



ICAR-National Institute of Abiotic Stress Management (NIASM)

Baramati, Pune – 413115, Maharashtra, India

ICAR SPONSORED SHORT COURSE

Precision Agriculture for Climate-Smart Farming: Integrating Soil Testing, IoT and Bio-Inputs



11 – 20 January 2027



ICAR-NIASM, Baramati



Background

Agriculture is increasingly facing the challenges of climate change, soil degradation and resource constraints. Precision agriculture, integrating soil testing, digital tools and bio-inputs offers a holistic approach for enhancing resource-use efficiency, sustaining productivity and building climate-resilient farming systems. This short course is designed to provide advanced knowledge and hands-on exposure on soil testing, nutrient management, sensors, IoT and microbial bio-inputs for sustainable and climate-smart agriculture.



COURSE FOCUS

- Precision agriculture for climate-smart, sustainable farming
- Soil testing, nutrient management and bio-inputs
- Digital tools, sensors, IoT and remote sensing
- Practical demonstrations and institutional field visits



PRACTICALS & EXPOSURE VISITS

- Soil sampling, processing and analysis
- Biofertilizer production and application
- Fertilizer prescription equations and Nutrient Expert / mobile apps
- Sensors and precision-tool demonstrations
- Field visits to KVK Baramati, ICAR-NRC Grapes (Pune) and ICAR-DOGR (Pune)



KEY LEARNING AREAS

- Soil health assessment, sampling and soil-test interpretation
- Balanced fertilization, STCR recommendations and site-specific nutrient management
- Biofertilizers, microbial technologies and natural farming
- Nutrient advisory apps, decision-support systems and digital agriculture
- Sensors, IoT, GIS, hyperspectral tools and UAV applications
- Climate-resilient crops, precision irrigation, horticulture, AI and bioinformatics



COURSE HIGHLIGHTS

- Expert lectures by eminent scientists and subject specialists
- Hands-on practicals and live demonstrations
- Exposure visits to leading ICAR institutes and progressive farms
- Focus on emerging technologies for climate-resilient agriculture



Important Dates



Receipt of
Applications

1st December 2026



Intimation to
selected candidates

4th December 2026



Confirmation by
Selected Candidates

7th December 2026



Course Dates

11 – 20 January 2027

About ICAR-NIASM

ICAR-National Institute of Abiotic Stress Management (NIASM) was established in 2009 as a Deemed to be University of its kind, focusing on cutting-edge multidisciplinary research in the area of abiotic stresses and providing policy support for their management in agriculture through mitigation and adaptation technologies.



Mission

Managing abiotic stresses for sustainable agriculture.



Mandate

- Basic and strategic research to manage abiotic stresses in crops, livestock and fisheries
- Repository of information on abiotic and biotic stresses
- Adaptation and mitigation strategies and policies
- Building sustainable agriculture in multi-stressed agro-ecosystems
- Serve as Center of Academic Excellence in managing multiple stresses in agriculture



Eligibility

The course is intended for professionals working in agriculture and allied sciences, including Assistant Professor/Associate Professor/Scientist/Assistant Scientist/Scientific Officer, and other professionals holding a position equivalent to Assistant Professor, or equivalent, in the relevant subject/discipline. The original application specifies eligibility as personnel working at or above the rank of Assistant Professor, or equivalent, in the concerned subject under agricultural universities/ICAR institutes.



NIASM SOIL TESTING LABORATORIES

has been granted
NABL accreditations





Selection Procedure

- A total of **20–25 participants** will be selected for this course based on their qualification, experience, area of work and **as per ICAR guidelines**.
- Final selection will be made on the basis of merit and on a first-come, first-served basis, upon receipt of the application duly forwarded by the competent authority. Selected candidates will be notified via email within one week after the last date for receiving applications, to which they should promptly reply with firm acceptance and travel plan.



Boarding and Lodging



The selected participants will be provided free **boarding and lodging** in the institute guesthouse.



All participants will be reimbursed for the to-and-fro travel fare for the journey to NIASM, Baramati via the shortest route, **restricted to AC-II tier train fare** (as per actuals).



No DA will be paid to participants as per ICAR guidelines.



No accommodation for accompanying person will be provided.



How to Apply? Registration and Application



Interested participants should submit the duly filled **application form** for registration and application.

Scan the **QR** code given below to download the application form.



Application Form

Or use the link below to download the application form.



<https://docs.google.com/document/d/1De8Z3rlyK2Lx2ujrHKvw6pGamYJmAdTN/edit?usp=sharing>



Email the duly filled application form forwarded by the competent authority along with transaction details to: **niasmshort26@gmail.com**



Payments

Making the Online Payment: Pay the training/registration fee of Rs. 50/- using the following details:



ICAR UNIT NIASM BARAMATI

SCAN & PAY



UPI ID: **icarniasmbmt@sbi**



UPI ID: icarniasmbmt@sbi
or scan the QR Code



or Pay to A/c

Pay using account details:

ICAR UNIT NIASM BARAMATI

A/c No. 30862846914

SBI Baramati Branch

IFSC Code: SBIN0000321

(Save the payment proof/receipt as a screenshot or PDF format.)



Location, Weather Conditions and How to Reach



Baramati has a pleasant climate and is well connected by road, rail, and air.



The town is accessible by rail through Pune railway station and Daund Junction, with Daund Jn being the nearest major railway junction, about **45 km away**.



It is also well connected through the Daund Chord Line.



Pune is the nearest city with railway, bus stand, and airport connectivity, and Baramati is located about 105 km from Pune, Maharashtra.



During the training programme (January 11–20, 2027), the temperature is expected to be around 25–30°C during the day and 18–22°C at night.



For directions to the ICAR-NIASM campus, please refer to the institute website: <https://niam.res.in/contact-us>.



Baramati





**ICAR–National Institute of
Abiotic Stress Management (NIASM)**
Baramati, Pune – 413115, Maharashtra, India

ICAR SPONSORED SHORT COURSE

on

**“Precision Agriculture for Climate-Smart
Farming: Integrating Soil Testing, IoT
and Bio-Inputs”**



11th to 20th January 2027

APPLICATION FORM

Name of the Applicant :

Designation :

Employer Address :

Discipline :

Permanent Address :

Correspondence Address :

Email :

Mobile :

Research Experience :

Number of Courses attended in the last 5 years :

Signature of the Head of the Institution
(With Seal and Date)

Signature of the Participant



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Baramati, Pune – 413115, Maharashtra, India

Organised by

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**Education Division
ICAR, New Delhi**

Weekend Excursions

Explore
Experience
Rejuvenate



Discover the natural beauty, rich heritage and spiritual sites around Baramati during your free time.



 **Shri Shirdi Sai Baba Temple**
 Approx. 4 hours drive



 **Lonavala**
 Approx. 2-3 hours drive



 **Ajanta caves**
 Approx. 5-6 hours drive



 **Ellora caves**
 Approx. 5-6 hours drive



 **Mahabaleshwar Hill Station**
 Approx. 3-4 hours drive



Several exciting weekend excursions are easily accessible from Baramati, including Mahabaleshwar, Lonavala, Khandala, Bhimashankar, Ajanta-Ellora caves, Grishneshwar Jyotirlinga and Shirdi Sai Baba Temple.

