# Training on the Basic Techniques for Diagnosing and Testing Salt Affected Soils & Waters

(MODULE-I)

(30 October-5 November 2023)



### Organized by:

Central Laboratory (NABL Accredited) of the Division of Soil & Crop Management ICAR-Central Soil Salinity Research Institute
Karnal-132001 (Haryana)

#### **INTRODUCTION**

ICAR-Central Soil Salinity Research Institute (CSSRI) is a premier research institute committed to conducting interdisciplinary investigations concerning salinity/alkalinity management and the utilization of poor-quality irrigation waters across diverse agroecological regions within the nation. The institute boasts well-furnished laboratories dedicated to various facets of salinity management, furnished with cutting-edge facilities such as Inductively Coupled Plasma, Atomic Absorption Spectrophotometer, Ion Chromatograph, High Precision Liquid Chromatography (HPLC), Gas Chromatograph, Nano-Particle Size Analyzer, Radiometer, Nitrogen Analyzers, Electro-Magnetic Salinity Probe, Neutron Moisture Meters, Infrared Gas Analyzer, CHNS Analyzer, IRGA, PCR, Growth Chambers, and lysimeters, among others.

Furthermore, housed within the institute is a Central Laboratory furnished with state-of-the-art amenities for comprehensive analysis. Currently, this laboratory garners recognition from research and extension agencies, as well as farmers, due to its advanced resources, top-notch analyses of soil/plant/manure/irrigation water, and effective advisory services. The Central Laboratory of CSSRI is NABL accredited and conducts analyses for more than 10,000 soil and water parameters annually, catering to farmers, students, scientists, industry, and ICAR institutes. Drawing upon extensive experience in human resource development and in consideration of the swiftly evolving landscape of soil, plant, and water analyses, as well as instrumental methodologies and their applications, ICAR-CSSRI has initiated several comprehensive training programs. These programs place a pronounced emphasis on practical exercises and the theoretical underpinning of the subject, catering to a wide spectrum of applications. MODULE-I is designed to provide training in the fundamental aspects of all types of analyses essential for characterizing and assessing soil health with emphasis on salt-affected soils. Similarly, MODULE-II concentrates on both fundamental and advanced methods and instrumentation.

#### **OBJECTIVES**

The primary aim of this training program is to enhance the participants' awareness and proficiency in contemporary methods of analyzing soil, water, and plant samples. These techniques are crucial for advancing research and extension efforts in the realms of agriculture and its related domains. The program also focuses on imparting knowledge regarding instrument utilization, maintenance procedures, as well as the skill to decipher analytical data and create comprehensive reports and recommendations. The course curriculum has been meticulously structured to encompass a comprehensive understanding of soil attributes, testing methodologies, and strategies for interpreting data. This approach is designed to render the acquired knowledge more pertinent within the broader scope of the global competitive landscape, particularly in terms of the quality and precision demanded by the agricultural export market.

#### ABOUT THE COURSE

The training course is tailored for individuals engaged in, or anticipated to engage in, the operations of soil testing and analytical laboratories, focusing on the analysis of soil, plant, and water samples. The curriculum is thoughtfully crafted to encompass both theoretical lectures, addressing pertinent subject matter, and hands-on practical exercises. Notably, the course places substantial emphasis on the application of analytical techniques, employing a practical "learning-by-doing" approach. A significant aspect of the program entails mastering the interpretation of test results and the formulation of corresponding recommendations and reports. The course will also incorporate immersive field visits and group discussions, designed to provide real-world context. Upon completion of the course, participants will be evaluated through a performance assessment test, followed by a comprehensive discussion. Successful completion of these requirements will culminate in the awarding of certificates, validating their proficiency in the subject matter.

#### **DURATION**

The duration of this training course is one (1) week i.e., 30 October-5 November 2023

#### **ELIGIBILITY & SELECTION CRITERIA**

Candidates working as scientists and technical staff in ICAR Institutes and Universities with experience in relevant field are eligible for nomination to the course. Candidates sponsored by Govt/Semi-Govt. organizations, fertilizer industry, cooperatives, NGOs, ICAR institutes etc. will be given preference.

The received applications/nominations will undergo careful evaluation, and official admission letters will be dispatched to the chosen candidates. The organizers will facilitate arrangements for accommodation and meals for all participants, but participants are required to cover the expenses for boarding and lodging, in accordance with ICAR rules. Transportation and daily allowances (TA/DA) for admitted candidates are the responsibility of their respective sponsoring organizations. ICAR-CSSRI will not be accountable for any expenses related to TA/DA in this regard.

NO. OF CANDIDATES TO BE ADMITTED: 25 (First come-first serve basis)

#### FEE

A consolidated fee of **Rs. 3000/-** (Rupees Three thousand only) is to be paid by each admitted candidate through Demand Draft in favour of Director, ICAR-CSSRI, Karnal drawn on State Bank of India, Karnal. The training fee covers course fee only. Expenses on boarding, lodging

and stationery etc. shall be borne by candidates. The boarding and lodging facilities are available on campus. The fee must be sent by the candidate only on receipt of Acceptance Letter, and not with the application. There is No fee for the applicants from ICAR-CSSRI.

#### **HOW TO APPLY**

The application as per the given format, complete in all respects and duly signed by the sponsoring authority, should be sent to Course Coordinator, Division of Soil & Crop Management, ICAR-Central Soil Salinity Research Institute, Karnal-132001 (Haryana) via Registered Mail/Courier/E-mail, so as to reach him latest by September 10, 2023. Only the appended *Application Form* should be used.

#### **IMPORTANT DATES**

Last date for receipt of applications at ICAR-CSSRI: October 15, 2023

Release of admission letters: October 16, 2023

Last date for receipt of fee: October 20, 2023

Commencement of training course: October 30, 2023

For further details, please contact: E-mail: <a href="mailto:trainings.cssri@gmail.com">trainings.cssri@gmail.com</a>

#### **COURSE COORDINATOR**

Dr. Ajay K. Bhardwaj
OIC, Central Laboratory & Principal Scientist, CSSRI

Mobile: 94678 94326

#### COURSE DIRECTOR

Dr. Nirmalendu Basak, Senior Scientist, CSSRI

Mobile: 94161 45187

#### **COURSE CO-DIRECTORS**

Dr. Madhu Choudhary, Senior Scientist, CSSRI

Dr. Awtar Singh, Scientist, CSSRI Dr. Naresh Arora, ACTO, CSSRI

#### **APPLICATION FORM**

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Name of the Candidate:(in block letters)			
Designation:	Age(yrs)		
Mailing address (with PIN Code):	1900014		
Tel. No. (with STD code) Office:			
Mobile No	E-Mail		
Educational qualification:			
Experience: Laboratory	yrs	Fieldyrs	
Nature of present job			
		Signature of the Appli	cant with date
Declaration	by the Sponsoring	Authority	
This is to certify that the information fu intimated accordingly, the requisite fee participate in the said training at ICAR-	rnished above is conwill be paid by the	rect. If the candidate is	
	Signature	of the Sponsoring Auth Dated:	