INFORMATION BROCHURE

Model Training Course

on

'Climate resilient agro-technologies for enhanced crop and water productivity under water–deficit agro-ecologies'

(September 22–29, 2017)

Sponsored by

Department of Agriculture Cooperation & Farmers Welfare,
Ministry of Agriculture & Farmers Welfare,
Govt. of India, New Delhi

Course Director

Dr. K.S. Rana, Principal Scientist

Course Coordinators

Dr. Anil K. Choudhary, Senior Scientist
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Background

India stands first among the countries that practice rainfed and dryland agriculture (RDA), both in terms of acreage and value of agricultural output. Out of 143 m ha of cultivated area in India, RDA extends over 97 million ha of which nearly 67 m ha falls in the mean annual precipitation range of 500-1000 mm. Rainfed areas alone contribute 44% of the national foodgrains production and supports nearly 40% of country's population of 1210 million. About 185 districts in India spread over 13 states have been identified as drought-prone or water-stress areas, where there is often negative balance between annual rainfall and ET rate. In India, around 91% area of coarse cereals, 91% pulses, 80% oilseeds, 60% cotton, 50% rice and 19% wheat is produced solely from rainfed lands. Upgrading RDA promises large socio-economic and environmental paybacks, particularly in poverty reduction and inclusive economic development. Further, majority of the farmers in rainfed areas have small and marginal size of holdings and are mostly resource poor. Such situation leads to the vicious cycle of poor agricultural productivity, poverty, hunger and socio-economic backwardness of rural masses. Keeping the importance of rainfed and dryland areas in Indian economy and its problems in mind, there is an urgent need to bridge the yield gaps, enhance the household profitability, minimize risk and improve the livelihoods of masses dependent on rainfed agriculture. Potential RDA technologies can play a significant role in augmenting the productivity on sustainable basis and conserving rain water. Thus, RDA agro-technologies may address the above matrix of agricultural problems in water deficit agro-ecologies.

Objectives

Moisture scarcity is the major yield limiting factor in the arid and semi-arid climatic conditions. Numerous RDA technologies have been generated by the National Agricultural Research System of the country which can play a significant role in augmenting the productivity on sustainable basis and conserving moisture. Suitable combination of these technologies can be adopted on large scale in the rainfed, arid and semi-arid ecologies of India to improve the livelihood of farming community and to provide food security to the country.This MTC training on knowledge up-gradation of agricultural officers on crop productivity enhancement in water deficit areas of India hold the key to unlock the production potential of field crops in these areas. Thus, in order to scale-up and upscale the climate resilient agro-technologies for RDA domain to enhance the crop and water productivity vis-a-vis the carbon and water footprints of RDA agriculture in water-deficit agro-ecologies at large; this MTC is the need of the hour. In order to address above agricultural issues at farm level, the current training proposal is planned to train the extension officers/extension field functionaries of the country with newly evolved climate resilient agro-technologies. This MTC would definitely aim at following objectives:

- To train and aware the extension officers with climate resilient agro-technologies to enhance crop and water productivity at farm sector,
- To train and aware the extension officers with climate resilient agro-technologies practices which promise improved crop and water footprints in rainfed and dryland agriculture.
- To know about the benefits of climate resilient farm practices in enhancing the resource-use efficiency and climate resilience.

Course Content

The entire course curriculum would emphasize upon the theoretical and practical aspects of RDA technologies. The course will cover climate resilient agriculture concept, principles and objectives, major production–, resource– and climatic–vulnerability issues of RDA, importance of RDA in Indian agriculture, major cropping systems of rainfed agro-ecosystems and inventory of their production constraints. The climate resilient agro-technologies to enhance crop and water productivity in major cropping systems of rainfed & dryland agro-ecosystems would be covered under course curriculum. Crop nutrient management for improved soil health and agricultural

sustainability; precision nutrient and water management practices; micronutrient management and foliar fertilization as well as crop residue management in CA-based RDA production systems will be the prime content of this MTC. Rainwater harvesting in rainfed & dryland areas; inclusion of legumes in cereal systems, carbon sequestration, GHG reduction and climate resilience; integrated weed management, integrated water management practices, crop and varietal diversity for risk management; hydrogel technology, farm machinery use for rainfed agriculture, micro-irrigation systems, irrigation and fertilizer scheduling for RDA, and integrated farming systems etc. under prominent cereal/ oilseed/pulse based and even fodder based production systems for RDA ecosystems would be the prime course curriculum of this MTC.

Course duration

September 22–29, 2017

Eligibility

This Model Training Course is meant for the state extension/developmental officers of agriculture and horticulture, soil conservation and watershed management, dairy and livestock management; and KVK scientists of ICAR/SAUs in the area of Agronomy/Soil Science/Crop Protection/ /Agricultural Extension/Agricultural Economics/ Agricultural Engineering/ Soil Water Conservation /Horticulture/ Microbiology/ Dairy & Livestock management/Food Technology/ Agroforestry or any other related disciplines. The total number of participants shall be limited to 20. All the applications must be routed through proper channel. There are no course fee charges to participants for attending this training.

Travel, Boarding and Lodging

The boarding, lodging, and TA expenses of the selected participants from the State Departments of Agriculture/Horticulture/ Dairying and other related allied state departments will be met from the funds provided by the Ministry of Agriculture as per norms and operational guidelines for organization of Model Training Course. Participants will be paid to-and-fro fare for journey by train (strictly III AC) or bus or other means of transport in vogue as the case may be. Actual TA will be paid on production of a tickets/certificate by the participants. *However, the participants coming from ICAR/SAUs/KVKs, the TA and DA expenditure will have to be borne by their nominating organization/institute, and the boarding and lodging will be provided by the organizers*. The participants will be provided accommodation in the Guest Houses/Trainee Hostels of the Institute.

How to apply?

Application for participation in the MTC may be made in the prescribed format as given herewith and forwarded by the competent authority where the candidate is employed. Applicants may send an advance copy if they anticipate delay in forwarding through proper channel. However, the final selection will be made only if the application duly recommended by the competent authority is received. The selected candidates will be intimated within 3 days of the receipt of their application.

After the candidates are intimated of their selection, they should immediately reply with firm acceptance. Cancellation at the last moment for casual reasons after acceptance is undesirable as it will deprive other eager candidates who could have availed of the opportunity.

IMPORTANT DATES	
Last date for receipt of the application	15/09/2017
Intimation of Selection	15/09/2017
Participation confirmation by the candidates	16/09/2017

How to reach IARI

IARI popularly known as 'Pusa Institute' is located at Pusa Campus in East Patel Nagar about 10 kms from 'Maharana Pratap-ISBT', 8 kms west of New Delhi Railway Station, and about 16 kms east of IGI Airport. Pre-paid taxi/auto can be availed at railway/airport/bus stations to reach at IARI, New Delhi.

Application form for Participation in MTC

(To be sent to the Course Director of MTC)

1. Full name (in block letters):
2. Designation:
3. Present employer and address:
4. Address for correspondence (Give E-mail, Tel. / Mobile No.):
5. Permanent address:
6. Sex: Male/Female
7. Marital status: Married/unmarried
8. Academic record (Indicate in tabular form examinations passed from B.Sc. degree onwards, Main subjects, Year of passing, Class / rank / University / Institution, Other information):
9. Service experience:
10. Signature of applicant (indicate name of place and date):
11. Recommendation of the forwarding Institute (Signature, date, designation / address):

CERTIFICATE

It is certified that the above information was furnished as per the office record and was found correct.

(Signature and Designation of sponsoring authority)

Applications/nominations may be sent to:

Dr. K.S. Rana
Course Director & Principal Scientist
Division of Agronomy
Indian Agricultural Research Institute
New Delhi–110012. INDIA.
Mobile: 098916-83993
Tel.: 011-25841488(O)
Email: ksrana04@yahoo.com

For further information please contact:

Dr. Anil K. Choudhary
Course Coordinator
Mobile: 087438-39766
Email: anilhpau2010@gmail.com

Dr. R.S. Bana
Course Coordinator
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Email: rsbana@gmail.com