

How to Reach NIASM



An unique Research Institute and Deemed to be University in the Making

Water Soil Atmosphere
 Excess or Deficit; High or Low



Mandate

- ◆ Basic and strategic research on management of abiotic stresses in crop plants, livestock, fishes and soil microorganisms
- ◆ Impart quality education in abiotic stress management and emerge as a Global Centre of Excellence
- ◆ Repository of information on abiotic stresses, mitigation strategies and acceptable policies for knowledge sharing and capacity building
- ◆ Develop linkages for holistic management of abiotic and biotic stress factors

PATRON

Prof. Narendra Pratap Singh, Director
 ICAR-National Institute of Abiotic Stress Management

COURSE DIRECTOR

Dr Jagadish Rane, Head,
 School of Drought Stress Management
 jagadish.rane@icar.gov.in

COURSE COORDINATOR

Dr Mahesh Kumar, Scientist (Plant Physiology)
 mahesagrawal@gmail.com

For details please contact to:

Dr Jagadish Rane
 Course Director
 School of Drought Stress Management
 National Institute of Abiotic Stress Management
 Malegaon, Baramati-413115, Pune (Maharashtra)

Phone: (02112) 254057; Mob: 9404684508 ; Fax: (02112) 254056

Short Term Training Course

on
“Phenomics: Perspectives for Application in Improvement of Abiotic Stress Tolerance in Crop Plants”
 (July 20-29, 2017)



Organised by

ICAR-National Institute of Abiotic Stress Management
 (Deemed to be University)

Malegaon, Baramati, Pune, Maharashtra - 413 115

Sponsored by

Indian Council of Agricultural Research,
 Ministry of Agriculture & Farmers Welfare,
 Govt. of India



**Short Term Training Course on
Phenomics: Perspectives for Application in Improvement
of Abiotic Stress Tolerance in Crop Plants**

About Institute

NIASM, an unique institute of Indian Council of Agricultural Research (ICAR), was established in 2009 at Malegaon Khurd, Baramati. The institute aims at exploring the avenues for management of abiotic stresses affecting the sustainability of national food production systems. It specifically addresses stresses induced by water, atmospheric, and edaphic factors, which cause substantial losses in crop productivity depending on their magnitude. Since these stresses are predicted to amplify due to climate change, the primary task for the institute is to undertake basic and strategic research for mitigation and adaption options to manage abiotic stresses in agriculture. The institute is being structured to enhance capacity of scientists and policy makers mainly by imparting knowledge and by providing the state-of-art facilities for multidisciplinary and multi-commodity research. The institute has recently established National Phenomics Facility for high throughput phenotyping and being used to screen germplasm of different crops. In addition, some phenomics tools have been developed for field phenotyping.

About training

Adaptation of crops to abiotic stress is crucial for improvement in productivity under abiotic stress environments. Hence, the focus of research across the agricultural institutes is on 'genetic improvement' as the reliable option for making the crops resilient. The past effort in this regard were largely based on yield and yield components. But these approaches at present are not as successful as before. Unimpressive genetic gain in yields during the recent years suggest necessity for a priority to stress tolerance traits in crop improvement programme. Identification of novel traits and phenotyping large set of genotypes for these traits are being perceived as key for enhancing the productivity of crops under stress environments. The feasibility and the precision of phenotyping are expected to facilitate genomics driven crop improvement. The necessity to accomplish this task has now given rise to modern science called phenomics, which intends to characterize plant responses to environmental factors through image based, automatic and non invasive methods. This training aims to introduce the participants to the emerging field of non-destructive high throughput phenotyping. The participants will also be provided with hands on training in both conventional and recent non-destructive image based tools for assessing crop responses to stress. In addition, approaches for managing huge set of data generated by machines will be introduced.

Objectives

The objective of the short course is to update the scientists of Assistant and Associate Professors rank in the ICAR institutes, SAUs and CUs/ DUs about 'phenotyping and phenomics concepts and tools' for abiotic stress tolerance in crop plants and to prepare them as potential contributors for Crop Phenome Database critical for long term strategy to develop stress tolerant cultivars.

Weather of Baramati

The weather during the training period will be pleasant with mild temperature around 28-29°C (day) and 20-22°C (night) and occasional rains. Vast stretch of agricultural fields all around the institute significantly contributes to the pleasant ambience.

How to reach

Pune to Baramati by Bus: Non-stop buses between Pune (Swargate) and Baramati are available every half an hour (5am-8pm). On an average, Pune to Baramati travel time is 2 ½ hours.

Daund to Baramati by Bus: Buses from Daund are available on hourly interval and travel time is approximately one hour.

Pune to Baramati (via Daund) by Train: Passenger trains ply between Pune and Baramati (via Daund) . Average travel time from Pune to Baramati is 3 hours.

Eligibility

Active researchers/ teachers not below the rank of Assistant Professor or equivalent from SAUs/ CUs/ DUs/ ICAR/ National Institutes/ SMS of KVks, having minimum two years of experience, in the disciplines of Agriculture/ Horticulture and allied Sciences are eligible to apply. The A total of 25 candidates will be selected for this course. The selection of the candidates will be made by a Screening Committee as per the available guidelines of the ICAR and those who are associated with phenotyping crop plants will be given priority.

How to Apply?

Nomination for the training should be sent online through CBP portal site (<http://cbp.icar.gov.in/>). The hard copy of successfully submitted online application along with a postal order/ DD of Rs. 50/- (Non-refundable) must be sent to the Course Director, after approval of the competent authority of the participant. The demand draft should be drawn in favour of ICAR Unit, NIASM payable at Baramati, Pune. In case of any difficulty in applying online using CBP portal, the participants should send the application form duly filled-in and approved by the competent authority of the organization or through proper channel to Course Director on the address given in brochure. The last date for receiving nomination is June 15, 2017.

Accommodation and Travel

Boarding and lodging will be provided to the participants during the training period at the NIASM guest house on sharing basis. Travel allowance to the participants will be paid as per their entitlement for the class of travel, restricted to the maximum of AC II tier fare by the shortest route. Participants are required to produce receipts/ tickets in support of their claim. The reimbursement will be made as per ICAR guidelines. However, the candidates are encouraged to arrange their travel expenses from their parent Institutes.

Applications may be sent to:

Dr Jagadish Rane
Principal Scientist & Head,
School of Drought Stress Management
ICAR-NIASM , Malegaon, Baramati, Pune, Maharashtra - 413 115
Mobile no:9404684508
Email:jagadish.rane@icar.gov.in

Important Dates

- ◆ Last date for receipt of application : June 15, 2017
- ◆ Intimation of selection of candidates : June 25, 2017
- ◆ Last date for confirmation from participants : July 1, 2017

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APPLICATION FORM

Name :
Designation :
Present employer with full address :
Address for communication :
Telephone : (R) (O) Fax :
Email :
Date of birth & age : Sex : Male [] Female []
Teaching, research, professional experience : Mention post held during last 5 years and number of publications)
Field of specialization and current area of research/ teaching

Academic Record

Degree with Specialization	Year of Passing	Institute / University	CGPA
UG			
PG			
Ph.D.			

Details of the training attended during the last three years

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Demand Draft DatedofRs. 50/- in favour of ICAR Unit NIASM, payable at Baramati, Maharashtra towards registration fee (non-refundable)

Signature of applicant with date and place

Recommendation of the forwarding authority

Certificate

Certified that the information furnished by the applicant is found to be correct

Signature and designation of
the sponsoring authority