

ANNOUNCEMENT

NATIONAL TRAINING COURSE

on

SOIL QUALITY, LAND AND WATER
MANAGEMENT FOR SUSTAINED
PRODUCTION
(February 01-21, 2012)

Organizer : Acharya N.G. Ranga
Agricultural University
Rajendranagar
Hyderabad – 500 030

Co-organizer : ICAR,
India.

Course Director: Dr. M. Devender Reddy

Venue: Water Technology Centre,
College of Agriculture
Rajendranagar, Hyderabad

Acharya N.G. Ranga Agricultural University
Rajendranagar, Hyderabad – 500 030
Andhra Pradesh, India

Rationale

The introduction of better crop, soil and water management packages can be successful interventions to improve the agricultural production. As soil and water management is site specific and for effective transfer of the research findings, on farm participatory research for sustainable production of crops and cropping systems, agronomic techniques are needed. Further, there is a need for development of appropriate cropping systems related to source of irrigation and soil types.

Soil Quality

Soil erosion, continuous cultivation, deforestation and climatic extremities are factors that degrade soil quality. To manage soils in such a way that soil quality is restored, it is important to understand the relationships between soil properties, processes and functions. This will allow the development of soil management schemes that effectively and quickly improve soil quality. Improvements in soil quality will increase soil stability, fertility, and productivity. It will also benefit water quality by reducing runoff, soil erosion, and the movement of potential pollutants below the root zone.

Water management

Tensions between water uses not only occur in situations of water scarcity, but may also evolve when there is excess water. Rapid discharge of water from upstream areas may cause succeeding periods of droughts (in the same area) and /or floods in downstream areas. These phenomena

may be aggravated by the ongoing climate change.

Real water saving by reducing non-beneficial depletion can be accomplished through: Reducing flows to sinks and reducing non-beneficial evaporation. Alternatives for increasing water productivity (WP) can be applied at the crop, farm, system and basin levels. The increased equity in canal water supply in all reaches will not only reduce the productivity gap between head and tail but will also improve the overall productivity. Deficit Irrigation is an efficient way to increase the productivity of applied water (PAW). Efficient management of rainwater through water harvesting and improved water-use technologies helps to increase productivity. The development of short-season varieties, reducing the growing time has been a major source of water savings (more crop per drop per day). Warabandi system is a proven model for managing scarce water supplies through extensive canal distribution network. One of the greatest potentials for increasing WP lies in the management of surface water and groundwater resources for conjunctive use, provided this leads to better distribution of water. Wastewater offers an assured source of water supply to otherwise water stressed urban hinterlands for cultivation of vegetables and forage crops.

IWRM

The increased pressure on fresh water resources and the imbalances between water availability and water requirements necessitates sound water management. Integrated Water Resources Management has been adapted as a new

paradigm in water management as a process, which promotes the coordinated development and management of water, land and related resources in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems” (GWP Technical Advisory Committee 2000).

The IWRM concept recognizes that sound ecosystems are essential for economic development. It also largely contrasts with the sectorized organization of water management, which is still common in many countries. IWRM offers the prospect of greater water use efficiencies in agriculture.

Course Contents

1. Introduction to soil and water quality basics
2. Physical, chemical and biological tests for monitoring soil quality
3. Soil and water quality assessment methods
4. Field testing of soil and water quality
5. Soil and water quality improvements-BMP
6. Water conservation in irrigated and non-irrigated agriculture
7. Soil-plant water relationships
8. Determination of crop water requirements –methods and models
9. Irrigation systems over view-surface and subsurface and micro-irrigation
10. Irrigation scheduling
11. Climate change and its impact on water resources
12. Participatory irrigation water management

13. Run-off estimation models
14. Ground water management
15. Use of poor quality water for irrigation
16. Integrated water resource management and conjunctive use
17. Irrigation systems performance assessment
18. Water productivity
19. Working of case studies, problems and models
20. Field visits to model water sheds and irrigation project commands.

Eligibility

1. Master's degree holders/Post Graduate professionals in Agronomy, Soil Science, M-tech soil water engineering, Environmental sciences.
2. Working not below the rank of Asst. Prof. and equivalent upto Senior Scientist/Associate Professor in the concerned subject in an Agricultural University/Research Institutes/Non-governmental organizations in various countries.

Venue

Water Technology Centre, Acharya N.G. Ranga Agricultural University, Rajendranagar, Hyderabad, Andhra Pradesh, India.

Nomination

The applicant desirous of participation in the course and fulfilling the eligibility conditions may apply through proper channel. Participants will be paid travel fare for to and fro journey restricted to the **AC III or sleeper class train**

fare or bus or other means of transport in vogue as the case may be. **Actual TA will be paid normally on production of a ticket** by participants. TA will be paid from the institute where the trainee is working to the Training Course location i.e., ANGR Agricultural University, Rajendranagar, Hyderabad and back by the shortest route. Free boarding and lodging will be provided to the participants during the training program. The interested persons may send the filled in application form to the “Director, Water Technology Centre, ANGRAU, Rajendranagar, Hyderabad-500 030, Andhra Pradesh, India”.

General Information

Weather: The minimum and maximum temperatures of Hyderabad during the months of January and February will be around 12-15⁰C and 30-35⁰C respectively. Light woolen garments are suggested.

Number of Participants: 20

Last date of Application: January 10, 2012

Candidate selected will be informed by:
January 12, 2012

Duration of International Training Course:
21 days (February 01-21, 2012)

Hyderabad is well connected with rail, air and road from all parts of the country. The participants are advised to reach a day earlier to the commencement of the programme. The

participants may avail the APSRTC buses with route nos. 95P or 95A from Koti (Opp. Osmania medical college) to reach Water technology Centre, the venue of the training programme. In case of emergency participants may contact course director on telephone for necessary guidance.

For further details, please contact
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E-mail: wtcangrau@rediffmail.com

APPLICATION FORM

National Training Course on Soil quality, land and water management for sustained production (February 01-21, 2012)

1. Full Name (in Block letters):.....
2. Designation:.....
3. Present Employer and Address:.....
4. Current field of Research:.....
5. Complete address to which reply should be sent:.....
6. Mobile No :.....
7. E-mail address:.....
8. Fax:.....
9. Date of Birth:.....
10. Sex (Male/Female):.....
11. Academic Record:

Examinations passed	Subjects Main/Subsidiary	Year of passing	Class ranks distinct ions etc	University/institutions
Bachelor's				
Master's				
Ph.D				

12. Teaching/research/professional experience in chronological order:.....
13. Mention participation in any of Summer/Winter School/Short Course etc previously

Training course	Dates/Duration	Place

Date:

Place:

Signature of candidate

CERTIFICATE

It is certified that information furnished here was found correct by the office records.

Signature of Sponsoring Authority