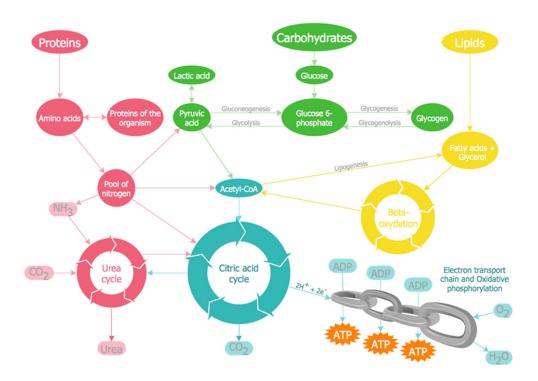
## ICAR-sponsored Training Programme (for Technical Staff of ICAR)

on

Extraction, estimation and characterization of biomolecules from plant samples (December 03-08, 2016)

Last date for application 20<sup>th</sup> November, 2016



Course Director Dr. Shelly Praveen



Division of Biochemistry ICAR-Indian Agricultural Research Institute PUSA Campus, New Delhi-110012



### About the Institute

The Indian Agricultural Research Institute (IARI) is the country's premier institution for agricultural research, education and extension. It has been serving the cause of science and society with distinction through basic research, generation of appropriate technologies and development of human resources. Recognizing the importance of biochemical studies in crop research, the Division of Biochemistry was created in 1966 as separate Division with major emphasis on plant biochemistry, molecular biology and nutrition. Since its inception, the Division has acquired the best research, teaching and training facilities, and take legitimate pride in being recognized as the only Centre of Advanced Faculty Training in Biochemistry in NARS by ICAR ever since 1995.

## Introduction and Objectives

Crop production faces many challenges due to changing environmental conditions and evolving needs for new plant-derived materials. Biotic and abiotic stresses along with poor availability of nutrients, due to deteriorating soil health, are the major factors that prevent crops from realizing their full potential. Dissecting the biochemical and molecular changes associated with these stresses is currently one of the major goals of the plant biologists all over the world. However, knowledge of various biochemical techniques for extraction, estimation and characterization of different biomolecules present in different tissues of the plants is of utmost importance in order to decipher these changes. The present training programme has, therefore, been designed with following objectives:

- 1. To impart knowledge and skill in the field of biochemistry to the technical staff working in the ICAR institutes and SAUs.
- 2. To provide Hands-on training to the trainees on commonly used equipments and instruments in a biochemical laboratory.

### Venue and Duration of the Course

The training programme will be conducted in the Division of Biochemistry, ICAR-IARI, New Delhi-110012 and duration of the course would be six (06) days from December 03-08, 2016

### Eligibility and Nominations

Technical personnel working in various ICAR institutes and SAUs are eligible to apply for this training programme. The interested can apply in the prescribed format (included in this brochure). The duly filled application form, forwarded through proper channel, should be sent by post Dr. Anil Dahuja, Principal Scientist & Course Coordinator, Division of Biochemistry, ICAR-IARI, New Delhi on or before November 20, 2016 and a scanned copy of the same may be sent at following E-mail address : ad bio@yahoo.com. However, an advance copy of the application may be sent to the Course Director by post or E-mail. There is a provision for 25 participants and selection would be solely based on the merit. The candidates selected for the training programme will be intimated individually by November 25, 2016 only through E-mail. The selected candidates should bring permission and relieving letter from their respective institutes.

## Travel and other arrangements

TA and DA will be borne by the sponsoring institute of the trainee as per the ICAR rules. The participants should make their own transport arrangement to reach to ICAR-IARI. The program is residential and participants would be required to stay in New Delhi. Accommodation can be arranged in the Guest Houses within IARI campus depending upon the availability. (In case of non-availability of accommodation in the institute's guest houses, the candidates would be required to make their own arrangement in the hotels in the vicinity of PUSA campus, New Delhi, in consultation with the Course Coordinator.)

#### Course content

The training schedule comprises of lectures and practicals from the experts in the respective fields from ICAR-IARI, New Delhi-12. Following biochemical aspects would be addressed during the training programme:

Extraction and estimation of amino acids & proteins from plant samples; Protein profiling by Gel electrophoresis method; Assay of the enzymes and total antioxidant capacity from the plant samples; Estimation of carbohydrates from the plant samples; Extraction of oil from seeds and determination of its characteristics; Extraction and estimation of DNA /RNA from plant samples.

In addition, visit to various central facilities established in ICAR-IARI such as Phenomics Facility and Phytotron facility etc. would be arranged for the benefit of the trainees.

## **Application Form**

(To be sent directly to the Course Director)

## **Training Program**

on

# Extraction, estimation and characterization of biomolecules from plant samples

(December 03-08, 2016)

1. Full Name (in block letters) :
2. Designation :
3. Present employer & address :
4. Corresponding address :
5. Telephone No. :/Mobile NoE-mail:
6. Permanent address :
7. Date of birth &age :8. Sex: (Male/Female) :
9. Marital Status :10. Academic Qualification:
11. Major Area of specialization:
12. Professional Experience :
13. State how this training is going to be useful to you:
Place : Signature of the participant
Date :
Recommendation of the forwarding Institution

Date: Signature & seal

## **Contact Details**

### **Course Director:**

Dr. Shelly Praveen Head, Division of Biochemistry ICAR-Indian Agricultural Research Institute, PUSA Campus, New Delhi-12

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#### **Course Coordinator:**

Dr. Anil Dahuja, Principal Scientist, Division of Biochemistry, ICAR-IARI, New Delhi-12

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