : Dr. Awadhesh Kumar Jha, Associate Professor, DBM, SGIDT, Patna Dr. Rohit Kumar Assistant Professor, DBM, SGIDT, Patna	01.09.2023	Continue
7.	Technical and Economic Efficiency of Milk Producers in Different Agro-Climatic Zones of Bihar (Duration 2 years)	PI: Dr. Awadhesh Kumar Jha, Associate Professor, DBM, SGIDT, Patna Co-PI: Dr. Shiv Raj Singh, Associate Professor, DBM, SGIDT, Patna Dr. Rohit Kumar, Assistant Professor, DBM, SGIDT, Patna Dr. BholaNath, Assistant Professor, DBM, SGIDT, Patna	01.09.2023	Continue

Sl. No.	Title of the Project	Name of the PI & Associates	Date of Start	Date of Completion
8.	Feeding Patterns and Economics of Milk Production in Different Agro-Climatic Zones of Bihar (Duration 2 years)	PI: Dr. Rohit Kumar, Assistant Professor, DBM, SGIDT, Patna Co- PI: Dr. Awadhesh Kumar Jha, Associate Professor, DBM, SGIDT, Patna Dr. Shiv Raj Singh, Associate Professor, DBM, SGIDT, Patna Dr. Pankaj Kumar Singh, Professor, Department of Animal Nutrition, Bihar Veterinary College, Patna	01.09.2023	Continue
9.	Spatial and Temporal changes in Livestock Population in Bihar (2-years)	PI: Dr. BholaNath, Assistant Professor, DBM, SGIDT, Patna Co- PI: Dr. Awadhesh Kumar Jha, Associate Professor, DBM, SGIDT, Patna Dr. Rohit Kumar, Assistant Professor, DBM, SGIDT, Patna	01.09.2023	Continue
10.	Training project on “Dairy Management and Value Addition to Milk for Dairy Farmers	PI: Dr. Sanjeev Kumar and Co-PI: Dr. Suryamani Kumar	2023-24	Dec, 2023
11.	Concurrent Evaluation and monitoring of schemes sanctioned under National Program for Dairy Development (2018-2019) for DRMU, Barauni Dairy	PI: Dr. Sanjeev Kumar Co-PIs: Dr. A. K. Jha, Dr. Suryamani Kumar and Dr. B. K. Bharti	Dec, 2023	to continue
12.	Concurrent Evaluation and monitoring of schemes sanctioned under National Program for Dairy Development (2018-2019) for VIMUL, Bhagalpur (completed)	PI: Dr. Sanjeev Kumar, Co-PIs: Dr. A. K. Jha, Dr. Suryamani Kumar and Dr. B. K. Bharti	July, 2023	January, 2024
13.	Concurrent Evaluation and monitoring of schemes sanctioned under National Program for Dairy Development (2018-2019) for Magadh Dairy, Gaya	PI: Dr. Sanjeev Kumar Co-PIs: Dr. A. K. Jha, Dr. Suryamani Kumar and Dr. B. K. Bharti	April, 2022	May, 2023

Sl. No.	Title of the Project	Name of the PI & Associates	Date of Start	Date of Completion
14.	Concurrent Evaluation and monitoring of schemes sanctioned under National Program for Dairy Development (2018-2019) for SMU, Ara	PI: Dr. Sanjeev Kumar Co-PIs: Dr. A. K. Jha, Dr. Suryamani Kumar and Dr. B. K. Bharti	October, 2023	to continue
15.	Survey work on 'Value addition to Cow Milk for making Cow Milk More Remunerative in Bihar'	PI: Dr. Sanjeev Kumar Co-PIs: Dr. A. K. Jha	April 2021	June 2023
16.	Development of Composite Nutribar based on Milk and Finger Millet (Ragi)	PI: Dr. JuiLodh Co-PI: Dr. Sanjeev Kumar, Dr. Suryamani Kumar, Dr. Diwakar Mishra	Oct,2023	to continue
17.	Studies on development of ready-to-eat (RTE) type pudding added with chestnut	PI: Dr. Suryamani Kumar Co-PI:Dr.JuiLodh,Dr. Sanjeev Kumar, Dr. Diwakar Mishra	Oct,2023	to continue
18.	Process upgradation, innovation and enhancement of shelf-life of Indigenous milk product of Bihar origin (Submitted)	Co-PI: Dr. Sanjeev Kumar Co-PIs:Dr. Suryamani Kumar and Dr. J. Badshah	Submitted (April, 2023) to DDD, AFRD, Govt. of Bihar	

7. Patent / Technology submitted to ITMC / ZTMC

1. Dr. A.K. Jha, Associate Professor, DBM associated as a co-inventor of the low-cost Bamboo cage under the NASF project. The technology is helpful in reducing the mortality due to attack of predators on poultry birds.

8. Invited Lectures Delivered by the faculty

S. No.	Name of the faculty member	Topic
1.	Dr. Rakesh Kumar	Delivered a lecture on the topic “Dairy co-operative society for ensuring livelihood and enhancing farmer's income” on five days Training Programme on Dairy Management and Value Addition to Milk from 10th to 14th April, 2023 at SGIDT, Patna for forty DCS members and entrepreneurs. Delivered a lecture on the topic “Various Measures of Clean Milk Production at farm Level” in the five days training programme of Dairy Management and Value Addition to Milk at SGIDT, Patna for forty DCS members and entrepreneurs from 15-19th May; 18-22nd July; 7-11th August and 12-16th September 2023. Delivered a lecture on the topic “Current Trends in Dairy Farming” during technical session of Dairy and Cattle Expo-23 at the sports complex, BASU, Patna on 23/12/2023.

S. No.	Name of the faculty member	Topic
		Delivered a lecture on the topic “Entrepreneurship Development in Rural Areas through Dairying Business” in the workshop on “Enhancing Livelihood Opportunities for Rural Areas” at BAMETI Complex, Patna on 30/09/2023. Delivered a lecture on the topic “Assessing the Microbial Quality of Milk at Cottage Scale (MBR Test)” in two days' workshop on “Milk and Milk Product: Human Health” organized by SGIDT, Patna during 30th November to 1st December, 2023.
2.	Dr. Y. S. Jadoun	Expert lecture delivered on “Employment Opportunities through Dairy Based Enterprises” in 21 Days National Orientation Course On “Teaching Learning Evaluation Technology Programme” (TLETP 2023), Organized by ICAR-ATARI, Ludhiana, RVSKVV, Gwalior & National Agriculture Development Cooperative Ltd. (NADCL), Baramulla, J & K on 21/04/2023. Expert lecture delivered on “Livelihood Security vis-à-vis Dairy Farming” in 21 days International Training-cum-Certificate Course on Technology Innovation in Agriculture, Horticulture, A.H. Fisheries, Sericulture and Allied Sectors for Sustainable Development organized by AEDS, Rampur(UP), RECAST-Kathmandu, Nepal and FASFEEMIPP, Debrecen, Hungary during July16-June06, 2023. Expert lecture delivered on “Integrated Farming System: Need of Hour” in 21 days summer school on Emerging challenges and opportunities in biotic and abiotic stress management (ECOBASM-2023) organized by Astha Foundation, Meerut during 10-23 August 2023. Expert lecture delivered on “ICT Application in Livestock Farming” in 21 Days Winter School on “Recent Advances in Veterinary Sciences and Animal Husbandry” (RAVSAH-2023), jointly organized by ICAR–IVRI, Palampur, H.P. and National Agriculture Development Cooperative Ltd. (NADCL) Baramulla, UT of J & K on 09/11/2023. Expert lecture delivered on “Importance of Vaccination and vaccination schedule for controlling of various diseases of dairy animals” in 05 days training program on “Dairy management and value addition of milk” at ATMA Bhagalpur sponsored training program, organized by SGIDT-Patna during 10-14 April,2023. Expert lecture delivered on “Various aspects of Integrated Livestock Farming System” in 05 days training program on “Dairy management and value addition of milk” organized by SGIDT-Patna on 12/09/2023. Expert lecture delivered on “Role of dairy based FPOs in empowering farming community” in 05 days training program on “Dairy management and value addition of milk” organized by SGIDT-Patna on 18/05/2023. Delivered guest lecture on “Entrepreneur, Theories of Entrepreneurship, preparation of project proposal on dairy, goater, piggery and forms of entrepreneurship, organized by NAHEP-IDP, GADVASU Ludhiana from 24-27th July 2023.

S. No.	Name of the faculty member	Topic
3.	Dr. Shiv Raj Singh	Delivered a lecture on “Role of Dairy co-operative society for improving livelihood and enhancing farmer's income” in a Five-days training programme on “Dairy Management and Value Addition to Milk” for Dairy Farmers/ Entrepreneurs organized by SGIDT, BASU, Patna from 15/05/2023 to 19/05/2023. Delivered a lecture on “New Avenues in Marketing of Agricultural Produce” in 21 Days National Orientation Course on “Teaching Learning Evaluation Technology Programme” (TLETP 2023), organized by ATARI, Ludhiana, RVSKVV, Gwalior, NADCL, Baramulla from 05/04/2023 to 25/04/2023. Delivered a lecture on “Cost Control and Profit Maximization in Dairy Industry” in ten days training program on “Managing Dairy and Food Business: Challenges and Prospects in 21st Century”, organized by NAHEP-CAAST, Anand Agricultural University, Anand from 25/10/2023 to 03/11/2023.
4.	Dr. Rohit Kumar	Delivered a lecture on “Role of Dairy co-operative society for improving livelihood and enhancing farmer's income” in Five-days training programme on “Dairy Management and Value Addition to Milk” for Dairy Farmers / Entrepreneurs organized by SGIDT, BASU, Patna from 18-22nd July, 2023.
5.	Dr. BholaNath	Delivered a lecture on “Dairy management and value addition of milk” in 05 days training program on “Dairy management and value addition of milk” organized by SGIDT-Patna from 12/09/2023 to 16/09/2023.

9. Participation in conferences, workshops, symposia, trainings, etc.

Sl. No.	Name of the Symposium/Seminar/Workshop	No. of Scientists Attended
1.	5th SVAHE National Conference on “Smart Livestock Extension for Enhancing Farmers' Income - An Extension Bounty”, Khalsa College of Veterinary and Animal Sciences (KCVAS), Amritsar, Punjab, October, 12-14th 2023	1
2.	Regional Training-cum-Awareness workshop of J-Gate@Cera organized by OUAT, Bhubaneswar, November, 10th 2023.	2
3.	2nd National Conference of SPFCA on “Enhancing Farmer's Income by Livestock, Poultry and Aqua Farming through Sustainable and Eco-Friendly Smart Technologies and Practices”, Bihar Veterinary College, BASU, Patna, February, 28-29th 2024.	18
4.	State Level Awareness Workshop on e-Governance Standards and Guidelines, Organized by C-DAC, Patna, November, 6-7th 2023.	2
5.	Workshop on “Innovative Trends on Fermented Dairy Products” organized by SGIDT, Patna, May, 12th 2023.	11
6.	CAFT National Training Programme for 21 days	3

Sl. No.	Name of the Symposium/Seminar/Workshop	No. of Scientists Attended
7.	Two Weeks Online Refresher Course on Digital Skills and Competencies for Teachers: With Special Focus on MOOCs (Massive Open Online Courses) and E-Content Development, Amity University Haryana, Gurugram, June, 09-22nd 2023.	3
8.	NARES - Blended Learning Platform (BLP) organized by ICT Cell, Bihar Animal Sciences University, Patna, September, 20th 2023.	3
9.	National seminar on “Antimicrobial resistance in probiotics- A food safety Concern”, VKIDFT, Mannuthy, Kerala, March, 28th 2023.	1
10.	SInFoCoN-2023, Faculty of Dairy Technology, WBUAFS, Kolkata, December, 22-23rd 2023.	3
11.	11th International Conference on “Fermented Foods, Health Status and Social Well-being”, (SASNET-FF), Anand, Gujarat, November, 21-22nd 2023.	1
12.	49th DIC organized by Indian Dairy Association (WZ), Anand, Gujarat, March, 16-18th 2023.	1
13.	Workshop on “Milk and Milk Product: Human Health”, SGIDT, Patna, November, 30th 2023.	7
14.	Advanced Rapid Diagnostic Techniques for Infectious Diseases organised by ICAR-NAHEP Project, Mumbai Veterinary College, Mumbai, September, 07-15th 2023.	1
15.	One week course on “Canva with AI: A powerful tool for research and Data visualization”, Aligarh, January, 27-31st 2024.	1
16.	Conference by Agri Tech World 2023, IIMR, August, 15-25th 2023.	1
17.	Goal setting and Time Management, Centre for excellence for advanced Research on Animal Food Safety Mumbai Veterinary College, Mumbai, May, 26th 2023.	1
18.	Workshop on Data Analysis using SPSS, Aligarh, January, 22-23rd 2024.	1
19.	Workshop on Research methodology for beginners: Building a strong foundation, Aligarh, 27-31 December, 27-31st 2023.	1
20.	Livelihood and Food Security through Agriculture and Applied Sciences 2023 organized by Society for Agriculture Innovation and Development, Ranchi, November, 5th 2023.	1
21.	Impact of climate changes on globule food, livestock, and livelihood and environment security, advanced approaches and mitigation strategies. Navsari Agricultural University, Gujarat, December, 28-30th 2023.	1
22.	Global Research Initiatives for sustainable Agriculture & Allied Sciences. University of Agricultural Sciences, Raichur, Karnataka, December, 18-20th 2023.	1

Sl. No.	Name of the Symposium/Seminar/Workshop	No. of Scientists Attended
23.	Training on Regulations for preventive misleading advertisements organized by Food Chain ID, India, July, 28th 2023.	1
24.	One day National training on “100+ways smart ways to use ChatGPT for an exciting classroom; Empowering the next generation educators”, Kerela Veterinary and Animal Sciences University, Kerela, February, 8th 2024.	1
25.	One-week online workshop on Basic Biostatistical Data Analysis, Rajendra Institute of Medical Science, Ranchi, September, 21-27th 2023.	1
26.	VIIth Annual convention of the society and International symposium on “Multiomics to One health: challenges and way forward in Biomedical Research, IVRI-Bareilly, December, 14-15th 2023.	1
27.	Online workshop entitled “Entrepreneurship Development in Agriculture and Allied Sectors” on World Entrepreneurs Day, IIMT University, Meerut (U.P.), August 21st 2023.	1
28.	International Symposium on Education and Research in Global Environmental Studies in Asia, University of Agriculture and Forestry, Hue University, Vietnam, December, 11th 2023.	1
29.	International Training/Knowledge Exchange Programme on “Advance Technologies for Modern Agriculture in Vietnam 2023”, University of Agriculture and Forestry, Hue University, November 27 to December 26th 2023.	1
30.	Training on Integrated pest management, MOOCs, IIT, Kanpur, September, 7-15th 2023.	1

10. Workshops, seminars, summer / winter schools, trainings, etc. organized

Sl. No.	Programme	Duration
1.	Training on “Dairy Management and Value Addition to Milk” world bank funded BKBDP, AHFRD, Govt. Bihar	04 Days (12-16 Sept, 2023)
2.	Training on “Dairy Management and Value Addition to Milk” world bank funded BKBDP, AHFRD, Govt. Bihar	05 Days (07-11 Aug, 2023)
3.	Training on “Dairy Management and Value Addition to Milk” world bank funded BKBDP, AHFRD, Govt. Bihar	05 Days (18-22 July, 2023)
4.	Training on “Dairy Management and Value Addition to Milk” world bank funded BKBDP, AHFRD, Govt. Bihar	05 Days (15-19 May, 2023)
5.	Training on “Dairy Management and Value Addition to Milk” sponsored by ATMA, Bhagalpur, Govt.of Bihar	05 Days (10-14 April, 2023)
6.	Workshop on “Innovative Trends on Fermented Dairy Products” Sponsored by Chr Hansen (India) Pvt Ltd at SGIDT Patna	01 Day (12 May, 2023)

Sl. No.	Programme	Duration
7.	Workshop on “Milk and Milk Product: Human Health” at SGIDT Patna for B. Sc (Nursing) students of IGIMS Patna	02 Days (30 Nov-01 Dec, 2023)
8.	VIIIth International conference on Hybrid mode on “Global Research Initiative for sustainable Agriculture and Allied Sciences (GRISAAS-2023). Organized by Astha Foundation, Meerut (U.P.)	03 Days (18-20 Dec. 2023)
9.	Training program on “Dairy management and value addition of milk” sponsored by ATMA-Bhagalpur	05 Days (10-14 April 2023)
10.	Training program on “Dairy Animal Management” sponsored by PDP-Patna	03 Days (29-31 May 2023)
11.	Training program on “Dairy Animal Management” sponsored by PDP-Patna	03 Days (07-09 June 2023)
12.	Training program on “Dairy Farming for office bearers of FPO” sponsored by NABARD	03 Days (18-20 Jan 2024)
13.	Training program on “Goat Farming for office bearers of FPO” sponsored by NABARD	03 Days (22-24 Jan 2024)
14.	Training program on “Scientific Dairy Farming” sponsored by ATMA-Bhagalpur	04 Days (12-15 March 2024)
15.	Organized a Workshop on “NARES-Blended Learning Platform” with collaboration of ICAR-IASRI, New Delhi	01 Day (20/09/2023)

11. Animal welfare camp organized

- Organized and coordinated Animal Welfare Camp in Adopted village: Dariyapur (Naubatpur), Patna on 31.01.2024. (O.O. No: 102/DEE/BASU-Patna, Dated; 30.01.2024).

12. List of distinguished visitors/ eminent persons who visited SGIDT

- Dr. S. N. Sinha, Hon'ble Vice-Chancellor, Bihar University of Health Sciences, Patna
- Shri Sanjay Kumar, Director, Dairy development, AFRD, Govt. of Bihar
- Shri Neeraj Kumar, Sales and Marketing Manager, Asia Pacific Region, Chr-Hansen Pvt.Ltd.
- Shri Sudhir Kumar Singh, Managing Director, Jharkhand Milk Federation, Ranchi
- Shri Dhananjay Kumar, Managing Director, Sahabad Milk Union Ltd., Ara, Bihar
- Shri Rupesh Raj, Managing Director, Patna Dairy Project, Patna
- Shri Ramesh Kumar Mishra, General Manager, COMFED, Patna
- Shri S.N.Thakur, Managing Director, Vaishali Pataliputra Milk Union, Patna

13. List of Faculty members

At present, out of total 47 teaching posts, 03 Professors, 21 Associate Professors and 23 Assistant Professors are sanctioned against which 21 faculty members are in place. The department wise sanctioned faculty strength and filled posts are presented in below Table.

S. No.	Department	Faculty positions sanctioned			Faculty in position		
		Professor	Associate Professor	Assistant Professor	Professor	Associate Professor	Assistant Professor
1.	Dairy Technology	01	04	05	01	01	04
2.	Dairy Engineering	01	04	04	01	00	02
3.	Dairy Chemistry	0	04	03	01	01	01
4.	Dairy Microbiology	01	04	04	01	01	0
5.	Dairy Extension	0	01	03	0	01	01
6.	Dairy Business Management	0	04	04	0	02	03
Total		03	21	23	04	06	11

13.1 Newly recruited faculty members in SGIDT:

1. Ms. Sonam Kumari, joined as Assistant Professor in Department of Dairy Technology.
2. Dr. Anuradha Kumari, joined as Assistant Professor in Department of Dairy Chemistry.
3. Ms. Yogita Sharma, joined as Assistant Professor in Department of Dairy Business Management.

13.2 Following faculty members of SGIDT got promoted under CAS:

1. Dr. Sanjeev Kumar, Department of Dairy Technology, got promoted to Professor
2. Dr. Binita Rani, Department of Dairy Chemistry, got promoted to Professor.
3. Dr. Rakesh Kumar, Department of Dairy Microbiology, got promoted to Professor.
4. Dr. Bipin Kumar Singh, Department of Dairy Technology, got promoted to Associate Professor
5. Dr. Binod Kumar Bharti, Department of Dairy Chemistry, got promoted to Associate Professor.
6. Dr. Sonia Kumari, Department of Dairy Microbiology, got promoted to Associate Professor.
7. Dr. Awadhesh Kumar Jha, Department of Dairy Business Management, got promoted to Associate Professor.

Glimpses of the year round activities in SGIDT



ATMA, Bhagalpur sponsored farmers training Programon
“Dairy Management and Value Addition to Milk” during 10-14 April, 2023



ATMA, Bhagalpur sponsored farmers training Programmeon
“Dairy Management and Value Addition to Milk” during 10-14 April, 2023



World Bank funded BKBDF, AFRD, Govt. of Bihar sponsored farmers training on “Dairy Management and Value Addition to Milk” during 18-22 July, 2023



Dr. Rameshwar Singh, Hon'ble Vice-chancellor, BASU Patna and Dr. S. N. Sinha, Hon'ble Vice-chancellor, BUHS, Patna inaugurated World Bank funded BKBDF, AFRD, Govt. of Bihar sponsored farmers training programme at SGIDT Patna



World Bank funded BKBDP, AFRD, Govt. of Bihar sponsored farmers training on "Dairy Management and Value Addition to Milk" during 07-11 August, 2023



World Bank funded BKBDP, AFRD, Govt. of Bihar sponsored farmers training on "Dairy Management and Value Addition to Milk" during 12-16 September, 2023



World Bank funded BKBDP, AFRD, Govt. of Bihar sponsored farmers training on "Dairy Management and Value Addition to Milk" during 12-16 September, 2023



World Bank funded BKBDP, AFRD, Govt. of Bihar sponsored farmers training on "Dairy Management and Value Addition to Milk" during 18-22 July, 2023



Workshop on "Milk and Milk Product: Human Health" at SGIDT Patna for B. Sc (Nursing) students of IGIMS Patna during 30 Nov-01 Dec, 2023



Workshop on "Milk and Milk Product: Human Health" at SGIDT Patna for B. Sc (Nursing) students of IGIMS Patna during 30 Nov-01 Dec, 2023



Workshop on "Innovative Trends In Fermented Dairy Products "held at SGIDT Patna on 12th May, 2023



SwachhataPakhwada celebration at SGIDT



Training programme organized at SGIDT on Scientific Dairy Farming for the Office Bearers of Dairy Based Farmers Producer's Organisation, sponsored by NABARD

दुग्ध व्यवसाय से जुड़कर खुशहाल हो रहे उत्पादक

पुष्पधारी अष्टीक (पुष्पधारी)
पुष्पधारी का चरम रूपी प्रोफ़ेसर (पुष्प) के सम्बन्ध में किम्वदन्तियों का संग्रह। अष्टीक धारण करने वाले किम्वदन्तों का प्रथम निहितः सोमराज (राज) के सम्बन्ध किम्वदन्तों का संग्रह। अष्टीक धारण करने वाले किम्वदन्तों का प्रथम निहितः सोमराज (राज) के सम्बन्ध किम्वदन्तों का संग्रह। अष्टीक धारण करने वाले किम्वदन्तों का प्रथम निहितः सोमराज (राज) के सम्बन्ध किम्वदन्तों का संग्रह।

डिजिटल टूल डिजिटल पर बहस हो रही है, जो वास्तविक में कोई नया विचार नहीं है।



महात्मा। इस कवि जिस दुःख दिखाने को सोच
 है कि बीजे ईश्वरी प्रपञ्चमा विचित्री को
 ब्रह्म का रूप है और शैवीय रूपमा प्रपञ्च
 के लक्षण-रूप जातिवर्ण को प्रपञ्च का
 लो है। ये शब्दों से कहना कि दुःख
 जगत्काम से मुक्तता दुःख अन्तर्गत ज्ञान
 का प्र सुखान्त लो है। इस बात का
 अर्थवर्णन से अन्तर्गत अन्तर्गत इस बात के

संजय गांधी गव्य प्रौद्योगिकी संस्थान में मना विश्व दूध दिवस

[illegible][illegible]

प्रश्नोत्तर १९७६ की सूची में आने वाले दो पुस्तक-संशोधक और विचारधारा में एक-दूसरे के समर्थक होने पर बहुत बड़ी समझौदा करने में सफल हो गये हैं और विचारों का अन्तर्निहित में एक-दूसरे के समर्थक हो गये हैं। (इसके अलावा एक अन्य विचारधारा के अनुसार भी बहुत बड़ी समझौदा हो गयी है और इसी समझौदा और समझौदा विचारधारा में एक-दूसरे के समर्थक हो गये हैं।)

[illegible][illegible][illegible]

गतिविधियाँ
डेयरी के क्षेत्र में रोजगार की असीम संभावनाएं

[illegible]

Annual
Report
2023-24



Annual
Report
2023-24



College of Fisheries, Kishanganj

College of Fisheries, Kishanganj

The College of Fisheries is a constituent college of Bihar Animal Sciences University, Patna, and is located in the Kishanganj district of Bihar. Our college campus is spread over an area of 350 acres along the bank of river Mahananda. Hon'ble Chief Minister of Bihar, Shri Nitish Kumar formally inaugurated and announced the start of the first academic session of this college on 29th August 2018 at Patna. This college offers a credible fisheries education institution that nurtures the next generation of professionals and entrepreneurs in the fisheries sector and contributes to the state and nation by pursuing innovations and research that is relevant to local needs and directed towards maximizing outcomes for economic, social, and environmental well-being. The College of Fisheries is committed to becoming a center of excellence in Fisheries education in the region.

The college is unique with state-of-the-art infrastructure including centrally air-conditioned academic and administrative buildings with smart classrooms, modern laboratories, single-bedded hostel rooms for girls and boys, residential accommodation for faculty and staff, playground, indoor game facilities, health clinic, auditorium, well-equipped gymnasium, farm offices, wet laboratory and 36 acres of instructional farm. The college offers 4 years of UG and 2 years of PG degree programs on Bachelor of Fisheries Science (B.F. Sc.) and Master of Fisheries Science (M.F.Sc.), respectively. Both the degree programs are offered as per the ICAR Deans Committee and BASMA recommendations and admission takes place purely on the basis of a competitive entrance examination conducted by the Bihar Combined Entrance Competitive Examination (BCECE) and ICAR joint examination for PG admission. The college has eleven numbers of departments offering different courses to UG degree program whereas nine departments offer PG degree courses.



Actual Faculty Strength: A total of 34 faculties are in the college, including 01 Dean, 02 Associate Professors, and 30 Assistant Professors from 11 departments. From the total faculty strength, 40.74% are female faculty members.

New Postings/Joining in COF, Kishanganj: Dr. V. P. Saini joined the college as Dean for the second time on 12.03.2024 and was appointed by direct selection for five years. Two Associate Professors have joined in the department of Aquaculture and Fish Genetics & Breeding. Five Assistant Professors have joined in the Department of Aquaculture (02), Aquatic Animal Health Management (01), Fish Processing Technology (01), and Fisheries Economics and Statistics (01). Their joining makes the total faculty strength of the college 34.

S. No.	Name	Designation
1	Dr. V. P. Saini	Dean
2	Dr. Abhed Pandey	Associate Professor, Aquaculture
3	Dr. Sachin Onkar Khairnar	Associate Professor, Fish Genetics and Breeding
4	Mr. Vivek Kumar	Assistant Professor, Aquaculture
5	Mr. Abhishek Kumar	Assistant Professor, Aquaculture
6	Mr. Pankaj Kumar	Assistant Professor, Aquatic Animal Health Management
7	Dr. Md. Aman Hassan	Assistant Professor, Fish Processing Technology
8	Ms. Saba Nabi	Assistant Professor, Fisheries Economics and Statistics

A. Teaching Activities/Degree Programme: College of Fisheries offers both the undergraduate (UG) and post graduate (PG) degree programmes. The details are given below:

I) Intake Capacity of UG (B. F. Sc.): Currently, 50 seats are there for Under Graduate B. F. Sc. programme out of which 10 seats are self-finance including 02 for NRI with following distribution under different categories:

UR	EWS	BC	EBC	SC	ST	RCG	Self-Finance	Self-Finance NRI	Total
16	04	05	07	06	01	01	08	02	50*

*5% of total seats are reserved for person with disability (DQ quota)

II) Intake Capacity of PG (M. F. Sc.): Seven departments are offering Master's degree programme, from the academic session 2022-23 and PG in two more departments i.e. Aquatic Environment Management (AEM) will also start from next academic session. A total of 27 seats for Post Graduate M. F. Sc. programme from different subject are offered by college which are as follows:

S. No.	Name of Degree	No. of Seat
1	M. F. Sc. Aquaculture (AAHM)	05
2	M. F. Sc. Aquatic Animal Health Management (AAHM)	03
3	M. F. Sc. Aquatic Environment Management (AEM)	02
4	M. F. Sc. Fish Biotechnology (FBT)	03
5	M. F. Sc. Fish Genetics & Breeding (FGB)	02
6	M. F. Sc. Fish Physiology & Biochemistry (FPB)	03
7	M. F. Sc. Fish Nutrition and Feed Technology (FNFT)	03
8	M. F. Sc. Fish Processing Technology (FPT)	03
9	M. F. Sc. Fisheries Resource Management (FRM)	03

III) Intake Capacity of Ph.D. (Aquaculture): Ph.D. programme in the department of Aquaculture with intake capacity of 02 is approved and will start from next academic session.

B. Research & Development Projects/Activities

I) Externally Funded Research Projects: 01

Title of Project	Associated Scientist	Duration & Status	Budget (Rs.) & Funding Agency
Transcriptome Profiling for identification of abiotic stress responsive (heat) genes in <i>Clarias batrachus</i> and <i>Tor putitora</i>	Dr. Mamta Singh (PI) Dr. V. P. Saini (Co-PI)	03 Years Ongoing	29.50 Lakh (ICAR-

II) Institutional Research Projects: 12

Title of Project	Associated Scientist	Duration & Status	Budget (Rs.)
Inventorization and documentation of aquatic resources and resource uses of Kishanganj district of Bihar	PI: Dr. V.P. Saini, Co-PIs: Dr. Mamta Singh, Dr. N. K. Verma, Mr. R. S. Kumar, Dr. Abhishek Thakur, Mr. B. Vimal, Dr. S. Kumari	05 Years Ongoing	17.72 Lakh
Genetic diversity analysis of different stocks of Labeo rohita (Rohu) of mithila and Seemanchal region of Bihar	PI: Dr. Mamta Singh, Co-PIs: Dr. V.P. Saini, Dr. Rupam Samanta	01 Year Ongoing	4.00 Lakh
Inventorization, cataloguing and development of live gene bank of native ornamental fishes of Seemanchal region of Bihar	PI: Dr. Rupam Samanta, Co-PIs- Dr. Mamta Singh, Mr. Gyan Chandra	03 Years Ongoing	4.40 Lakh
Development of Herbal feed supplement to Achieve Enhanced Production of <i>Clarias magur</i>	PI: Dr. Sangeeta Kumari, Co-PIs: Dr. Naresh Raj Keer, Dr. Showkat A. Dar	02 Years Ongoing	3.00 Lakh
Prevalence and existence of pathogenic strain of E. coli in fish from fish market of Simanchal region	PI: Dr. Abhishek Thakur, Co-PIs: Dr. Pooja Saklani, Dr. Anjay	03 Years Ongoing	4.50 Lakh
Effect of Wolfia based diet on growth and colour enhancement of gold fish (<i>Carassius auratus</i>)	PI: Dr. Sagarika Swain, Co-PIs: Mr. Rajesh Kumar, Dr. Sarvendra Kumar	02 Year Ongoing	1.50 Lakh

Evaluation of wounds healing ability of <i>Mikania micrantha</i> individually and in combination with <i>Curcuma longa</i> in <i>Clarias magur</i>	PI: Dr. Naresh Raj Keer, Co-PIs: Dr. Abhiman, Dr. Sangeeta Kumari	02 Years Ongoing	3.50 Lakh
Development of genetic lines for appearance traits via artificial selection in <i>Colisa fasciata</i>	PI: Aishwarya Sharma, Co-PIs: Dr. Abhiman, Dr. M. K. Pathan	02 Years Ongoing	2.50 Lakh
Study on Fish Marketing System: Evidence from Fish Markets of Seemanchal Region Bihar	PI: Mr. Ravi Shankar Kumar, Co-PI: Ms. Tenji Pem Bhutia	02 Years Ongoing	4.00 Lakh
Study on Occurrence and Risk Assessment of Microplastics in Mahananda River, India	PI: Mr. Tapas Paul, Co-PIs: Mr. Ashutosh Kumar Singh, Dr. D. J. Sarkar	03 Years Ongoing	3.00 Lakh
Study on the antiparasitic effect of green synthesized silver nanoparticles against common ectoparasites of goldfish <i>Carassius auratus</i>	PI: Ms. Pushpa Kumari, Co-PIs: Dr. Sudeshna Sarker, Mr. Bhartendu Vimal	02 Years Ongoing	4.50 Lakh
Toxicological effect of iron on Indian major carps and its removal through column filtration unit	PI: Mr. Ashutosh K. Singh, Co-PIs: Mr. Tapas Paul, Mrs. Madhu Kumari	03 Years Ongoing	4.50 Lakh

D) Research Achievement's:

Under Externally funded (ICAR-NICRA) Research Project on Transcriptome Profiling for Identification of Abiotic (Heat) Stress Responsive Genes in *Clarius batrachus* and *Tor putitora*: Adverse effect of acute heat exposure was determined by estimating various physiological and parameters i.e. Superoxide dismutase (SOD), Catalase (CAT), Glutathione Reductase (GR) and Lipid peroxidation (TBRAS assay). Oxidative enzyme activities were found significantly increase in acute heat exposed fishes as compared to control. Heat stress also caused severe histo-architectural alteration in *C. batrachus*. The whole transcriptome sequencing of gill tissue of heat exposed, and control fishes were done on high throughput next generation sequencing Illumina platform on Novaseq 6000 by paired end sequencing. Differential expression analyses of exposed and control fishes revealed the overexpression of immune response and oxidative stress genes. These findings suggest that heat exposure induces severe oxidative stress and increased susceptibility to infection and disease.

Under Institutional Project on Inventorization of fish fauna of Mahananda River flowing in the Kishanganj district of Bihar: the DNA Barcode Reference Library of 56 different species of river Mahananda was developed. DNA Barcoding of 148 fish samples were completed and COI sequences were submitted in the GenBank (NCBI) databank (Accession no.: OR232711-OR232858). The compilation of species inventory and DNA barcode library has also published as Fish Wealth of River Mahananda. Pictorial display/photo gallery named Mahananda gallery also developed for fish fauna, different habitat and commonly used gears and traps of river Mahananda at College.

Whole Mitogenome Sequencing of commercially important fish species *Labeo rajasthanicus* was completed and published in Mitochondrial DNA Part B: Resources, 2023, 8 (12):1364–1367.

D) Development Project: 01

Project Title	PI/CO-PI	Duration	Sanctioned Budget
Development of Aquatic referral Laboratory under Pradhan Mantri Matsya Sampada Yojana (PMMSY)	Dr. V.P. Saini, Coordinator Co-coordinators Dr. Abhishek Thakur: Microbiology unit Dr. Mamta Singh: Molecular Diagnostics unit Mr. Bhartendu Vimal: Fish Pathology unit Dr Sarvendra Kumar: Feed Testing Unit Dr Sangeeta Kumari: Seed, Water & Soil Unit	03 Years Ongoing	1000 Lakh Govt. of India & Govt. of Bihar

D) Human Resource Development Project: 04

Project Title	Training/Workshop Coordinator	No. of Training/Workshop & Duration	Budget & Funding Agency
Training of Fish Farmers on “Scientific Methods of Fish Farming and Aquaculture”	Dr. N. K. Verma	38 5 days each during 2023-24	Directorate of Fisheries, (DOF) Govt. of Bihar
Training of Fish Farmers of Katihar district	Dr. N. K. Verma	01 2022-23	ATMA, Madhepura
Training of Extension Functionaries of Govt. of Bihar	Mr. Tapas Paul	04 03 days each during 2023-24	NFDB, Hyderabad
National Workshop on Recent Advancements in Molecular Biology & Biotechnology and its Application	Dr. Mamta Singh	01 24 th Nov 2024	BCST, Govt. of Bihar

A. Extension Activities

D) E-Samadhan and Bihar Matsya Sampada: A total of six programs were conducted under **E-samadhan** during January to March. In this program, subject experts help in resolving the problems and issues related to fish culture via online mode on zoom meeting platform. This program is a regular activity of the extension unit of the college which is conducted on the 2nd and 4th Saturday of each month.

The College also created WhatsApp group **Bihar Matsya Sampada** which is being used to disseminate information related to fisheries among the fish farmers of Bihar.



Fig. 5: E-samadhan



बिहार मत्स्य संपदा - 1
Group - 299 participants

Fig. 6: Bihar Matsya Sampada WhatsApp group

I) Organization of 38 training programmes sponsored by Directorate of Fisheries, Animal & Fisheries Resources Department (AFRD), Govt. of Bihar: The College received the human resource development grant from the Directorate of Fisheries, AFRD, Govt. of Bihar. A total of 38 on-campus trainings of five days each on Fish Farming and Aquaculture were conducted and total 967 fish farmers were trained in these training programmes.



Glimpses of DOF (GOB) sponsored training programmes conducted at COF, Kishanganj

II) Organization of NFDB sponsored farmers' training programs: The College successfully concluded four training programs sponsored by the National Fisheries Development Board (NFDB) on Soil and Water Quality Management in Freshwater Aquaculture, Freshwater Aquaculture, Ornamental Fish Rearing and Breeding, and Hatchery Production of Indian Major Carps during 2023-24. The program witnessed active participation from 100 progressive farmers from different districts of the Seemanchal region of Bihar.



Glimpses of NFDB sponsored training programmes conducted at COF, Kishanganj



A. Seminar/Workshop Organized

I) Organization of National Conference on “Transforming Rural Poverty to Prosperity through Sustainable Fisheries (TRPSF-2023)” & Fish Fair-2023 was organized by College of Fisheries Kishanganj Alumni Association (COFKAA) in collaboration with All India Agricultural Students Association-Fisheries Chapter and National Fisheries Development Board (NFDB) at College of Fisheries, Kishanganj from 19-21st July, 2023. The chief guest of the inaugural function was Dr. J. K. Jena, Hon'ble DDG (Fisheries), ICAR, New Delhi, Guest of honor Dr. Dilip Kumar (Former Director and VC, ICAR-CIFE) and special guest Dr. S. D Singh (Former ADG-Inland Fisheries, ICAR), Dr. Rameshwar Singh, Hon'ble Vice-chancellor, BASU, Patna as president of function. Six technical sessions viz. Priming Indian aquaculture for boosting rural economy, Fisheries resource and environment, Biotechnological intervention for improving fisheries production, One health for fish wealth, Fisheries value addition and supply chain for sustainable consumption and Fisheries science society linkage and rural prosperity were held in three days. Different satellite events on Student Science Village, Women Scientist Orator Award Competition, Young Scientist Conclave, Career Counseling Consortium, Farmer-Scientist Interaction were also organized during the conference.

The valedictory function was chaired by Shri Md. Afaque Alam, Hon'ble minister of Animal and Fisheries resources, Government of Bihar as chief guest, Shri Ijaharul Hussain, Member of Legislative Assembly, Bihar as guest of honor, Dr. Dilip Kumar (Former Director and VC, ICAR-CIFE) and Dr. Sanjeev Kumar, Registrar, BASU, Patna were the special guests. The Conference and Fish Fair was attended by 432 delegates including Deans, Directors, Scientists, Professors, researcher, students and farmers from different institution across the country.



Glimpses of National Conference and Fish Fair at COF, Kishanganj during 19-21st July 2023

II) Organization of National Workshop sponsored by Bihar Council of Science & Technology: Department of Fish Biotechnology, organized a one-day national conference on “Recent Advancements in Molecular Biology & Biotechnology and its Application” at the College of Fisheries, Kishanganj on 24th November 2023. The program was inaugurated by Dr. Anantashutosh Diwedi, Managing Director, Heritage Society, Patna followed by a welcome address of Dr. V. P. Saini, Dean, COF and convenor of the Workshop. This workshop was attended by 31 scientists, academicians, research scholars, and PG students from different

institutes of the country. Subject experts Dr. J. K. Sundary, Principle Scientist and Head, ICAR-CIFA, Dr. Anirudh Kumar Singh, Associate Professor, SAM Global University, Bhopal, Dr. Vindhya Mohindra, Principle Scientist and Head ICAR-NBFGR, Lucknow, Dr. Devendra Jain, Assistant Professor, MPUAT, Udaipur and Dr. Shamim Ahmad, Assistant Professor, BAU, Sabour have delivered the lectures on recent advancements in the field of molecular biology and biotechnology. The program was coordinated by Dr. Mamta Singh, Assistant Professor & Head of Fish Biotechnology department and organizing secretary of the workshop.



Glimpses of the National Workshop on “Recent Advancements in Molecular Biology & Biotechnology and its Application” conducted on 24.11.2023

H. Extra-Curricular Activities

D) Celebration of World Environment Day: College of Fisheries, Kishanganj organized a two-day awareness programme under Mission Life Style for Environment (LIFE) on the theme “**Solutions to Plastic Pollution**” from 04-05th June 2023 on the occasion of World Environment Day-2023. The awareness campaign will include a series of events coordinated by the Department of Aquatic Environment Management such as the Poster Competition, Photography Contest, Plantation Drive, Awareness Rally and Slogan Writing Competition.



Glimpses of activities performed on the occasion of World Environment Day-2023 at COF, Kishanganj

ii) **Celebration of Independence Day, 2023:** The college celebrated 77th Independence Day on 15th August 2023 with full enthusiasm. Dean, Dr. V. P. Saini, hosted the National flag and the ceremony was attended by all the faculty members, students and staff.

iii) **Celebration of World Soil Day-2023:** World Soil Day 2023 was celebrated at College of Fisheries, Kishanganj on 5th December 2023. Programme was coordinated by Department of Aquatic Environment Management in collaboration with the Department of Fisheries, Kishanganj, Govt. of Bihar. The program include a series of events such as a Plantation drive, expert lecture, distribution of Soil parameter testing kits among fish farmers, and Farmers-Scientist Interaction. A documentary on “*Matsya Palan mein Jal Gurbarta Prabhandhan*” was also released during the program.



Glimpses of activities undertaken on World Soil Day 2023 on 5th December 2023

iv) **Celebration of Republic Day, 2024:** The college celebrated 75th Republic Day on 26th January 2024. Dr. V. P. Saini, Dean COF unfurled the National flag. The ceremony was attended by all the faculty members, students, and staff of the college.

v) **Organization of BASU 4th Inter-College Sports Meet at COF, Kishanganj:** The 4th Inter-College Sports Meet was held from 7-9th February, 2024 at the Kishanganj campus of BASU, Patna. A total of 4 colleges namely BVC Patna, SGIDT Patna, COVAS Kishanganj and COF Kishanganj participated in this meet. The Hon'ble Vice Chancellor of BASU has graced the opening ceremony as chief guest and declared the sports meet open. The opening ceremony was also graced by Dr. A.K. Sharma, SWO, BASU, Dr. V. K. Saxena, DR, BASU, Dr. Chandrahas, Dean COVAS, Dr. Rakesh Kumar, O/C Sports, BASU. Dr. V. P. Saini, Dean, COF welcomed the gathering and opening ceremony has many events like march past, flag hoisting, torch run and sports oath by participating students, officials, and referees. The different field and track events, volleyball, kabaddi, badminton, and table tennis matches were conducted. All four colleges played with great enthusiasm and sportsmanship. College of Fisheries, Kishanganj stood out during the event and won the trophy of overall champion. The SGIDT, Patna was runner-up. Ms. Shalu Kumari of COF won the best female athlete award with three gold medals whereas Chhotu Kumar and Anish Raj of SGIDT shared the best male athlete trophy with 2 gold medals. The closing ceremony was presided by Dr. V. P. Saini and he applauded the efforts of all players who showed great talent, efforts and sportsmanship during the entire event. The ceremony ended with a formal vote of thanks given by Mr. Ashutosh Kumar Singh, Co-organizing Secretary of the event.

Organization of BASU 4th Inter-College Sports Meet at COF, Kishanganj



I. Student Achievements

I) Outstanding performance in National Competitive Exams AIEEA-PG 2023: 17 students of B. F. Sc. final years students once again brought the honor to the Institution and state by achieving success in the national competitive examination. The college has achieved remarkable success and has set a benchmark in this region, with 17 out of the total 25 students who graduated this year excelled in the All-India Competitive Exam for PG admission (ICAR-AIEEA) conducted by the National Testing Agency (NTA).



**Congratulations to Batch-2019 Students
Selected for M.F.Sc. through AIEEA-PG 2023
in ICAR-CIFE, Mumbai**



Shashank Kumar Sinha
Department of Fisheries
Resources Management



Virendra kumar
Department of Aquatic Animal
Health Management



Arya Kumari
Department of Fish
Processing Technology



Barkha Asthana
Department of Fish Nutrition
and Feed Technology



Vartika Priya
Department of Fish
Physiology & Biochemistry



Akanksha Kumari
Department of Fish
Physiology & Biochemistry



Nidhi Gupta
Department of
Fisheries Economics



Anjali Kumari
Department of
Fisheries Economics



**Congratulations to Batch-2019 Students
Selected For M.F.Sc. through AIEEA-PG 2023**



Shristi Kumari
Department of FRM
KVAFSU, Karnataka



Nishant kumar
Department of AEM
WBUAFS, Kolkata



Raj Priya
Department of FEX
CAU, Imphal



Deepali Raj
Department of AEM
Assam
Agricultural University



Shruti Kumari
Department of FRM,
Kamdhenu University



Roshni Kumari
Department of FRM,
Dr. RPCAU, Bihar



Prashant Raj
Department of FRM,
Dr. RPCAU, Bihar



Nutan Kumari
Department of FRM,
Dr. RPCAU, Bihar



Srishti Kumari
Department of AQC,
NDUAT, Uttar Pradesh

Placement Cell, CoF, Kishanganj

Placement Cell, CoF, Kishanganj

II) COF Students Shine at National Idea Contest-2023:

Ms. Pragati Pushp and Mr. Manish Kumar, students from College of Fisheries, Kishanganj selected among top 25 entries in National Idea Contest “Lifting LIFE” organized by BOBP-IGO and NFDB, Hyderabad. They were invited to present their ideas in the International Conclave on “*Mainstreaming Climate Change into International Fisheries Governance and Strengthening of Fisheries Management Measures in the Indo-Pacific Region*” at Mahabalipuram, Tamil Nadu from 16-19th October, 2023. Mr. Tapas Paul, Assistant professor and In-charge of, Placement Cell accompanied the students as Mentor. During the conclave, students interacted with experts from National & International organizations and received appreciation for their innovative ideas.



III) COF Students shines at Youth Parliament's “Viksit Bharat@2047”: District Level Neighborhood Youth Parliament's on “Viksit Bharat@2047” was organized at COF, Kishanganj on 3rd March 2024 by Nehru Yuva Kendra (Kishanganj) & NSS units of all the three colleges of Dr. Kalam Agricultural College Campus i.e. COF, COVAS, and DKAC. Students from all three colleges have participated in the program and among them Ms. Kopal Karishma of B.F.Sc. 7th semester, 2020 batch secured 2nd position and brings laurels for the college.



Winner students of Youth Parliament's “Viksit Bharat@2047”

J. College Publications:

S. No.	Category	Title	Authors/Editors
1	Research Article	Complete mitochondrial genome of golden variant of freshwater fish <i>Labeo rajasthanicus</i> (Cypriniformes: Cyprinidae): endemic to India. Mitochondrial DNA Part B: Resources, 2024, 8 (12):1364–1367	Mamta Singh, V. P. Saini, V. Mohindra, M.L. Ojha, K.K. Lal, R. K. Singh
2	Review Article	Deformities in fish: A barrier for responsible aquaculture and sustainable fisheries. Reviews in Aquaculture, 2024, 16 (2):872-891	G. Chandra, V. P. Saini, K. Shailesh, F.B. Dorota
3	Magazine	Matsyavani	Chief Editor: V. P. Saini Managing Editor: N. K. Verma Editor: Showkat A. Dar

3	Book	Fish Wealth of River Mahananda (ISBN 978-81-963832-0-6)	Mamta Singh, V. P. Saini, Rupam Samanta, Narendra K. Verma
		Futuristic Trends in Aquaculture (ISBN 978-93-5747-892-2)	Naresh R. Keer, Abhiman, Showkat A. Dar
		Farmer Friendly Innovations in Fisheries: Rural Poverty to Prosperity	V. P. Saini, Tapas Paul, Tenji P. Bhutia, Abhiman, Md. Meharooof, Manjulesh Pai, Arpit Acharya
5	Conference Proceeding	Transforming Rural Poverty to Prosperity through Sustainable Fisheries (ISBN 978-81-963832-1-3)	Editors: V. P. Saini, Tapas Paul, Md. Ihzan M. P., Md. Mehroof, Manjulesh Pai, Ashutosh Kr. Singh, Mamta Singh
6	Workshop Manual	Recent advancement in Molecular Biology Techniques and its Applications (ISBN 978-81-963832-9-9)	Mamta Singh, Sangeeta Kumari & V. P. Saini
7	Training Manual	Mithe Pani Ki Jalkrishi Me Jal Evam Mrida Gunvatta Prabandhan	Editors: V. P. Saini, Tapas Paul, Ashutosh Kr. Singh, Madhu Kumari
		Sajawati Machli Prajanan Evam Palan, publication no. 15/COF/2024	Sangeeta Kumari, Naresh Raj Keer, Abhiman, Mamta Singh
8	Documentary	Magur Breeding	Sangeeta Kumari & V. P. Saini
9	Practical Manual	Introduction to Biotechnology & Bioinformatics	Mamta Singh & V. P. Saini
		Fish Population Dynamics and stock Assessment	Rupam Samanta, Mamta Singh & V. P. Saini
		Aquatic Pollution	Tapas Paul & Ashutosh K. Singh
		Freezing Technology	Pooja Saklani, P. Prabhakar & A. Thakur
		Fundamentals of Biochemistry	Sarvendra Kr, S A Dar & Susmita Rani
		Fundamental of Molecular Biology	Mamta Singh & V. P. Saini
		Gene Structure & Regulation of Expression	Mamta Singh & V. P. Saini
		Communication Skills & Personality Development	Narendra Kr. Verma
		Fisheries Statistics	R. S. Kumar & Tenji P. Bhutia
		Fisheries Economics	Tenji P. Bhutia & R. S. Kumar

Annual Report 2023-24



The image is a cover for an annual report. It features a photograph of a large, multi-story institutional building with a red and beige facade and a central arched entrance. The building is surrounded by a green lawn and a paved road. The sky is blue with some clouds. The text 'Annual Report 2023-24' is in the top right corner, with 'Annual' in white and 'Report' in orange script. The title 'College of Veterinary and Animal Sciences Kishanganj' is in the center in orange bold font. The design includes blue and white wavy borders.

*Annual
Report*
2023-24

**College of Veterinary and Animal Sciences
Kishanganj**

Awards and Recognition

- IPSA Young Scientist Award 2023 for research Article entitled “Evaluation of adaptability and acquisition of thermotolerance in slow growing birds reared in tropical climate” authored by Nibedita Nayak, Subrat Kumar Bhanja, Eaknath B. Chakurkar, Sanjeev Kumar, J. S. Tyagi, Amiya Ranjan Sahu and Chandrahas, during XXXVIII Conference of Indian Poultry Science Association held at F.V.Sc.&A.H., SKUAST-Kashmir Srinagar.
- Dr. V.V. Ranade Young Scientist Award of Indian Society of Veterinary Pharmacology and Toxicology (ISVPT).
- Dr Dharendra Kumar, Associate Professor, received Excellence in Extension Award 2023 by Society for Scientific Development in Agriculture and Technology SSDAT-Meerut.
- Dr. Pratyush Kumar, Assistant Professor, Department of VGO, COVAS, Kishanganj received Young Scientist Award during 2 Days International Conference on “Current Advances in Agriculture, Animal Husbandry and Allied Sciences” (CAAAAS-2023) Jointly organized by Agricultural Research Council of Nigeria, Mabushi, Abuja, Nigeria & National Agriculture Development Cooperative Ltd. Baramulla, India held at Matrika Auditorium, Sri Mata Vaishno Devi University, Katra, India from July 10-11, 2023.
- Dr. Diksha Purushottam Gourkhede, Assistant Professor and Head (Incharge), Department of VPHE, COVAS, Kishanganj received a grant from Department of Science and Technology, Science and Engineering Research Board (SERB) International Travel Grant to attend 69th International Congress of Meat Science and Technology (ICoMST2023) held during 19th August to 25th August at Padova, Italy.
- Dr. Archana, Assistant Professor, Department of VPHE, COVAS, Kishanganj received an Dr. S. P. Singh Best Research Paper Award-2023 in XIXth Annual Conference of Indian Association of Veterinary Public Health Specialists (IAVPHS) held during 7th & 8th December, 2023.
- Women's Achiever's Award-2024 from Pashudhan Prahree to Dr. Kumari Chandrakala, Asst. Prof., VSR & Best Clinical Case Paper Presentation Award-2023 from PGVIR, MAFSU, Akola to Dr. Manish Arya, Asst. Prof., VSR).
- Krantijyoti Savitribai Phule Women's Achievers Award 2024 (Dr. Safeeda Sultana Begum) Best Ph.D. Thesis award on the occasion of National webinar on Agriculture & Rural Empowerment by Dr. Ram Avatar Shiksha Samiti on 13th May, 2023.
- 5th Biennial Poultry Health Conference and National Symposium on “Poultry Health : Current Challenges and Future Strategies” jointly organized by ICAR – Directorate of Poultry Research, Hyderabad and association of Avian health Professionals, Hyderabad during 23 & 24 February 2024.
- Young Scientist Award, 3rd National Conference, Society for Agriculture Innovation and Development, Ranchi (Dr Rakhi Bharti).
- Young Scientist Award, 1st IEEC-2023 on Rural Transformation and Sustainable Agri-food System through Community Based Organisation (CBO) Oriented Extension Strategy held from December 18-20, 2023 at Jaipur (Dr. Rajesh Kumar).
- Young Scientist Award-2023 Kaushlendra Singh, for outstanding Contribution & Recognition in the field of Veterinary Parasitology 6th International conference of SCALFE on Strategies and

Challenges and Life Science for food Security and Sustainable Environment” held at himachal Pradesh (28-30 April 2023).

- Poster Presentation (First Prize) Kaushlendra Singh, Sachin Kr., Anil Kr. Sharma, Binod Kumar, Mukesh Shakya, Nirbhay Kr. Singh, M. Shankar & Srikanta Ghosh 2nd NCVP and National Symposium on “Sustainable Control of Parasitic Disease for Improved Productivity of Livestock in Current Scenario” from 29/11/2023 to 01/12/2023 organized at Dept. of Veterinary Parasitology, Bihar Veterinary College, BASU, Patna.
- Best Oral presentation (Third Prize) Kaushlendra Singh, Anil Kr. Sharma, Sachin Kr., Binod Kumar, M. Shankar & Srikanta Ghosh Livestock in Current Scenario” from 29/11/2023 to 01/12/2023 organized at Dept. of Veterinary Parasitology, Bihar Veterinary College, BASU, Patna.
- Best Oral presentation (Third Prize) Nilima N. Brahmabhatt, B. J. Thakre, Binod Kumar, V. D. Dodia, V. L. Parmar 2nd Annual Convention of Association of Animal Scientist and National Symposium organized by Apollo College of Veterinary Medicine, Jaipur (Rajasthan) & Association of Animal Scientists (AAS) from 17th to 19th Feb, 2024.
- Poster Presentation (First Prize) Maharana, B. R., Nangru, A., Ganguly, A., Kumar, B., and Vohra, A. Livestock in Current Scenario” from 29/11/2023 to 01/12/2023 organized at Dept. of Veterinary Parasitology, Bihar Veterinary College, BASU, Patna.

Research articles in reputed journals

S.No	Department	Title	NAAS/IF
1.	LPT	Singh, R, Singh, K P, Singh, R, Singh, V, Kumar, P, Varshney, R, Yadav, A, Mote, A, Gangwar, M and Prasath, N B. 2024. Preliminary investigation reveals novel pathological consequences of bluetongue virus-1 infection in the endocrine glands of pregnant Indian sheep. <i>Animal Biotechnology</i> 35(1): 2269428.	NAAS-9.70
2.		Gangwar M , Ranjan R K., Mendiratta, S K., Biswas, A K. and Chand S. 2023. Development of Utility Pet Soap Utilizing Rendered Fat from Deserted Poultry Sleeves. <i>Journal of Animal Research</i> 13 (5):753-761.	NAAS-4.78
3.		Sakunde D T, Gangwar M, Bhong C D, Barate A K and Bhalerao, S M, 2024. Development and Assessment of Chicken Fortified Papad. <i>Indian Journal of Veterinary Sciences & Biotechnology</i> 20(2).	NAAS-5.58
4.	VGO	Dewry R K, Mohanty T K, Nath S, Bhakat M, Yadav, H P and Baithalu R K. 2023. Comparative RNA isolation methods from fresh ejaculated spermatozoa in Sahiwal cattle (<i>Bos Indicus</i>) and Murrah buffalo (<i>Bubalus bubalis</i>) bulls for high quality and enhanced RNA yield. <i>Animal Biotechnology</i> , 34 (9): 5180-5191.	NAAS: 9.7, Impact Factor: 3.70.
5.		Kadirvel G, Diengdoh J, Deori S, Dewry R K, Abedin S N and Moirangthem P. 2023. Cytotoxic effects of heavy metals on functional attributes of boar sperm: an in vitro study. <i>Frontiers in Environmental Science</i> , 11:1296606	NAAS: 10.60, IF: 4.60
6.		Upadhyay V R, Roy, A K, Pandita S, Raval, K, Patoliya P, Ramesh, V, Dewry R K, Yadav H P, Mohanty T K and Bhakat M. 2023. Optimized addition of nitric oxide compounds in semen extender improves post-thaw seminal attributes of Murrah buffaloes. <i>Tropical Animal Health and Production</i> , 55:47.	NAAS: 7.89, Impact Factor: 1.89
7.		Abedin, S N, Baruah, A, Baruah K K, Bora A, Dutta D J, Kadirvel, G, Katiyar R, Doley S, Das S, Khargharia G, Sarkar B, Sinha S, Phookan A, Dewry R K, Kalita M K, Chakravarty H and Deori S. 2023. Zinc oxide and selenium nanoparticles can improve semen quality and heat shock protein expression in cryopreserved goat (<i>Capra hircus</i>) spermatozoa. <i>Journal of Trace Elements in Medicine and Biology</i> , 80: 127296	NAAS: 9.50, Impact Factor: 3.50

S.No	Department	Title	NAAS/IF
17.		Mishra M, Maiti SK, Kalaiselvan E, Shivaraju S, Singh KP, Mamachan M, Arya M, Mishra D, Hescheler J (2023). Evaluation of stem cell laden Collagen + Polycaprolactone + Multiwalled Carbon nano-tubes nano-neural scaffold with and without insulin like growth factor-I for sciatic nerve regeneration post crush injury in wistar rats. Cell Physiol Biochem 57(6):452-477	Impact Factor: 2.50
18.		Mishra M, Mamachan M, Maiti SK, Singh KP (2023). Histopathological evaluation of therapeutic potentialities of stem cell laden MWCNT based nano-neural scaffold and IGF-I in sciatic nerve crush injury induced disuse atrophy. Indian Journal of Veterinary Pathology 47(2): 129-134	NAAS= 5.54
19.		Mamachan M, Maiti SK, Amitha Banu S, Khan Sharun, Mishra M, Manjusha KM (2023). Application of nanotechnology in cartilage regeneration. Clinics in Nursing 2(3)	
20.		Mamachan M, Banu SA, Sharun K, Manjusha KM, Kalaiselvan E, Mishra M, Shivaramu S, Singh KP, Maiti SK (2023). Osteochondral defect creation in animal model with brad point drill bits - a preliminary study. Journal of Orthopaedic Reports 4:100213	Impact Factor: 1.50
21.	VMD	Safeeda S. Begum, M. Hussain, S. Kumar, S.K. Bharti and M. Malik. (2023) Monday morning sickness in draft purpose Bhutia ponies: A case report. International journal of Veterinary Sciences and Animal Husbandry, 8(3): 220- 221	NAAS= 4.61
22.	VCC	Pravas Ranjan Sahoo, Simi Girija, Babita Mishra, Prabhat Kumar Padhi, Shubham Kumar, Komal, Ritun Patra: Soft tissue attachment to titanium coated with growth factors. European. Chemical. Bulletin. 2023, 12 (S3), 4577 – 4590.	-
23.		Agnihotri, A. A., Awandkar, S. P., Kulkarni, R. C., Chavhan, S. G., Suryawanshi, R. D., Mohan, A., Kulkarni, M. B. and Chavan, V. G. Isolation and molecular characterization of infectious bursal disease virus circulating in western and central India. Iranian Journal of Veterinary Research. 2023, Vol. 24, No. 4, Ser. No. 85, Pages 345-350.	NAAS= 7.2
24.	VMC	Mahapatra, C.S., Kuniyal, A., Latheef, S.K. and Dhar, P., 2023. A Handy Method to Estimate Titer of Classical Swine Fever Virus in PK-15 Cells. Indian Journal of Veterinary Public Health Volume, 9(3), p.32.	-

S.No	Department	Title	NAAS/IF
8.		Nain D, Mohanty T K, Dewry R K, Bhakat M, Nath S, Gupta V K and Parray M A. 2023. Butylated hydroxytoluene (BHT) improves the post-thaw semen quality in low-dose sperm cryopreservation in Murrah buffalo bull. CryoLetters, 44 (1): 57 – 65.	NAAS: 7.07, Impact Factor: 1.07.
9.		Sethi, M, Shah N, Mohanty T K, Bhakat M, Yadav D K, Kumar P, Kumar N. 2023. Effect of Modified Freezing Diluent on Post-Thaw Sperm Characteristics of Poor Freezable Sahiwal Bull. The Indian Journal of Veterinary Sciences and Biotechnology, 20(3).	NAAS: 5.25
10.	VSR	Kumar V, Kumar N, Gangwar AK, Singh R (2024). Comparative evaluation of two different xenogenic acellular matrices on full-thickness skin wound healing. Journal of Wound Care 33(Sup3a): lxxiv-lxxx	Impact Factor: 2.63
11.		Bamal PS, Kumar V, John JK, Tyagi SK, Malik V, Shahi UP (2023). High urinary trace elements concentrations: A possible indicator of urolithiasis in goats?. Journal of Trace Elements and Minerals 4: 100060	-
12.		Suvarna A, Hoque M, Saxena AC, Kumar V, Singh R, Bag S (2023). The effect of different routes of xenogenic mesenchymal stem cell transplantation on the regenerative potential of spinal cord injury. Regenerative Engineering and Translational Medicine 9(3): 407-415	Impact Factor: 2.60
13.		Kumar N, Kumar V, Rathore HS, Purohit S, Gangwar AK, Maiti SK (2023). Polypropylene mesh versus nylon mosquito net mesh for external abdominal hernias repair in cattle and buffaloes. Buffalo Bulletin 42(3): 349-356	Impact Factor: 0.20
14.		Singh PK, Kumar V, Malik V, Tyagi SK (2023). Ultrasonographic findings of the forestomach, abomasum and intestine in 30 Barbari goats. Veterinary Practitioner 24(1): 30-32	-
15.		Singh CK, Malik V, Tyagi SK, Kumar V, Singh PK, Shivhare M (2023). Evaluation of various preanaesthetic combinations for propofol–isoflurane anaesthesia in dogs: a haematobiochemical study. Indian Journal of Canine Practice 15(1): 56-60	-
16.		Tyagi SK, Kumar V, Malik V (2023). Clinico-radiographic findings of head affections in three dogs. Indian Journal of Canine Practice 15(1): 64-66	-

S.No	Department	Title	NAAS/IF
25.		Singh, B.R., Singh, S.V., Agarwal, R. and Yadav, A., 2024. Excipient effect on antimicrobial activity of Cinnamon (<i>Cinnamomum zeylanicum</i> album) oil, Thyme (<i>Thymus vulgaris</i>) oil and Ajowan (<i>Trachyspermum ammi</i>) oil. Infect Dis Res, 5(1), p.4.	-
26.		Yadav, A., Singh, B.R., Pawde, A.M., Thomas, P., Singh, V., Singh, R., Singh, S.V., Ravichandran, K., Agri, H., Jayakumar, V. and Amachawadi, R.G., 2023. Draft Genome Sequence of a <i>Pasteurella multocida</i> Strain Isolated from a Spotted Deer (<i>Axis axis</i>) in India. Microbiology Resource Announcements, 12(6), pp.e01297-22.	-
27.	VAHEE	Jaiswal U K, Kumar R, Bala A, Malik A and Rachna. 2023. Potential of Information Communication Technology (ICT) in Livestock Development: A Review. Asian Journal of Agricultural Extension, Economics & Sociology, 41 (8), 103-111	NAAS:4.73
28.		Vinita, Sangwan S S, Bala A, Malik A, Gautam and Kumar R. 2023. Assessment of Dairy Farmers Knowledge about Recommended Green Fodder Production Practices in Haryana. Eco. Env. & Cons. 29 (October Suppl. Issue): 2023; pp. (S357-S362)	NAAS:5.66
29.		Vinita, Sangwan S S, Singh U, Anju B, Gautam, Malik A and Kumar R. 2023. A study on relationship between socioeconomic attributes with knowledge and constraints of fodder production among dairy farmers of Haryana. International Journal of Statistics and Applied Mathematics 2023; SP-8(4): 176-179	NAAS:RJIF 5.34
30.		Kumar R, Singh B P, Basunathe V K and Kumar V. 2023. Production performance of goat at farm level and marketing practices followed by unorganized goat farmers. Indian Research Journal of Extension Education 23 (5): 36-40 (Special e-issue)	NAAS:5.22
31.		Singh U, Kumar R, Bala A, Bhumra H and Singh N. 2023. Adoption of scientific clean milk production practices by dairy farmers. Journal of Community Mobilization and Sustainable Development 18(3): 713-718	NAAS:5.02
32.		Maousami, Singh B P, Yadav M and Kumar R. 2023. Social and economic characteristics of Hill Korwa tribes involved in Animal husbandry practices. The Pharma Innovation Journal; SP-12(8): 1559-1562	-

S.No	Department	Title	NAAS/IF
33.		Maousami, Singh B P, Yadav M and Kumar R. 2023. Educational module on scientific calf management: Effectiveness and utility. The Pharma Innovation Journal 2023; SP-12(8): 1566-1568	-
34.		Jaiswal U K, Bala A, Kumari K, Bishnoi V K, Singh U, Malik A, Kumar R and Rachna. 2023. Assessing the Financial Impact of SARS-CoV-2 Measures on Livestock Farmers”, Journal of Community Mobilization and Sustainable Development, 18 (3), 1051-1056	NAAS:5.02
35.		Jaiswal U K, Kumar R, Bala A, Kumari K, Bishnoi V K and Singh U. (2023). Analysis of university-level knowledge of dairy-based value-added products: Disparities between traditional and trained”, Journal of Community Mobilization and Sustainable Development 18 (3), 991-995	NAAS:5.02
36.		Rajak S K, Kumar P, Singh P K, Rani D and Bharti R. 2024. Impact of ATMA training programmes in Animal Husbandry sectors on the knowledge level of farmers in Muzaffarpur districts in Bihar. International Journal of Advanced Biochemistry Research; SP-8(2): 190-193	NAAS:5.29
37.	VPA	Thakre B J, Kumar B, Vagh A A, Brahmabhatt N N and Gamit K. C. 2023. Comparative studies on the detection of Theileria annulata infection by clinical, parasitological and molecular techniques in buffaloes (Bubalus bubalis). Veterinarski Arhiv 93(6): 641-652.	NAAS:6.50
38.		Solanki G B, Singh V K, Kavani F S, Dhami A J, Savsani H H, Kumar B and Patbandha T K. 2023. Seasonal influence on expression of heat shock proteins (HSP70 and HSP90) vis-à-vis functional competence of Gir bull semen. Animal Biotechnology 34(8) 3739-3748.	NAAS:9.70
39.		Shakya M, Sharma A K, Kumar S, Upadhaya D, Nagar G, Singh K, Sankar M, Ghosh S. 2023. Acaricides resistance in Rhipicephalus microplus and expression profile of ABC-transporter genes in the sampled populations. Experimental Parasitology 252 108584	NAAS:8.1
40.		Panda P, Tiwari R, Kumari M, Singh K and Dutt T. 2023. Information source utilization by Veterinarian with special reference. Haryana Vet. 62(1), 68-71	NAAS:5.25

S.No	Department	Title	NAAS/IF
41.		Singh K, Maurya P M, Kumar S, Baghel K R. 2023. Anthelmintic resistance: Recent trends in diagnosis and control strategy. Journal of Experimental Zoology-India 26(1): 985-992	NAAS:5.2
42.	VPP	Dixit CP, Bhuyan D, Bhuyan M, Ahmed K, Baruah A, Kalita D, Haloi S and Malik M. 2023. Ruling out efficacy of hormonal protocols alone or fortified with mineral and bypass fat for treatment of postpartum anoestrus in cattle, Indian Journal of Animal Research 57(12): 1613-1619.	NAAS:6.4
43.		Gumasta P, Ghosh, R.C. Jolhe D.K. Giri DK, Shukla N, Snkusale PM and Porte C. 2023. Mycoplasma synoviae Based Molecular, Phylogenic and Pathological Studies in Chickens. Indian Journal of Animal Research B-5044:1-8.	NAAS:6.4
44.		Sannat C, Hirpurkar SD, Shakya S, Rawat N, Jolhe DK, Singh J, Jain T, Gumasta P, Patyal A, Tripathi SM, Kalim M, Barwa DK and Deshmukh SK. 2024. Pathogenic potential of biofilm-producing methicillin-resistant Staphylococcus aureus in BALB/c mice. Indian Journal of Experimental Biology 62: 206-213	NAAS:6.7
45.	VBC	Chaudhary N, Singh NK, Tyagi NK, Kumari A (2023)A detailed analysis of codon usages bias and influencing factors in the nucleocapsid gene of Nipah Virus. The Microbe 1, 100014	
46.	VPY	Pal, P., Aggarwal, A., Rajput, Y. S., Deb, R., Joshi, V. G., Verma, A. K., Haldar, A., Singh, I., Grewal, S., & De, S. (2023). Development of B cell epitopes-based enzyme linked immune sorbent assay for detection of bovine anti-Mullerian hormone. 3 Biotech, 13, 241 (2023).	NAAS:8.80
47.		Senthamilan, S., Aggarwal, A., Grewal, S., Rani, S., Vats, P., Pal, P., ... & Alhussien, M. N. (2023). Pre-treatment but not co-treatment with vitexin alleviates hyperthermia induced oxidative stress and inflammation in buffalo mammary epithelial cells. Journal of Reproductive Immunology, 103979.	NAAS:9.40
48.	AGB	Sharma, S., Sharma, V., Konwar, Kumar D. et al. A comparative study on effect of heat stress on physiological and cellular responses of crossbred cattle and riverine buffalo in subtropical region of India. Int J Biometeorol 67, 1619–1628 (2023).	NAAS:9.2

S.No	Department	Title	NAAS/IF
49.		Yashveer Vinita, Nirala R, Sinha R R K , Kumari S, Kumar D and Bhadauria P. 2024. Evaluation of Growth, Pro duction and Reproduction Performance Traits of Dahlem Red and their Crosses with Native Breeds in the Agro Climatic Conditions of Bihar. Progressive Research : An International Journal Vol 19 (1) : 31-36	NAAS:4.32
50.		Kumar B, Singh R K, Bharti A , Kumar D, Kumar S. 2023. Production Performance and Carcass traits of dual purpose crosses of two indigenous with improved chicken variety in sub-tropical environment of Bihar. Agricultural Mechanization in Asia, Africa and Latin America Accepted.	NAAS:6.3
51.	VPT	Thakur, S., Huozha, R., Ramanarayanan, S., Dhara, S., Maiti, A., & Rastogi, S. K. 2024.Influence of lactation stages on erythrocyte osmotic fragility of indigenous Badri cattle of Uttarakhand. Indian Journal of Animal Sciences, 94(3), 280–282.	NAAS:6.40
52.		Ramanarayanan, S., Singh, S. P., Ahmad, A. H., & Maletha, D. 2023. Pharmacokinetics of Enrofloxacin and its Metabolite Ciprofloxacin in Badri Cows. Indian Journal of Animal Research Online.	NAAS:6.50
53.		Sweety, N.S., Singh, A. and Singh, V., SDS-page of magnetic isolated fraction from plasma of buffalo calves after depletion of high abundance proteins. Biochemical J.	-
54.		Sweety, N.S., Singh, A. and Singh, V.,Assessment of oxidative stress and mineral profile indiarrhoeic buffalo calves.	-
55.	LPM	Sarma G, Patel N B, Rao T K S, Rani D V. 2023. Effect of litter size at birth on maternal filial bond in surti goats. Indian Journal of Small Ruminants, 29 (2):222-226.	NAAS:5.95
56.		Shettiwar S N, Patel V R, Padheriya Y D, Rao T K S, Kumar B, Raval A P. 2024. Heat stress ameliorative effect of guanidine acetic acid and bee pollen supplementation on growth nutrient utilization and blood biochemical status in broiler chicken. Animal Nutrition and Feed Technology, 24 (1): 121-135.	NAAS:5.00

S.No	Department	Title	NAAS/IF
57.		Rajneesh, Chandrahas, Ayon Tarafdar, Gyanendra Kumar Gaur, Mukesh Singh, Chandra Deo, Raj Narayan, Med Ram Verma and Narender Kumar (2023) Utilization of different carbonaceous materials to balance C:N ratio of poultry waste. J. Exp. Zool. India 26, 0000-0000.	NAAS:4.78
58.		Jaydip Jaywant Rokade, Vishesh Kumer Saxena, Madeshwaran Monika, Marappan Gopi, Simmi Tomar, Sandeep Saran, Chandrahas and Chandrakant Ghotekar (2023). Feeding of Bacillus Subtilis as a Potential Probiotic Feed Supplement in Broiler Chicken. Animal Nutrition and Feed Technology, 23: 233-246.	NAAS:5.0
59.		Rajneesh Thakur, Chandrahas, Narender Kumar, Gyanendra Kumar Gaur, Mukesh Singh, Ayon Tarafdar, Med Ram Verma and Vinay Tiwari (2024). Changes in microbiota and parasitic load of poultry manure undergoing value addition through different techniques for their safe disposal or utilization. Indian Journal of Experimental Biology, 62: 199-205.	NAAS:8.80

Technical papers/review articles/full invited papers in conferences/trainings, etc.

Sr. No.	Department	Authors (Underline your name)	Year of Publication	Title of Publication	Name of Journal with volume and page no.	Current NAAS ID & rating (2024)
1.	VPHE	Prasad MG, Gourkhede DP, Vidyarani HB, Shinde B, Mishra BP, Wankhade PR, Belore B, Lalthanmawii J, Koneti PB	2024	Delving into the A1/A2 milk hypothesis: A comprehensive analysis of milk proteins and their impact on human health	International Journal of Veterinary Sciences and Animal Husbandry, 9(1): 594-605	NAAS ID: I376 NAAS rating: 4.61
2.	VSR	Kumar N, Kumar V, Gangwar AK, Saxena S, Raghuvansi PDS, Mathew DD, Shrivastava S, Gopinathan A	2024	Bubaline tissues-based extracellular matrix scaffolds for tissue regeneration current use and future prospectives	Biofunctional Materials 1: 008	IF= 4.8

Sr. No.	Department	Authors (Underline your name)	Year of Publication	Title of Publication	Name of Journal with volume and page no.	Current NAAS ID & rating (2024)
3.	VMD	Narayani Yadav, Raguvaran Raja, Debabrata Mondal and Neelam Kushwaha	2024	Review on prognostic biomarkers of canine babesiosis.	Indian Journal of Veterinary and Animal Sciences Research, 53(1): 1-18	
4.	VPA	Ghosh S, Kumar B, Tripathi A K, Jha A, Singh S K, Sharma A, Singh R K and Mitra A.	2023	Tick management with one health approach.	Indian Journal of Comparative Microbiology, Immunology and Infectious Diseases 44(1): 1-10	[NAAS rating: 4.49]
5.		Kumar B, Manjunathachar H V, Ghosh S and Singh V	2023	Decoding Tick Genes: Advancing Functional Studies through Genetic Techniques, with Emphasis on RNA Interference (RNAi).	Lead Paper published in 32nd NCVP and National Symposium	-
6.	VBC	Kumari A, R KG, A Sudhakaran. V, Warriar AS, Singh NK	2024	Unveiling the Health Benefits of Prebiotics: A	Indian Journal of Microbiology, 1-13	IF= 2.8 NAAS= 8.8
7.		Singh NK, Tyagi A.	2023	Codon deoptimization approach: A new window for viral vaccinology.	Invited Paper SVBBI-2023, IVRI Izatnagar	-
8.	LPM	Rajneesh T, Biswal P. et al.	2024	Therapeutic effect of goat milk and its value addition current status and way forward.	Journal of Food Science and Technology,	NAAS Rating- 9.10

Sr. No.	Department	Authors (Underline your name)	Year of Publication	Title of Publication	Name of Journal with volume and page no.	Current NAAS ID & rating (2024)
9.		Bisht D, Salave S, Desai N, Gogoi P, Rana D, Biswal P. et al.	2024	Genome editing and its role in vaccine diagnosis and therapeutic advancement.	International Journal of Biological Macromolecules. MS No. IJBIOMAC-D-23-16490R1	NAAS Rating-14.20
10.		Rao T K S, Kumar D, Verma K K, Singh A.	2023	Effect of management conditions on performances and welfare status in dairy cows	International Journal of Life Sciences and Applied Sciences. 5 (3): 12-24.	-
11.		Parmar S T, Patel N B, Rani V D, Rao T K S. 2024.	2023	Effect of stray and high voltage exposure on livestock	Indian Journal of Animal Production Management, 40(1):1-9.	
12.		Rokade, J.J., Chandrahas, Bhanja S.S., Monika, M. and Tiwari, A.K	2023	Sustainable improvement of rural livelihood by backyard poultry production and CARI interventions.	In: Souvenir & Compendium of National Symposium on "Animal Genetic Resources (AnGR) Management for Rural Livelihood Enhancement, NBAGR, Karnal	-
13.		Chandrahas	2023	Backyard poultry farming under free range conditions of	2nd SPFCA, Patna, Bihar	-
14.		Chandrahas	2023	Waste management concepts for sustainable livestock and poultry farming	2nd SPFCA, Patna, Bihar	-

Abstracts/papers presented in conferences/symposia

Sl. No.	Department	Title	Authors	conferences/symposia
1.	LPT	Post Slaughter pH and Temperature Correlation For Determining The Quality Of Buffalo Meat Under Different Handling Practices	R. K. Jaiswal, S.K. Mendiratta, S. Talukder, S. Chand, Vo. Mishra, S.Ojha, G.B. Prasad.	SPFCA, 2nd National Conference, Organized by BASU, Patna
2.	VGO	Repeat breeding in cattle: Diagnosis and treatment	Pratyush Kumar, Raju K. Dewry, Abhishek Kumar & Sarita Kumari	International Conference on Current Advances in Agriculture, Animal Husbandry and Allied Sciences (CAAAAS-2023) during 10th to 11th July, 2023 held at Shri Mata Vaishno Devi University, Katra (India)
3.		Functional Sperm attributes and relative fertility transcripts alters during seasonal variation in Murrah buffalo bulls	Dewry R.K., Mohanty, T. K., Bhakat M., Nath S., Nain D., Yadav H. P., Gupta V. K., Yadav D. K., Kumar P and Aye Soe	38th ISSAR Annual convention and International Symposium on "Frontiers in Theriogenology: Research and Practice" held at CVAS, Mannuthy, Thrissur, Kerala from 6th -8th December 2023
4.	VPHE	In vivo antimicrobial efficacy of cecropin-a (1-7)- melittin Chitosan nanoparticles against meat associated multidrug-Resistant non-typhoidal Salmonella	Gourkhede DP, Rawool DB, Barbuddhe SB, Malik SVS	69th International Congress of Meat Science and Technology ICOMST 2023, August 20-25, 2023, Padova, Italy, Page no. 322
5.		Uncovering Novel Insights into Meat Quality and Poultry Welfare: A Comparative analysis of Different Slaughter Techniques	Prasad MG, Maheswarappa NB, Banerjee R, Mishra BP, Manohar BB, Gourkhede DP	69th International Congress of Meat Science and Technology ICOMST 2023, August 20-25, 2023, Padova, Italy, Page no. 322
6.		MIC based detection of colistin resistance in E. coli isolates from livestock including cattle, buffalo, goat and chicken in Patna district, Bihar	Archana Kumari, Purushottam Kaushik, Anjay and Bhoomika	SPFCA 2nd National Conference on Enhancing Farming Income by Livestock, Poultry and Aqua Farming through Sustainable and Eco-Friendly Smart Technologies and Practices

Sl. No.	Department	Title	Authors	conferences/symposia
7.	VSR	High circulating magnesium and phosphorus levels and their correlation with struvite urolithiasis in buffaloes.	Yadav A, Kumar V, John JK, Tyagi SK, Malik V	46th Indian Society of Veterinary Surgery Symposium; 06-08 December 2023, Bhubaneswar, Odisha, India p.134
8.		Evaluation of stem cell laden Collagen + Polycaprolactone + Multiwalled Carbon Nano tubes Nano neural Scaffold with and without Insulin like Growth factor I for Sciatic nerve regeneration post crush injury in Wistar rats.	Mishra M, Mamachan M, Arya M, Maiti SK	46th Indian Society of Veterinary Surgery Symposium; 06-08 December 2023, Bhubaneswar, Odisha, India,p.229
9.		In Vivo evaluation of stem cell loaded Polycaprolactone: Poly (Glycerol Sebacate) (PCL: PGS) Scaffold in osteochondral repair in rabbits.	Mamachan M, Maiti SK, Banu A, Khan S, Mishra M, Kalaiselvan E, Manjunath KM	46th Indian Society of Veterinary Surgery Symposium; 06-08 December 2023, Bhubaneswar, Odisha, India, p.211
10.	VMD	Haematological, electrocardiographic and cardiac biomarkers alterations in canine babesiosis.	Trudy Fernandes, Neelam Kushwaha, Ravindra Kaka Jadhav, S. G. Chavhan, Dr. B. S. Khillare and Anand Mohan	SPFCA 2nd National Conference, 2024, pp: 63-64.
11.	VCC	Severe gangrenous pneumonia in a goat.	Sahoo Diptimayee, Malik Mahmuda, Gumasta Poornima and Kumar Narendra	Veterinary Pathology Congress 2023
12.		Serum electrolyte status in diarrhoeic goats.	Anand Mohan, Neelam Kushwaha and Komal	SPFCA 2nd National Conference, 2024
13.		Haematological, electrocardiographic and cardiac biomarkers alterations in canine babesiosis.	Trudy Fernandes, Neelam Kushwaha, Ravindra Kaka Jadhav, S. G. Chavhan, Dr. B. S. Khillare and Anand Mohan	SPFCA 2nd National Conference, 2024

Sl. No.	Department	Title	Authors	conferences/symposia
14.	VAHEE	Sources of contact in improving value addition of milk: A tool of women empowerment.	Jaiswal U K and Kumar R.	IEEC-2023, Jaipur (ISBN:9788196786045)
15.		Assessment of milk quality for cleanliness.	Singh U, Kumar R, Harshita B and Bala A	IEEC-2023, Jaipur (ISBN:9788196786045)
16.		Contribution and Challenges of Rural Entrepreneurship in India	Bala A, Gautam, Malik A and Kumar R.	IEEC-2023, Jaipur (ISBN:9788196786045)
17.		Importance of Nutritional Security Interventions for Child and Women.	Bala A, Gautam, Kumar R and Malik A	IEEC-2023, Jaipur (ISBN:9788196786045)
18.		Women Empowerment	Singh U, Kumar R, Bhumra H and Bala A.	IEEC-2023, Jaipur (ISBN:9788196786045)
19.		Entrepreneurial Behaviour of Dairy Trainees of Pashu Vigyan Incubator	Singh U, Kumar R, Bhumra H and Bala A.	ISEE National Seminar 2023, Bangalore
20.		Importance of Nutritional Security Interventions for Child and Women.	Kumar R, Anna A, Bharti B, Chadda, A.	IEEC-2023, Jaipur (ISBN:9788196786045)
21.		Role of Veterinary Institutions in promoting entrepreneurship among tribal youth and farm women.	Kumar R, Anna A, Bharti B, Chadda, A.	IEEC-2023, Jaipur (ISBN:9788196786045)
22.		Role of ICT in Sustainable Knowledge Management.	Kumar R, Anna A, Bharti B, Chadda, A	IEEC-2023, Jaipur (ISBN:9788196786045)
23.		Solid waste disposal from livestock sector: Sustainable opportunity.	Kumar R, Chadda A, Bharti R, Anna A	IEEC-2023, Jaipur (ISBN:9788196786045)
24.	VPA	Studies on molecular prevalence of Theileria orientalis in cattle in Gujarat, India	Thakre B J, Kumar B, Singh V K, et. al.	32nd NCVP and National Symposium, BVC, Patna, Bihar
25.		Molecular prevalence of common haemoparasites of canine in Gujarat states of India	Brahmbhatt N N, Kumar B, Singh V K, et. al.	-Do-

Sl. No.	Department	Title	Authors	conferences/symposia
26.		Studies on genotypic diversity based on MPSP, 18S Rrna and COX3 genes in Theileria annulata in cattle and buffaloes in Gujarat.	Thakre B J, Kumar B, Singh V K, et. al	-Do-
27.		Molecular detection and characterization of prevailing Theileria equi genotype in equine from northern India.	Maharana B R, Ganguly A, Potliya S, Kumar B, et. al.	-Do-
28.		Amitraz resistance profiling in Rhipicephalus microplus ticks from Uttar Pardesh and Uttarkhand, India.	Singh K, Sharma A K, Kumar S, Kumar B, et. al.	-Do-
29.		Prevalence of parasitic infections in domestic animals of Junagadh district, Gujarat	Brahmbhatt N N, Dodia V D, Thakre B J, Kumar B, et. al.	-Do-
30.		Molecular analysis of tick-borne protozoan and rickettsial pathogen in small ruminants from northern India: A comprehensive report.	Maharana B R, Nangru A, Ganguly A, Kumar B, et. al.	-Do-
31.		Characterization of synthetic pyrethroids resistance in Rhipicephalus microplus tick population in northern state of India.	Singh K, Kumar S, Sharma A K, Kumar B, et. al.	-Do-
32.		A parasitological survey of Psoroptes natalensis mite and its haemato-biochemical profiling in buffaloes of western Uttar Pradesh.	Singh K, Maurya P S, Jaiswal V, Verma A K, et al.	5th National Conference of SVAHE Amritsar (Punjab)
33.		Status of anthelmintic resistance in sheep and goat for integrated parasite management.	Singh K, Maurya P S et al.	6th International conference of SCALFE, Himachal Pradesh

Sl. No.	Department	Title	Authors	conferences/symposia
34.	VPP	Evaluation of anticancerous potential of hydro-ethanolic extract of <i>Trianthema Portucalastrum</i> L and <i>Allium sativum</i> in n-methyl n-Nitrosourea (NMU) induced mammary tumours in rats	Dr Narendra Kumar et al	XXXX Annual Conference of the Indian Association of the Veterinary Pathologist and XIV Annual meetings of the ICVP and National Symposium
35.		“Sudden death due to heat stress in layer birds”	Dr. Mahmuda et al	-Do-
36.		Experimental infection of chickens with field isolates of <i>Mycoplasma gallisepticum</i> ”	Dr. Poornima Gumasta et al	-Do-
37.		“Occurrence of concurrent Pneumonia in goats (<i>Capra hircus</i>)”	Dr. Poornima Gumasta et al	-Do-
38.		Severe gangrenous Pneumonia in goat”	Dr. Diptimayee Sahoo and Dr. Mahmuda Malik	-Do-
39.	VBC	Renal transcriptome profiling reflecting anomalous molecular signatures associated with hyperuricemia.	Barik S, Rana M, Saini M, Singh NK, Tyagi A, Gupta PK	SVBBI-2023, IVRI Izatnagar
40.	AGB	Expression profiling and association studies of CRBP1V and cGH gene with egg production in Kadaknath.	Pandey, M., Kumar, S., Kolluri, G., Chandras, Bhanja, S.K., and Verma A.	XXXVIII IPSACON on Innovative Poultry Production Strategies for Nutritional, Socio-economic and Environmental Security, SKUAST, Kashmir.
41.	VPT	Exploring the potential effects of bio-antioxidants against arsenic induced toxicity on adipose-derived mesenchymal stem cells of buffalo (<i>Bubalus bubalis</i>), VVR03.	Ramanarayanan S., Lonare M.K., Sharma M., Singla S., and Dumka V.K	23rd Annual Conference of Indian Society of Veterinary Pharmacology and Toxicology and National symposia , RAJUVAS, Bikaner.
42.	ANN		Dr. Kiran Kumari et al	ANA National Seminar Cum Workshop on Millets in Animal Nutrition: Potential and future Scope at PGIVA ,Akola,Maharashtra, September 7-8,2023

Books

Sl No.	Department	Title	Authors details	ISBN No./Book Name	Publisher
1.	CoVAS	Veterinary First Aid	Vineet Kumar, Anand Mohan, Neelam Kushwaha, Raju Kumar Dewry, Chandrahas	ISBN: 978-93-58878-23-3 Veterinary First Aid	NIPA® GENX ELECTRONIC RESOURCES & SOLUTIONS P. LTD. New Delhi-110 034
2.	VSR	Natural Tissue Scaffolds for Reconstructive Surgery.	Kumar N, Saxena S, Kumar V, Gangwar AK, Mathew DD, Shrivastava S (editors) (2023).	ISBN: 978-93-58990-15-7.	Elite Publishing House, New Delhi,
3.		Multiple Choice Questions For Veterinary Surgery and Radiology.	Kumar N, Devi KS, Kumar V, Gangwar AK (editors) (2024).	ISBN: 978-93-5540-893-8.	Kalyani Publishers, New Delhi,
4.	AGB	Fundamentals of practical on Livestock and poultry breeding	Kumari, N., Pandey, M. and Prasad, S. “” published	ISBN 978-93-92239-88-5	P.K. Publishers & Distributors, Delhi-110053.

Training manual / compendium

- Manual on General Livestock Management
- Manual on Fodder Production and Conservation
- Manual on Livestock Production Management- Ruminants
- Manual on Zoo Animals Production Management
- Manual on Poultry Production Management
- Manual on Incubation and Hatchery Management
- Manual on Laboratory or Rabbit or Pet Animal Production Management
- Manual on Swine or Equine or Camel, Yak and Mithun Production Management

Book chapter

Sl. No.	Department	Title	Authors details	ISBN No./Book Name	Publisher,	No. of pages/pages
1)	LPT	Modern Techniques Used in Tenderization of Spent Animal Carcasses	Mukesh Gangwar and Sadhana Ojha	978-93-340-0813-5	Department of Livestock Products technology, SVPUAT, Meerut, 250110	03
2)		Advance in Dairy By-products Utilization	Mukesh Gangwar and Sadhana Ojha	978-93-340-0813-5	Department of Livestock Products technology, SVPUAT, Meerut, 250110	05
3)	VGO	Nutritional Management to Improve Small Ruminant Performances in North-East India Tribal Regions	Tadung Taku, Sayed Nabil Abedin, Thokchom Shitarjit Singh, Tilling Tayo, Raju Kumar Dewry and Wangkheimayum Lomen Singh	ISBN: 978-3-96492-571-8 Research Trends in Multidisciplinary Research and Development	Weser Books	73-87
4)	VPHE	Cultivating the Future Plate: Lab-Grown Meat and the Sustainable food revolution	Prasad MG, Gourkhede DP, Shindhe B	Applied biotechnology in animal sciences	Book Rivers	58-78
5)		From Petri Dish to Plate: Exploring the Future of Lab-Grown Meat	Prasad M. Govindaiah and Gourkhede DP	2582-6980	Agri Mirror: Future India	10-17
6)	VSR	Naturally derived biomaterials: An overview.	Kumar N, Kumar V, et al.	ISBN: 978-93-58990-15-7.	Natural Tissue Scaffolds for Reconstructive Surgery, Elite Publishing House	1-17,

Sl. No.	Department	Title	Authors details	ISBN No./Book Name	Publisher,	No. of pages/pages
7)		Tissue scaffolds derived from buffalo	Kumar V, et al.	ISBN: 978-93-58990-15-7.	-Do-	18-77
8)		Tissue scaffolds derived from goat.	Raghuvanshi PDS, Kumar V, et al.	ISBN: 978-93-58990-15-7.	-Do-	78-126
9)		Tissue scaffolds derived from pig.	Kumar N, Purohit S, Gopinathan A, Singh K, Devangan R, Shakya P, Palakkara S, Sharma AK, Mathew DD, Maiti SK, Gangwar AK, Kumar V, et al.	ISBN: 978-93-58990-15-7.	-Do-	127-153
10)		Tissue scaffolds derived from sheep	Purohit S, Kumar N, Kumar V, et al	ISBN: 978-93-58990-15-7.	-Do-	154-159
11)		Tissue scaffolds derived from rabbit.	Mathew DD, Kumar N, Purohit S, Sharma AK, Gangwar AK, Kumar V, et al.	ISBN: 978-93-58990-15-7.	-Do-	160-169
12)		Tissue scaffolds derived from rat	Mathew DD, Kumar N, Purohit S, Sharma AK, Gangwar AK, Kumar V, et al.	ISBN: 978-93-58990-15-7.	-Do-	170-175
13)		Tissue scaffolds derived from fish	Vellachi R, Kumar N, Sharma AK, Saxena S, Maiti SK, Kumar V, et al.	ISBN: 978-93-58990-15-7.	-Do-	176-182

Sl. No.	Department	Title	Authors details	ISBN No./Book Name	Publisher,	No. of pages/pages
14)		Clinical applications of developed tissue scaffolds	Kumar N, Kumar V, et al.	ISBN: 978-93-58990-15-7.	-Do-	183-210
15)	VPA	Veterinary Parasitology	Prem Sagar Maurya, Kaushlendra Singh and Binod Kumar	-	Antiparasitic Drugs	26
16)	VPP	Pathophysiology of Respiratory Disorders	M Malik, C P Dixit, N Kumar	-	Taylor & Francis	-
17)		Clinical examination of goats for identification of diseases	Gumasta, Poornima & Ghosh, R.C. & Shukla, Neha & Kumar	10.1016/B978-0-443-23697-6.00022-6.	-	-
18)		Collection, preservation processing, and dispatch of samples for disease diagnosis in dogs and cats	Gumasta, Poornima & Ghosh, R.C. & Sonkusale, P.M. & Kumar,	10.1016/B978-0-443-18548-9.00006-8.	-	-
19)	LFC	Murgipalan me aane wali chunautiyo ka samadhan	-	-	-	-
20)		Navjaat bachare ki dekh bhaal ki vaigyanik vidhi	-	-	-	-
21)	VBC	Physicochemical analysis for condensed milk and evaporated milk.	Kumari A, Das A, Singh NK, Veena N.	(ISBN: 978-1-77491309.3)	Apple Press.	3-51

Sl. No.	Department	Title	Authors details	ISBN No./Book Name	Publisher,	No. of pages/pages
22)	VMC	Hantaviruses as emergent zoonoses: A global threat	Chayna Singha Mahapatra	ISBN, 978-981-99-2819-4	Springer	377-400
23)		Pathogenic Fungi	Chayna Singha Mahapatra & Soubhik Singha Mahapatra	-	Narendra Publishers	125-144
24)		Antimicrobial resistance	Chayna Singha Mahapatra & Soubhik Singha Mahapatra	-	Narendra Publishers	196-216
25)	AGB	Metabolomics: The emerging field in Animal Genetics and Breeding.	Kumar, A., Kumar, S., Pandey, M. 2023. Dr. Nagaratna Biradar, Dr. Rayees Ahmad Shah, Mr. Adil Ahmad (editors).	ISBN978-93-91995-07-2 Recent advances in Agricultural Sciences and Technology	Dilpreet publishing house, Ariana publishers and distributors, New Delhi-110018	1478-1488
26)		Selection and Conservation of Native And Other Diversified Chicken Varieties Using Genetic Tools in Training manual “Commercial and diversified poultry production using modern innovation and value addition of its by-products”	Kumar, S., Pandey M. 2024. Chapter 25. page	-	Centre of Advanced Faculty Training in Avian Sciences Department of Poultry Science, Veterinary College and Research Institute, Namakkal – 637 002, Tamil Nadu	157-164

Sl. No.	Department	Title	Authors details	ISBN No./Book Name	Publisher,	No. of pages/pages
27)	VPT	Exploring Mesenchymal Stem Cells as Potential Alternatives to Conventional Antimicrobial Agents	Ramanarayana n S., Shiv Varan Singh, Disha Pant	978-93-6128-065-8	Dr. A.K. Upadhyay	06
28)		Prevalence & AMR Status of Common Infertility Bacterial Pathogens	Shiv Varan Singh, Ramanarayana n S., and Disha Pant	978-93-6128-065-8	Dr. A.K. Upadhyay	05
29)		Integrating interdisciplinary approaches to tackle antimicrobial drug resistance	Disha Pant, S. P. Singh, Ramanarayana n S., and Shiv Varan Singh	978-93-6128-065-8	Dr. A.K. Upadhyay	04
30)		Understanding antimicrobial resistance in food and agriculture	Disha Pant, S. P. Singh, Ramanarayana n S., and Shiv Varan Singh	978-93-6128-065-8	Dr. A.K. Upadhyay	03
31)	LPM	Endoparasite management in livestock- Benefits of integrated selective treatment.	N. Kumar, J. B. Solanki, D. C. Patel, T. K. S. Rao and P. Kumar.	ISBN No. 978-93-91; 995-07-2.	Dilpreet Publication & Distributor. New Delhi	1286-1290
32)		Management of goats during natural calamity.	K. R. Sriranga, K. R. Harini, T. Satpute, T. K. S. Rao.	-	Choudhary Publishing media, IJLVAS	180-185.
33)		Integrated Rural Poultry Farming for doubling farmers' income: An approach (2023) with CARI GIRIGRAM TAKINIKI PARK.	Chandahas, Raj Narayan and VK Saxena	Innovations in Lab to Land Based Production and Processing Technologies for Sustainable Poultry Production	MANAGE Hyderabad	5-10

Annexure 2 (i) Technical / semi-technical bulletins

Sr. No		
1.	पेस्टी डेस पेटिट्स रुमेनिनेट्स (बकरियों का प्लेग)	डॉ महमूदा मलिक, डॉ पूर्णिमा गुमास्ता, डॉ दीप्तिमयी साहू सहायक प्राध्यपक, डॉ नरेंद्र कुमार सह—प्राध्यापक विभागाध्यक्ष
2	रेबीज एक जानलेवा जूनोटिक रोग (प्राणी और मनुष्य दोनों के रोग)	डॉ महमूदा मलिक, डॉ पूर्णिमा गुमास्ता, डॉ दीप्तिमयी साहू सहायक प्राध्यपक, डॉ नरेंद्र कुमार सह—प्राध्यापक विभागाध्यक्ष
3	जानवरों में साँप के काटने की पहचान और प्रबंधन	डॉ महमूदा मलिक, डॉ पूर्णिमा गुमास्ता, डॉ दीप्तिमयी साहू सहायक प्राध्यपक, डॉ नरेंद्र कुमार सह—प्राध्यापक विभागाध्यक्ष
4	पशुओं में थनैला रोग के कारण एवं बचाव	डॉ पूर्णिमा गुमास्ता, डॉ महमूदा मलिक, डॉ दीप्तिमयी साहू सहायक प्राध्यपक, डॉ नरेंद्र कुमार सह—प्राध्यापक, विभागाध्यक्ष
5	पारम्परिक पद्धति द्वारा लम्पी त्वचा रोग का उपचार	डॉ दीप्तिमयी साहू, डॉ महमूदा मलिक, डॉ पूर्णिमा गुमास्ता सहायक प्राध्यपक, डॉ नरेंद्र कुमार सह—प्राध्यापक विभागाध्यक्ष

Popular articles

- Mishra M, Kushwaha N, Mohan A (2024). Therapeutic Potential of Platelet rich fibrin- A novel autologous platelet concentrate for regenerative veterinary medicine. The Science World, 4(5):1756-1759.
- गायों और भैंसों में प्रसवोत्तर हीमोग्लोबिनुरिया के लक्षण, उपचार और रोकथाम। Oct-dec 2023. नीलम कुशवाहा, आनंद मोहन. Pashupalan darshika, Varsh 1, ank 2, 18-20. (VMD).
- Shruti Shaurya, Manish Kumar, Komal and Sanjana: Innovations in Veterinary Care: Unleashing the Potential of Regenerative Medicine for Tissue Repair and Pain Management. The Science World on June, 2023; 3(06), 1147-1149. (. Published in A Monthly magazine; ISSN-2583-2212).
- Komal, Sanjana and Ajeet Kumar. Environmental Toxicology in Veterinary Biochemistry: Safeguarding Animal Health and Ecosystems. Published in Quarterly Magazine-SAWPH-Animal Science Horizon Year-1, Vol. 1 (January to March, 2024) ISSN-978-93-6076-465-4.
- गायों और भैंसों में प्रसवोत्तर हीमोग्लोबिनुरिया के लक्षण, उपचार और रोकथाम. Oct-Dec 2023. नीलम कुशवाहा, आनंद मोहन पशुपालन दर्शिका, वर्ष 1 और 2, 18-20 (VCC).
- Richa Arora, Arpit Tyagi, Ashwini R. Chaple, Mayur M. Vispute and Komal (2024). Diabetes Mellitus in Animals. E-ISSN: 2582-9467, Vigyan Varta 5(4):147-150
- Ashwini R. Chaple, Mayur M. Vispute, Richa Arora and Arpit Tyagi (2024). Heat Stress in Dairy Cattle. ISSN: 2583-8288. Veterinary Today. 2(3):179.
- पशुपालन में जल यांत्रिक खेती का महत्व (VPT)
- पशुचिकित्सा प्रयोजन के लिए हर्बल थेरेपी (VPT)
- पशुओं का गर्मी के मौसम में देखभाल (VPT)

Sr. No	Popular article	Name of newspaper and date	Authors
11	सर्दी के मौसम में डेयरी मवेशियों का करें उचित प्रबंधन	Prabhat khabar 3.02.24 Muzaffarpur edition	Dr Narendra Kumar, Dr Mahmuda Mallik
12	पशुओं में खुरपका मुँह पका रोगरू टीकाकरण ही बचाव है	Prabhat khabar 3.02.24 Muzaffarpur edition	Dr Narendra Kumar Dr Poornima Gumasta
13	पीपीआर को बकरी प्लेग भी कहा जाता है	Prabhat khabar 3.02.24 Muzaffarpur edition	Dr Narendra Kumar Dr Mahmuda Mallik
14	Climate change: a concern for the living world	Krishisewa	Dr Chandra Prakash Dixit, Dr Mahmuda Malik

Annexure 2 (k) Extension bulletins

- Folder: Foot and Mouth Disease (FMD) in yaks: Diagnosis and Management. Published by, Director, ICAR- National Research Centre on Yak, Dirang, west Kameng District, Arunachal Pradesh- 790101. (Safeeda S. Begum)
- Rajesh Kumar (2023) Pashupalak margdarshika, COVAS, Kishanganj
- Rajesh Kumar (2023) Varmi compost: An introduction, COVAS, Kishanganj
- Rajesh Kumar (2023) Pashuon Mein krimi Sankraman: Ek parichay, COVAS, Kishanganj
- Rajesh Kumar (2023) Samaj ke liye Pashu chikitsakon ka yogdan, COVAS, Kishanganj
- Rajesh Kumar and Rao TKS (2023) Swachh dudh utpadan mein pashupalakon ki Bhumika, COVAS, Kishanganj.
- CARI-NIRBHEEK: Prode of Backyard Poultry Farming, ICAR Website on 07.05.2023 onwards.
- Chandrahas (2023). Backyard Kukut Palan. Pashupalan Darshika, 1 (2):25-27.
- Chandrahas (2024). Pashudhan Apsist Prabandhan. Pashupalan Darshika, 2 (3):4-6.

Annexure 2 (m) Radio / TV talks

Sr. No	Radio talk Date of recording	Date of Broad casting By AIR Purnea	Topic	Beneficiary
1.	6-2-24	6-2-24	“पशुओं में खान पान प्रबंधन” Dr Narendra Kumar	All radio listeners
2.	12-2-24	12-2-24	“मुर्गियों में होने वाले प्रमुख रोग और उनका इलाज” Dr Poornima Gumasta	All radio listeners

3. **Online Lecture delivered** on “Pariwarik Murgi Palan” in Short term Hybrid Training on Poultry Production Management from 05-09 June, 2023 at ICAR-Central Avian Research Institute, Izatnagar-243122 (UP).
4. **Online Lecture delivered** on “Pariwarik Murgi Palan” in Laghu Awadhi Kukukut Palan Prashichhan Karyakram from 03-08 January, 2024 for the farmers of ATMA, Siwan Sponsored Training on Poultry Production Management at ICAR-Central Avian Research Institute, Izatnagar-243122 (UP).
5. **Online Lecture delivered** on “Efficient Utilization of Poultry Waste” in one month “Kukkutshala Incubation Programme” organized by Agri-Business Incubation Centre from Jan 29, 2024 at ICAR-Central Avian Research Institute, Izatnagar-243122 (UP) on 15.02.2024.
6. **Lecture delivered** on “Goat Farming” for Self Help Group Women and Goat Farmers of Raipur, Kharkhari, Kishanganj on 17.02.2024.
7. **Online Lecture delivered** on “Prevailing Backyard poultry farming models” in Specialized training on Backyard Poultry Farming from 11-16 March, 2024 at ICAR-Central Avian Research Institute, Izatnagar-243122 (UP).
8. **Online Lecture delivered** on “Production of maggots, earthworms, termites and seasonal fodder crops for Backyard Poultry farming” in Specialized training on Backyard Poultry Farming from 11-16 March, 2024 at ICAR-Central Avian Research Institute, Izatnagar-243122 (UP).
9. **Online Lecture delivered** on “Safe disposal of carcasses and poultry waste management” in Specialized training on Broiler Production from 10-15 July, 2023 at ICAR-Central Avian Research Institute, Izatnagar-243122 (UP).
10. **Chandras (2023)**. “Commercial farming of desi chicken with 5000 birds” (including management practices). Entrepreneurship Development Programme on Commercial Poultry Farming and Management held from February 27 to March 03 2023, Organized by ABI, ICAR-CARI, Izatnagar.
11. **Chandras (2023)**. **Integrated Rural Poultry Farming for doubling farmers income: A demonstration with CARI GIRIGRAM TAKINIKI PARK**. In: Collaborative off campus training programme entitled Skill Development Programme on Innovations in Lab to Land Based Production and Processing Technologies for Sustainable Poultry Production” sponsored by MANAGE F.No. MNG-02/PO-01/2022-23 dated 22.03.2022 from December 15-17, 2022.

Annexure 3

Participation of scientists in conferences, workshops, symposia, trainings, etc. in India and abroad (Mention Name of Symposium / Seminar / Workshop, place held, date and number of scientists actually attended) as per given format.

S. No.	Name of the Symposium/Seminar/Workshop	No. of Scientists Attended
1	Mega Alumni Meet-cum-National Seminar on “Emerging opportunities for employment generation through modern animal husbandry practices. Bihar Veterinary College, Bihar Animal Sciences University, Patna, Bihar, 12th - 13th October, 2023	04
2	Virtual Orientation Programme Organized by DRI-cum-Dean PGS, BASU, Patna, Bihar Animal Sciences University, Patna, 13th -15th September 2023	25

S. No.	Name of the Symposium/Seminar/Workshop	No. of Scientists Attended
3	32nd National Congress of Veterinary Parasitology, Bihar Veterinary College, Bihar Animal Sciences University, Patna, Bihar during 29th November to 1st December, 2023	17
4	National Conference on “Enhancing Farmer's Income by Livestock, Poultry and Aqua Farming through Sustainable and Eco-Friendly Smart Technologies and Practices” organized by Society for Promotion of Farm and Companion Animals (SPFCA), Bihar Animal Sciences University, Patna, Bihar Veterinary College, 28-29 February, 2024	12
5	National Seminar on Emerging opportunities for Employment Generation through modern Animal Husbandry Practices BVC, BASU, Patna, 12-13 October, 2023	05
6	11-days online training program on training program (Online) on "Research Data Analysis Using Essential Statistical Techniques." Department of Animal Genetics and Breeding, College of Veterinary and Animal Sciences, Kishanganj, 4th -15th December, 2023	04
7	ICAR-Sponsored 21 days of Winter School on Livestock Production, GHG emission and environmental pollutants mitigation and Bioremediation" organized by ICAR-National Institute of Animal Nutrition and Physiology, Adugodi, Bengaluru, Karnataka, 09th to 29th January, 2024	01
8	21 days Winter school on “Development and translation of new generation vaccines and diagnostics for animal health from lab to land” organized Department of Biotechnology, ICAR-IVRI, Izatnagar, 22nd January to 13th February, 2024	01
9	Recent Advance in Veterinary Sciences and Animal Husbandry, ICAR-IVRI, Regional station Palampur and NADCL Baramulla J & K, 2-22, November 2023	01
10	Advance in Processing and Quality Appraisal of Functional Livestock Products, College of Veterinary and Animal Sciences, SGPUAT, Meerut, U.P., 23 February to 14 March, 2024	01
11	ANA National Seminar Cum Workshop at PGIVA, Akola, Maharashtra, 7-8 September 2023	01
12	20th Biennial International Conf of ANSI on Sustainable Animal Nutrition for Global Health and production: Innovations and Directions, Chennai,Tamilnadu, 23rd - 25th January, 2024	01
13	MOOC on Practical Animal Nutrition for Augmenting Livestock and Poultry Productivity, ICAR, 11th July - 31 August 2023	01
14	69th International Congress of Meat Science and Technology (ICoMST2023) held during 19th - 25th August at Padova, Italy	01
15	XIXth Annual Conference of Indian Association of Veterinary Public Health Specialists (IAVPHS) held during 7th - 8th December, 2023	01

S. No.	Name of the Symposium/Seminar/Workshop	No. of Scientists Attended
16	Ten Days International Training program on “Principles and Practice of Epidemiology” Mumbai Veterinary College, Parel, Mumbai, 3rd -12th July, 2023	01
17	46th Annual Conference of Indian Society of Veterinary Surgery & Radiology, Bhubneswar, 6-8th December, 2023	02
18	NVF-Vetopia' 2024, Hotel Intercontinental, Jaipur, 19-21 February, 2024	01
19	National Webinar on Agriculture & Rural Empowerment, Organized by Dr. Ram Avatar Shiksha Samiti (DRASS), 13th May, 2023	01
20	MOOC training program on “Digital skills and competencies for teachers: with special focus on MOOCs and e-content development” by Amity university from 9th- 22nd June, 2023	02
21	XXXVIII Annual Conference of Indian Poultry Science Association (IPSACON 2023) and National Symposium on “Innovative Poultry Production Strategies for Nutritional, Socio-economic and Environmental Security” Organized by: Division of Livestock Production and Management, Faculty of Veterinary Sciences and Animal Husbandry, Shuhama -190 006, SKUAST-Kashmir and Indian Poultry Science Association, Izatnagar (U.P.), India, 13-15 September, 2023	01
22	CAFT on “Statistical and Computational Advances for Bioinformatics Data Analysis in Agriculture: Practical Aspects” organized by Division of Agricultural Bioinformatics ICAR-Indian Agricultural Statistics Research Institute Library Avenue, PUSA, New Delhi – 110012 from 2nd Jan 2024- 22nd January, 2024	01
23	Emerging Opportunities for employment generation through modern animal husbandry practices	01
24	MOOC on “Digital Teaching Techniques”, 1-31st October, 2023	04
25	40th Annual Conference of the Indian Association of Veterinary Pathologists and XIV Annual Meeting of the Indian College of Veterinary Pathologists And National Symposium on “Advances in Veterinary Pathology for Diagnosis and Control of Emerging Diseases of Livestock and Poultry” 20-22 December, 2023	04
26	ICVP workshop on "Morphological description of Pathological Lesions and Hands on Training on Evaluation and Interpretation of Histopathological Slides', 23rd December, 2023	02
27	Training program on International Training program on “Principles and Practice of Epidemiology” Organized by Dept. of VPH, Parel, MVC, Mumbai (online mode), 3 - 12 July, 2023	01
28	Bihar Dairy and Cattle expo, BVC, Patna Dec. 21-23, 2023	01
29	Collaborative Online Training Program on Innovative Extension Approaches in Sustainable Development of Extension Organization UBVAFSc. Kolkata MANAGE Hyderabad, 27-29 July, 2023	02

S. No.	Name of the Symposium/Seminar/Workshop	No. of Scientists Attended
30	7 Days Faculty Development Program on Research Methodology, Bibliometric Analysis and Data Analysis Using RUniversity of Agricultural Sciences, Raichur, 22-28 July, 2023	02
31	21 Days Summer School in Online Mode on Emerging Challenges and Opportunities in Biotic & Abiotic Stress Management Astha Foundation, Meerut (U.P) 10-30 August, 2023	03
32	5th National Conference of SVAHE on “Smart Livestock Extension for Enhancing Farmers' Income - An Extension Bounty” organized by Khalsha college	02
33	“ICSSR Sponsored two-week Capacity Building Programme on Understanding Project management technique from social science research perspective.” RPCAU Pusa 4 -15 January, 2024	01
34	“Emerging Opportunities for employment generation through modern animal husbandry practices” BVC Patna, 12 – 13 October, 2023	02
35	VII Annual Convention of SVBBI and International Symposium on “Multiomics to One Health: Challenges and Way Forward in Biomedical Research	01
36	21 days Winter School organized by Department of Animal Biotechnology, ICAR-IVRI, 24th January to 13th February, 2024.	01
37	Capacity Building Programme on "Understanding Project Management Techniques from Social Science Research Perspective. RPCAU, Pusa. 4-15 January, 2024.	02
38	Digital Skills and Competencies for Teachers: With Special Focus on MOOCs (Massive Open Online Courses) and E-Content Development	01
39	Applied Statistical Concepts and Tools for Research Data Analysis	01
40	21 days winter school on Mitigation Strategies to Manage AMR and Zoonosis to Ensure Food Safety, by CBP of agriculture education Division ,ICAR, New Delhi, 18th December, 2023 to 7th January, 2024	01
41	21 days winter school on Development and translation of generation vaccines and diagnostics for animal health from lab to land', by Education Division, Indian Council of Agricultural Research KAB-II, New Delhi, 24th January to 13th February, 2024.	01
42	National Conference on “Transforming Rural Poverty to Prosperity through Sustainable Fisheries (TRPSF-2023)” and Fish Fair held during 19th – 21st July, 2023 at College of Fisheries, Kishanganj in joint collaboration with College of Fisheries Kishanganj Alumni Association (COFKAA) & All India Agricultural Students Association (AIASA)- Fisheries Chapter.	01
43	“Western Odisha Dairy Summit-2023” at Sambalpur, Odisha from 18-19 November, 2023 to share the experiences on Dairy Waste Management	01

Annexure 4

Workshops, seminars, summer / winter schools, short courses, trainings, etc. convened at the institute (as per Annual Report format):

- One-day Webinar on the topic “Why and How “One Health” needs to be implemented in India for Zoonoses Prevention and Control?” on July 6, 2023.
- Three-day online workshop on “Antimicrobial Resistance-A global threat in a pandemic era” during 22nd – 24th November 2023.
- Three-day web-workshop entitled “Emerging Trends in Application of Bioscaffolds for Animal Surgery” at the Department of Veterinary Surgery and Radiology, College of Veterinary and Animal Sciences, Bihar Animal Sciences University, Kishanganj, Bihar, India during February 15-17, 2024.
- 11 days training on “Research data analysis using essential statistical techniques” was organized by Department of Animal Genetics and Breeding, COVAS, Kishanganj via online mode from 4th - 15th December 2023.
- Workshop on Application of Bioinformatics in Veterinary, Fishery and Allied Sciences, 6th – 08th November 2023.
- Workshop on Carrier Guidance and Counselling for students of class X, XI, & XII and Laboratory visit of Javahar Nvodaya Vidyalaya, Kishnaganj, 16th – 18th December 2023.
- Infertility Camp cum Awareness Seminar sponsored by Govt. of India under “Pasudhan Jagriti Abhiyan”, 22nd December, 2023, Chairman-organizing team.
- Animal Health Camp sponsored by College of Veterinary and Animal Sciences, Arrabari, Kishanganj, 21st July, 2023.
- 11-days online training program on training program (Online) on "Research Data Analysis Using Essential Statistical Techniques." Department of Animal Genetics and Breeding, College of Veterinary and Animal Sciences, Kishanganj, 4th -15th December, 2023.

Annexure 5

Detail List of Professors

Sl.No	Name	Department	Date of joining	Highest Qualification
1	Dr Narendra Kumar	Veterinary Pathology	01/04/2024 (Afternoon)	Ph.D
2	Dr Anup Kumar Tewary	Veterinary Parasitology	30/04/2024 (Forenoon)	Ph.D

Sl.No.	Name	Department	Date of joining	Highest Qualification
1	Dr. Vineet Kumar	Veterinary Surgery and Radiology	18/04/2023 (Forenoon)	Ph.D
2	Dr. Binod Kumar	Veterinary Parasitology	18/04/2023 (Forenoon)	Ph.D
3	Dr. Thakur Krishna Shankar Rao	Livestock Production Management	19/04/2023 (Forenoon)	Ph.D
4	Dr. Rajesh Kumar	Veterinary & Animal Husbandry Extension Education	19/04/2023 (Forenoon)	Ph.D

Sl.No.	Name	Department	Date of joining	Highest Qualification
5	Dr. Dhirendra Kumar	Animal Genetics and Breeding	21/04/2023 (Forenoon)	Ph.D
6	Dr. Shashi Pal	Livestock Farm Complex (LFC)	02/05/2023 (Forenoon)	Ph.D
7	Dr. Kiran Kumari	Animal Nutrition	08/05/2023 (Forenoon)	Ph.D
8	Dr Niraj Kumar Singh	Department of Veterinary Physiology and Biochemistry (Veterinary Biochemistry)	27/06/2023 (Forenoon)	Ph.D
9	Dr. Neelam Kushwaha	Veterinary Medicine	18/03/2024 (Afternoon)	Ph.D
10	Dr. Ajay K. Rai	Veterinary Microbiology	05/07/2024	Ph.D

Detail List of Assistant Professors

S.No.	Name	Department	Date of joining	Highest Qualification
1.	Dr. Shiv Varan Singh	Veterinary Microbiology	28/03/2023 (Forenoon)	Ph.D
2	Dr. Manjari Pandey	Animal Genetics and Breeding	28/03/2023 (Forenoon)	Ph.D
3.	Dr. Kaushlendra Singh	Veterinary Parasitology	28/03/2023 (Afternoon)	Ph.D
4.	Dr. Prachurya Biswal	Livestock Production and Management	29/03/2023 (Afternoon)	Ph.D
5.	Dr. Raju Kumar Dewry	Veterinary Gynaecology and Obstetrics	30/03/2023 (Forenoon)	Ph.D
6	Dr. Mahmuda Malik	Veterinary Pathology	31/03/2023 (Forenoon)	Ph.D
7	Dr. Sadhana Ojha	Livestock Products Technology	31/03/2023 (Forenoon)	Ph.D
8	Dr. Richa Arora	Department of Veterinary Physiology and Biochemistry (Veterinary Biochemistry)	01/04/2023 (Afternoon)	Ph.D
9	Dr. Safeeda Sultana Begum	Veterinary Medicine	02/04/2023 (Afternoon)	Ph.D
10	Dr. Vandana Singh	Veterinary Pharmacology and Toxicology	04/04/2023 (Forenoon)	M.V.Sc

S.No.	Name	Department	Date of joining	Highest Qualification
11	Dr. Mukesh Gangwar	Livestock Product Technology	14/04/2023 (Afternoon)	Ph.D
12	Dr. Mamta Mishra	Veterinary Surgery & Radiology	15/04/2023 (Forenoon)	Ph.D
13	Dr. Abhishek Kumar	VCC (Veterinary Gynaecology and Obstetrics)	17/04/2023 (Forenoon)	Ph.D
14	Dr. Poornima Gumasta	Veterinary Pathology	17/04/2023 (Forenoon)	Ph.D
15	Dr. Diksha Purushottam Gourkhede	Veterinary Public Health & Epidemiology	17/04/2023 (Forenoon)	Ph.D
16	Dr. Anand Mohan	VCC (Veterinary Medicine)	20/04/2023 (Forenoon)	Ph.D
17	Dr. Tripti Kumari	Livestock Production Management	04/05/2023 (Forenoon)	Ph.D
18	Dr. Akriti Anna	Veterinary & Animal Husbandry Extension Education	04/05/2023 (Forenoon)	M.V.Sc
19	Dr. Archana	Veterinary Public Health & Epidemiology	06/05/2023 (Forenoon)	Ph.D
20	Dr. Rakhi Bharti	Veterinary & Animal Husbandry Extension Education	06/05/2023 (Forenoon)	M.V.Sc
21	Dr. Kumari Chandrakala	Veterinary Surgery and Radiology	09/05/2023 (Forenoon)	M.V.Sc
22	Dr. Chayna Singha Mahapatra	Veterinary Microbiology	12/05/2023 (Afternoon)	Ph.D
23	Dr. Komal	VCC (Veterinary Biochemistry)	15/05/2023 (Afternoon)	M.V.Sc
24	Dr. Shagufta Perveen	Department of Veterinary Physiology and Biochemistry (Veterinary Physiology)	16/05/2023 (Forenoon)	Ph.D
25	Dr. Diptimayee Sahoo	VCC (Veterinary Pathology)	17/05/2023 (Afternoon)	Ph.D
26	Dr. Prasanna Pal	Department of Veterinary Physiology and Biochemistry (Veterinary Physiology)	18/05/2023 (Afternoon)	Ph.D
27	Dr. Pratyush Kumar	Veterinary Gynaecology and Obstetrics	08/06/2023 (Forenoon)	M.V.Sc

S.No.	Name	Department	Date of joining	Highest Qualification
28	Dr Hemant Kumar	LFC (Animal Nutrition)	22/06/2023 (Afternoon)	M.V.Sc
29	Dr Sivaraman Ramanarayanan	Veterinary Pharmacology and Toxicology	23/06/2023 (Forenoon)	Ph.D
30	Dr Sanjeev Ranjan	LFC (Animal Genetics and Breeding)	11/07/2023 (Afternoon)	Ph.D
31	Dr Nancy Jasrotia	Veterinary Gynaecology and Obstetrics	07/08/2023 (Forenoon)	M.V.Sc
32	Dr Yengkhom Rozita Devi	Animal Nutrition	09/01/2023 (Forenoon)	Ph.D
33	Dr Anuj Singh	Animal Nutrition	30/03/2024 (Forenoon)	Ph.D
34	Dr Suchita Kumari	Veterinary Parasitology	07/06/2024	Ph.D
35	Dr Manish Arya	Veterinary Surgery and Radiology	21/06/2024	M.V.Sc

Annexure 6

College of Veterinary and Animal Sciences, Kishanganj

Head of Departments

Sl.No.	Name	Departments
1	Dr Narendra Kumar	VPP
2	Dr. Vineet Kumar	VSR
3	Dr. Binod Kumar	VPA
4	Dr. Thakur Krishna Shankar Rao	LPM
5	Dr. Rajesh Kumar	VAHEE
6	Dr. Dharendra Kumar	AGB
7	Dr. Shashi Pal	LFC
8	Dr. Kiran Kumari	ANN
9	Dr Niraj Kumar Singh	VBC
10	Dr. Neelam Kushwaha	VMD
11	Dr. Shiv Varan Singh	VMC
12	Dr. Raju Kumar Dewry	VGO
13	Dr. Sadhana Ojha	LPT
14	Dr. Vandana Singh	VPT
15	Dr. Mamta Mishra	VAN
16	Dr. Diksha Purushottam Gourkhede	VPHE
17	Dr. Anand Mohan	VCC
18	Dr.Shagufta Parveen	VPY

Annexure 7

• Income statement

F.Y.	Income	Infra	CNC	Other
2023-24	Grant from University	8,00,00,000/-	2,00,00,000/-	
	Revenue receipt as Fee / from other sources	--	--	26,66,320/-
	Other sources (Pasu Jagriti Abhiyan)		10,00,000/-	

• Cash flow statement

F.Y.	Income	Infra	CNC	Other
2023-24	Grant from University	8,00,00,000/-	2,00,00,000/-	
	Fund utilized from Student Welfare Office, BASU, Patna for development of student Hostel and allied activities.	Approx. 56,00,000/-		
	Fund utilized from Director of Research, BASU, Patna for the development of laboratories	Approx. 3,00,00,000/-		
	Other sources (Pasu Jagriti Abhiyan)		10,00,000/-	

• Annual returns

F.Y.	Non Plan COVAS Infra	8,00,00,000/-	7,99,54,106/-	45,894/-
2023-24	Non Plan COVAS CNC	2,00,00,000/-	1,57,38,923/-	42,61,077/-
	Fund utilized from Student Welfare Office, BASU, Patna for development of student Hostel and allied activities.	---	Approx. 56,00,000/-	--
	From Director of Research, BASU, Patna for the development of laboratories	Approx. 3,00,00,000/-	----	Approx. 3,00,00,000/-
	Other sources (Pasu Jagriti Abhiyan)		10,00,000/-	---
	Revenue receipt as Fee / from other sources	--	--	26,66,320/-

Events

Virtual inauguration of CoVAS, Kishanganj

Honourable Chief Minister of Bihar, Shri Nitish Kumar on the occasion of the three-day Dairy and Cattle Expo- 2023 which was organized at Bihar Animal Sciences University, Patna virtually inaugurated the second Veterinary College under Bihar Animal Sciences University at Kishanganj. Presence of Mo. Afaq Alam, Minister, Dept. Of Animal and Fisheries; Mr. Amir Subhani, Chief Secretary of Government; Mr. Deepak Kumar, Dr. S. Siddhartha, Chief Secretary of Chief Minister; Dr. N. Vijayalakshmi, Principal Secretary, Department of Animal and Fisheries; Dr. Rameswar Singh, Vice- chancellor BASU; Dr. J.K. Prasad, Dean BVC and Dr. Chandrahas, Dean CoVAS, Kishanganj graced the occasion during the virtual launch of the college.



A heart-warming welcome ceremony for COVAS, Kishanganj faculties

The College of Veterinary and Animal Sciences (COVAS) in Kishanganj was abuzz with excitement and anticipation on 30 July 2023 as it hosted a warm and spirited welcome ceremony for its newly appointed faculties. The event, graced by the presence of Dean, Dr. Chandrahas, was a reflection of the college's commitment to fostering a sense of belonging and camaraderie among its faculty members. He expressed his delight in welcoming the new faculty members, acknowledging their significant roles in shaping the future of the institution. As a symbolic gesture of welcome, each newly joined Assistant and Associate Professor was presented with a memento.



Workshop on Career Guidance and Counselling of students of class X, XI & XII

Exposure visit to college and college campuses play a crucial role in warranting students to move beyond the conventional classroom set-up as well this is crucial in expanding student's horizon by enabling in a non-formal and fun-filled environment. With the guidance of Md. Meraj Alam, Principal, Jawahar Navodaya Vidyalaya, Motihara, Kishanganj around 150 students of class X, XI and XII visited CoVAS, Kishanganj on 16th and 18th December, 2023. Students visited all the laboratories, farms and Clinical complex to get practical exposure to the activities performed in the institute. The chairman, Dr. Chandrahas, Dean, CoVAS, Kishanganj delivered the keynote speech and



presentation on selection of career in different phases of student's life. The effort of Dr. Binod Kumar, Associate Prof. & Head, VPA, as Co-ordinator made it grand success as many of the students got the direction to choose their career wisely.

Webinars

Online Webinar On World Zoonoses Day: Unmasking The Hidden Threats

The COVAS, Kishanganj, orchestrated a momentous event to mark World Zoonosis Day in 2023. This remarkable gathering unfolded in the virtual realm on the 6th of July, 2023. The distinguished expert chosen to expound on this topic was none other than Dr. S.V.S. Malik. Dr. Malik who boasts an illustrious career, having served as the Former Principal Scientist and Head of Veterinary Public Health, as well as the Former Scientific Secretary to the Director at ICAR, IVRI, India. Steering the webinar with expertise was done by Dean of COVAS, Kishanganj, Dr. Chandrahas. The organizing team, comprised of dedicated faculties from VPH Dr. Diksha, Dr. Archana went above and beyond to ensure the event's success.

10 days National Training Programme (Online) was successfully organized by Department of Animal Genetics and Breeding during 4th -15th December 2023 on Research Data Analysis using Essential Statistical Techniques for scholars and scientists.

Chief Patron
Dr. Manoj Kumar Singh,
Honourable Vice-Chancellor,
Bihar Animal Sciences University, Patna

Organizing Committee

Chairman
Dr. Chandrahas,
Dean, College of Veterinary and
Animal Sciences, Kishanganj

Organizing Committee

Course Director/Convenor
Dr. Dharendra Kumar,
Associate Professor & Head, ACB,
College of Veterinary and Animal
Sciences, Kishanganj

Course Co-ordinator/Co-Convenor

Dr. Manjari Pandey,
Assistant Professor, ACB,
College of Veterinary and Animal
Sciences, Kishanganj

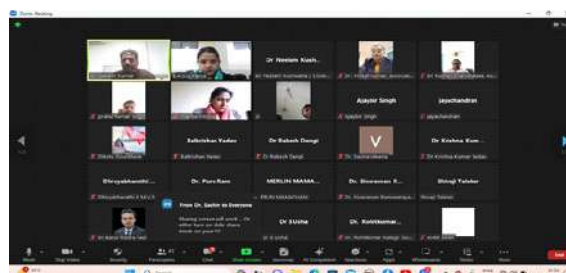
Dr. Sanjeev Ranjan,
Assistant Professor, LFC (ACB),
College of Veterinary and Animal
Sciences, Kishanganj

National Training Program (Online)
On
"RESEARCH DATA ANALYSIS
USING ESSENTIAL
STATISTICAL TECHNIQUES"
4th - 15th December 2023

Organized
by
DEPARTMENT OF
ANIMAL GENETICS & BREEDING
College of Veterinary and Animal
Sciences, Kishanganj
Bihar Animal Sciences University

A three-day workshop titled "Emerging Trends in Bio-Scaffold Application for Animal Surgery" was organized by Department of VSR, CoVAS during 15-17 Feb 2024.

During the workshop, renowned experts in the field, gave a total of six lectures. Participants gained more knowledge about this cutting-edge field of animal surgery. Dean, COVAS, Kishanganj, Dr. Chandrahas as a chairman of the event wished and congratulated the whole team for completing the workshop with success.



New Beginnings at COVAS

Feathered beginnings of COVAS

In a stride towards sustainable farm practices and hands on training, COVAS, Kishanganj embarked an exciting journey with the arrival of its first batch of broiler chicks on 14th July, 2023. It was a significant step forward for COVAS, reinforcing its commitment to providing comprehensive education and practical experience to its students in the field of poultry farming.



Induction of Red Sindhi and its crosses at Cattle Farm, COVAS, Kishanganj

Dr. Tripti, the Incharge of the Cattle Farm, along with Dr. Shashi Pal, Dr. Abhishek Kumar and Dr. Hemant Kumar collaborated to give a happy beginning of the cattle farm. It is strengthening the Vision of the college by providing comprehensive practical exposure in the field of dairy farming.

Establishment of herbal garden at COVAS campus

सर्वे सन्तु निरामयाः

Ayurveda possesses a magical property of healing. In light of the aforementioned information, COVAS established a herbal garden on its own college campus. Dr. Shivaraman Ramnarayan, skillfully organized the event, which was a venture of the department of toxicology and pharmacology. The event was inaugurated by Dr. Rameshwar Singh, Hon'ble Vice chancellor along with Dean COVAS, Dr. Chandrahas. Plants with exceptional medicinal qualities, such as Brahmi, Shikam, Tulsi, Anantmool, Tulsi Marua, Sinduri Kapoor tree, Kanak champa, and Naag kesar etc. were planted in the herbal garden of COVAS.



Inauguration of Museum established at Department of Veterinary Pathology, CoVAS, Kishanganj by Hon'ble Vice- chancellor Dr. Rameshwar Singh, BASU, Patna.



Students' admission

CoVAS, Kishanganj has launched its Under Graduate Program for B.V.Sc & A.H Degree. A total of 80 students have been admitted in CoVAS, Kishanganj for the first professional year of B.V.Sc and A.H. This admission process was accomplished in two days program dated 04th and 06th November, 2023. Students got admitted based on their NEET Score.



Visit of Dignitaries

Honourable vice-chancellor's crucial visit to COVAS, Kishanganj

On the 18th of July, 2023, the distinguished Vice Chancellor of Bihar Animal Sciences University (BASU), Dr. Rameshwar Singh, graced the College of Veterinary Sciences and Animal Husbandry (COVAS), Kishanganj with his esteemed presence. His inspection encompassed our crop cultivation and agricultural facilities, where he evaluated the infrastructural developments and farming practices being undertaken. While visiting different units, sir has guided how to continually evolve and excel, solidifying the position as a pioneering institution in the field of veterinary sciences and animal husbandry. Visit at the Teaching Veterinary Clinical Complex (TVCC) delving into a comprehensive assessment of the hospital's amenities and the current state of patient care.

World Veterinary Day: Honoring Our Heroes of Animal Health

College of Veterinary and Animal Sciences (COVAS), Kishanganj, celebrated World Veterinary Day on 29th April 2023 at COVAS, Arrabari, Kishanganj in guidance and supervision of Honorable Vice Chancellor Dr. Rameshwar Singh and Dean of COVAS, Kishanganj Dr. Chandrahas. This special event brought together faculty and staff to commemorate the invaluable contributions of veterinary professionals and promote animal health and welfare. The theme for this year's World Veterinary Day was "Promoting Diversity, Equity and Inclusiveness in Veterinary Profession." The event aimed to emphasize the crucial role that veterinarians play in safeguarding both animal and human health and fostering a harmonious relationship between the two. Inaugural ceremony was graced by esteemed Chief Guest, Honorable SSB Commandant Shri Munna Singh Ji and Special Guest SSB Commandant Shri Madhukar Amitabh Ji.



Visit from the Veterinary Council of India

First ever Veterinary Council of India (VCI) team visited to the COVAS, Kishanganj from 02-04 April 2023. Then, a two- member team of Veterinary Council of India visited for the second time in the newly created facility of College of Veterinary and Animal Sciences, Kishanganj on 08-09 August. The VCI team inspected the college for the available facilities including class room, animal hospital and farm complex over the existing infrastructure and facilities. The visiting team comprised of Dr. Ingale Sandip Vinayakaro and Dr. Kantharaju L., verified all the physical facilities, infrastructure and manpower available/created during the visit from 08-09 August, 2023.



Extension activities

Subah savere Kisan samwad cum Animal Health Camp

Subah savere Kisan samwad cum Animal Health Camp fosters a sense of community engagement and collaboration in the pursuit of animal welfare. In a remarkable endeavour to promote animal health and ensure the well-being of the rural community's livestock, the dedicated faculty members of the institution under abled guidance of the Dean, Dr. Chandahas, organizing 'Kisan samwad cum Animal Health Camp' every weekly on Friday morning in the villages of Kishanganj district. The focal point of this health camp was to provide essential medical assistance to the four-legged companions that form an integral part of the livelihood of many families in the region. The camp served as a beacon of hope for animal owners who often face challenges accessing veterinary care. One of the most optimistic aspects of this Camp remains the distribution of free medicines and mineral supplements to the owners, ensuring the animals receive continued care beyond the camp duration.



Infertility camps

The College of Veterinary and Animal Sciences (COVAS) Kishanganj has organised a series of Infertility camps cum Awareness Seminar under the aegis of “Pashudhan Jagriti Abhiyaan” at different places in four districts of Bihar.

The Veterinary College, which tried to establish a good rapport with farmers of this region, had an objective to improve economic status for development of villages by resolving the major issues related to infertility in milking animals.

As a part of the scheme, total eight infertility camps were organized in four districts viz. Kishanganj, Purnia, Arraria and Katihar of Bihar. Dean, CoVAS, Kishanganj, Dr. Chandrahas inaugurated the organization of camps and delivered the presidential address in first camp. During the camp, any infertility- related issue was treated like oestrus detection, supplementation and hormonal therapy, artificial insemination and pregnancy diagnosis for cattle, buffalo and rendered by the team of experts from the College. Faculties engaged also delivered lectures to teach farmers regarding the scientific practices to reduce reproductive issues.



Inter-college Sports Meet

4th inter collegiate sports meet-2024 was organized at Kishanganj Campus during 7- 9 Feb 2024. CoVAS participated for the first time where COVAS was able to bag two gold, two silver and two bronze. This program instilled an enthusiasm and determination in the students to do better in the upcoming event.



New year celebration

A lovely relationship within the BASU family was evident when COVAS and COF, two of its colleges in Kishanganj, came together to celebrate the arrival of 2024. Under the gracious direction of Dr. Chandrahas, Dean, COVAS, Kishanganj, the event was organized. A cake-cutting ceremony gave a festive start to the celebration. The faculty members of COVAS and COFs relished the occasion to come together and wish one another a joyous and prosperous new year.



Youth Parliament @ViksitBharat

In the District Level Neighborhood Youth Parliament's "Viksit Bharat@2047" competition, 2nd Year student Gaurav Singh secured Third position. The aforementioned ceremony was held on March 3rd in Trinity College's Auditorium, which is home to the top three great colleges i.e., COVAS, DKAC and COFs. The occasion began with a lamp lighting ceremony honoring youth leader Shri Swamy Vivekananda. Chief guest Dr. Chandrahas, Dean, COVAS, Kishanganj graced the platform with Dr. K. Satyanarayan, Principal, DKAC.



Sustainable goat rearing: Faculty expertise showcased in a joint program of Bank of Baroda

COVAS faculty members were invited by Bank of Baroda, Raipur, Kishanganj to deliver lectures on goat farming on 17.02.24. The lecture series began with an exceptional presentation by Dr. Chandrahas, Dean, COVAS, Kishanganj. Additionally, COVAS experts gave lectures on goat farming in the queue. A passionate team delivered the lectures comprised of Dr. Shashi Pal, Dr. Sanjeev Ranjan, Dr. Prachurya Biswal, Dr. Safeeda S. Begum and Dr. Hemant Kumar.



National Youth Day celebrated at COVAS, Kishanganj

The first-ever National Youth Day was celebrated at COVAS, Kishanganj on 12th January 2024, in honour of the Legend Swami Vivekanand. The event began with a motivational opening speech by Dean, COVAS, Dr. Chandrahas. This was followed by various competitions like quiz, extempore and debate in which the B.V.Sc & A.H first year students participated with utmost enthusiasm. The ceremony came to an end when the winners received their certificates in presence of Dr. Satish Kumar, DAHO, Kishanganj.



Orientation program: On February, 6th 2024 COVAS, Kishanganj has organized '**Diksharambh**' for the first batch of B.V.Sc & A.H. with the gracious presence of Honorable Vice Chancellor, BASU, Patna, Dr. Rameshwar Singh; Director Research, BASU, Dr. V. K. Saxena, SWO BASU, Dr. A. K. Sharma; Dr. V. P. Saini Dean COFs; Dr. Chandrahas, Dean COVAS, Kishanganj and virtual presence of Dr. Sanjeev Kumar, Registrar, BASU, Patna.



Animal Genetic Resources Awareness Programs under Network Project-BASU Unit

Two Animal Genetic Resources Awareness Programs were organized by Department of AGB, COVAS, Kishanganj at Rahika, Srinagar, Purnia on 21.02. 2024. Lectures on significance of Animal Genetic Resources and characterization of non-descript livestock and poultry were given by Dr. Dharendra Kumar, Associate Professor and Head AGB; Dr. Manjari Pandey, Assistant Professor, AGB; and Dr. Sanjeev Ranjan, Asstt. Professor, LFC (AGB). Dr. Nivedita Kumari and Dr Vikas from Koshi Dairy Project also highlighted about characterization and conservation of Animal Genetic Resources of local areas. Dr Hemant Kumar, Assistant Professor, LFC (ANN) emphasized on nutrition of desi livestock and poultry. In this programme farmers including women interacted with experts to gain insights regarding the rearing issues of livestock.



Independence Day 2023

The 77th Independence Day of India was celebrated with great patriotic fervour and gaiety on 15th August, 2023 in the premises of COVAS, Kishanganj. The celebration commenced with full vigor and pride from 9 a.m with the unfurling of the national flag which was followed by National anthem. Later, Dean, COVAS, Dr. Chandrahas addressed the audience with his words of patriotism. All the Independence Day programmes and events was based on the theme of the year 'Nations First, Always First'. In consonance, the faculties, other non-teaching staffs exhilarated patriotic poem and tapped on the beats of nationalistic songs. Audience thundered applause and blown away in the essence of patriotism.



Republic Day Celebration - 2024



Celebration of World Milk Day

On the occasion of World Milk Day, Dr. Sadhana Ojha Assistant Professor, LPT under the leadership of Dean, COVAS, along with other faculty members of COVAS, Kishanganj educated students and staffs of the primary school, Arrabari, Kishanganj about nutritional value of milk, its role in growth and development, and its significance in maintaining a healthy lifestyle.



World environment Day Celebration



International Yoga Day Celebration



Commemorated International Yoga Day marking the spirit and embracing the power of yoga.

Faculties Joined CoVAS

Dr. Vineet Kumar M.V.Sc and Ph.D	Associate Professor Department of Veterinary Surgery and Radiology Date of Joining: 18/04/2023
Dr. Binod Kumar M.V.Sc and Ph.D	Associate Professor Department of Veterinary Parasitology Date of Joining: 18/04/2023
Dr. T.K.S. Rao M.V.Sc and Ph.D	Associate Professor Department of Livestock Production Management Date of Joining: 19/04/2023
Dr. Rajesh Kumar M.V.Sc and Ph.D	Associate Professor Department of Vety & Animal Husbandry Extension Education Date of Joining: 19/04/2023
Dr. Dhirendra Kumar M.V.Sc and Ph.D	Associate Professor Department of Animal Genetics and Breeding Date of Joining: 21/04/2023
Dr. Shashi Pal M.V.Sc and Ph.D	Associate Professor Department of Livestock Production Management (LFC) Date of Joining: 02/05/2023
Dr. Kiran Kumari M.V.Sc and Ph.D	Associate Professor Department of Animal Nutrition Date of Joining: 08/05/2023
Dr. Niraj Kumar Singh M.V.Sc and Ph.D	Associate Professor Department of Veterinary Physiology & Biochemistry (Veterinary Biochemistry) Date of Joining: 27/06/2023
Dr. Narendra Kumar M.V.Sc and Ph.D	Associate Professor Department of Veterinary Pathology Date of Joining: 11/07/2023
Dr. Richa Arora M.V.Sc and Ph.D	Assistant Professor Department of Veterinary Physiology & Biochemistry (Veterinary Biochemistry) Date of Joining: 01/04/2023
Dr. Safeeda Sultana Begum M.V.Sc and Ph.D	Assistant Professor Department of Veterinary Medicine Date of Joining: 02/04/2023
Dr. Vandana Singh M.V.Sc	Department of Pharmacology & Assistant Professor Department of Veterinary Pharmacology & Toxicology (M.V.Sc) Date of Joining: 04/04/2023
Dr. Mukesh Gangwar M.V.Sc	Assistant Professor Department of Livestock Products Technology Date of Joining: 14/04/2023
Dr. Mamta Mishra M.V.Sc and Ph.D	Assistant Professor Department of Veterinary Surgery & Radiology (Ph.D) Date of Joining: 15/04/2023
Dr. Abhishek Kumar M.V.Sc and Ph.D	Assistant Professor Department of VCC (Veterinary Gynaecology & Obstetrics) Date of Joining: 17/04/2023

Faculties Joined CoVAS

Dr. Poornima Gumasta M.V.Sc and Ph.D	Assistant Professor Department of Veterinary Pathology Date of Joining: 17/04/2023
Dr. Diksha P. Gourkede M.V.Sc and Ph.D	Assistant Professor Department of Veterinary Public Health & Epidemiology Date of Joining: 17/04/2023
Dr. Anand Mohan M.V.Sc and Ph.D	Assistant Professor Department of VCC (Veterinary Medicine) Date of Joining: 20/04/2023
Dr. Neelam Kushwaha M.V.Sc and Ph.D	Assistant Professor Department of Veterinary Medicine (Ph.D) Date of Joining: 20/04/2023
Dr. Tripti Kumari M.V.Sc and Ph.D	Assistant Professor Department of Livestock Production Management Date of Joining: 04/05/2023
Dr. Akriti Anna M.V.Sc	Assistant Professor Department of Veterinary & Animal Husbandry Extension Education Date of Joining: 04/05/2023
Dr. Archana M.V.Sc and Ph.D	Assistant Professor Department of Veterinary Public Health & Epidemiology Date of Joining: 06/05/2023
Dr. Rakhi Bharti M.V.Sc	Assistant Professor Department of Veterinary & Animal Husbandry Extension Date of Joining: 06/05/2023
Dr. Kumari Chandrakala M.V.Sc	Assistant Professor Department of Veterinary Surgery & Radiology Date of Joining: 09/05/2023
Dr. Chayna S. Mahapatra M.V.Sc and Ph.D	Assistant Professor Department of Veterinary Microbiology (Ph.D) Date of Joining: 12/05/2023
Dr. Komal M.V.Sc	Assistant Professor Department of VCC (Veterinary Biochemistry) (M.V.Sc) Date of Joining: 15/05/2023
Dr. Shagufta Perveen M.V.Sc and Ph.D	Assistant Professor Department of Veterinary Physiology & Biochemistry (Veterinary Physiology) Date of Joining: 16/05/2023
Dr. Diptimayee Sahoo M.V.Sc and Ph.D	Assistant Professor Department of VCC (Veterinary Pathology) Date of Joining: 17/05/2023
Dr. Prasanna Pal M.V.Sc and Ph.D	Assistant Professor Department of Veterinary Physiology & Biochemistry (Veterinary Physiology) Date of Joining: 18/05/2023
Dr. Pratyush Kumar M.V.Sc	Assistant Professor Department of Veterinary Gynaecology & Obstetrics Date of Joining: 08/06/2023

Faculties Joined CoVAS

Dr. Akshita Chadda M.V.Sc	Assistant Professor Department of Veterinary & Animal Husbandry Extension Education Date of Joining: 16/06/2023
Dr Hemant Kumar M.V.Sc	Assistant Professor Department of LFC (Animal Nutrition) Date of Joining: 22/06/2023
Dr. Sivaraman Ramanarayanan M.V.Sc	Assistant Professor Department of Veterinary Pharmacology & Toxicology Date of Joining: 23/06/2023
Dr. Rajneesh M.V.Sc	Assistant Professor Department of LPM Date of Joining: 10/07/2023
Dr. Sanjeev Ranjan M.V.Sc and Ph.D	Assistant Professor Department of LFC (AGB) Date of Joining: 11/07/2023
Dr. Nancy Jasrotia M.V.Sc	Assistant Professor Department of VGO (M.V.Sc) Date of Joining: 07/08/2023
Dr. Yengkhom Rojita Devi M.V.Sc and Ph.D	Assistant Professor Department of Animal Nutrition (Ph.D) Date of Joining 09/01/2025



A photograph of a large group of graduates in black gowns and caps, throwing their caps into the air in celebration. The caps are scattered across the upper half of the image against a clear blue sky. The graduates are in the lower half, looking up with their arms raised. The image is framed by blue and white wavy borders.

Annual
Report
2023-24

Post Graduate Studies

Director Resident Instruction-cum- DEAN, Post Graduate Studies

Director Resident Instruction is responsible for planning and academic coordination for teaching, quality of education, policy matters and system regarding resident instruction, overseeing the examination and evaluation, development and enforcement of curricula, development of educational technology and teachers' training programme(s), and HRD of faculty. The Directorate of Resident Instruction-cum-Dean Postgraduate Studies has accomplished a number of activities during the year 2023-24. A succinct summary of all major activities of the Directorate is presented in the subsequent sections.

The BASU offers Master's degree programmes and Ph. D. programme through its different constituent colleges. It offers M.V. Sc., M. Tech. (DT), M. F. Sc. and Ph.D. The details of these programmes are depicted below:

M.V. Sc.: Bihar Veterinary College has M.V. Sc. degree programme in all sixteen teaching departments. Total intake capacity of the programme in College during 2023-24 was 63.

Sr. No.	Discipline	Intake Capacity Year 2023-24		Total No. of Students on roll 2023-24
		BASU	ICAR	
1	Livestock Production Management	3	1	11
2	Veterinary Surgery and Radiology	3	1	12
3	Veterinary Pharmacology & Toxicology	4	1	14
4	Veterinary Pathology	3	1	11
5	Veterinary Microbiology	3	1	3
6	Veterinary Medicine	3	1	11
7	Animal Husbandry Extension Education	3	1	7
8	Veterinary Anatomy	3	1	6
9	Animal Genetics & Breeding	3	1	4
10	Livestock Products Technology	3	1	6
11	Veterinary Public Health & Epidemiology	3	1	6
12	Veterinary Physiology	2	-	4
13	Veterinary Parasitology	3	1	8
14	Veterinary Biochemistry	2	1	7
15	Animal Nutrition	4	1	13
16	Veterinary Gynaecology and Obstetrics	3	1	9
Total		48+15=63		132

Ph.D.: Bihar Veterinary College has Ph.D. degree programme in all the departments. Total intake capacity of the programme in College during 2023-24 was 26 whereas 15 students were on roll.

Sr. No.	Discipline	Intake Capacity Year 2023-24		Total No. of Students on roll 2023-24
		BASU	ICAR	
1	Livestock Production Management	3	-	3
2	Veterinary Surgery and Radiology	2	-	0
3	Veterinary Pharmacology & Toxicology	2	-	1
4	Veterinary Pathology	2	-	0
5	Veterinary Microbiology	2	-	0
6	Veterinary Medicine	1	1	3
7	Animal Husbandry Extension Education	1	-	1
8	Veterinary Anatomy	1	-	2
9	Animal Genetics & Breeding	1	-	1
10	Livestock Products Technology	1	-	1
11	Veterinary Public Health & Epidemiology	1	1	0
12	Veterinary Physiology	1	-	0
13	Veterinary Parasitology	1	-	0
14	Veterinary Biochemistry	1	-	0
15	Animal Nutrition	2	-	1
15	Veterinary Gynaecology and Obstetrics	2	-	1
Total		24+2=26		15

M. Tech.: Sanjay Gandhi Institute of Dairy Technology has M.Tech. degree programme in three departments. Total intake capacity of the programme in College during 2023-24 was 07 and the total number of students on roll were 16.

S. No.	Discipline	Intake Capacity Year 2023-24	Total No. of Students on roll 2023-24
1	Dairy Microbiology	2	3
2	Dairy Chemistry	2	4
3	Dairy Technology	3	9
Total		07	16

M. F. Sc.: College of Fishery has M.F.Sc. degree programme in all seven teaching departments. Total intake capacity of the programme in College during 2023-24 was 14.

Sr. No.	Discipline	Intake Capacity Year 2023-24		Total No. of Students on roll 2023-24
		BASU	ICAR	
1	Aquaculture	2	-	4
2	Farm Resources Management	2	-	4
3	Fish Processing Technology	2	-	4
4	Fish Biotechnology	2	-	1
5	Fish Physiology and Biochemistry	2	-	4
6	Aquatic Animal Health Management	2	-	3
7	Fish Nutrition and Feed Technology	2	-	3
Total		14+0=14		23

Intake Capacity (Students)

Sl. No.	Name of the College	Intake Capacity in Different Programmes & on roll student, 2023-24			
		Master's	On roll	Ph.D.	On roll
1	Bihar Veterinary College, Patna	63	132	20	15
2	Sanjay Gandhi Institute of Dairy Technology, Patna	07	16	-	-
3	College of Fisheries, Kishanganj	14	23	-	-
Total					

Total no. of student on roll in different Academic Programme

Academic Programme	Boys	Girls	Total
M.V. Sc.	93	39	132
M. Tech. (DT)	11	05	16
Ph.D. (Veterinary Sciences)	10	05	15
M.F.Sc.	12	11	23

Pass out Students

Academic Programme	No. of Pass- outs, Year 2023-24
M.V. Sc.	23
M. Tech. (DT)	01
Ph.D. (Veterinary Science)	06
M.F.Sc.	00

Status of Postgraduate Research 2023-24

Ph.D.				
Sr. No	Name & Registration No.	Department	Major Advisor	Title of the Thesis
01	Dr. Vinita Yashveer D/AGB/001/BVC/2016-17	Animal Genetics and Breeding	Dr. Ramesh Kumar Singh Assoc. Prof, AGB	Genetic studies on growth, production, reproduction and immune performance of aseel, kadaknath, dahlem red and their crosses
02	Dr. Ranveer Kumar Sinha VD0012/2017-18	Veterinary Gynaecology and Obstetrics	Dr. Pallav Shekhar Professor, VMD	Evaluation of novel immuno-therapeutics for amelioration of clinical mastitis in cattle
03	Dr. Savita Kumari, (VD0007/2017-18)	Veterinary Microbiology	Dr. Pankaj Kumar, Assoc. Prof, VMC	Evaluation of Moringa oleifera Aqueous Leaf Extract Supplementation on Immune Parameters in Chicks
04	Dr. Sudha Kumari (VD0006/2017-18)	Veterinary Microbiology	Dr. Manoj Kumar Professor, VMC	Characterization of methicillin resistant staphylococcus aureus isolates from clinical and subclinical mastitic milk of bovine
05	Dr. Pallavi Sinha (D/BVC/ANN/001/2016-17)	Animal Nutrition	Dr. Pankaj Kumar Singh Professor, ANN	To study comparative efficacy of dietary herbal and synthetic methionine on the performance of layer and broiler chicken
06	Dr. Sanjay Kumar (VD0002/2017-18)	Livestock Production Management	Dr. S.P Sahu Professor, LPM	Effect of supplementation of liquid whey on performance of broiler and layer chicken
M.V.Sc.				
Sr. No	Name & Registration no.	Department	Major Advisor	Title of the Thesis
01	Dr. Bhartendu Vimal VM0016/2019-20	Veterinary Microbiology	Dr. Manoj Kumar Professor, VMC	Molecular Detection of Mycobacterium tuberculosis Complex in Faecal Samples of Captive Zoo Animals
02	Dr. Abhishek Deep VM0027/2019-20	Veterinary Surgery and Radiology	Dr. Archana Kumari, Professor, VSR	Comparison of Wound Healing Potential of Platelet Rich Plasma (PRP) And Nano Silver Gelon Full Thickness wound in Diabetic Rat Model
03	Dr. Rupesh Kumar Paswan VM0028/2019-20	Veterinary Surgery and Radiology	Dr. Ramesh Kumar Tiwary Assoc. Prof, VSR	Evaluation of TGF- β 1 Augmented Autologous uncultured Bone Marrow Derived Mono-Nucleated Cells (BMNCs) for Treatment of Hip Dysplasia in Canine

M.V.Sc.				
Sr. No	Name & Registration no.	Department	Major Advisor	Title of the Thesis
04	Dr. Nitish Kumar VM0024/2019-20	Livestock Product and Technology	Dr. Sushma Kumari Assoc. Prof, LPT	A Comparative Study on the Quality of Belgrami Prepared in Sugar Syrup Made With Water and Whey
05	Dr. Pranav Sinha VM0075/2021-22	Veterinary Pathology	Dr. Imran Ali Assoc. Prof, VPP	Toxicopathological Studies on Induced Ochratoxicosis and its Amelioration with Albizia lebbeck in Khaki Campbell Duck
06	Dr. Divya Rani VM0099/2021-22	Veterinary Animal Health and Extension Education	Dr. Pankaj Kumar Assoc. Prof, VAHEE	Study on Knowledge and Adoption Levels of Backyard Poultry Farmers in Patna District of Bihar
07	Dr. Priyanka Kumari VM0092/2021-22	Animal Nutrition	Dr. Pankaj Kumar Singh Professor, ANN	Comparative Study of Herbal and Synthetic Mycotoxin Binders in Broiler Chicken
10	Dr. Chandan Kumar VM0062/2020-21	Animal Nutrition	Dr. Pankaj Kumar Singh Professor, ANN	Study on effect of Feeding Raw and Treated Faba bean (Vicia faba) on Performance of Broiler Chicken
08	Dr. Kamalesh Kumar VM0097/2021-22	Animal Nutrition	Dr. Sanjay Kumar Assoc. Prof, ANN	Effect of Dietary Supplementation of Curcuma longa and Coriandrum sativum Powder on Performance of Broiler Chicken
09	Dr. Himani Singh VM0045/2020-21	Veterinary Public Health and Epidemiology	Dr. Anjay Assoc. Prof, VPHE	Occurrence, Serotyping and Antimicrobial Resistance of Salmonella enterica Isolated from Human Faecal Samples and Meat Samples from Patna
11	Dr. Shishir Kumar Thakur VM0067/2020-21	Livestock Production Management	Dr. S.P. Sahu Professor, LPM	Poultry Farming Practices Prevalent in Bihar: An Exploratory Study
12	Mr. Raj Kumar DM0075/2020	Dairy Technology	Dr. B.K. Singh, Assoc. Prof, DT SGIDT	Process Standardization of Sesbania grandiflora Flower Powder Based Herbal Agathi Peda

Approved Synopsis of ongoing Master's Research 2023-24

Sr.No	Name & Registration No.	Department	Major Advisor	Title of the Synopsis
01	Dr. Akshansh VM0068/2021-22	Veterinary Surgery and Radiology	Dr. Mithlesh Kumar, Professor, VSR	Comparative Evaluation of Locking Compression Plate pin Plate Combination and Pin with Hemi-Cerclage Wire for Surgical Management of Femur Fracture in Dogs
02	Dr. Bipin Kumar VM0070/2021-22	Veterinary Surgery and Radiology	Dr. Rajesh Kumar, Assoc. Prof, VSR	Evaluation of Bulbar Conjunctival and Allogenic Amniotic Membrane Graft in the Management of Corneal Ulcer in Dogs
03	Dr. Raushan Kumar Sharma VM0071/2021-22	Veterinary Surgery and Radiology	Dr. G.D. Singh Asst. Prof, VSR	Comparative Evaluation and Cumulative Effect of Heterologous Platelet Rich Fibrin and Biofabricated Gold Nanoparticles of Moringa oleifera Leaf Extract as a wound Healing Agent in Canine
04	Dr. Rahul Roshan VM0078/2021-22	Veterinary Medicine	Dr.Bipin Kumar, Assoc. Prof, VMD	Therapeutic Management of Parvoviral Gastroenteritis with Faecal Microbiota Transplantation
05	Dr. Jitendra Kumar VM0089/2021-22	Veterinary Medicine	Dr. Arvind Kumar Das, Assoc. Prof, VMD	Studies on Incidence and Comparative Therapeutic Management of Ehrlichiosis in Dogs
06	Dr. Ajeet Kumar VM0080/2021-22	Veterinary Pathology	Dr. Deepak Kumar, Assoc Prof, VPP	Studies on Histopathology and Alterations in Inflammatory Markers in Uterine Tissue of Canine Pyometra
07	Dr. Anant Kishor VM0076/2021-22	Veterinary Gynaecolog y and Obstetrics	Dr. S.K.Sheetal, Asst. Prof, VGO	Effect of Hormonal Stimulation on Ovum Pick-up Outcomes in Sahiwal Donor Cows and GnRH Administration in Recipient Cows
08	Dr. Aditya Kumar VM0079/2021-22	Veterinary Parasitology	Dr. Ajit Kumar, Assoc. Prof, VPA	Occurrence and Genetic Characterization of Fasciola spp. In Sheep of Patna District, Bihar

Sr.No	Name & Registration No.	Department	Major Advisor	Title of the Synopsis
09	Dr. Akash Anand VM0084/2021-22	Veterinary Parasitology	Dr. R. K. Sharma, Assoc. Prof, VPA	Occurrence and Genetic Characterization of Rumen Fluke Infection in Sheep of Patna District, Bihar
10	Dr. Jitendra Kumar VM0081/2021-22	Veterinary Pharmacolo gy and Toxicology	Dr. R.K. Nirala, Assoc Prof, VPT	Pharmacological Evaluation of Mangifera indica with Special Reference to Immunomodulatory Activity
11	Dr. Ankita Kumari VM0083/2021-22	Veterinary Pharmacolo gy and Toxicology	Dr.Kumari Anjana Asst. Prof, VPT	Evaluation of Wound Healing Potential of Gold Nanoparticles Biofabricated with Tridax procumbens in Wistar Rat
12	Dr. Manju Kumari VM0086/2021-22	Veterinary Pharmacolo gy and Toxicology	Dr.R.K. Kumari, Asst. Prof, VPT	Study of Naticonvulsant Efficacy of Hydromethanolic Extract of Mixture of Brahmi (Bacopa monnieri) and Shatavari (Asparagus recemosus) in MES and PTZ Induced Seizure in Rat
13	Dr. Pratibha Kumari VM0090/2021-22	Veterinary Anatomy	Dr. A.K. Gautam, Assoc. Prof, VAN	Gross Anatomical and Histomorphological Studies on the Cerebrum and Cerebellum of Brain in Black Bengal Goat (Capra hircus)
14	Dr. Munna Kumar VM0102/2021-22	Veterinary Biochemistr y	Dr. Ajeet Kumar, Assoc. Prof, BVC	Gold Nanoparticles Based Visual Detection of Streptococcus Species Associated with Bovine Mastitic Milk
15	Dr. Amita VM0091/2021-22	Livestock Production Management	Dr. R.R.K. Sinha, Assoc. Prof, LPM	Effect of Body Condition Score on Production Traits of Dairy Cattle
16	Dr. Rana Pratap Singh VM0093/2021-22	Livestock Production Management	Dr. S.P.Sahu Professor, LPM	Effect of Supplementation of Amla (Embllica officinalis) on Performance of Japanese Quails (Coturnix coturnix japonica)
17	Dr. Rupam Kumari Paswan VM0096/2021-22	Livestock Production Management	Dr. R.K.Nirala Asstt. Prof, LPM	Studies on the Existing Goat Management Practices in Patna District of Bihar
18	Dr. Dezi Kumari VM0100/2021-22	Livestock Product and Technology	Dr. Gargi Mahapatra, Asst. Prof, LPT	Study on Effect of Oregano (Origanum vulgare) and Green Tea (Camellia sine-sis) Leaves Concoction on The Shelf Life of Raw Chicken Meat

Awards in International/ National seminar/conferences/training etc. by Post graduate students

Sr. No.	Name & Reg. No.	Department	Detail
1	Dr. Namrata (VM0069/2021-22)	Veterinary Medicine	Third prize in oral presentation in the First Clinical case conference at college of Veterinary science and A.H., Ayodhya, Uttar Pradesh. 2. Third prize in poster presentation in the 32nd National Congress of Veterinary Parasitology, 2023, held at Bihar Veterinary College, Patna.
2	Mr. Ravindra Kumar Yadav (DM0003/2021-22)	Dairy Technology	Awarded 1st position in poster presentation on “Effect of Packaging Materials on Quality Characteristics of Khoa based Ramdana Lai” in 11th International Conference on Fermented Foods, Health Status and Social Well-being organised by NHEU and SASNET-FF from 21-22 Nov, 2023 in Shillong, Meghalaya, India.







Annual
Report
2023-24

Directorate of Research

Directorate of Research

Bihar Animal Sciences University, Patna

ANNUAL REPORT 2023-2024

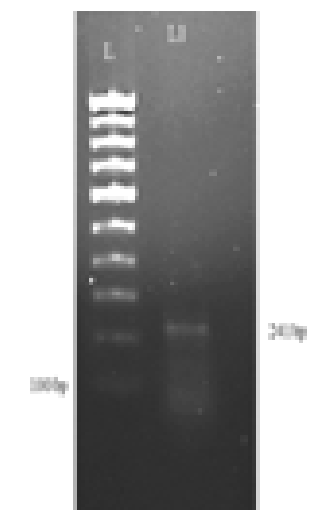
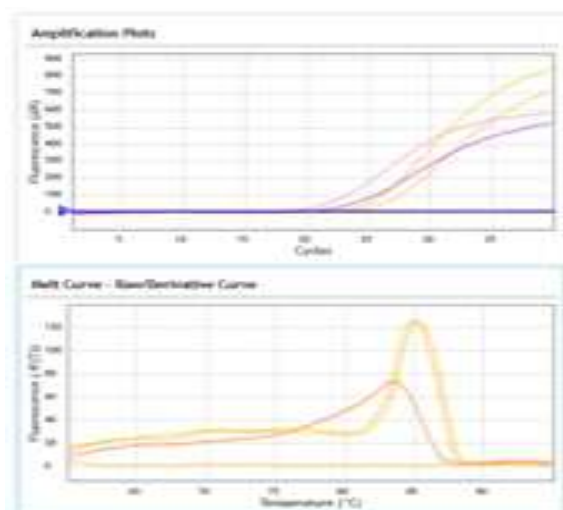
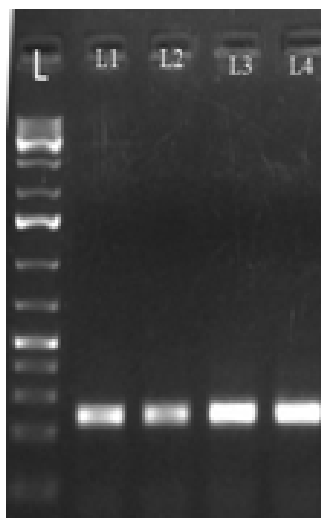
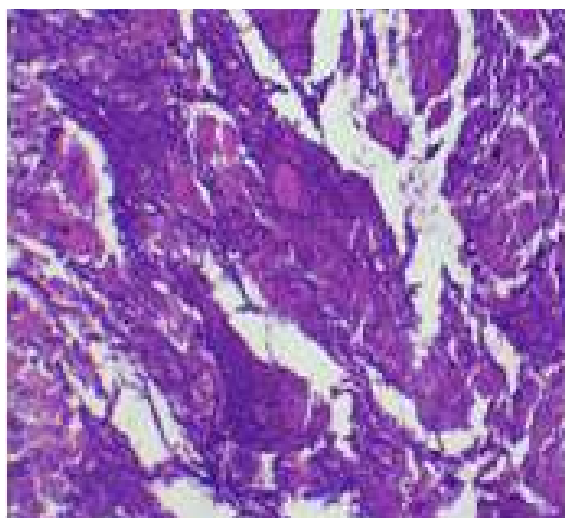
1. Executive Summary
2. Research Achievements (only abstract) in Thematic Focus in the following themes (if any new theme, please specify)
 - Development and improvement of vaccines: NA
 - Development and improvement of diagnostics

Title:

Evaluation of trefoil factor (TFF1 & TFF3) as a biomarker of canine mammary tumor and development of ELISA for its estimation in serum.

Salient achievements:

Samples of canine mammary tumors and healthy mammary glands have been collected in NBF and RNAlater®. The standardization of RNA isolation and cDNA synthesis is completed. The vector (pET32a+) has been standardized by the RE-digestion method. The standardization of real-time PCR and PCR for the TFF3 gene is also complete. The amplified PCR product of the TFF3 gene will be subjected to sequencing and verification.



Title:

Colorimetric detection of E. coli, Streptococcus spp. and Staphylococcus aureus isolated from mastitis milk samples by optical biosensing using oligonucleotide-Gold Nanoparticles

Salient achievements:

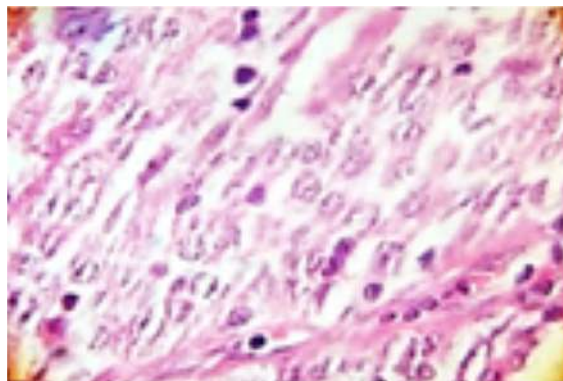
Colorimetric detection of E. coli, Streptococcus spp., and Staphylococcus aureus in mastitis milk samples using optical biosensing with oligonucleotide-gold nanoparticles was attempted. Visual detection of Escherichia coli and Staphylococcus aureus using purified genomic DNA of the bacteria as well as, bacterial lysate demonstrated high specificity and sensitivity in mastitic milk samples.

Title:

Development of Staining Protocol for Co-localizing Zn and Ag in Nucleolar organizing regions as a tool for assessing aggressiveness of epithelial tumours in animals.

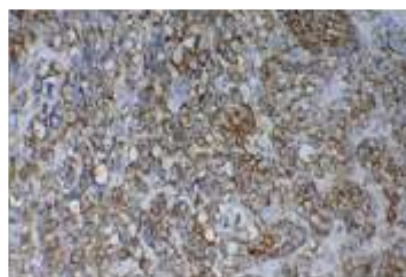
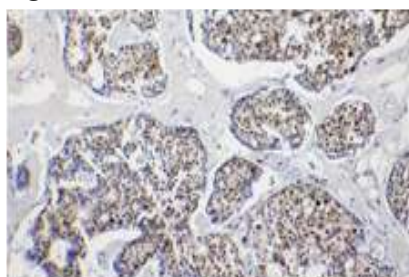
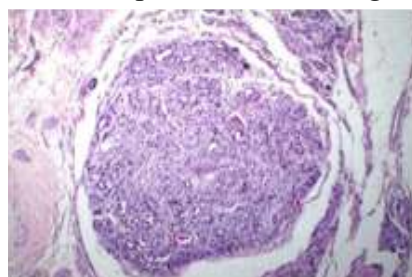
Salient achievements:

AgNOR dots with co-localized Zn-AgNOR dots, revealed a greater number of fine, visible discrete dots in nuclei indicating enhanced transcriptional or replicational activities in cells. Co-localized Zn-AgNOR dots also showed a cluster of fine discrete and distinct dots within them, suggesting multiple transcriptional sites. In M-phase, Zn-AgNOR dots arranged in mitotic figures, while G1 phase had one or few nucleoli with varying organization. This system allowed for the identification and counting of cells in different cell cycle phases, estimating the proliferating fraction of the tumor.

**Title**

“Evaluation of proliferative and apoptotic markers in CMT for diagnosis and prognosis

A panel of immunohistochemical biomarkers in Canine Mammary Tumors (CMT) in total 60 dogs were evaluated. Intensity and distribution of immunostaining for diagnostic (HER-2), proliferative (PCNA, P-53, and Ki-67), apoptotic (caspase-3 and BCL-2), and prognostic (CK) biomarkers across various histological types of CMT were evaluated. The results revealed a strong correlation between diagnostic, proliferative, and apoptotic markers in higher grades of different histotypes of CMT. It was concluded that simultaneous assessment of these markers offers deeper insights into tumor aggression and pathomorphological behavior. The use of two panels of four markers (Set-I: HER-2/neu, Ki-67, P53, and Caspase-3; Set-II: HER-2/neu, PCNA, BCL-2, and CK) holds significant importance for prognostic, diagnostic, and therapeutic decisions regarding CMT.

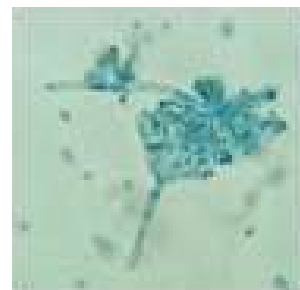
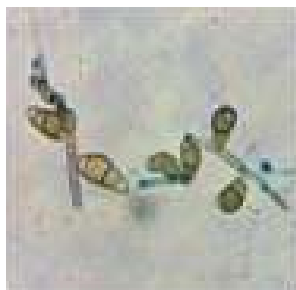
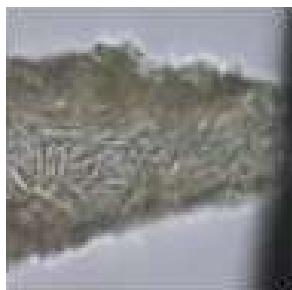


Title:

Study on diagnosis of alopecia in dog with special reference to etiology, trichometry and histologic alteration.

Salient achievements:

Out of total 71 cases of dogs were found affected from different degrees of dermatitis with alopecia irrespective of age, breed and sex, 36(50.7%) were suffering from mycotic dermatitis/alopecia and rest 35 were of nonmycotic in origin. Out of 50.7% dogs, 26.7% were found to be affected with *Malesazzia* spp, 9.8% *Penicillium* spp, 8.4% *Aspergillus* spp, 2.8% *Microsporum* spp, 1.6% *Curvularia* spp and 1.4% *Alternaria* spp which were showing wide range of fungi compared to previous report. Dermatitis/alopecia caused by *Curvularia* spp may be first report of dermatitis in dogs caused (Fig-1). *Malesazzia*, *Penicillium* (Fig-2), *Aspergillus* and *Alternaria* (Fig-3) sp from Bihar have also been reported. Trichometry of broken hair exhibited that it was most prevalent at anagen stage. Some of the hair shaft showed bulky appearance in midshaft region and had less medullary mass than the cortical one. In some cases the apex of hair was found to be bifurcated and root was distorted. There were three types of hair loss on the basis of gross morphological appearance viz trichomalacia, trichoptilosis, trichorrhaxis etc (Fig.4). This morphological disorder of broken hair has got improved after the specific therapy and supplement with antifungal drugs and omega 3, 6 fatty acids supplementation.



Title:

Online Pest and Disease Management for Crops & Livestock – Development of Image Database for ARTIFICIAL INTELLIGENCE (AI) based Mobile App

Salient achievements

A comprehensive database created for online disease management in livestock utilizing an AI-based mobile application, specifically for the identified diseases (Foot-and-Mouth Disease (FMD), Lumpy Skin Disease (LSD), Peste des Petits Ruminants (PPR), and Bovine Mastitis. The database included the collection of data on livestock diseases through images on various symptoms lesions, encompassing information on disease prevalence across different geographical locations. Altogether 411 images of FMD, 1164 images of Lumpy skin disease (LSD), 209 images of Peste des petits ruminants (PPR) and 129 images of Bovine mastitis were collected for database generation.





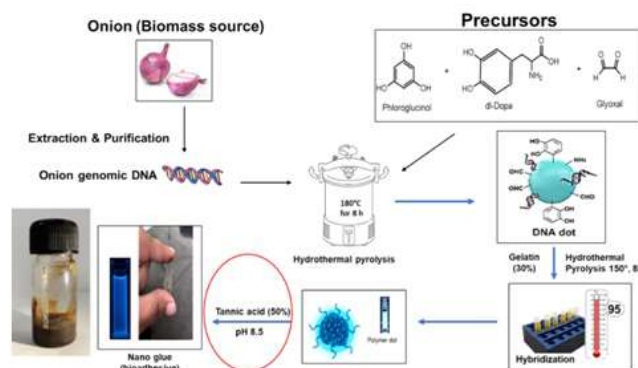
- **Production and standardization of veterinary biologicals:**

Title:

Antibacterial and wound healing properties of bioadhesives derived from biomass derived Carbon Dots.

Salient achievements

The CD synthesis was optimized by adjusting substrate ratio, temperature, and pyrolysis time. Dopamine, phloroglucinol, and glyoxal were dissolved in ethanol/H₂O solvent, filtered, and dialyzed to remove unreacted substrates and fluorophores. The study used pXRD to analyze the diffraction pattern of carbon graphite (Cd), revealing weak graphitic crystallinity. The JEM-F200 electron microscope was used for characterization. Atomic force microscopy confirmed an average diameter of 5-7 nm. Dynamic light scattering (DLS) confirmed a hydrodynamic radius of 78 nm, indicating an effective negative surface charge stabilized by hydrogen bonding. Fourier transform infrared spectroscopy and nuclear magnetic resonance studies confirmed the presence of –CHO groups on a CD, with the synthesized CD exhibiting an amicable property with an abundance of –NH₂ and –COOH groups. CD, gelatin, and tannic acid covalently conjugate to create a CD-gelatin-TA conjugate, essential for bioadhesive formulation, promoting drug cargo loading and cell growth. The bioadhesive demonstrated self-healing properties, prolonged durability, and easy injection, making it suitable for wound application due to its notable viscosity. The bioadhesive's adhesive strength was evaluated using the Probe Tack Test and thumb appeal examination, assessing its performance as pressure-sensitive adhesives for dermal applications.



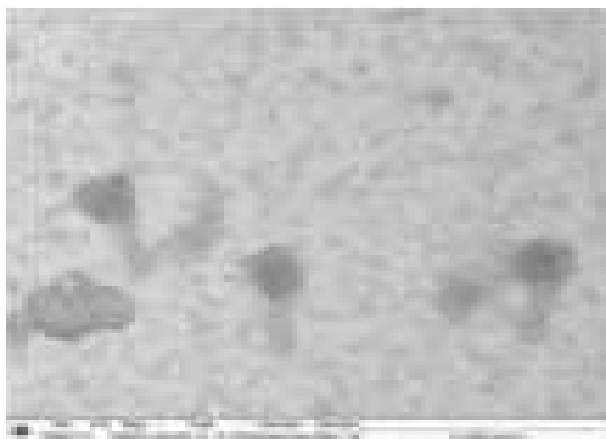
- **Molecular characterization of pathogens**

Title:

“Isolation and characterization of bacteriophages targeting food borne pathogens from sewage samples of livestock farm”

A total of 30 bacteriophages were isolated and purified, with morphological identification showing them to be Siphophages, Myophages, and podophage. Eight phages were characterized for future use, with structural proteins analysis revealing protein bands of 10-180 kDa. The genome size was over 48.5 kb, and RAPD-PCR analysis produced DNA amplicons. The phages were stable at certain temperatures and pH levels. The whole genome sequences of E. coli and Salmonella phages showed similarities with known viruses. A Staphylococcus phages cocktail reduced bacteria on egg shells. Overall, the study identified and characterized bacteriophages with potential applications in controlling bacterial infections.

The genomes of Escherichia phage BASUE10, Salmonella phage BASUS1, BASUS6, BASUS9, Staphylococcus phage BASUSA1, and BASUPS3 were analyzed. BASUE10 has 205,367 bases, BASUS1 has 381,260 bases, BASUS6 has 722,091 bases, BASUS9 has 270,201 bases, BASUSA1 has 131,527 bases, and BASUPS3 has 54,317 bases. Each phage contains unique genes and shows nucleotide similarity with specific viruses.



Title:

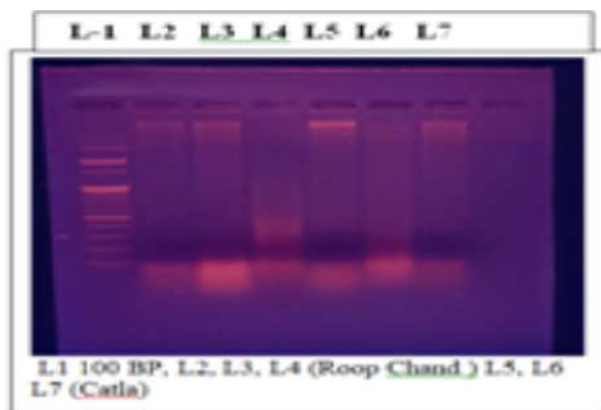
Prevalence and Existence of Pathogenic Strain of E.coli in Fish from selected market of Simanchal Region

Salient Achievement

A total of 16 numbers of samples have been screened for isolation of E.coli from different fish markets of Kishanganj District such as Kharkhari, Chhattergachh, Belwa etc. Out of which 2 samples (Roopchand and Catla) have been detected positive and E.coli was isolated. Metallic greenish discrete colonies picked up and stored on TSA slants for further studies. Confirmatory test have been conducted by IMViC test and positive result were found for indole and methyl red and negative results for Voges proskauer and Simon citrate test. The E.coli which showed



positive results in biochemical test have been used for molecular characterization. DNA isolated from crude lysate of *E.coli* was checked on agarose gel which exhibited a band of bacterial genomic DNA. Further work on intestinal pathogenic *E.coli* (IPEC) strains by targeting different virulence genes is going on.



• Disease monitoring and surveillance

Title:

NIFMD-FMD Collaborating centre, Patna

Salient achievements:

Seromonitoring and surveillance of Foot and Mouth Disease (FMD) have been carried out under the Livestock Health and Disease Control Programme (LHDCP), a flagship initiative funded by the Department of Animal Husbandry and Dairying (DAHD), Government of India, New Delhi.

- Two FMD outbreaks, identified as serotype "O," were reported in Rohtas district. These incidences affected cattle with a morbidity rate of 12.50%, but no mortality was reported.
- The FMD serosurveillance program involved the random collection and analysis of 3,059 bovine serum samples from various regions of Bihar state according to the sampling plan. The r3AB3 NSP-ELISA (DIVA) test indicated overall seropositivity (DIVA positive) of 21.08% of the tested samples, a decrease from the previous year's seroprevalence of 27.64%.
- Serum samples (8081) were examined using Solid Phase Competitive ELISA (SPCE) to assess the immunization's effectiveness and herd immunity. The protective titre in pre-vaccination samples was found in 12.98%, 5.80%, and 7.28% of animals for serotypes O, A, and Asia1, respectively. Post-vaccination samples showed increased percentages of 40.09%, 36.04%, and 29.98% for serotypes O, A, and Asia1, respectively. Serum samples from both cattle and buffalo indicated satisfactory seroconversion and antibody titers after vaccination, with cattle showing a more robust response than buffalo.
- In the same period, the FMD Collaborating Centre, Patna participated in the FMD Proficiency Testing Scheme (PTS) for the 3AB3 indirect DIVA ELISA and SPCE.

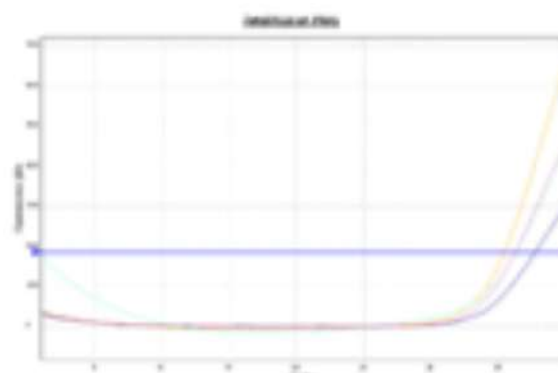
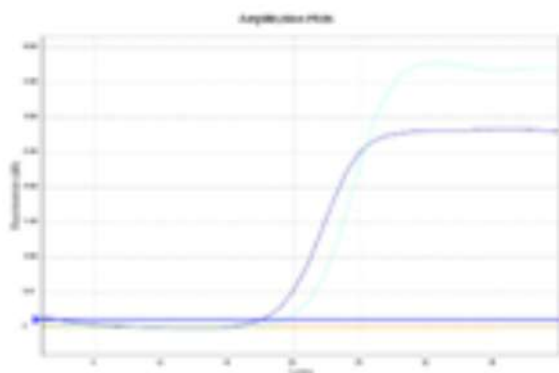
Title:

National Animal Disease Epidemiology Network –NADEN National Institute of Veterinary Epidemiology and disease Informatics

Salient achievements:

A total of 537 bovine blood samples collected from organized farms, common household and clinical complex of BVC were processed for DNA isolation followed by PCR based screening for *Theileria orientalis*. Out of 537 samples screened for presence of *T. orientalis*, 22 samples

were found positive showing percent positivity for *T. orientalis* at 4.09%. Out of 570 goat sera samples screened for CCPP using Caprine pleuropneumonia diagnostic kit (Division of B & M, ICAR- IVRI, Izatnagar) 98 showed positive agglutination. The % positivity for mycoplasma antibodies was found to be 17.19%



- Exotic and emerging diseases: NA
- Development of alternate systems of therapy

Title:

Impact of Physiotherapy in Rehabilitation of Clinical Cases of neuro-muscular Disorders in Animals

Salient Achievements:

The study was conducted to assess the efficacy of a comprehensive therapeutic approach for dogs with neurological and musculoskeletal disorders. It included 87 dogs, split into three groups: A, B, and C. Group B showed the highest improvement rate at 88.5%, with group C at 31.8% and group A at 16.6%. Treatments consisted of Interferential Therapy (IFT), Ultrasound Therapy, Shortwave Diathermy (SWD), and Transcutaneous Electrical Nerve Stimulation (TENS) over four weeks. At the end of this period, 31 dogs achieved full recovery, characterized by the absence of clinical symptoms, pain, mobility limitations, and neurological impairments.



Title:

Study on the antiparasitic effect of green synthesized Silver nanoparticles against common ectoparasites of goldfish, Carassius auratus.

Salient Achievements:

Fresh neem and kachnar leaves were collected from CoF campus Kishanganj. The leaves were washed, drained, and chopped into coarse particles. An aqueous leaf extract was prepared, heated, cooled, filtered, and stored. The green synthesis of silver nanoparticles (AgNPs) with Neem and Kachnar was prepared by individually adding neem leaf extract and Kachnar leaf extract to a 1mM AgNO₃ solution. The synthesis of silver nanoparticles (AgNPs) was verified through UV-visible spectral scanning across the 200–950 nm wavelength range. Characteristic absorption peaks (λ_{max}) were noted at 420 nm for AgNPs synthesized with Kachnar leaf extract and at 423 nm for those with Neem leaf extract. Additionally, the Zeta potential values, measured using Dynamic Light Scattering (DLS), for AgNPs prepared from Bauhinia and Neem leaf extracts were -23.5 mV and -18.7 mV, respectively. The particle sizes, determined via DLS, for AgNPs produced using Kachnar and Neem leaf extracts were 137.31 nm and 104.12 nm, respectively.

The study examined goldfish at the Galif fish market in Kolkata, West Bengal, during the post-monsoon season. Results showed a parasitic prevalence of 252/1000 fish, with the highest infection rates with Ich parasites, particularly during winter. The study highlights the susceptibility of goldfish to these parasites.

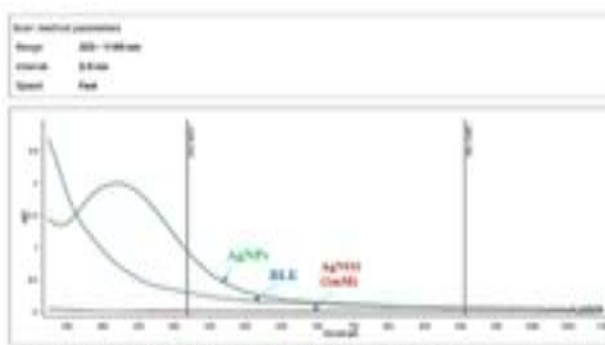


Fig. 1. UV-Visible spectrum of green synthesized AgNPs

A Comparative Study of Wolffia, Azolla and Lemna aquatic Plant based diets on Growth performance and Color enhancement of Gold fish (*Carassius auratus*)

Salient achievements

The proximate composition of different feed ingredients (Fish meal, soyabean meal, mustard oil cake, rice bran, wheat flour) was determined to ascertain their inclusion levels in the feed formulation. Culture and proximate composition analysis of Wolffia were conducted. The culture of Azolla was initiated. Until now, four different diets were formulated, each containing powdered Wolffia at varying levels, using locally available ingredients for a comparative study. Feeding trials commenced by administering the Wolffia-incorporated diet to the goldfish.

- Molecular mechanism of drugs and their monitoring in animal system

Title:

Study on status of acaricide resistance in tick population of Bihar

Salient achievements:

Standardized procedure for in vitro propagation of Rhipicephalus sp. and Hyalomma sp. ticks. The bioassays for determination of resistance in ticks against acaricides like Larval Packet Test, Adult Immersion Test and Larval Immersion Test were also been standardized. Two stage stratified sampling method was adopted to collect live engorged female ticks from cattle and buffaloes body and from the animal sheds of organized and unorganized farms from Banka, Gopalganj, Patna districts of Bihar. Three tick species were found to be prevalent in livestock of these districts i.e., Rhipicephalus microplus, Hyalomma anatolicum and Rhipicephalus

sanguineus. Using experimental bioassay (AIT, LPT, LIT) resistance in ticks were determined using different concentrations of the deltamethrin, cypermethrin, malathion, fenvalerate and ivermectin. Dose response data was analyzed by probit method. The 50% (LC50) and 95% (LC95) lethal concentrations of deltamethrin, cypermethrin, malathion, fenvalerate and ivermectin against ticks was determined by applying regression equation analysis to the probit-transformed data of mortality. Ticks from Banka district have showed resistance to Ivermectin and Deltamethrin while they were susceptible to Cypermethrin, Malathion and Fenvalerate. Ticks from Gopalganj district have showed high resistance to Deltamethrin while they were susceptible to Cypermethrin, Malathion, Fenvalerate and Ivermectin. Ticks from Patna district showed high resistance to Deltamethrin and initiation of resistance against Ivermectin and while they were susceptible to Cypermethrin, Malathion and Fenvalerate.

- Environmental pollutants/xenobiotics and their impact on animal health and production

Title:

Study on Occurrence and Risk Assessment of Microplastics in Mahananda River, India.

Salient achievements:

- Survey and Selection of sampling sites along the stretch of Mahananda river.
- Pre-monsoon sampling of water and sediment samples from Mahananda river.



Title:

Toxicological effect of iron on Indian major carps and its removal through column filtration unit.

Salient achievements:

- Selection of potential water body for aquaculture in 7 blocks of Kishanganj district.
- Collection of water sample and iron estimation using APHA method.



Standard curve of Fe plotted through UV-VIS Spectrophotometer

- Clinical and surgical interventions

Title:

Development of device for diagnosis and prevention to access metallic foreign body and surgical management of traumatic pericarditis in bovine

Salient Achievements:

The study aimed on the development of a device for diagnosing and preventing access to metallic foreign bodies and the surgical management of traumatic pericarditis in cattle. Pericardiostomy was standardized using a No. 28, 9.3 chest drain tube inserted through the 4th to 5th intercostal space on the left thoracic wall. The volume of pericardial drainage ranged from 1.5 to 9 liters. Antibiotic sensitivity testing revealed no bacterial growth in the cultures. The affected animals were predominantly crossbreeds, aged between 2.5 to 6 years. Additionally, the development and design of metal detectors were assessed using simulation models, which showed strong signals at a 3A° current in a one-meter diameter simulation model filled with wooden fibers and a centrally placed metallic foreign body.

- Diagnostic and clinical services

Title:

Pathological analysis of mortalities in higher body weight broiler chickens during transportation

Salient achievements

Pathological analysis of mortalities in higher body weight broiler chickens during transportation revealed significant changes in their posture behavior, dermatitis, and water belly appearance. It was that heavy-weight chickens had higher haemoglobin concentration, higher mean heterophil percentage, and lower lymphocyte percentage compared to the control group. The mean ALT and AST values were significantly higher in heavy-weight chickens, while serum creatinine and blood urea nitrogen were significantly higher. The mean sodium and potassium values were also significantly higher in heavy-weight chickens. Morphometry showed minor changes among the group, but no significant differences. Post mortem changes in the chickens included liver swelling, mottled appearance, lung lesions, kidneys with congested peritubular capillaries, and deteriorating heart muscles. It was concluded that heavy-weight chickens may have a higher mortality risk due to their increased body weight and increased risk of gastrointestinal issues.

- Genetic studies related to disease resistance, production and reproduction in livestock

Title:

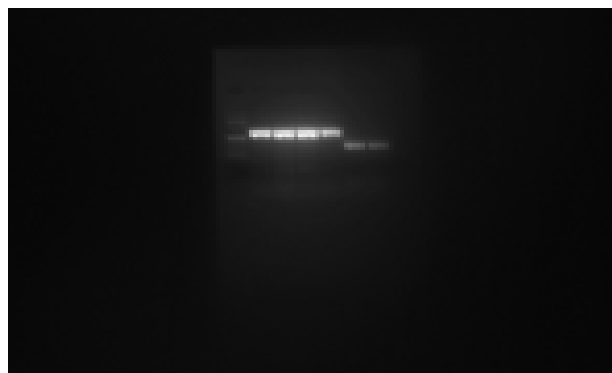
Genetic Diversity Analysis of Different Stocks of Labeo rohita (Rohu) of Mithilaand Seemanchal Region of Bihar.

Salient Achievements:

A survey was conducted in Darbhanga, Madhubani, Supaul, Araria, and Kishanganj to collect live Rohu fish specimens. The mitochondrial gene cytochrome b's partial region was amplified from the collected samples, and the sensory evaluation of rohu culinary preparations was conducted. The Darbhanga district had the highest overall acceptability scores for fried fish and fish



curry, with the sensory attributes scoring higher than those from other locations. However, no correlation was found between identified haplotypes or nucleotide composition of the cytochrome b gene and sensory attributes, suggesting the unique taste of Mithila rohu may be due to habitat variations.



Title:

Transcriptome Profiling for Identification of Abiotic Stress (Heat) Responsive Genes in *Clarias batrachus* and *Tor putitora*

Salient Achievements:

A study was conducted on the transcriptome profiling of *Tor putitora*, a fish species, to identify abiotic stress responses. 3,500 specimens were collected from various sources and maintained at a fish farm for temperature stress experiments. The highest tolerated temperature (HTT) was determined by subjecting the fish to various temperatures for 96 hours. The study also collected tissues for hematological, histological, and physiological parameters. The gill transcriptome data was deposited in the GenBank SRA database.

Title:

Network Project on AnGRs (BASU Unit)

Salient Achievements:

Initial work on the goat population of West Champaran area was started with visits conducted to few households in 2-3 blocks of West Champaran district and screened the potential goat population. Meanwhile, for documentation of Ethno Veterinary Medicine (EvM)/Traditional Veterinary Practices, 15 different districts of Bihar were visited and collected 21 such practices. Major practices documented were related with the treatment of digestive disorders.

Characterization work on Champaran goat population was systematically started with help of two enumerators and data on 766 goats covering 222 households from 4 blocks (Bagaha – 1, Bagaha – 2, Gaunaha and Ramnagar) of West Champaran district were collected as per the NBAGR format.

Seven Animal Genetic Resource Awareness camps in seven different districts (West Champaran, Banka, Khagaria, Chhapra, Vaishali, Kishanganj and Purnea) of Bihar were organised. In these programmes total 24 awareness lectures were delivered and livestock keepers were provided with medicinal supplements. Passport information on the Champaran goat population and Banka cattle population was collected. Few potential populations of buffalo, cattle, pony, goat and chicken were identified for characterization in future.

Title:

Preparation of permanent histological slide of all major organs of ox, goat, dog and domestic fowl: Indispensable techniques in Anatomy education

Salient Achievement

Total 85 (Eighty five) samples were collected from cattle, Fowl, goat and dog. Tissue specimens were sourced from local market of Patna and NBF preserved specimens of the department of veterinary Anatomy. The standard procedures for paraffin method of histological preparation were employed. This involves sample fixation, dehydration, clearing, impregnation,

embedding, section-cutting, staining and mounting. Hematoxylin and Eosin were used for section staining. Photomicrographs were produced using digital camera attached to light microscope that is connected to a computer interface. Five sets of glass slides comprising 85 specimens of different species (cattle-37 organs, fowl-20 organs, dog-16 organs and goat-12 organs) were produced as samples.

Title:

Preservation of organs of domestic animals by plastination technique to improve teaching of anatomy and preparation of eco-friendly museum specimens

Salient achievements:

Two sets of Plastinated specimens (Brain, Heart, Lung, Kidney, Liver, Spleen and female genitalia of Buffalo and Goat) and one set of Plastinated specimens (Brain, Heart, Lung, Kidney, Liver, Spleen and female genitalia of Dog) were performed in the department. Apart from this Heart, Kidney and Testis of horse were preserved with this plastination technique. Luminal cast plastination is done for hollow organs, beautiful and precise bronchial pattern can be seen by this technique. So, we have prepared low Cost Silicon Cast of Tracheo-Bronchial Tree of Black Bengal Goat in the department. The silicon cast of tracheo-bronchial tree is extremely imperative to understand the distribution of bronchial tree pattern.

Plastinated specimens are an excellent alternative to formalin-fixed specimens. Plastination brings not only three-dimensional and cross-sectional specimens for teaching and research, but also durable, clean, non-toxic materials for students. These specimens can be effectively utilized and preserved in eco-friendly conditions. In sagittal plane of brain, thalamus, hippocampus, colliculi, pons, medulla and cerebellum were clearly identified and easily explainable to the students.



Plastinated Heart (Buffalo)



Plastinated Heart (Buffalo)



Plastinated Kidney (Buffalo)



Plastinated Heart (Dog)

- Livestock production and management

Title:

Development and evaluation of improved backyard poultry germplasm

Salient achievements

The first generation of the four crosses has been obtained. The body weight at day old, 4, 6, 8, 12, 16 and 20 weeks of age were recorded and analyzed. Highest body weight at all ages was recorded in RC X RIR followed by RC X PMR Black. At 12 weeks of the higher weight at slaughter, dressing % and cut up parts were recorded in RC X PMR Black. At 38 week of age the highest egg production and % lay (45.5%) was observed in RC X Kadaknath with an overall laying % of 33.25 in all the crosses.



Title:

Poultry Research and Training Centre Bihar Animal Sciences University, Patna

Poultry Research and Training Centre (PR&TC), Bihar Animal Sciences University, Patna supplying low input commercial color chicks of different age group to the Bihar state poultry farmers as well as Bihar Koshi Basin Development Project, Animal and Fisheries Resources, Govt. of Bihar. The population of poultry birds at farm is varying time to time. This farm is maintaining different breed of poultry such as Kadaknath, Red Cornish, Rhode Island Red, Black Plymouth Rock, Barred Plymouth Rock, CSML, CSFL, Vanaraja and Quail for teaching, research and training purpose as per details given in table -1

Species/Breed/Strains	Chicks	Grower	Layer	Total
Kadaknath	287	203	100	590
Red Cornish	0	99	99	198
Rhode Island Red	0	473	128	601
Black Plymouth Rock	0	100	65	165
Barred Plymouth Rock	0	99	15	114
CSML	0	0	250	250
CSFL	0	0	322	322
Vanaraja	4895	602	664	6161
Quail	1031	0	763	1794

Two training were conducted on “Layer and Broiler Farming” for poultry farmers, youth and entrepreneurs.



- Reproductive management and augmentation

Title:

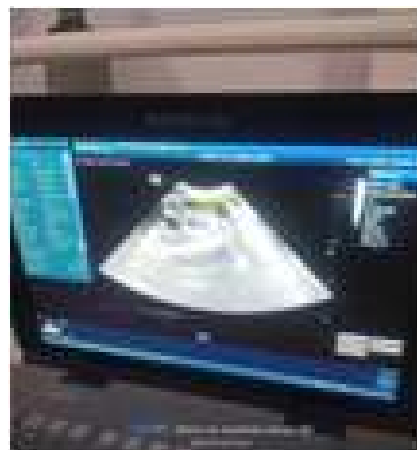
Augmenting fertility by feeding of omega -3 fatty acid enriched diet of oocyte recovery and embryo production”

Salient Achievement

Project was started with objective of increase number of oocytes recovery after supplementation of Flax seed. In the first phase of experiment the control group trial has been finished and collection of data and samples were done like Oocyte recovery rate, USG mapping, Fertilization rate and blastocyst conversion ratio etc. after the completion of of control group trail, Average oocytes recovery rate per OPU was 14.33 and average embryo production per OPU was



2.75. Treatment groups protocols will be started in the same season to avoid the any seasonal variation in the oocytes recovery vis-à-vis embryo production.



Title:

Establishment of Embryo Transfer Technology Centre

Salient Achievement:

Under the ETT and IVF Project Bihar's First Bovine IVF-Embryo was developed and also Bihar's First IVF Sahiwal Calf named as “TANUJA” was born on 17th of January 2024. Lab was set up a new standard in the filled of Ovum Pick Up with the highest number (127) of oocytes recovery from single Sahiwal cow. Till 30th June total 08 Pregnancy were confirmed and 02 calves were delivered through IVF at Livestock Farm Complex, BVC, Patna. With the Standardization and renovation of IVF lab all the lab procedures were also standardized vis-à-vis a New IVF lab is also under construction with all modern facilities and equipment. Now University is ready to serve the Livestock owner of Bihar



- Nutrition for health and welfare of livestock, pets and wildlife

Title:

Preparation and evaluation of canine food prepared from using locally available feed resources and poultry by-products

Salient Achievements:

- Homemade dog biscuits were made using feed ingredients and poultry by-products. The dough was baked in a microwave oven at 160°C for 30 minutes. Nutritional analysis was conducted, and the quality of the food was assessed using standard plate count. After 7 days, the biscuits were palatable and no health issues were reported.



Fig.1 Food ingredients used in dog biscuits



Uncooked Dog biscuits



Microwave cooking on dog biscuits



Cooked dog biscuits

Title:

A Comparative Study of Wolffia, Azolla and Lemna aquatic Plant based diets on Growth performance and Color enhancement of Gold fish (*Carassius auratus*)

Salient achievements

The proximate composition of different feed ingredients (Fish meal, soyabean meal, mustard oil cake, rice bran, wheat flour) was determined to ascertain their inclusion levels in the feed formulation. Culture and proximate composition analysis of Wolffia were conducted. The culture of Azolla was initiated. Four different diets were formulated, each containing powdered Wolffia at varying levels, using locally available ingredients for a comparative study. Feeding trials commenced by administering the Wolffia-incorporated diet to the goldfish.

Title:

Development of herbal feed supplement to achieve enhanced production of *Clarias Magur* (HAMILTON, 1822)

Salient Achievements:

Collection of Ashwagandha Root, Shatavari Root and Mucuna seed were collected from local market was done and proximate analysis of feed ingredients and formulation of diets was completed. Fish was procured and acclimatization is going on. Experiment tanks were set up



Ashwagandha Root



Shatarvari Root



Mucuna Seed

- Expending feed resources and improving nutrient extraction from biomass

Title:

Effect of feeding non- conventional green fodder *Dimeria ornithopoda* and *Saccharum munja* on productive performance of Goat.

Salient Achievements:

Total five villages of five different blocks of Banka district were surveyed and data was collected using pre-module questionnaires. Total area of cultivation of *Dimeria Ornithopoda* in five blocks of Banka district was approx. 1374 ha which is 67% of the barren land and 41% of

total land area. This grass grows naturally and regenerated 3-4 times in grazing area from June to November. The average height and no. of tillers of grass were 2.3 ± 0.12 ft. and 13.0 ± 0.71 respectively. The productivity (kg/ha) of grass in protected area and forest area was 1520.0 ± 89.0 and 1130.00 ± 44.0 , respectively.

The average height and no. of tillers of *Saccharum munja* were 6.02 ± 0.15 ft. and 25.60 ± 2.48 , respectively. The productivity (kg/bunch) of *Saccharum munja* was 12.40 ± 1.21 . The chemical composition of *Dimeria Ornithopoda* and *Saccharum munja* were analysed. The palatability (g/day) of *Dimeria Ornithopoda* and *Saccharum munja* was evaluated.



Title:

Pilot study on standardisation of dietary supplementation of Litchi seed (*Litchi Chinensis*) in Broiler Chicken

Salient Achievements:

Litchi seeds were analyzed for basic nutritional components at the Laboratory of Animal Nutrition Department, Bihar Veterinary College, Patna. The litchi seeds contained 4.93% crude protein, 24.5% crude fiber, 3.2% ether extract, 0.21% calcium, and 0.11% phosphorus on a dry matter basis. The trace mineral content of the seeds, including copper at 18.84 ppm, zinc at 24.58 ppm, manganese at 19.66 ppm, and iron at 48.20 ppm, was analyzed by the Department of Animal Nutrition, WBUAFSU, Kolkata. Samples of litchi seeds have been sent to the Department of LPT, DUVASU, Mathura for fatty acid composition analysis. Additionally, 250 kg of litchi seeds have been obtained from a juice factory in Muzaffarpur, Bihar, and are currently being processed for a subsequent growth trial on broilers.

- Strategic supplementation of macro and micro-nutrients for improving livestock production

Title:

Dietary supplementation of phytase and xylanase on performance and egg quality of Vanaraja layer bird fed on wheat bran-based diet

Salient achievements (500 words):

A total 280-layer birds were divided into 7 groups (1. Group 1- Control 2. Group 2: Phytase - 400 U/kg; 3. Group 3: Phytase -1200 U/kg; 4. Group 4: Xylanase - 1000 U/kg; 5. Group 5: Xylanase - 3000 U/kg; 6. Group 6: Phytase (Gr. 2) + Xylanase (Gr. 4) combination; 7. Group 7: Phytase (Gr. 3) + Xylanase (Gr. 5) combination) and each group having 40 birds which further divided into 5 replicates of 8 birds each. The average initial body weight of birds at the time of starting of feeding trial varies between 1793.00 to 2088.50 grams. The average egg production (nos.) varies from 153.75 to 178.92 between different groups. The feed intake was constant in all groups (115 grams/birds/day). Recording of egg quality parameters on fortnightly basis is in progress.



- Feeding practices for optimizing animal productivity and reducing environmental pollution
- Nutritional management of animals in temperate region: NA
- Impact of environmental stress on health and production in buffaloes: NA
- *Database on livestock related statistics and development of statistical models: NA*
- Economic evaluation of livestock diseases and marketing of livestock products

The estimated economic impact of Foot-and-Mouth Disease outbreaks in Bihar includes a loss of Rs 41,484.00 due to livestock mortality and approximately Rs 20,80,800.00 from reduced milk production. Treatment costs for affected animals were Rs 34,500.00, leading to a total economic loss of Rs 21,56,784.00.

Title:

Study on Fish marketing system: Evidence from Fish Markets of Seemanchal Region, Bihar

Salient achievements:

- Pilot survey of Fish markets was conducted in 4 districts of Seemanchal Region of Bihar, Namely- Kishanganj, Purnia, Katihar and Araria district.

Fish Market, Khagra, Kishanganj



- During the pilot survey more than 25 fish markets was visited. Some of the important fish markets visited during pilot survey are: Sampling sites were selected and data collection has been started

Fish Market of Purnia District



- Extension interventions in livestock production systems

Title:

Value Chain Analysis of Goat Farming Practices in Bihar

Salient Achievements:

Developed interview schedule as per the objectives of the study and pre-tested the interview schedule in the non-sample area from butchers/traders and veterinarians. Development of final structured interview schedule covering all the aspects. Four districts (Patna, Vaishali, Kishanganj and Jamui) from all the agroclimatic zones of Bihar were selected for data collection



Title:

Feeding Patterns and Economics of Milk Production in Different Agro-Climatic Zones of Bihar

Salient achievements:

Socio-economic status of milk producers; milk production cost; and dairy animal feeding patterns across various Agro-climatic zones was assessed through a primary survey. A comprehensive questionnaire designed to gather detailed information from farmers in selected districts. The districts were chosen based on their milk production density (kg/day/sq km) within each Agro-climatic zone.

Selected Districts:

- Agro-climatic Zone I: Begusarai
- Agro-climatic Zone II: Khagaria
- Agro-climatic Zone III: Patna

The field survey was focused on the Nuabatpur block within Patna district, which falls under Agro-climatic Zone III. Specific details of the field survey are as follows:

Survey Locations: Two villages, Dariyapur and Goah, within Nuabatpur



block with 40 farmers in each case.

Data Collection and Entry: The data collection process involved direct interviews of selected farmers through a detailed questionnaire. This phase has been completed, and the collected data has been entered into the database

Title:

Assessment of Poultry Waste Management Practices at Poultry Farms and Commercial Hatcheries in Bihar

Salient Achievements

Total 8 districts among all the agro climatic zones of Bihar were selected and list of 200 Poultry farmers and 25 hatchery owners were finalized. Interview schedule was finalized and validated with help of 25 Poultry scientist/ Experts from ICAR-DPR Hyderabad and other ICAR/SAU Institutes. Data collection from 25 Poultry Framers were completed from Lalganj and Hajipur Blocks of Vaishali district.

Title: Poultry seed project

Salient achievements:

During the year, total 61189 eggs produced and total 55187 chicks supplied to benefit 2011. Different extension activities like Field, awareness camps Goshtis were organized in vaillages.



- Value addition of livestock products

Title:

Effect of Ohmic heating on rheological properties and sensory attributes of skimmed milk and whole milk

Salient achievements:

Design and fabrication of ohmic reactor is completed. Trials are taken to fixed the variac, fixing of distance between two heating plate (316 SS). Fabrication of agitator (304 SS) is completed. Fabrication of conventional (indirect) heat reactor is going on.



Title:**Development of Milk Based (normal) Nutribar****Salient achievements**

Milk nutribar was made with calculated amount of butter, WMP, SMP, powdered sugar, nuts mixture and xanthan gum. Cocoa butter is replaced with milk fat / butter. Hardness of Body is improved by addition of xanthan gum. Level of ingredients are optimized on the basis of sensory evaluation. After optimization, proximate composition of final product was determined. The Milk Nutribar is comprise with 7.0 ± 0.11 % moisture, 23.5 ± 0.14 % fat, 19.31 ± 0.09 % protein, 50.19 ± 0.16 % total carbohydrate.

Title:**Process standardization for development of yoghurt fortified with Sweet Potato (Ipomoea batatas)****Salient Achievements**

Value added yoghurt was developed in the various combination as 0.5, 1, 1.5, and 2 percent of sweet potato powder with yoghurt with the culture obtained from NCDC Karnal. Only first objective is being tried repeatedly to optimize and standardize the production of yoghurt. No difference found in overall acceptability in sensory evaluation assay.

Title :**Livestock and Poultry Products Safety (AINPON LPPS)****Salient Achievements**

Monitoring of three most commonly used pesticides in agricultural and animal husbandry practices was performed in milk samples collected from Patna district, Bihar. The survey revealed that Organophosphates (42.5%), Neonicotinoids (29.5%) and Pyrethroids (24%) account for 96% usage of pesticides in agricultural and animal husbandry practices in Patna district. Chlorpyrifos (32%), Imidacloprid (19%) and Cypermethrin (18%) collectively account for more than 2/3rd of the total usage of pesticides in Patna district. Out of the three pesticides viz. Chlorpyrifos, Imidacloprid and Cypermethrin screened and analysed by HPLC for their presence in milk samples of cattle and buffaloes, Chlorpyrifos was detected in both cattle (2.90%) and buffalo (1.45%) milk below the MRL levels. Analysis of feed samples confirmed the presence in 1 out of 4 suspected samples. Overall it can be concluded that milk of cattle and buffaloes of Patna district is safe for human consumption as no any sample has been detected positive above MRL value.



3. Technologies assessed and transferred

4. Awards and Recognition

5. Linkages and Collaboration in India and Abroad Including Funded Projects (AICRP, All India Network Programmes, DBT, ICAR, NAIP, Other funded, International Collaborative) as per the following format

Externally funded Projects

Sl. No.	Title of the Project	Name of the PI & Associates	Date of Start and period	Sanctioned funds (Rs. in lakhs)	Location
1	ICAR network project on AMR (INFAAR, BVC, BASU, Patna)	Dr. P. Kaushik, Professor Dept. of VPHE, BVC, Patna	2024 onwards	10 lakhs	Department of Veterinary Public Health & Epidemiology, Bihar Veterinary College, Patna
2	An Observational Investigation of frequency of Pathogenic bacteria and antibiotic resistance at the Patna Zoo	Dr. Manoj Kumar, Professor Dept. of Microbiology, BVC, Patna	Feb. 2024 to Feb. 2025	8.36 lakhs	Department of Veterinary Microbiology, Bihar Veterinary College, Patna
3	National Centre for Veterinary Type Cultures (NCVTC)	Dr. Pankaj Kumar, Professor, Dept. of Microbiology, BVC, Patna.	2023 onwards	1.0 lakhs	Department of Veterinary Microbiology, Bihar Veterinary College, Patna
4	Network project on Animal Genetic Resources	Dr. J. P. Gupta, Assoc. Prof., AG&B, BVC, Patna	2023 onwards	Rs. 12.00 lakhs	Department of Animal Breeding and Genetics, Bihar Veterinary College, Patna
5	Rapid Techniques For Differentiation Of Slaughtered Versus Dead On Arrival Food Animal Meat	Dr. Rohit Kumar Jaiswal, Asstt. Prof. LPT, BVC, Patna	March, 2023 to March, 2026	Rs. 23.69 lakhs	Department of Livestock Products Technology, Bihar Veterinary College, Patna
6	The combined effect of Quercetin and Platelet Rich Plasma in semen extender for improved antibacterial efficacy and membranes repairing potential of cryopreserved buck semen	Dr. Alok Kumar, Asstt. Prof., VGO, BVC, Patna	March, 2023 to March, 2026	Rs. 24.73 Lakh	Department of Veterinary Gynaecology and Obstetrics, Bihar Veterinary College, Patna

Sl. No.	Title of the Project	Name of the PI & Associates	Date of Start and period	Sanctioned funds (Rs. in lakhs)	Location
7	Bio-fabricated Gold Nano-particle based Improved semen Extender to Augment the post-thaw quality of Goat semen	Dr. Alok Kumar, Asstt. Prof., VGO, BVC, Patna	03 Years March 2023 to March, 2026	Rs. 130.33 Lakh	Department of Veterinary Gynaecology and Obstetrics, Bihar Veterinary College, Patna
8	Transcriptome profiling for identification of abiotic (heat and cold) stress responsive genes in <i>Clarius batrachus</i>	Dr. Mamta Singh, Asstt. Prof, College of Fisheries, Kishanganj	03 Years (January, 2022 to December 2024)	29.50 lakh	Department of Fish Biotechnology, College of Fisheries, Kishanganj
9	Nutritional Amelioration Strategies for heat Stress to Sustain Dairy Milk Production in Bihar State of India.	Dr. Pankaj Kumar Singh, Asstt. Professor, Dept. of ANN, BVC, Patna	2021	31071 AUD	Department of Animal Nutrition, Bihar Veterinary College, Patna
10	Outreach Programme on “Monitoring of Drug Residues & Environmental Pollutants”	Dr. Nirbhay Kumar, Professor Dept. of VPT, BVC, Patna	Current 05 yearly plan (2021-2026)	5.40 Lakh	Department of Veterinary Pharmacology and Toxicology, Bihar Veterinary College, Patna
11	National Animal Disease Epidemiological Network-(NADEN),	PI - Dr. Pankaj Kumar, Professor, Veterinary Microbiology, BVC, Patna Co-PIs: CO-PIs: Dr. Purushottam Kaushik University Professor Department of Veterinary Public Health BVC, Patna Dr. Pallav Shekhar University Professor Department of Veterinary Medicine, BVC, Patna-14	March, 2021 to continue	3.00 lakhs annually	Department of Veterinary Microbiology, Bihar Veterinary College, Patna

Sl. No.	Title of the Project	Name of the PI & Associates	Date of Start and period	Sanctioned funds (Rs. in lakhs)	Location
12	Image Capturing of pest/diseases in Crop/Livestock-AI based Mobile App under NAHEP Component 2A	PI: Dr. Manoj Kumar, Professor, Veterinary Microbiology, BVC, Patna-14 Associates: Dr Pankaj Kumar, Professor. Dr Ravi Ranjan Kumar Sinha, Assoc. Prof. Dr Deepak Kumar, Assoc. Prof. Dr Ranveer Kumar Sinha, Assoc. Prof.	April, 2020 to continue	5.26 lakh annually	Department of Veterinary Microbiology, Bihar Veterinary College, Patna
13	LHDCP-FMD Control programme	PI: Dr. Manoj Kumar, Professor, Veterinary Microbiology, BVC, Patna-14	April, 2020 to continue	6.00 lakhs annually	Department of Veterinary Microbiology, Bihar Veterinary College, Patna
14	Establishment of Embryo Transfer Technology Centre	Dr. J.K. Prasad, Dean BVC, Patna	January, 2019 continue	2014 lakhs	
15	FIST Programme – 2016	Dr. Ajeet Kumar, Assoc. Prof., Veterinary Biochemistry, BVC, Patna	October 2017 March 2022	110.00 lakhs	Department of Veterinary Biochemistry, Bihar Veterinary College, Patna
16	Poultry Seed Project (PSP)	Dr. Pankaj Kumar, Assoc. Prof., VAHEE, BVC, Patna	April, 2009 to onward	28 lakhs for (2023-24)	Department of Veterinary Animal Husbandry Extension Education, Bihar Veterinary College, Patna

University Funded Projects

Sl. No.	Title of the Project	Name of the PI & Associates	Date of Start	Date of Completion
1	Molecular prevalence of Haemoprotezoal and rickettsial disease of bovine (Completed report yet to be submitted)	Dr. Pankaj Kumar, Professor, Microbiology.	04.02.2022	03.02.2024
2	Evaluation of probiotic potential and antimicrobial efficacy of Lactobacillus spp. isolates from gastrointestinal tract of animals and human (Completed report yet to be submitted)	Dr. Bhoomika, Asstt. Prof. Dept. of VPHE, BVC (project completed report not submit yet)	04.02.2022	03.02.2024
3	Preparation and evaluation of canine food prepared from using locally available feed resources and poultry by-products (Completed report yet to be submitted)	Dr. Pankaj Kumar Singh, Professor, Dept. of ANN, BVC project completed report not submit yet	04.02.2022	03.02.2024
4	Isolation and characterization of bacteriophages targeting food borne pathogens from sewage samples of livestock farm (Completed report yet to be submitted)	Dr. Anjay Assoc. Prof. Dept. of VPHE, BVC	30.05.2019	29.11.2023
5	Development and quality evaluation of flavoured Paneer (Completed report yet to be submitted)	Dr. Sushma Kumari, Assoc. Prof., Dept. of LPT, BVC	04.02.2022	05.08.2024
6	Impact of physiotherapy in rehabilitation of clinical cases of neuro-muscular disorders in animals. (Completed report yet to be submitted)	Dr. Archana Kumari, Assoc. Prof., Dept. of VSR, BVC	04.02.2022	05.08.2024
7	Evaluation of autologous and heterologous platelet-rich fibrin application on cutaneous wound healing in dogs (Completed report yet to be submitted)	Dr. Gyan Dev Singh, Asstt. Prof., Dept. of VCC, BVC	04.02.2022	05.08.2024
8	Biofabrication of gold nanoparticles and its antiproliferative effect in cell line (Completed report yet to be submitted)	Dr. Ajeet Kumar, Assoc. Prof., Vety. Biochemistry, BVC	28.08.2018	01.06.2024

Sl. No.	Title of the Project	Name of the PI & Associates	Date of Start	Date of Completion
18	"Preparation of permanent histological slide of all major organs of domestic animals and bird: Indispensable resource in Anatomy education" (Service project)	Dr. Avnish Kumar Gautam, Assoc. Prof., Dept. of Anatomy	04.09.2023	03.09.2025
19	"Preservation of organs of domestic animals by plastination technique to improve teaching of anatomy and preparation of eco-friendly museum specimens"	Dr. Ratnesh Kr. Choudhary, Assoc. Prof, Dept. of Vet. Anatomy	04.09.2023	03.09.2025
20	"Preparation of Osteological Museum of Domestic Animals including Birds"	Dr. Sanjay Kr. Bharti, Assoc. Prof. Dept. of Vet, Anatomy	04.09.2023	03.09.2025
21	"Assessment of Poultry Waste Management Practices at poultry farms and commercial hatcheries in Bihar"	Dr. Puspendra Kumar Singh, Asst. Prof. Dept. of Vet. & A.H. Extension Education, BVC	01.09.2023	31.08.2025
22	"Improvement of Conception in Repeat Breeder Cows Following Hormonal Treatment and Development of Accessory Corpus Luteum"	Dr. Shailendra Kishore Sheetal, Asst. Prof. VGO, BVC	02.09.2023	1.09.2025
23	"Study on diagnosis of alopecia in dog with special reference to etiology, trichometry and histologic Alteration" undertaken as pilot study	Dr. Bipin Kumar, Asst. Prof. Vet. Medicine, BVC	12.09.2023	11.09.2024
24	"Molecular detection and assessment of oxidative stress in bovine Theileriosis carrier cattle encompassing Patna District of Bihar"	Dr. Anil Kumar, Assoc. Prof. Dept of Vet. Medicine, BVC	01.09.2023	31.08.2026
25	"Generation of Microbial resources and Prevalence study of pathogens of poultry origin in Bihar"	Dr. S. K. Gupta, Professor, Dept. of Vet. Microbiology, BVC	05.09.2023	04.09.2025
26	"Antibacterial and Wound Healing properties of Bioadhesives from biomass derived Carbon Dots"	Dr. Manoj Kumar, Assoc. Dept. of Vet. Microbiology, BVC	18.09.2023	17.09.2025

Sl. No.	Title of the Project	Name of the PI & Associates	Date of Start	Date of Completion
9	Evaluation of Proliferative and apoptotic markers in Canine mammary tumour for diagnosis and prognosis (Completed report yet to be submitted)	Dr. Kaushal Kumar, Assoc. Prof. Department of Pathology (extended in 7th RCM)	14.11.2019	13.09.2024
10	Colorimetric detection of E. coli, Streptococcus spp. and Staphylococcus aureus isolated from mastitis milk samples by optical biosensing using oligonucleotide- Gold Nanoparticles (Completed report yet to be submitted)	Dr. Ajeet Kumar, Assoc. Prof. Department of Biochemistry BVC	14.11.2019	01.11.2024
11	Dietary supplementation of phytase and xylanase on performance and egg quality of Vanaraja layer bird fed on wheat bran-based diet.	Dr. Kaushalendra Kumar, Assoc. Prof., Dept. of ANN, BVC. extended up-to Feb 2025 with total budget of Rs. 2.00 lakh	04.02.2022	01.02.2025
12	"Phenotypic and Genetic Characterization of Goats of West Champaran, Bihar"	Dr. Ramesh Kumar Singh, Asst. Prof, Dept. of AG&B, BVC	01.09.2023	31.08.2025
13	"Detection of polymorphism in MHC class II genes and their association with theileriosis in cattle"	Dr. Soni Kumari, Asst. Prof, Dept. of AG&B, BVC, Patna	01.09.2023	31.08.2025
14	"Comparative global gene expression profile of interaction of host against natural infection of theileria in crossbred and indigenous cattle"	Dr. Jay Prakash Gupta, Assoc. Prof., Dept. of AG&B, BVC	01.09.2023	31.08.2026
15	"Pilot study on standardisation of dietary supplementation of Litchi seed (Litchi Chinensis) in Chicken feed"	Dr. Pankaj Kumar Singh, Professor. Dept. of Animal Nutrition, BVC	01.09.2023	31.08.2025
16	"Utilization of Poultry Waste for Organic Manure Production: Development of a Model Unit"	Dr. Kaushalendra Kumar, Assoc. Prof. Dept. of Animal Nutrition, BVC	01.09.2023	31.08.2025
17	"Effect of feeding non-conventional green fodder (Dimeria ornithopoda) and Saccharum munj on productive performance of Goat"	Dr. Dharmendra Kumar, Assoc. Prof. Dept. of Animal Nutrition	01.09.2023	31.08.2025

Sl. No.	Title of the Project	Name of the PI & Associates	Date of Start	Date of Completion
27	Study on status of acaricide resistance in tick population of Bihar"	Dr. Shyma K.P. Assoc. Prof. Dept. of Vet. Parasitology, BVC	01.09.2023	31.08.2026
28	Development of Parasitological Museum" (Service Project)	Dr. Pankaj Kumar, Assoc. Prof., Dept. of Parasitology, BVC	01.09.2023	31.08.2026
29	"Pilot study on Anthelmintic Resistance in Gastro-intestinal Nematodes in Cattle"	Dr. Raj Kishore Sharma, Assoc. Prof. Dept. of Vet. Parasitology, BVC	01.09.2023	31.08.2025
30	"Development of Staining Protocol for Co-Localizing Zn and Ag in Nucleolar organizing regions as a tool for assessing aggressiveness of superficial tumours in animals"	Dr. Sanjiv Kumar, Assoc. Prof. Vet. Pathology, BVC	02.09.2023	01.09.2026
31	entitled "Development of Pathological Museum for gross-changes in organs in different disease condition"	Dr. Imran Ali, Assoc. Prof. Vet. Pathology, BVC	05.09.2023	04.09.2026
32	"Evaluation of bubaline and caprine acellular matrix in repair of abdominal wall defects in animals"	Rajesh Kumar, Assoc. Prof, Dept. of Vet. Surgery & Radiology, BVC	02.09.2023	01.09.2025
33	"Development of device for diagnosis and prevention to access metallic foreign body and Surgical management of Traumatic Pericarditis in Bovine"	Dr. Ramesh Tiwary, Assoc. Prof, Dept. of Vet. Surgery & Radiology, BVC	04.10.2023	03.10.2026
34	"Augmenting fertility and oocyte recovery rate in bovine by feeding Omega-3 rich fatty acid (flax seed) enriched diet"	Dr Dushyant Yadav, Asst. Prof. Dept. of LFC (VGO), BVC	02.09.2023	01.09.2025
35	Strategies for improving the IVF embryo production and assessment of subsequent pregnancy development in bovine	Dr. Sumit Singhal, Assoc. Prof., VGO, BVC, Patna	20.12.2023	19.12.2025
36	"Evaluation of Trefoil Factor (TFF1 & TFF3) as a biomarker in canine mammary tumour and development of ELISA for its estimation in serum"	Dr. Himalaya Bhardwaj, Asst. Prof. Dept. of Vet. Clinical Complex (Vet. Biochemistry), BVC	21.08.2023	20.08.2026

Sl. No.	Title of the Project	Name of the PI & Associates	Date of Start	Date of Completion
37	Pathological analysis of mortalities in higher body weight broiler chicken during transportation	PI: Dr Sanjiv Kumar, Asst. Prof. Vety. Pathology	17.05.2023	16.05.2025
38	"Development and Evaluation of Improved Backyard Poultry Germplasm"	PI : Dr. Soni Kumari Asst. Prof., dept. of AG&B Budeget utilized from PRTC, BASU, Patna	16.03.2024	15.03.2027
39	Spatial and Temporal Changes in Livestock Population in Bihar"	Dr. Bhola Nath, Asst. Prof. Dept. of DBM, SGIDT	01.09.2023	31.08.2025
40	"Process optimization of low fat long life herbal vacuum packaged paneer/soft cheese"	Prof.(Dr.) J. Badshah. Dept. of Dairy Engineering, SGIDT	01.09.2023	31.08.2025
41	"Development of Educationally Interactive Exhibits" (service project)	Ms. Sarvjeet Kaur, Asst. Prof. Dept. of Dairy Extension Education, SGIDT	01.09.2023	31.08.2025
42	"Value Chain Analysis of Goat Farming Practices in Bihar"	Dr. YS Jadoun, Assoc. Prof. Dept. of Dairy Extension Education	01.09.2023	31.08.2026
43	"Effect of Ohmic heating on rheological properties and sensory attributes of skimmed milk and whole milk"	Mrs. Rashmi Kumari, Asst. Prof. Dept. of Dairy Engineering, SGIDT	01.09.2023	31.08.2025
44	"Technical and Economic Efficiency of Milk Producers in Different Agro-Climatic Zones of Bihar"	Dr. Awadhesh Kumar Jha, Asst. Prof., Dept. of Dairy Business Management, SGIDT	01.09.2023	31.08.2025
45	"Structural Transformation during the National Dairy Plan Phase - I in Bihar Dairy Sector vis-à-vis Indian Dairy Sector"	Dr. Shiv Raj Singh, Assoc. Prof., Dept. of Dairy Business Management, SGIDT	01.09.2023	31.08.2025
46	"Feeding Patterns and Economics of Milk Production in Different Agro-Climatic Zones of Bihar"	Dr. Rohit Kumar, Asst. Prof. Dept. of Dairy Business Management, SGIDT	01.09.2023	31.08.2025

Sl. No.	Title of the Project	Name of the PI & Associates	Date of Start	Date of Completion
	Pilot projects			
47	"Studies on development of ready-to-eat (RTE))"	Sh. Suryamani Kumar, Asst. Prof., DT, SGIDT, Patna	19.08.2023	18.09.2023
48	Development of Finger Millet, Flax seed and SMP based ready to eat supplementary food	Dr. Binita Rani, Prof., SGIDT, Patna	19.08.2023	18.09.2023
49	Development of Composite Nutribar Based on Milk and Finger Millet (Ragi)	Dr. Jui Lodh, Asst. Prof., DT,SGIDT, Patna	19.08.2023	18.09.2023
50	Development of Probiotic Yoghurt enriched with Water chesnut (Shinghara) and Sweet Potato.	Dr. Soniya Kumari, Assoc. Prof. DC, SGIDT, Patna	07.05.2024	06.06.2024
51	Development of Herbal feed supplement to Achieve Enhanced Production of Clarias magur (Hamilton,1822)	Dr. Sangeeta Kumari, Assistant Professor Aquaculture	20.09.2023	19.09.2026
52	Effect of Wolfia based diet on growth and colour enhancement of goldfish (Carassius auratus).	Dr. Sagarika Swain Assistant Professor Aquaculture	20.09.2023	19.09.2024
53	Evaluation of wounds healing ability of Mikania micrantha individually and in combination with Curcuma longa in Clarias magur.	Dr. Naresh Raj Keer. Assistant Professor Aquaculture	20.09.2023	19.09.2024
54	Study on Occurrence and Risk Assessment of Microplastics in Mahananda River, India	Mr. Tapas Paul, Assistant Professor Aquatic Environment Management	20.09.2023	19.09.2025
55	Toxicological effect of Iron on Indian Major carps and Its Removal through Column Filtration Unit	Mr. Ashutosh Kumar Singh, Asstt. Prof. Aquatic Environment Management	20.09.2023	19.09.2026
56	Study on the antiparasitic effect of green synthesized Silver nanoparticles against common ectoparasites of goldfish Carassius auratus	Ms. Pushpa Kumari, Asstt. Prof. Aquatic Animal Health Management	20.09.2023	19.09.2025
57	Inventorization, cataloguing and development of live gene bank of native ornamental fishes of Seemanchal region of Bihar.	Dr. Rupam Samanta, Assistant Professor Fisheries Resource Management	20.09.2023	19.09.2026

Sl. No.	Title of the Project	Name of the PI & Associates	Date of Start	Date of Completion
58	Study on Fish Marketing System: Evidence from Fish Markets of Seemanchal Region Bihar.	Mr. Ravi Shankar Kumar, Assistant Professor Fish Genetics and Breeding	20.09.2023	19.09.2026
59	Prevalence and Existence of Pathogenic strain of E. coli in fish from fish market of Simanchal region.	Dr. Abhishek Thakur, Assistant Professor Fish Processing Technology.	20.09.2023	19.09.2023
60	Development of genetic lines for appearance traits via artificial selection in Colisa fasciata	Ms. Aishwarya Sharma, Assistant Professor Fish Genetics and Breeding	20.09.2023	19.09.2028
61	Genetic Diversity Analysis of Different Stocks of Labeo rohita (Rohu) of Simanchal and Mithila Region of Bihar (As per direction of State Deptt)	Dr Mamta Singh, Asst. Prof., CoF Kishanganj	20.09.2023	19.09.2024
62	Inventorization and documentation of aquatic resources and Resource Users of Kishanganj district of Bihar	PI: Dr V P Saini, Dean CoF, Kishanganj	20.09.2023	
63	Standardizing Goat Transportation for Improved Welfare in Seemanchal district of Bihar	Dr. Binod Kumar Assoc. Prof., Vet. Parasitology, CoVAS	01.05.2024	30.04.2026
64	Molecular detection and characterization of ticks and tick-borne haemoprotozoans in cattle and goats in north eastern region of Bihar	Dr. Kaushlendra Singh, Asst. Prof., Parasitology, CoVAS	01.05.2024	30.04.2026
65	Status of gastro-intestinal parasitic burden in ruminants in North eastern region of Bihar.	Dr. Shiv Varan Singh Asst. Prof., Vet. Microbiology, CoVAS	01.05.2024	30.04.2026
66	Prevalence of common MDR bacterial pathogens responsible for infertility (metritis, pyometra, repeat breeding & silent heat), abortion and mastitis in dairy animals of Kishanganj region	Dr. Sadhana Ojha Asst. Prof., LPT, CoVAS	01.05.2024	30.04.2026
67	Prevailing Marketing Practices for poultry meat and its Quality Evaluation in Kishanganj district of Bihar.	Dr. Binod Kumar Assoc. Prof., Vet. Parasitology, CoVAS	01.05.2024	30.04.2026

6. List of Publications (Senior/first author should be from the Division concerned) Please provide separate complete list.

- Research articles in reputed journals (indicate Indian / Foreign journal with impact factor) (List should be as per annual report format)
- Technical papers/review articles/full invited papers in conferences/trainings, etc.
- Abstracts/papers presented in conferences/symposia
- GenBank submissions
- Books
- Training manual / compendium
- Book chapters

Manoj Kumar (2024). Antibacterial and Wound Healing Properties of Bio-Adhesives from Biomass Derived Carbon Dots. In: “Advances in Nanotechnology and its Application in Animal Health”. Eds: Vibha Yadav, R K Joshi, D Niyogi, S V Singh, Rajesh Kumar.

ISBN: 978-81-19708-62-8

Publisher: ABS Books, B-21, Ved and Shiv Colony Budhh Vihar, Budh Vihar Phase 2, Delhi – 110086.

- Monographs
- Technical / semi-technical bulletins
- Popular articles
- Extension bulletins
- News paper coverage
- Radio / TV talks

V talks telecasted in Krishi Darshan, 'DD Bihar, channel

- “गर्मी के मौसम में दुधारु पशुओं की देखभाल”
- “पशुओं के संक्रामक रोग एवं मनुष्योव पर प्रतिकूल प्रभाव”
- “बाढ़ में खुरहा रोग से बचाव”
- “वर्षा श्रतु में संक्रमण रोग का खतरा एवं बचाव”
- “खुरहा रोग से बचाव हेतु टीकाकरण अभियान एवं कृषको की भागीदारी”
- “गौठदार त्वओचा रोग के लक्ष्णो एवं उपचार”
- “टीकाकरण द्वारा खुरहा रोग का बचाव तथा नियंत्रण”
- “दुधारु पशुओं में होनेवाली संक्रामक रोग एवं रोकथाम”

7. List of Research Projects / Service Projects

Sl. No.	Title of the Project	Name of the PI & Associates	Date of Start	Date of Completion
1	DR Unit of Sahiwal Cattle breed under All India Coordinated Research Project on Cattle	Dr. Sri Prasad Sahu, Professor, Dept. of, Livestock Production Management, BVC, BASU, Patna	In process of start	

Sl. No.	Title of the Project	Name of the PI & Associates	Date of Start	Date of Completion
2	ICAR network project on AMR (INFAAR, BVC, BASU, Patna)	Dr. P. Kaushik, Professor Dept. of VPHE, BVC, Patna	2024	ongoing
3	An Observational Investigation of frequency of Pathogenic bacteria and antibiotic resistance at the Patna Zoo	Dr. Manoj Kumar, Professor Dept. of Microbiology, BVC, Patna	Feb. 2024	Feb. 2025
4	National Centre for Veterinary Type Cultures (NCVTC)	Dr. Pankaj Kumar, Professor, Dept. of Microbiology, BVC, Patna.	2023	Ongoing
5	Network project on Animal Genetic Resources	Dr. J. P. Gupta, Assoc. Prof., AG&B, BVC, Patna	2023	Ongoing
6	Rapid techniques for differentiation of slaughtered versus dead on arrival food animal meat	Dr. Rohit Kumar Jaiswal, Asstt. Prof. LPT, BVC, Patna	March, 2023	March, 2026
7	The combined effect of Quercetin and Platelet Rich Plasma in semen extender for improved antibacterial efficacy and membranes repairing potential of cryopreserved buck semen	Dr. Alok Kumar, Asstt. Prof., VGO, BVC, Patna	March, 2023	March, 2026
8	Bio-fabricated Gold Nano-particle based Improved semen Extender to Augment the post-thaw quality of Goat semen	Dr. Alok Kumar, Asstt. Prof., VGO, BVC, Patna	March 2023	March, 2026
9	Transcriptome profiling for identification of abiotic (heat and cold) stress responsive genes in Clarius batrachus	Dr. Mamta Singh, Asstt. Prof, College of Fisheries, Kishanganj	January, 2022	December 2024
10	Nutritional amelioration strategies for heat stress to sustain dairy milk production in Bihar state of India.	Dr. Pankaj Kumar Singh, Asstt. Professor, Dept. of ANN, BVC, Patna	2021	Ongoing
11	Outreach Programme on “Monitoring of Drug Residues & Environmental Pollutants”	Dr. Nirbhay Kumar, Professor Dept. of VPT, BVC, Patna	2021	2026

Sl. No.	Title of the Project	Name of the PI & Associates	Date of Start	Date of Completion
12	National Animal Disease Epidemiological Network- (NADEN),	Dr. Pankaj Kumar, Professor, Veterinary Microbiology, BVC, Patna	March, 2021	Ongoing
13	Image Capturing of pest/diseases in Crop/Livestock-AI based Mobile App under NAHEP Component 2A	Dr. Manoj Kumar, Professor, Veterinary Microbiology	April, 2020	Ongoing
14	LHDCP-FMD Control programme	Dr. Manoj Kumar, Professor, Veterinary Microbiology	April, 2020	Ongoing
15	Establishment of Embryo Transfer Technology Centre	Dr. J.K. Prasad, Dean BVC, Patna	January, 2019	Ongoing
16	FIST Programme – 2016	Dr. Ajeet Kumar, Assoc. Prof., Veterinary Biochemistry, BVC, Patna	October 2017	March 2022
17	Poultry Seed Project (PSP)	Dr. Pankaj Kumar, Assoc. Prof., VAHEE, BVC, Patna	April, 2009	Ongoing

8. Consultancy, Patents, Commercialization of Technology

- Consultancy services provided to :-
- Patent / Technology submitted to ITMC / ZTMC
- Patent applications filed
- PCT application filed
- Technologies Commercialized and revenue generated
- Impact assessment of technologies commercialized / transferred
- Technologies assigned for commercial transfer
- Contract Research Projects

9. Revenue Generation (By the Division / Section)

10. Education and training including human resource development composition of Management Committee, Academic Council, etc. with significant decisions (by J.D. Academic)

11. Composition of Research Advisory Committee, IRC, etc. with significant decisions (by J.D. Research)

The members of Research Council:

- Vice Chancellor, BASU, Patna, Ex-officio Chairman
- Director Research, BASU, Patna, Ex-officio Member Secretary
- Director Resident Instruction, BASU, Patna
- Director Extension Education, BASU Patna
- Director Animal Husbandry, Govt of Bihar, Ex Officio Member

- Director Dairy, Govt. of Bihar, Ex Officio Member
- Director Fisheries, Govt. Of Bihar, Ex Officio Member
- Director Agriculture / Chief Conservator of forest, Govt. Of Bihar, Patna
- Dean, Bihar Veterinary College.
- Dean, Sanjay Gandhi Institute of Dairy Technology.
- Dean, College of Fisheries, Kishanganj
- Dean, COVAS, Kishanganj
- All Heads of Department of constituent colleges, BASU, Patna
- All professors of constituent colleges, BASU, Patna
- Special invitees:
- Managing Director of Cooperative Milk Federation (COMFED) of Bihar
- Project Director, Bihar Livestock Development Agency, Bihar, Patna.
- Two eminent Scientists nominated by the Vice Chancellor
- Dr. S. K. Singh, Joint Director (Research) IVRI, Izatnagar, U.P.
- Dr. Vikas Vohra, Head, Animal Genetic and Breeding, NDRI, Karnal
- Four co-opted members:
- Sh. Shivraj Singh, MD, Baba Matsya Hatchery, Muzaffarpur,
- Sh. Prakash Singh, Poultry Farmer, Shipra Hatchery, Muzaffarpur
- Sri Rajveer Singh, A-216, Jamunapuram, Near Sai Mandir, Bulandshahar, U.P.
- Dr. Pawan Kumar, MD, Hitech Nutrisol Pvt. Ltd. Hajipur, Bihar.

Major decisions:

- The project team to be rationalized by limited 2-3 Co-PIs in each project excepting a few projects encompassing larger areas with wider mandates
- The PI and Co-PI in each project to have defined share of time.
- Projects proposal should have quantifiable and measurable targets.
- Background and justification for each project should be clearly stated.
- The expected outcome should be clearly stated and may be focused on development of tangible outcome(s) for wider applications.

- 12. Participation of scientists in conferences, workshops, symposia, trainings, etc. in India and abroad** (Mention Name of Symposium / Seminar / Workshop, place held, date and a number of scientists actually attended) as per given format.

Sl. No.	Name of the Symposium/Seminar/Workshop	No. of Scientists Attended
1	IXth Annual Conference of Indian Society of Veterinary Pharmacology & Toxicology, Anand, November, 5-7th 2009.	3

- 13. Workshops, seminars, summer/winter schools, short courses, trainings, etc. convened at the institute (as per Annual Report format)**

- 14. List of distinguished visitors**

- 15. List of scientific / technical staff (above T-5) with qualifications**

- 16. Any other relevant information such as infrastructure development** (such as Farm /

Engineering / Medical Sections / Feed Technology Unit/ Farm Workshop/ NLVS / ARIS / Bioinformatics/ Communication Centre/ Central Data Cell / Rajbhasha Anubhag / Kisan Call Centre / ATIC / ITMU / ZTM-BPD Unit/ Sale of livestock products by LPT)

17. **Empowerment of women and the mainstreaming gender issues**
18. **List of filled & unfilled technical and other posts from Group A to D (By AAO/ E-I/ II/ III & IV)**
19. **List of personnel appointed, promoted, transferred, superannuated, demised (by Station In-charges / H.D.s./ AAO/ E-I/ II/ III & IV)**
20. **Financial statement showing receipts and expenditure inclusive of all campuses (By F&AO)**
21. **Contractual Scientific / Technical / Research Assistant / JRF / SRF / Emeritus scientists engaged in different projects.**





Annual
Report
2023-24



**Directorate of
Extension Education**

DIRECTORATE OF EXTENSION EDUCATION

Extension Activities

Directorate of Extension Education of the University acts as an interface for transferring technologies, disseminating information and instilling skills among various stakeholders by making concerted efforts with the help of University faculty and officials of the line departments.

Directorate of Extension Education organized number of training programmes and started Pashu Samvad Portal and e-Kisan Samadhan advisory WhatsApp group for offering online Farm Advisory Services to different livestock holders.

1. Training organized by Directorate of Extension Education, BASU, during 2023-24:

Sl no.	Topic	Date & Place	Sponsored by	Participants
1.	Improved animal husbandry	05.09.23 to 09.09.23 BASU, Patna	ATMA, Siwan	33
2.	Improved animal husbandry	21.09.23 to 23.09.23 BASU, Patna	ATMA, Lakhisarai	26
3.	Goat farming	22.09.23 to 24.09.23 BASU, Patna	ATMA, Munger	24
4.	Advances in Goat farming	03.10.23 to 07.10.23 BASU, Patna	ATMA, Bhojpur	31
5.	Improved animal husbandry	05.12.23 to 09.12.23 BASU, Patna	ATMA, Gaya	30
6.	Improved animal husbandry	27.12.23 to 31.12.23 BASU, Patna	ATMA, Vaishali	30
7.	Advances in Goat farming	05.02.24 to 07.02.24 BASU, Patna	ATMA, Nawada	32
8.	Advances in Poultry farming	07.02.24 to 09.02.24 BASU, Patna	ATMA, Nawada	30
9.	Commercial Animal Husbandry and Dairy production	05.02.24 to 07.02.24 BASU, Patna	ATMA, Nawada	30
10.	Commercial Animal Husbandry and Dairy production	16.03.24 to 18.03.24 BASU, Patna	ATMA, Rohtas	31

2. Training organized by Directorate of Extension Education, BASU, during 2023-24

Sl. NO.	Date	Place of event	Animals treated	No. of people participated
1.	14.08.2023	Simultala, Jamui	112	295
2.	05.09.2023	Turkey, Muzaffarpur	135	300
3.	20.09.2023	Akbarpur, Nawada	150	250
4.	26.09.2023	Siris, Barun, Aurangabad	120	250
5.	04.10.2023	Kumbhi, Varshaliganj, Nawada	135	260
6.	09.10.2023	C.S. Nagar, Guguldih, Jamui	165	280

Sl. NO.	Date	Place of event	Animals treated	No. of people participated
7.	17.10.2023	K. Nagar, Purnia	150	260
8.	30.10.2023	Pupari, Sitamarhi	130	275
9.	31.10.2023	Ramnagara, Block- Riga, Sitamarhi	110	290
10.	08.11.2023	Nilkothe, Chandan, Banka	150	260
11.	09.11.2023	Mullicane, Katoria, Banka	180	280
12.	24.11.2023	Maur, Barbiga, Sheikhpura	160	270
13.	24.11.2023	Badharakothi , Purnia	140	304
14.	25.11.2023	Village: Narayanpur, Barbiga, Sheikhpura	170	285
15.	02.12.2023	Aamas, Gaya	140	270
16.	04.12.2023	Bishun Biga, Gurua, Gaya	120	260
17.	07.12.2023	Vill- Raghunathpur, Block- Bhargama, Araria	180	250
18.	08.12.2023	Vill- Lakunma Mandal Tola, Block- Raniganj, Araria	200	315
19.	16.12.2023	Pipra, Barun, Aurangabad	95	275
20.	20.12.2023	Fulwaria village, Block Korha, Katihar	150	260
21.	22.12.2023	Amol village, Block- Falka, Katihar	180	350
22.	27.12.2023	Vill- Anjanakot, Muzaffarpur	150	260
23.	27.12.2023	Pansalwa, Block- Khagaria, Khagaria	150	290
24.	28.12.2023	Ramjanpur, Begusarai Sadar, Begusarai	80	280
25.	28.12.2023	Vill- Beldaur, Block- Beldaur, Khagaria	130	260
26.	29.12.2023	Village – Khodawanpur, Begusarai	50	300

3. Workshop/ Conference/ Expo /Kisan Mela Coordinated /attended 2023-24:

Topic	Date & Place	Faculty
Workshop on “Training need assessment of Goatary Sector for Veterinary Officers, Progressive farmers and entrepreneurs”	28.06.2023	Dr. Saroj Kumar Rajak
Agriculture Fair -2024 Coordinated and put up BASU, Stall	24.02.2024 to 26.02.2024, Dr. RPCAU, Pusa, Samastipur	Dr. Saroj Kumar Rajak
Bihar Dairy & Cattle Expo- 2023	21.12.2023 to 23.12.2023, BASU, Sports Ground, Patna	Dr Pankaj Kumar Dr Saroj Kr Rajak Dr Saroj Kr Rajak
Regional Agriculture Fair- 2024	17.02.2024 to 19.02.2024 BAU, Sabour	Dr. Y. S. Jadoun Dr Puspendra Kr Singh
Kisan Mela – 2024	21.02.2024, ICAR-RCER, Patna	Dr. Puspendra K. Singh

Topic	Date & Place	Faculty
Faculty Development Programme in collaboration with EEI, Nilokheri & DEE BASU, Patna	05/12/2022 to 09/12/2022, Patna	Dr Pankaj Kumar Dr Puspendra Kr Singh Dr Saroj Kr Rajak
Pashu Arogya Mela 2023	18-20 February 2023 KVK Piperakothi	Dr Pankaj Kumar Dr Puspendra Kr Singh

4. Online farmers advisory system through e-Kisan Samadhan

An e-Kisan Samadhan programme for farmers of BASU, Patna WhatsApp group (e-Kisan Samadhan) is being organized via zoom meeting by Directorate of Extension Education, Bihar Animal Sciences University, Patna on every first and third Saturday of the month to discuss the selected questions of farmers with the experts of BASU, Patna for through dissemination of knowledge related to farmers queries.

Details of e-Kisan Samadhan activities performed

Sl. No.	Date	Topic	Expert
1	29.07.2023	n/kk : i'kvk dh Fku l'ic/kh l'eL;k ,o l'ek/kku	Dr. Anil Kumar Asstt. Professor, VCC, BVC
2	05.08.2023	n/kk : i'kvk dh Fku l'ic/kh l'eL;k ,o l'ek/kku	Dr. Anil Kumar Asstt. Professor, VCC, BVC
3	19.08.2023	y:ih fLdu jkx ,o cpko	Dr. Vivek Kumar Singh, Asstt. Professor, Veterinary Medicine, BVC, Patna
4	22.03.2024	i'kvk e: gku: okyh ekleh fcekjh;k ,o ck>iu dh l'eL;k	Dr. Ravi Shankar Kr. Mandal, Asstt. Professor, Veterinary Medicine, Dr. Alok Kumar, Asstt. Professor, Veterinary Gynecology, BVC, Patna



Extension activities of Krishi Vigyan Kendra Jamui

Training of farmers			
S.No.	Division wise (Thrust Area)	No. of Training Programme	No. of Participants
1. Training			
1.A. Practicing farmers			
	Crop Production, Horticulture, Soil Science (Resource Conservation Technologies, Integrated Crop Management, Water management, Cropping Systems, Crop Diversification, Integrated Farming, Weed Management. Seed production, Nursery management, Enterprise development, Fruit Cultivation, Value addition, Soil fertility management , Soil and Water Conservation, Integrated Nutrient Management, Management of Problematic soils, Micro nutrient deficiency in crops, Nutrient Use Efficiency, Soil and Water Testing)	86	2989
1.B. Training for Rural Youth			
	Tailoring & Stitching, Morabba making, Gulal making, Planting material production, Mushroom Cultivation, Pickles making and small scale processing.	16	396
1.C. Training for extension Functionaries			
	Productivity enhancement in field crops and major cropping system	3	98
Total		118	3778

Frontline Demonstration:

FLD on different crops i.e. Mustard, Pigeon Pea, Lentil, Chick pea etc. were conducted with their improved variety & balanced fertilizer.

ASCI Training

KVK Jamui organised a training programme on 'Small Mushroom Grower' successfully with 25 participants.

Others Training

KVK Jamui conducted 02 programmes on “Certificate Course on Integrated Nutrient Management” CCINM to obtain the Fertilizer license.

KVK Products

Sri Sumit Kumar Singh, Hon'ble Minister for Science & Technology has launched the “Lachhuar Mustard Oil” as KVK product.



Other Extension Activities:

- Field Day under different FLDs, Kisan Goshthi, Soil Health Camps, Animal Health Camp, Different programmes under swachhata hi sewa, Exposure visits, workshop, Farmers seminar and Method Demonstrations were conducted with the participation of 3543 farmers.
- Agro Advisory were delivered to 124800 farmers under Gramin Krishi Mausam Sewa.
- KVK organised the live telecast of PM Kisan Samman Nidhi Karykram.
- KVK organised 02 special awareness programme on Pashudhan Jagriti Abhiyan collaboration with BASU, Patna.
- KVK has organised a Seminar on “Business opportunity on Jack fruit production in collaboration with NIFTEM Thanjavur, Bathinda.
- KVK has organised training programme on Seed Production in collaboration with NSC Samastipur.

SAC Meeting

- KVK Jamui has conducted its Scientific Advisory Committee meeting on 06.03.2024



Running Project

- KVK Jamui has conducted its Scientific Advisory Committee meeting on 06.03.2024.
- KVK is running a project on Climate Resilient Agriculture in a cluster form of 05 villages i.e. Lakhanpur, Manjosh, Kundari, Kharsari and Sijhori. The demonstration of CRA technologies were conducted in more than 1000 acre.
- KVK is running a project on Millets Production. A Multi locational trial were conducted with 10 acre of FLD in collaboration with BAU Sabour.



New Initiative

- KVK has started a stitching centre in its premises to conduct the training programmes stitching for rural girls. Now, the rural girls were participating in the vocational training programmes on Stitching and starts their entrepreneurs.



- FPO interface was conducted 28.11.2023 in village Tapki of Sono block by KVK Jamui.



Important Days Celebration

- International Environment day, International Women's Day, Ambedkar Jayanti, International Yoga Day, Parthenium Awareness Week, Hindi Diwas, Mahila Kisan Diwas, National Constitution Day, World Soil Day, Kisan Diwas and other programmes were conducted with the participation of 737 farmers.



Kisan Mela

- Kisan mela organized by the KVK on 12.01.2024, Sri Sumit Kumar Singh, Hon'ble Minister for S & T, GoB has graced the occasion as chief guest. It was participated by 1400 farmers.
- KVK Jamui has participated in the Regional Farmers Fair organised by ICAR as Dist Khuti, Jharkhand on 17.02.202.
- KVK has demonstrated its technologies



- KVK Jamui has participated in the Regional Farmers Fair organised by ICAR as Dist Khuti, Jharkhand on 17.02.202.
- KVK has demonstrated its technologies through stall in the kisan Mela organised by PPV-FRA at Deoghar, Jharkhad. Dr Trilochan mahapatra Ex DG ICAR visited our stall on 05.03.2024.



Annual
Report
2023-24



Student welfare office

1. Anti-Ragging Awareness Programme

Anti-Ragging awareness programme as per the guideline of UGC was conducted on 27.02.2024 in the various prominent places in the campus area like admission center, departments, library, canteen, hostels and common places of BVC, SGIDT, Patna and CoF, CoVAS, Kishanganj. Anti-Ragging posters was posted at different location of the University and head to head contact has been made in the hostel wide awareness programme implemented in the campus and no any disputed results has been found.

2. Viksit Bharat @2047 “Voice of Youth”

Viksit Bharat @ 2047 programme was organized by Bihar Animal Sciences University, Patna from 11.12.2023 to 25.12.2023. Viksit Bharat @2047 is the vision of the Government of India to make India a developed nation by 2047, the 100th year of its independence. The vision encompasses various aspects of development including economic growth, social programmes, environmental sustainability and good governance. From 11.12.2023 to 25.12.2023, programme was celebrated by the faculty, staff and students at colleges of the university. In the class of 1st year to 5th year students, awareness programme was organized and message was dissipated. A selfie point was also created in the all campus of the colleges to aware the students, staff and faculties for aware about Ideas for the vision of Viksit Bharat @ 2047.

3. Ek Tareekh Ek Ghanta Campaign under Swachhata hi Seva

Ek Tareekh Ek Ghanta campaign under Swachhata hi Seva programme was organized on 1st October, 2023 at different colleges of Bihar Animal Sciences University, Patna. Swachhata hi Seva is a nationwide cleanliness campaign aimed at promoting cleanliness and spreading awareness about the importance of sanitation and hygiene. Bihar Animal Sciences University being committed to social and environmental responsibility, actively participated in this initiation the designated day, students, faculty members and staff come together to clean various area within the university campus which includes roof cleaning, nearby area cleaning and hostel cleaning. A total 150 students and 80 faculty members actively participated in this event. About 500 kilograms of waste and litter were collected and properly disposed of. The event not only contributed to a cleaner and more hygienic campus but also fostered a sense of community among the participant. Awareness session were conducted to educated students about the importance of maintaining cleanliness in their surroundings.

4. Blood Donation Camp

Blood donation camp was organized with the help of Prathama Blood Centre in the Bihar Animal Sciences University campus, Patna. Prathama is blood bank which is govern by Health Department, Government of Bihar. During blood donation all logistic arrangement including doner bed, Doctor, counselor, ANM, technicians and other experts was available to help. Blood donation was done on 23.06.2023 at 12:00 PM to 04:00 PM. This programme was inaugurated by Hon'ble Vice-Chancellor, BASU, Patna, blood donation started by Dean, BVC, DRI-cum-Dean, PGS, BASU and

Registrar, BASU of the University. During this programme, 130 persons participated in the blood donation. Among 130, 76 persons were found suitable to donate the blood. Finally, 76 persons including faculties, staff and students donate the blood in the campus. Other facilities like blood taste were also available on the spot.

5. Parthenium Awareness Programme

Parthenium grass awareness week was celebrated from 16-22 August, 2023. Parthenium is a poisons, problematic, allergic and aggressive weed posing serious threat to crops, pastures, livestock and human being. We all know that Parthenium grass is a very harmful which disturbed the healthy environment. We can prepared Verrmi compost from the Parthenium grass, otherwise, there is no use of this grass. On 16-22 August, 2023 Parthenium grass was removed from our campus by the help of students, faculty and staff. It was decided to not given chance to grow this grass in future around the campus. Biological control, chemical control and other majors has been implemented in the campus to remove the grasses and aware the students, faculty and staff.

6. International Yoga Day

International Yoga Day was celebrated on 21st June, 2024, the day was celebrated to aware the physical and spiritual powers that yoga has brought to the world stage. Yoga is a process to connect the body, mind and soul in a way that has existed for centuries. Every year this event is organized by our university. This year on 21st June, 2024 the International Yoga Day and was organized by NSS unit under Directorate of Students Welfare, BASU, Patna. The Yoga was conducted by Mr. Ramkripal Kumar, Yoga Trainer from Vivekanand Kendra Kanya Kumari, branch Patna and Dr. Seuli Saha Roy, Professor, VPHE, BVC, Patna. Dean, BVC, Patna was the chief guest of this events about 100 staffs including officers, faculty members and students were participated in this yoga. The programme was addressed by Dr. J. K. Prasad, Dean, BVC, Patna. He said that yoga and exercise maintaining physical as well as mental health of human being. The programme was ended with vote of thanks given by Dr. Manoj Kumar Singh, O/c NSS, BVC, Patna.

7. Inter-University Yoga competition

On the occasion of International Yoga Day, 2024 Inter-University Yoga Competition was organized by Governor House, Bihar on 20.06.2024. The programme was inaugurated by Chief Secretary, Governor of Bihar. In this event students from all university of Bihar were participated. Total 5 students and two faculties from BASU, Patna were participated in this programme.



PLACEMENT & COUNSELING CELL

1. Campus Placement

Bihar Animal Sciences University (BASU), Patna organized campus interview (Campus Placement) for passed out students of B.V. Sc. & A.H., B. Tech (DT) and B. F. Sc. programmes of Bihar Veterinary College (BVC), Sanjay Gandhi Institute of Dairy Technology (SGIDT) and College of Fisheries, Kishanganj respectively for the year 2022-23.

Bihar Rural Livelihood Promotion Society (JEEViKA), Patna, AMUL Dairy and Bihar State Milk Co-operative Federation Ltd. (COMFED) were conducted campus interview for BASU students in the year 2022-23.

College wise, organization wise selected students.

College	Company/ Organization	No. of students appeared	No. of students selected	Success ratio (%)
Bihar Veterinary College, Patna	COMFED	28	16	57.14
	JEEViKA	10	7	70.00
College of Fisheries, Kishanganj	JEEViKA	22	3	13.63
Sanjay Gandhi Institute of Dairy Technology, Patna	COMFED	31	22	70.97
	JEEViKA	17	0	0.00
	GCMF Ltd. (Amul)	10	3	30.00



NCC, BVC, PATNA



Participation in Republic days by NCC Student



Honourable Vice-chancellor, BASU, Dr. Rameshwar Singh welcoming Group Commander Brig. T V Pradeep Kumar, NCC Group Headquarters, Patna.



Interaction with the Students

Games and sports

Organizing of 4th Inter College Games & Sports Competition

The 4th intercollege sports event was held from 7-9th February at Kishanganj campus of BASU, Patna. A total of 4 colleges namely BVC Patna, SGIDT Patna, COVAS Kishanganj and COF Kishanganj participated in this mega event. The event was inaugurated by the chief guest hon'ble Vice Chancellor Dr. Rameshwar Singh and presided by Dr. A.K. Sharma(SWO, BASU). All the dignitaries emphasizes on the role of sports for maintaining healthy life. The inaugural event included march past, flag hoisting, torch run and taking oath by participating student and concluded with vote of thanks given by Dr. Rakesh Kumar (OC/Sports BASU) The different events of track and field, volleyball, kabaddi, badminton and table tennis were conducted over 3 days. All four colleges played in a healthy sport sprit manner. The college of fisheries Kishanganj was declared as overall champion in this sports event and Sanjay Gandhi Institute of Dairy Technology Patna was runner up. Ms. Shalu Kumari of CoF Kishanganj with three gold medals and chhotu kumar & Anish Raj jointly with 2 gold medals were winner in best athlete female and best athlete male category respectively. The closing ceremony was presided by Dean Dr. V. P. Saini in which he applauded the efforts of all players who showed their skills over 3 days. The event ended by thanking every one by co-organising secretary Mr. Ashutosh Kumar Singh

Results Table- 4th Annual Sport Meet, BASU, Patna

S.NO.	EVENT NAME	GOLD	SILVER	BRONZE
1.	100 mtr race (Boys)	Anchal Kumar (COVAS)	Indrajeet Kumar (BVC)	Aditya Kumar (SGIDT)
2.	100 mtr race (Girls)	Aradhana Kumari (COF)	Nidhi Nandani (BVC)	Deepshikha (BVC)
3.	200 mtr race (Boys)	Anchal Kumar (COVAS)	Indrajeet Kumar (BVC)	Luv Sinha (BVC)
4.	200 mtr race (Girls)	Aradhana Kumari (COF)	Deepshikha (BVC)	Nidhi Nandani (BVC)
5.	400 mtr race (Boys)	Rajkishore (SGIDT)	Bapi Patari (BVC)	Ravikant Kumar (BVC)
6.	400 mtr race (Girls)	Deepshikha (BVC)	Sundram Kumari (SGIDT)	Raushani Kumari (COF)
7.	800 mtr race (Boys)	Chhotu Kumar (SGIDT)	Niraj Kumar (SGIDT)	Raushan Kr. Sharma (BVC)
8.	800 mtr race (Girls)	Raushani Kumari (COF)	Vibhuti Kumari (BVC)	Shivali (BVC)
9.	1500 mtr (Boys)	Niraj Kumar (SGIDT)	Rajkishore (SGIDT)	Raushan Kr. Sharma (BVC)
10.	High Jump (Boys)	Anish Raj (SGIDT)	Navin Kr. Das (COF)	Chhotu Kumar (SGIDT)
11.	High Jump (Girls)	Ragini Kumari (SGIDT)	Sheelu Kumari (COVAS)	Ambika Kumari (SGIDT)
12.	Long Jump (Boys)	Rahul Kumar (SGIDT)	Anish Raj (SGIDT)	Rajnish Kumar (COVAS)

S.NO.	EVENT NAME	GOLD	SILVER	BRONZE
13.	Long Jump (Girls)	Varsha Kumari (COF)	Sweety Kumari (COF)	Ragini Kumari (SGIDT) Sonal Raj (BVC)
14.	Discus Throw (Boys)	Aman Kumar (COF)	Shiv Kumar Sah (SGIDT)	Ashutosh Kashyap (BVC)
15.	Discus Throw (Girls)	Shalu Kumari (COF)	Mahi (SGIDT)	Anushka (BVC)
16.	Shot-put (Boys)	Anish Raj (SGIDT)	Rajkishore (SGIDT)	Rana Yadav (BVC)
17.	Shot-put (Girls)	Shalu Kumari (COF)	Mahi (SGIDT)	Neha Rani (COF)
18.	Javelin (Boys)	Chhotu Kumar (SGIDT)	Vishwajeet Kumar (BVC)	Ranjeet Kumar (COVAS)
19.	Javelin (Girls)	Shalu Kumari (COF)	Neha Rani (COF)	Anushka (BVC)
20.	Badminton (Boys)	COF (winner)	BVC (runner up)	NA
21.	Badminton (Girls)	BVC (winner)	SGIDT (runner up)	NA
22.	Table tennis (Boys)	BVC (winner)	SGIDT (runner up)	NA
23.	Table tennis (Girls)	COF (winner)	BVC (runner up)	NA
24.	Volley ball (Boys)	COF (winner)	SGIDT (runner up)	NA
25.	Kabaddi (Boys)	SGIDT (winner)	COF (runner up)	NA
26.	Kabaddi (Girls)	BVC (winner)	COF (runner up)	NA
27.	Relay race (Boys)	BVC	COVAS	COF
28.	Relay race (Girls)	BVC	COF	SGIDT





Annual Report 2023-24



BIHAR ANIMAL SCIENCES UNIVERSITY, PATNA

Bihar Veterinary College Campus, Patna-14

www.basu.org.in

Follow us on:    



बिहार पशु विज्ञान
विश्वविद्यालय

BIHAR ANIMAL SCIENCES
UNIVERSITY