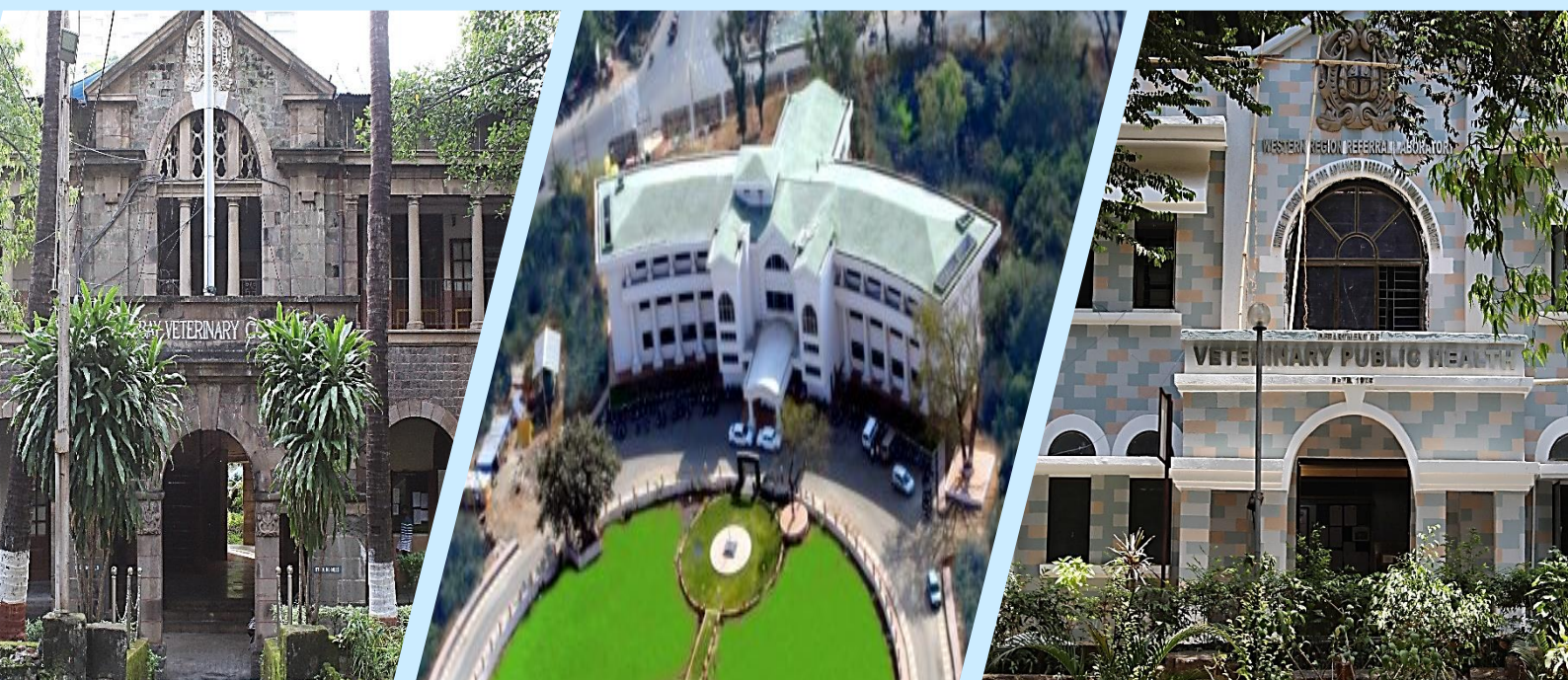




ICAR – National Agricultural Higher Education Project (NAHEP)

Centre for Advanced Agricultural Science and Technology (CAAST)



Centre of Excellence for Advanced Research on Animal Food Safety

Mumbai Veterinary College, Parel, Mumbai-400 012

Maharashtra Animal & Fishery Sciences University, Nagpur-440 001

Maharashtra, India

Newsletter

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March-May, 2021

From the Desk of Vice-Chancellors

Centre of Excellence for Advanced Research on Animal Food Safety under ICAR-NAHEP-CAAST, has opened the new avenues in the area of animal origin foods. The newly installed LCMS/MS, ICPMS, RTPCR and other instruments under one umbrella will be beneficial to different stakeholders throughout the country. The updated facilities shall definitely result in improvement of overall research scenario of the institute fulfilling the mandate of the University. I am very glad to share that, three trainings were organized for scientific upbringing of academicians, students, researchers and industry personnel revolving around the important domains of animal origin food. I appreciate the efforts taken by the project team to fulfil the objectives of the project and wish them all the best for the future challenges.



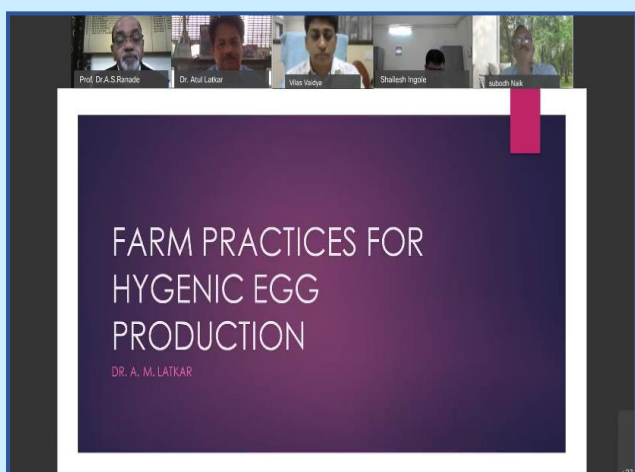
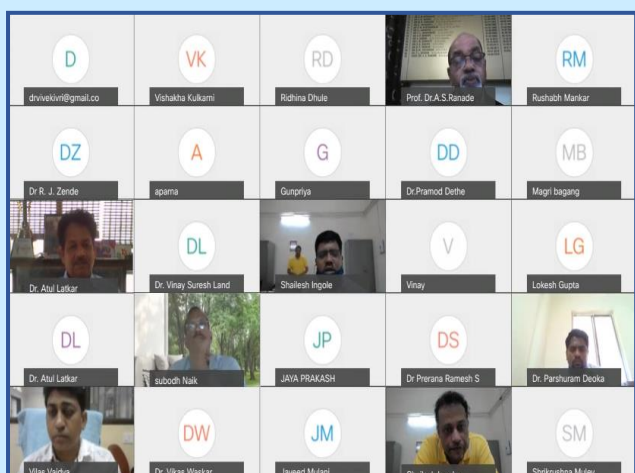
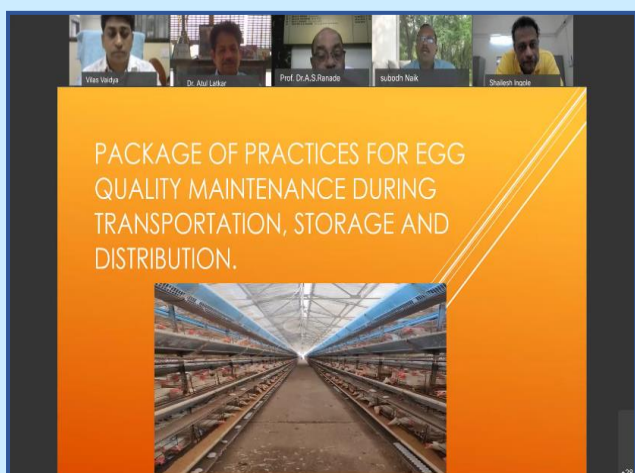
Col. (Dr.) Prof. A. M. Paturkar
Vice-Chancellor
MAFSU, Nagpur.

National Webinar on Hygienic Egg Production**5th March, 2021**

Egg is one of the significant and inexpensive source of animal proteins and other nutrients and is therefore rightly called a complete food. However, the hygienic egg production is a major challenge to the industry. To create awareness among different stakeholders viz. industry personnel, students, academicians, rural poultry farmers, etc. regarding hygienic egg production, One-Day National webinar was organized on 5th March 2021 on “Hygienic Egg Production”.

The webinar was graced by Col. (Dr.) Prof. A. M. Paturkar, Hon’ble Vice-Chancellor, MAFSU, Nagpur; Dr. R. C. Agrawal, DDG (Education) & National Director, NAHEP, ICAR, New Delhi; Dr. Prabhat Kumar, NC, NAHEP- CAAST, ICAR, New Delhi; Dr. A. P. Somkuwar, DI & Dean Faculty of Veterinary Sciences, MAFSU, Nagpur; Dr. N. V. Kurkure, Director of Research, MAFSU, Nagpur; Dr. V. D. Aher, Director of Extension Education, MAFSU, Nagpur and Dr. P. G.

National Webinar on Hygienic Egg Production



Secretary & Moderator and Dr. R. J. Zende PI, NAHEP-CAAST-MAFSU was the Course Director.

On the occasion of this National webinar, two eminent speakers were invited; Dr. Atul Latkar, Director, Kasturi Farm Pvt. Ltd. Warje, Pune and Dr. Subodh Naik, Director, Prabhat Poultry Pvt. Ltd., and Sushila Agrovvet Pvt. Ltd., Mumbai.

Dr. Latkar spoke on “Farm Practices for Hygienic Egg Production” in which he highlighted the important measures to be taken for hygienic egg production. He shared his knowledge and personal experiences during his talk.

Dr. Subodh Naik delivered talk on “Package of Practices for Egg Quality Maintenance During Transportation, Storage and Distribution” where he discussed the measures to be taken for effective transportation, storage and distribution of egg so as to reduce the profit loss. The webinar was attended by the faculties, PG and Ph. D. students, industry personnel viz. veterinarians working in egg processing plant, hatcheries, poultry farmers and persons involved in egg business. A total of 93 participants across the country were benefited by this training.

Wasnik, Dean, Faculty of Dairy Technology, MAFSU, Nagpur.

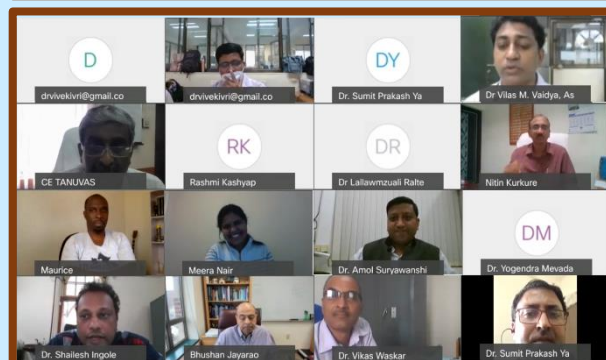
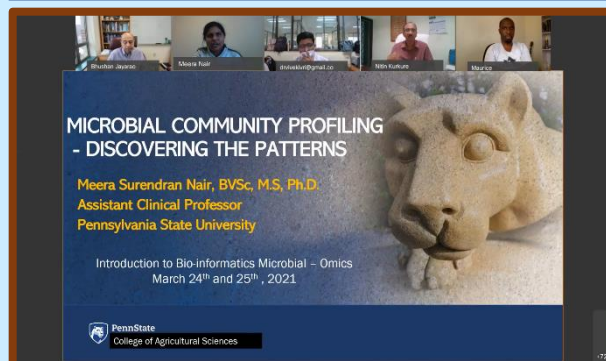
Dr. (Prof.) A. S. Ranade, Associate Dean, MVC, Mumbai was the Organising

International Training on “Introduction to Bio-informatics Microbial Omics” 22nd to 26th March, 2021

Bioinformatics is an interdisciplinary field related with the development of methods and software tools for decoding biological data. Bioinformatics has been widely applied in different fields like microbiology, molecular biology, diagnostics and veterinary sciences. Therefore, one week e-training was organized for the PG, Ph. D. students and faculties across the country to enrich knowledge and get acquaintance with various aspects of bioinformatics from 22nd to 26th March, 2021.

The e-training was graced by Col. (Dr.) Prof. A. M. Paturkar, Hon'ble Vice-Chancellor, MAFSU, Nagpur; Dr. R. C. Agrawal, DDG (Education) & National Director, NAHEP, ICAR, New Delhi; Dr. Prabhat Kumar, National Co-Ordinator, NAHEP-CAAST, ICAR, New Delhi; Dr. A. P. Somkuwar, DI & Dean Faculty of Veterinary Science, MAFSU, Nagpur; Dr. N. V. Kurkure, Director of Research, MAFSU, Nagpur; Dr. V. D. Aher, Director of Extension Education, MAFSU, Nagpur and Dr. P. G. Wasnik, Dean, Faculty of Dairy Technology, MAFSU, Nagpur.

International E-training on Introduction to Bio- informatics Microbial Omics



Dr.(Prof.) A.S. Rande, Associate Dean, MVC, Mumbai and Dr. R. J. Zende, Principal Investigator, NAHEP-CAAST were Course Directors for the program.

In technical sessions, Dr. N. V. Kurkure, Director of Research, MAFSU, Nagpur acted as a Chairman, Dr. V. S. Waskar, Professor, Department of Veterinary Public Health, KNPCVS, Shirwal acted as a Co-Chairman and Dr. M. P. Sawane, Professor, Department of Animal Genetics and Breeding, Mumbai Veterinary College, Parel, Mumbai was the Rapporteur.

Dr. Kumarasamy P, Professor Department of Animal Genetics and Breeding, TANUVAS presented his lecture on “Introduction to Bioinformatics: Importance and Application”. He explained that bioinformatics includes computer assisted biological studies and its applications in field of genomics could help in understanding the structural details and basics of genetic diseases.

Dr. Anshuman Dikshit, Senior Scientist, Institute of Life Science, Bhubaneswar during his talk on “Protein Sequence and Structure Analysis using Bioinformatics Tools” emphasised that prediction of protein structure is one of the important applications of bioinformatics and gave a very detailed information about analysis of proteins using bioinformatics.

Dr. Maurice Byukusenge, Assistant Professor, Veterinary Medicine at

University of Rwanda, Kigali in his lectures on “Shotgun Metagenomics Sequencing: Concepts and Approaches, Taxonomic & Functional Analysis” and “Shotgun Metagenome Sequencing: Demonstration of Bioinformatic tools” explained the importance of shotgun metagenomics which enables microbiologists to evaluate bacterial diversity and detect the abundance of microbes in various environments.

Dr. Meera Nair, Assistant Clinical Professor, Animal Diagnostic Laboratory, Pennsylvania University spoke on “Microbial Community Analysis: Concepts and Approaches, Clustering and Diversity Analysis” and “Microbial Community Analysis: Demonstration of Bioinformatics Tools Analysis”. She explained the role of bioinformatics in analysis of microbial community.

Dr. Amol Suryawanshi, Senior Scientist, Institute of Life Sciences, (DBT), GOI, Bhubaneshwar delivered his lecture on “Introduction to Advanced Quantitative Proteomics” and “Advance Quantitative Proteomics for understanding of Biology and Diseases”. He highlighted importance of proteomics in treatment and prevention of diseases. A total of 311 participants across the country attended the training program.

Sr. No.	Name of speakers	Topic Name	Date and Time
1.	Dr. Kumarasamy P Professor Department of Animal Genetics and Breeding, TANUVAS.	“Introduction to Bioinformatics: Importance and Application – I and II”	22 nd March, 2021
2.	Dr. Anshuman Dikshit Senior Scientist, Institute of Life Sciences, Bhubaneswar.	“Protein Sequence and Structure Analysis using Bioinformatics Tools- Part – I & II”	23 rd March, 2021
3.	Dr. Maurice Byukusenge Assistant Professor Veterinary Medicine at University of Rwanda, Kigali.	1. “Shotgun Metagenomics Sequencing: Concepts and Approaches, Taxonomic & Functional Analysis” 2. “Shotgun Metagenome Sequencing: Demonstration of Bioinformatic tools”	24 th March & 25 th March 2021
4.	Dr. Meera Nair Assistant Clinical Professor Animal Diagnostic Laboratory, Pennsylvania University.	1. “Microbial Community Analysis: Concepts and Approaches, Clustering and Diversity Analysis” 2. “Microbial Community Analysis: Demonstration of Bioinformatics tools”.	24 th March & 25 th March, 2021
5.	Dr. Amol Suryawanshi Senior Scientist, Institute of Life Sciences (DBT), GOI, Bhubaneswar.	1. “Introduction to Advanced Quantitative Proteomics” 2. “Advance Quantitative Proteomics for understanding of Biology and Diseases”	26 th March, 2021

National e- training on “Chemical Residue Analysis”

4th- 6th May, 2021

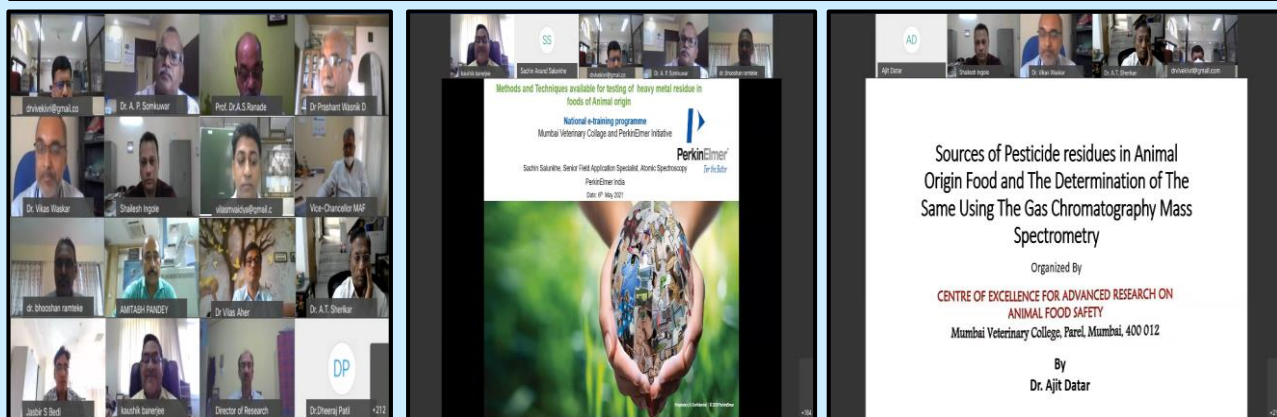
The increasing food demand due to population explosion has resulted in the use of pesticides to keep up with the production. However, chemicals used in agriculture have adverse effect on the human health. To address this problem and put a prospective about the analysis of chemical residues in animal origin foods, a National e-Training program on “Chemical Residue Analysis” was organised from 4th to 6th May, 2021.

The inaugural program was graced by Col. (Dr.) Prof. A. M. Paturkar, Hon’ble Vice-Chancellor, MAFSU, Nagpur; Dr. R. C. Agrawal, DDG (Education) & National Director NAHEP, ICAR, New Delhi; Dr. Prabhat Kumar, National Co-Ordinator, NAHEP- CAAST, ICAR, New Delhi; Dr. A. P. Somkuwar, DI & Dean, Faculty of Veterinary Science, MAFSU, Nagpur; Dr. N. V. Kurkure, Director of Research, MAFSU, Nagpur; Dr. V. D. Aher, Director

of Extension Education, MAFSU, Nagpur and Dr. P. G. Wasnik, Dean, Faculty of Dairy Technology, MAFSU, Nagpur. Dr.(Prof.) A.S. Rande, Associate Dean, MVC, Mumbai and Dr. R. J. Zende, Principal Investigator, NAHEP-CAAST were Course Directors for the program.

Dr. Kaushik Banerjee, Principal Scientist, NRC Grapes, Pune presented his lecture on “Importance of Analysis of Pesticide Residues in Animal Origin Food & their Global Trends” and discussed about the importance of analysis of pesticides in animal origin food. He cited his personal experiences while explaining the topic to the audience.

National e- training on Chemical Residue Analysis



The second speaker, Dr. Ajit Datar, Ex-Advisor, Shimadzu Analytical India Pvt. Ltd., Mumbai, delivered his lecture on “Sources of Pesticides Residues in Animal Origin Food & Determination of the Same Using Gas Chromatography Mass Spectrometry”. He emphasized that indiscriminate use of pesticide in agricultural field is the major source of pesticide residues in animal origin food. He nicely explained the use of Gas Chromatography Mass Spectrometry for determination of pesticides in animal origin foods citing his personal experiences.

Dr. Anoop Krishnan, Assistant Director (Technical) and Lab Incharge, Export Inspection Agency, Kochi, Kerala spoke on “Overview of Steps Involved in Method Validation for the Determination of Pesticide Residues & Interpretation of Chromatogram for Applying Decision Limits”.

Mr. Amitabh Pandey, Assistant Director, Export Inspection Agency, Chennai, Tamilnadu explained basics of LCMS/MS; Preparation of analytical standards, and use of LCMS/MS to determine the pesticide residues in animal origin food.

Mr. Kumaran N., Senior Field Application Specialist, Perkin Elmer India Pvt. Ltd, Bengaluru, enlightened the audience on “Global Trends and Regulation in Occurrence of Heavy Metal Residues in Meat, Milk, Egg and Fish”. He had a thorough discussion on various regulation pertaining to heavy metal residues in animal origin foods.

Mr. Sachin Salunkhe, Senior Field Application Specialist, Perkin Elmer India Pvt. Ltd, Mumbai, talked on “Methods and Techniques Available for Determination of Heavy Metal Residues in Foods of Animal Origin.” He familiarized the participants to a new technique Inductively Couple Plasma Mass Spectrometry (ICPMS) for detection of metals in the food items. About 491 participants including PG, Ph.D. students, scientists, faculties, entrepreneurs, industry personnel across the country attended the training program.

Important Procurement Review Meeting

Dr. R. J. Zende, Principal Investigator, all the Co-PI and Nodal Officers NAHEP-CAAST-MAFSU attended virtually review meeting organized by PIU-NAHEP on 10th May 2021 to discuss the progress of the procurement under project. Dr. R. C. Agrawal, National Director, NAHEP and DDG (Education), ICAR, New Delhi; Dr. Prabhat Kumar, National Co-Ordinator, NAHEP-CAAST, ICAR, New Delhi; Shri. Dilip Roy, Deputy Secretary, ICAR-NAHEP-CAAST conducted the meeting. Dr. R. J. Zende, Principal Investigator and Dr. V. M. Vaidya, Nodal officer, procurement cell presented the status of procurement done under the project.

Upcoming Events





June -August, 2021

Sr. No.	Trainings/Workshops/Important events
1.	Gene Cloning: Advances and Applications in Veterinary Sciences
2.	National Online Quiz on the occasion of World Milk Day
3.	Technical Review Meeting
4.	National Online Quiz on the occasion of World Food Safety Day
5.	Safe Food Now for a Healthy Tomorrow
6.	Future Perspectives and Career Opportunities in Veterinary Sciences
7.	National Online Quiz on the occasion of World Food Zoonosis Day-2021
8.	Capacity building workshop for writing high impact research articles & winning research proposals

University Authorities	
Name and Designation	
	Col. (Dr.) Prof. A. M. Paturkar Vice-Chancellor MAFSU, Nagpur
	Dr. A.P. Somkuwar Director of Instructions and Dean (Veterinary Science) MAFSU, Nagpur
	Dr. N. V. Kurkure Director of Research MAFSU, Nagpur
	Dr. V. D. Aher Director of Extension Education MAFSU, Nagpur
	Dr. P. G. Wasnik Dean, Faculty of Dairy Technology MAFSU, Nagpur
	Mr. Chandrabhan Parate Registrar MAFSU, Nagpur
	Mr. D. B. Raut Comptroller MAFSU, Nagpur

Research Team			
Project Implementing Officer NAHEP-CAAST		Principal Investigator NAHEP-CAAST	
	Dr. (Prof.) A. S. Ranade Associate Dean Mumbai Veterinary College, Mumbai		Dr. R. J. Zende Professor and Head, Department of Veterinary Public Health MVC, Mumbai

Co-Principal Investigators	
Name and Designation	
	Dr. V. M. Vaidya Assistant Professor Department of Veterinary Public Health MVC, Mumbai
	Dr. S. D. Ingole Professor Department of Veterinary Physiology MVC, Mumbai
	Dr. R. V. Gaikwad Professor Department of Veterinary Medicine MVC, Mumbai
	Dr. B. N. Ramteke Professor Department of Animal Nutrition MVC, Mumbai
	Dr. (Mrs.) Rajashree S. Gandge Professor Department of Veterinary Microbiology MVC, Mumbai

	<p>Dr. G. P. Bharkad Associate Professor Department of Veterinary Parasitology MVC, Mumbai</p>
	<p>Dr. V. H. Shukla Assistant Professor Department of Livestock Products Technology MVC, Mumbai</p>
	<p>Dr. P. V. Meshram Assistant Professor Department of Veterinary Pathology MVC, Mumbai</p>
	<p>Dr. S. A. Ingle Assistant Professor Department of Animal Biotechnology MVC, Mumbai</p>

Team Leader:

Col. (Dr.) Prof. A. M. Paturkar
Vice-Chancellor
MAFSU, Nagpur.440001.

Principal Investigator:

Dr. R. J. Zende
ICAR-NAHEP-CAAST-MAFSU
Mumbai-400012.

Chief Editors:

Dr. S. D. Ingole
Dr. V. M. Vaidya
Dr. B. N. Ramteke
Dr. V. H. Shukla
Dr. R. V. Gaikwad
Dr. P. V. Meshram

Editors:

Dr. Snehalata P. Kamble
Dr. Anu Anupama
Dr. Netra B. Aswar
Dr. Prerna R. Shelke
Ms. Ashwini V. Khandekar
Mr. Sahil M. Hake

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The Principal Investigator, NAHEP-CAAST,
Centre of Excellence for Advanced Research
on Animal Food Safety,
Department of Veterinary Public Health and
Epidemiology,
Mumbai Veterinary Collage,
Parel, Mumbai-400012



ICAR – National Agricultural Higher Education Project (NAHEP)
Centre for Advanced Agricultural Science and Technology (CAAST)
Centre of Excellence for Advanced Research on Animal Food Safety
Mumbai Veterinary College, Parel, Mumbai – 400 012
Maharashtra Animal & Fishery Sciences University, Nagpur – 440 001, Maharashtra, India