

Department Profile

Department of Agricultural Meteorology

P.G Program Started from - 1997

Ph.D. Program Started from-2010

Introduction :-

Climate of a region determine the nature of crops to be grown but the weather conditions that prevail during the crop period decide the yield potential of the crop. The genetic potential of a variety cannot be fully exploited unless the optimum weather conditions are available during the growth period of the crop and same varies from crop to crop. Therefore, a critical knowledge of the weather parameters and their direct or Indirect effect on crop productivity is essential in Agriculture, Livestock, Horticulture & Forestry etc. Research thrust in Agricultural Meteorology includes application of weather driven dynamic crop growth and yield simulation models for various crops, crop-weather relationships, weather-crop-insects/disease interactions, climate changes and its effects on crop productivity. Department is imparting education to UG and PG students related to application of meteorology in Agriculture. Department is continuously taking up research projects related to Agricultural Meteorology, the main moto of the department is to encourage the weather based responsive farming in Uttar Pradesh state to maximize the production and to protect the environment from different Hazards.

Looking the importance of Meteorology in Agriculture and its all round development in the university, the department of Agricultural Meteorology was separated from Deptt. of Agril. Statistics and became independent unit in the year 1997.

Objectives

- To produce, scientifically and technically sound. Postgraduate, human resource, who could take over challenges and responsibility of Agrometeorology in future.
- To formulate feasible and specific package and practices of crop production technology of major cereal crops to meet out the future demand and optimization of farmer's income under different agro-climatic conditions of Eastern U.P.
- To study the influence of weather on the incidence and spread of pests and diseases of field crops for their effective management and reduction in cost of cultivation as well as to increase the crop production of Eastern U.P.

Goal

- Use of weather and climate information to enhance or expand agricultural crops or to increase crop production and ensure food and nutritional security of the present and future Generation.

Mission

- To develop and disseminate eco-friendly production technologies
- To enhance productivity and profitability of crops.

Mandates

- To maintain the quality Teaching/ Education and inculcate the smart, hard working and high technical ability among the students.
- To run M.Sc. and Ph.D. programmes in the field of Agricultural Meteorology.

- To contribute in under graduate programme (B.Sc. Ag, B.Sc.Horticulture and Bachelor of Fisheries Science.) of University.
- Research characterization/ management and climatic variability/stability analysis at regional level.
- Crop weather interaction studies of cereals, oilseeds, pulses and other high value crops. In-addition, interaction studies in allied sectors viz., poultry, fishes & dairy etc. in view of climatic stability of the region.
- To study pest & disease dynamics and develop fore-warning model.
- To develop crop weather yield forecasting model in different eco-system under different farming/ management practices.
- Characterization of drought/drought proofing including NRM studies on regional basis.
- Use of information sharing system to the end users for medium, long-range and extended long-range forecast.
- To develop value added weather based agro-advisory system at micro-level.
- To organize demonstration awareness programme of environmental technologies/ environmental sustainability and NRM using extension activities.
- To participate in extension activities of the University for the benefit of farmers.
- To advise farmers on farm operations tailored to the present and future weather conditions and to prepare contingent plans for agriculture considering extreme weather events.
- To involve in university activities and to work for the upliftment of university and society.
- To disseminate weekly agromet advisory bulletins based on Medium Range Weather Forecast

Facilities available for Teaching and Research

1. Post Graduate classroom - 02
2. Seminar Room with ICT facilities: - 01
3. Laboratory for Under Graduate Classes - 02
4. Laboratory for Post Graduate Classes - 02

List of major equipment in Laboratory

S.No.	Name of Equipments	No.
1.	Lux meter	01
2.	Psychrometer	01
3.	Net Radiometer	01
4.	Electric oven	02
5.	Balance	01
6.	Soil heat flux plate	01
7.	Humidity chamber	01
8.	Infrared Soil moisture balance	01

Farm facility

A well planned Agromet Research Farm, along with class 'A' (35m×55m) Agromet. Observatory facilities are available. The Agromet. Farm and Observatory is situated at Student Instructional Farm in the main campus. Students practical classes and field trials are conducted at Student Instructional Farm/ Agromet. Farm.

List of equipments at Agromet-observatory

S.No.	Name of Equipments	No.
1.	USWB Open Pan Evaporimeter	01
2.	Wind vane	01
3.	Anemometer	02
4.	Soil Thermometer (5cm, 10cm, 30cm.)	01
5.	Maximum Thermometer	01
6.	Minimum Thermometer	01
7.	Dry Bulb Thermometer	01
8.	Wet Bulb Thermometer	01
9.	Campbell sunshine recorder	01
10.	Dew gauge stand	01
11.	Grass minimum thermometer	01
12.	Ordinary Rainguage	01
13.	Sunshine recorder	01
14.	Automatic weather station	01

Details of Faculty, Department of Agricultural Meteorology ANDUAT., Kumarganj, Ayodhya (U.P.)

<p>Dr Sita Ram Mishra Associate Professor & Head, Department of Agricultural Meteorology E-mail Id : srmmausam@gmail.com Mobile No. : 9415720436</p>	
<p>Dr A.K. Singh Associate Professor Department of Agricultural Meteorology E-mail Id : aksmausam@gmail.com Mobile No. : 9450766594</p>	
<p>Sri Amar Nath Mishra Assistant Professor Department of Agricultural Meteorology E-mail Id : anmmausam1975@gmail.com Mobile No. : 8318503859, 9450637552</p>	

Courses (UG Programme):

Ist Semester				
S.No.	Course code	Course Title	Credit hours	Instructor's Name
1.	AGM-211	Environmental Studies and Disaster Management	3(2+1)	Dr. S.R. Mishra Sri. A.N. Mishra
2.	AGM-311 (H)	Agrometeorology and Climate Change	2(1+1)	Dr. S.R. Mishra Dr. A.K. Singh
3.	FAEM-111	Meteorology, Climatology & Geography	2(1+1)	Dr. S.R. Mishra Dr. A.K. Singh
IInd Semester				
1.	AGM-221	Introductory Agrometeorology and Climate Change	2(1+1)	Dr. S.R. Mishra Sri. A.N. Mishra
2.	AGM-321 (Elective)	System simulation and Agro-advisory	3(2+1)	Dr. S.R. Mishra Dr. A.K. Singh

Courses under (PG Programme):

Ist Semester				
S. No.	Course code	Course Title	Credit hours	Instructor's Name
1.	AGM-501	Fundamentals of Meteorology	3(2+1)	Dr. S.R. Mishra Sri. A.N. Mishra
2.	AGM-503	Crop weather relationships	2(2+0)	Dr. A.K. Singh Dr. S.R. Mishra
3.	AGM-504	Agrometeorological Measurements and Instrumentation	3(1+2)	Sri. A.N. Mishra Dr. S.R. Mishra
4.	AGM-514	Strategic use of climatic information	3(2+1)	Dr. S.R. Mishra
5.	AGM-599	Master's Research	Variable	Major Advisor
IInd Semester				
1.	AGM-502	Fundamentals of Agricultural Meteorology	3(2+1)	Dr. S.R. Mishra Dr. A.K. Singh
2.	AGM-508	Applied Agricultural Climatology	3(1+2)	Sri. A.N. Mishra Dr. S.R. Mishra
3.	AGM-509	Weather forecasting	3(2+1)	Sri. A.N. Mishra Dr. S.R. Mishra
4.	AGM-510	RS and GIS Applications in Agricultural Meteorology	3(2+1)	Dr. S.R. Mishra Dr. A.K. Singh
5..	AGM-515	Weather and climate risk management	2(2+0)	Sri. A.N. Mishra Dr. S.R. Mishra
6.	AGM-599	Master's Research	Variable	Major Advisor

IIIrd Semester				
1.	AGM-507	Crop Weather Models	3(1+2)	Dr. S.R. Mishra Sri. A.N. Mishra
2.	AGM-505	Crop Micrometeorology	3(2+1)	Dr. S.R. Mishra Dr. A.K. Singh
3.	AGM-506	Evapotranspiration & Soil Water Balance	3(2+1)	Dr. S.R. Mishra Sri. A.N. Mishra
4.	AGM-516	Aerobiometeorology	3(2+1)	Dr. S.R. Mishra Dr. A.K. Singh
5.	AGM-599	Master's Research	Variable	Major Advisor
IVth Semester				
1.	AGM-591	Master's Seminar	1(0+1)	Dr. S.R. Mishra
2.	AGM-599	Master's Research	Variable	Major Advisor

Courses (Ph.D. Programme):

Ist Semester				
S. No.	Course code	Course Title	Credit hours	Instructor Name
1.	AGM-601	Climate change & sustainable development	3(2+1)	Dr. S.R. Mishra Dr. A.K. Singh
2.	AGM-602	Meteorology of air pollution	4(2+2)	Dr. S.R. Mishra Dr. A.K. Singh
3.	AGM-699	Doctoral Research	Variable	Major Advisor
IInd Semester				
1.	AGM-605	Analytical tools and methods for Agro-meteorology	2(1+1)	Dr. A.K. Singh Dr. S.R. Mishra
2.	AGM-607	Environmental physics for Agricultural Meteorology	3(3+0)	Dr. S.R. Mishra Dr. A.K. Singh
3.	AGM-699	Doctoral Research	Variable	Major Advisor
IIIrd Semester				
1.	AGM-603	Livestock and fisheries Meteorology	4(2+2)	Dr. S.R. Mishra Dr. A.K. Singh
2.	AGM-699	Doctoral Research	Variable	Major Advisor
IVth Semester				
1.	AGM-608	Computer Programs And Software For Agro-Meteorological data management	2(1+1)	Dr. S.R. Mishra Dr. A.K. Singh
2.	AGM-699	Doctoral Research	Variable	Major Advisor

Vth Semester				
1.	AGM-691	Doctoral Seminar	1(0+1)	Dr. S.R. Mishra Dr. A.K. Singh
2.	AGM-699	Doctoral Research	Variable	Major Advisor
VIth Semester				
1.	AGM-691	Doctoral Seminar	1(0+1)	Dr. S.R. Mishra Dr. A.K. Singh
2.	AGM-699	Doctoral Research	Variable	Major Advisor

Ongoing Research Projects

- All India Coordinated Research Project on Agro-Meteorology (ICAR 75:25%)
- AICRPAM-NICRA Project (ICAR 100%)
- Gramin Krishi Mausam Sewa (GKMS) project, Department of Earth Science, New Delhi. (100% MoES)
- FASAL Project, Department of Earth Science, New Delhi. (100% MoES)

Achievements of Department:

- Published more than 120 research papers in different reputed scientific journals.
- Published more than 4 Books/Edited books for researcher and students.
- Published more than 7 laboratory manuals for Students/Researcher
- Published more than 70 popular articles in different magazine.

Glimpse of Photogallery



Field visit by Project Coordinator of AICRPAM, CRIDA, Hyderabad



Best Teacher Award received from Minister of Agriculture, U.P.



Environmental Day 5th June, 2023