

ICAR Sponsored Summer School: Bio-drainage for reclamation of waterlogging in high rainfall deltaic areas



Organised by:

**Directorate of Water
Management (ICAR),
Bhubaneswar,
Odisha-751023**

Term : 7 – 27 May, 2013

Course Director: Dr S Roy Chowdhury

Management of excess water in agricultural field is a major challenge globally as well as in India. The extent of waterlogging and associated soil salinity has already thrown a serious challenge for sustainable crop production and livelihood. The conventional drainage measures involving engineering principles has been found effective in facing this challenge; however, high cost of construction and several maintenance issues are the limitations. Many a times due to flat topography, as predominant in eastern India, high rainfall creates excessive waterlogging in major irrigation command (e.g. 58% in Mahanadi command in Odisha, 34% in Gandak command in Bihar). To combat drainage problem the technology needs to be less expensive and environment friendly for its sustenance. Reliance on capability of vegetation to reduce water table has been reported promising both in India as well as in other countries. The main physiological feature of such vegetation is profuse transpiration whenever the root system comes in contact with ground water. It is felt that combination of bio-drainage with conventional drainage would make drainage planning in waterlogged areas socio-economically more relevant and environmentally sustainable. Mitigation of problem of waterlogging through exploitation of transpiration potential of vegetation will not only provide an eco-friendly solution compatible to existing physical method but also the additional source of biomass in terms of timber, fuel wood, fodder, etc generating additional source of income. There is potential of growing agricultural co-crop with silvi-pastoral management for sustainability of the system in otherwise non-productive or less productive waterlogged areas. This conjecture warrants Training Course for better understanding of the problems, issues and opportunities for fitting bio-drainage into an integrated framework of agricultural drainage management on sustainable basis. In view of this, a Summer School on “Bio-drainage for reclamation of waterlogging in high rainfall deltaic areas” sponsored by the ICAR will be organized at Directorate of Water Management (ICAR), Bhubaneswar, Odisha during 7th to 27th May 2013.

Course Content

The course is designed by combining theory and practice on different issues of waterlogged area management with special emphasis on biological drainage for sustainable agricultural production to provide a better livelihood to the farmers. The course would address various facets of bio-drainage for efficient management of waterlogged areas in high rainfall areas *viz.* principles and practices for integrating bio-drainage into an overall drainage management plan of water logged areas, potential bio-draining tree species for non saline and saline waterlogged environment with package of practices and differential bio-draining mechanisms, efficacy of bio-drainage plantation on providing drainage relief, desirable/undesirable effects on co-existing crops or vegetation, package of agronomic silvi-cultural practices, socio-economic issues, etc. Problems and prospects of bio-drainage in an integrated farming system approach for income and employment generation will also be addressed. Various practical exercises and experiences sharing sessions will be conducted to strengthen the knowledge on methodological aspects of bio-drainage and waterlogged area management.

Course Objectives

This Summer School will be useful to researchers, professionals working in ICAR institutes, SAUs, CAU, Agriculture faculty in Central Universities to update their knowledge in the field of bio-drainage and management of excess water situation for sustainable crop production in waterlogged area.

Course Material

The course material will be prepared and handed over to each participant in form of a Manual during the course.

Training Methodology

The Summer School will include theory and practical sessions that will be facilitated by the core academic staff/Scientists/Professors/Subject Matter Specialist of the respective field of specialization and each session will be followed by discussion on the topic for 15 minutes. Well-qualified experts of the Institute and Guest Faculties dealing with the related issues will deliver lectures and facilitate practical experience through classroom practical sessions and field visits. The participants are advised to come prepared for appearing in Evaluation Tests.

Who should apply?

Admission for participants is ordinarily limited to teachers, research workers of the subject or supervisors who have had atleast two years of teaching /research experience. Participants should be from ICAR Institutes/State AUs/CAU/ Agricultural faculty of AMU, BHU, Visva Bharti and Nagaland University in the cadre of Assistant Professors or equivalent and above. To encourage the underpinning of agricultural sciences within basic sciences and to address both fundamental and applied research problems, a few participants from the basic sciences would also be selected. A total of 25 participants will be accommodated in this course. Competent authority of above-mentioned institutes/universities would nominate 2-3 persons meeting the eligibility criteria for attending this course. Nominations should reach latest by 15th April 2013. The participants will be intimated their selection for the course by 20th April 2013.

How to apply?

Persons interested are requested to apply on the application form through proper channel given at the end of information brochure (enclosed). A registration fee of Rs. 50/-(Rupees. Fifty only) per participants will be collected from the participants at the time of their registration for joining the Summer school.

Venue and Road map

The training will be conducted at Directorate of Water Management (ICAR), P.O.: Rail Vihar, Chandrasekharpur, Bhubaneswar-751023, Odisha. DWM is located at Chandrasekharpur area of Bhubaneswar city and is about 8 km from Bhubaneswar Railway Station and 12 km from Bhubaneswar Air Port.

Travel, Boarding and Lodging

The participants will be paid for the journey, to and fro, restricted to AC-II-tier train fare or bus or any other means of transport in vogue, as the case may be, Actual TA is to be paid normally following ICAR rule. TA may be paid from the place of duty to the Summer/Winter School/Short Course location and back by the shortest route. Participants will be provided accommodation free of cost, in the Institutional Guest House/Hostel. This will be as per the guidelines given by the Education Division of ICAR, New Delhi.

For further details please contact

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Fax: 0674-2301651

For further reference:

<http://www.icar.org.in/files/Final-list-ICAR-SWS-and-Short.pdf>

<http://www.dwm.res.in/>

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ICAR Sponsored Summer School On “Bio-Drainage for Reclamation of Waterlogging in High Rainfall Deltaic Areas” (7th to 27th May 2013)

Organised by: Directorate of Water Management (ICAR), Bhubaneswar,
Odisha-751023

Application Form*

Title of the Summer School:

Period of the course:

Name of the candidate:

Designation:

Address:

Telephone No.: _____ (Off) _____ (Res.)

Fax No.: _____

E-mail ID: _____

Highest academic qualification:

Service experience:

Accommodation required: Yes / No

Expectation/Need to be fulfilled from the training course:
(Use a separate sheet for this and enclose)

The aforesaid entries are correct to the best of my knowledge.

(Name and signature of the applicant)

Recommended and forwarded

Name, Signature and Seal of Sponsoring Authority

* Xerox copies of this form can also be used for sending nominations.

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