

APPLICATION FORM FOR PARTICIPATION IN SHORT COURSE TRAINING

Organizing Institute: ICAR-Indian Institute of Soil Science, Bhopal

1. Full name (In block letters) :
2. Designation :
3. Present employer and address :
4. Address to which reply should be sent :
Postal address with PIN :
Phone/ Mobile No. :
Fax No. :
E-mail :
5. Permanent address :
6. Date of Birth :
7. Sex(Male/Female) :
8. Marital status (Married/Unmarried) :
9. Teaching/research/professional experience (mention post held during last 5 years and number of publications) :
10. Field of specialization and current area of research / teaching :
11. Mention if you have participated in any Research seminar, Summer/Winter School/Short Course, etc. during the previous years under ICAR/O ther organization :
12. Postal order No..... dated.....of Rs 50/- (Not refundable) in favour of ICAR unit IISS Bhopal for registration of application :
13. Academic record:

Degree	Subjects	Year of passing	Class ranks, distinction etc	University/ Institution	Other information
Ph.D.					
Post Graduation					
Graduation					

Signature of the applicant

Date & Place :

14. Recommendation of the Head of the Department/Institute

Signature & Seal

CERTIFICATE

It is certified that the information has been verified from the office record and is found correct.

Signature and designation of sponsoring authority

Date

Note: Application may be sent to the Course Director of the training or the Director, ICAR-IISS, Bhopal.

Important Dates

1. Last date for receipt of application : 14-07-2017
2. Intimation of selection of participants : 24-07-2017
3. Last date for confirmation from participants : 31-07-2017

All correspondence should be addressed to:

Dr. R. Elanchezian
Principal Scientist & Course Director
ICAR-Indian Institute of Soil Science
Nabi Bagh, Berasia Road, Bhopal-462 038, Madhya Pradesh
Phone: 0755-2730946, 2730970 (O) Ext 210
Mobile: 09407530078; Fax: 0755-2733310
Email: elanrc@gmail.com, elan@iiss.res.in
<http://www.iiss.nic.in>

Dr. A.K. Biswas
HOD & Course Co-Director
Mobile: 0993600268
Email: akb63@yahoo.com; akb@iiss.res.in

Dr. K. Ramesh
Principal Scientist & Course Co-Director
Mobile: 09755846418
Email: kragronomy@gmail.com, kramesh@iiss.res.in

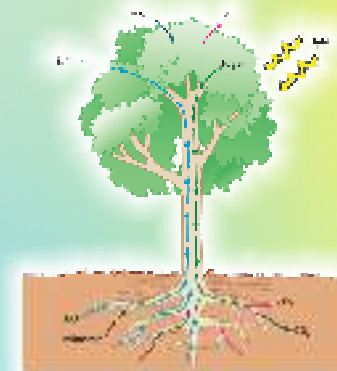
Dr. A.K. Patra
Director & Course Co-Director
ICAR-Indian Institute of Soil Science
Nabi Bagh, Berasia Road, Bhopal-462 038, Madhya Pradesh
Phone: 0755-2730946, 2730970 (O); Fax: 0755-2733310
E-mail: director@iiss.res.in, patraak@gmail.com
<http://www.iiss.nic.in>

ICAR Short Course

on

Advances in Nutrient Dynamics for Improving Nutrient and Water Use Efficiency of Crops

5 - 14 September 2017



Course Director
Dr. R. Elanchezian

Course Co-Directors
Dr. A. K. Biswas
Dr. K. Ramesh
Dr. A. K. Patra

Sponsored by
Education Division
Indian Council of Agricultural Research,
New Delhi-110 012



Organized by
ICAR-Indian Institute of Soil Science

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Madhya Pradesh
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Fax: 0755-2733310; Web: www.iiss.nic.in



Background

Mineral nutrients such as nitrogen, phosphorus, potassium, calcium, magnesium, sulphur and other micronutrients are essential for plant growth and food production besides water. They ultimately contribute towards adequate nutrition for human beings. Presently, we face a glaring contrast of insufficient use of nutrients on one hand and excessive use on another and the same is the scenario for irrigation water. Nutrient Use Efficiency (NUE) and Water Use Efficiency (WUE) are the key indicators to assess agriculture progress under resource limiting environments. A goal for a 20% relative improvement in NUE by 2020 would lead to an annual saving of around 20 million tons of nitrogen, and equate to an initial estimate of improvement in human health, climate and biodiversity worth around \$170 billion per year in addition to huge financial gain.

Human beings have altered the world's biogeochemical cycles for many millennia to satisfy their food and shelter needs. Anthropogenic activities have been reported to modify the nutrient cycles of several nutrient elements. The scale of these changes has massively accelerated since the industrial revolution throwing the equilibrium into disarray. Improper nutrient management has been reported to accelerate carbon dioxide and other green-house gas emissions substantially since 1750 (IPCC, 2007) viz., methane, especially from fossil fuel sources and livestock, and nitrous oxide, which is particularly emitted from agricultural soils.

While recent trends in nutrient consumption are relatively stable in developed countries, growing human population and rising per capita meat based food consumption as a result of increasing incomes are together causing a rapid increase in nutrient consumption in transitional and developing countries. By 2050 the two Asian countries viz., India and China may account for three-fourths of global nutrient consumption. Indiscriminate and imbalanced use of nutrients has created a web of pollution at the global level. There are major problems associated with high levels of nutrient use, especially in America, Europe and Asia. The efficiency of nutrient use is very low, on an average 70-80% of N and 25-75% of P consumed end up lost to the environment, wasting the energy used to prepare them, and causing environmental pollution.

Both supply and imbalance of nutrients reduces the efficiency of nutrient use. In addition, insufficient uses of nutrients lead to land degradation. In Africa, parts of Latin America and parts of Asia there are still several regions with too little nutrients. This problem is aggravated further wherein many farmers do not have access to affordable mineral fertilizers, where lack of local sources and poor supply infrastructure increases prices, limiting agricultural yields. Biological nitrogen fixation and manure recycling are key local nutrient sources which are not always optimally exploited. The inability to match crop harvests with a sufficient nutrient return leads to depletion of nutrients and organic matter, reducing soil quality and increasing the risk of land degradation through erosion and of agricultural incursion into virgin ecosystems. Shortages of water and other nutrients such as sulphur, zinc, selenium, etc. can limit N and P use efficiency, preventing the best use being made of these major nutrients.

ICAR-IISS has excellent faculties to train researchers on soil, water and plant management for improved nutrient and water use efficiency. The laboratories are well equipped with modern instruments and staff is experienced with state of the art analytical methods and techniques. The course content of the short course is given below.

Course Content

- Nutrient dynamics in Soil-Plant system for enhancing NUE and WUE
- Water-nutrient interactions and measures for enhancing their use efficiency
- Physiological basis of nutrient *vis-a-vis* water use efficiency
- Genetics and molecular basis for improving nutrient and water uptake
- Best management practices for improving WUE and NUE in production systems
- Recycling organic wastes and waste water for their efficient use in crop production
- Climate change impact on water and nutrient management
- Recent developments on soil and plant nutrition research

Eligibility

The officers in the cadre of Scientists / Assistant Professors / Subject Matter Specialists or equivalent and above from ICAR institutes, SAUs, CAUs, KVKs, CSIR, Commodity boards, Agricultural faculty of AMU, BHU, Vishwa Bharati and Nagaland University who are actively engaged in research, teaching and demonstration in the areas of Soil Science, Plant Physiology, Plant breeding and Genetics, Agronomy, Microbiology, Environmental sciences and other relevant Agriculture and Horticulture subjects are eligible to attend the short course training. The total number of participants will be restricted to 25. For speedy disbursement of selection letters, participants are requested to apply online at CBP portal and provide email ID and FAX number.

Duration of short course

Duration of the Short Course Training is 10 days from 5th September to 14th September, 2017 (both days inclusive). The participants are expected to arrive at ICAR-IISS, Bhopal latest by the evening of 4th September 2017 and can leave after 17:00 hrs on 14th September 2017.

Application and Registration

Participants are requested to apply online at CBP vortal (<http://www.iasri.res.in/cbp>)

A. Create account on CBP vortal, if your account is not created on CBP vortal:

1. Click on 'Create New Account' link on home page. 2. Fill the form. 3. Click on 'Create Account' button. User will get the message 'Successfully created account' after account is created on the CBP vortal.

B. Login on CBP vortal:

1. Enter the 'User Id' and 'Password' in the candidate login window on the home page. 2. Click on 'Login' button.

C. Participate in training programme:

1. After login, click on 'Participate in Training' button/menu, list of trainings will be displayed. 2. Click on 'Training Title – "Advances in Nutrient Dynamics for improving nutrient and water use efficiency of crops"'. 3. Click on 'Apply' link. 4. A form will open with all your personal details filled in. In case, user want to change any of these information then click on 'Edit' button and do the desired changes. 5. Click on 'Save' button to save the information then click on 'Next' button. 6. Fill the 'Academic details' and 'Experience details' information. Click on 'Next' button. 7. Fill 'Draft/Postal' order for Rs. 50/- drawn in favour of ICAR unit IISS Bhopal and click on 'Next' button. 8. Advance Application form will be generated in system and click on 'print' link. Submit this print out copy in your office for approval of competent authority. Click on 'Submit' button, advance copy will be submitted to course director. 9. After approval from competent authority, upload the scanned copy of duly approved application form and click on 'Next' button. 10. Click on 'Upload Approved Application File' button to upload signed 'Advance Application form' (Approved Application Form) in pdf/ doc/ jpg/ jpeg/ docx and click on 'Submit' button for final submission.

Additionally, interested candidates may send their applications in the prescribed format duly nominated/forwarded by the competent authority to the Course Director, ICAR-Short Course Training or Director, ICAR-IISS, Bhopal.

TA, Boarding and Lodging

The selected participants will be provided free boarding and lodging in the institute guest house. Food expenses will be borne by the organizers as per ICAR norms. All participants will be reimbursed the to and fro travel fare for the journey to Bhopal by rail or bus by shortest route. The payment will be made as per the entitled class of travel, but restricted to the maximum of AC-II tier train fare/bus fare (as per actuals). Local participants are not eligible for boarding and lodging, however, they will be provided with lunch and inter-session tea. Participants are requested to not to bring family members with them, as the institute has limited hostel facilities. No DA will be paid to participants.

Location and climate

Bhopal, a sprawling and picturesque capital city of Madhya Pradesh, is well connected by air, rail and roadways to different parts of country. Participants travelling by train/bus should alight at Bhopal railway station/Bhopal bus stand from where taxi/ auto-rickshaws can be hired to reach ICAR-IISS Campus located near Karond Chowraha on Berasia Road at a distance of 8 km from railway station and 7.5 km from Bus Stand. The Raja Bhoj Bhopal airport is located at a distance of 8 km from the campus. The participants are advised to make their return journey reservations at their end before leaving for Bhopal. The climate is pleasant during the month of September, warm (~30°C) during day time and cool in the night (~20°C).