

# Soil Testing Laboratory

PLANTICA- Indian Academy of Rural Development (IARD)

(Recognized by Sri Dev Suman Uttarakhand University and Kumaun University, Govt. of Uttarakhand)

ISO 9001:2015 Certified Organization

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**PLANTICA- Soil, Water, and Plant Testing Laboratory** is a specialized facility located in Banjarawala, Dehradun, Uttarakhand, offering a comprehensive range of tests to assess the health and quality of soil, water, and plants. This laboratory plays a crucial role in supporting agricultural practices, environmental monitoring, and research initiatives by providing accurate and detailed analyses.

**Ms. Vandana Petwal, Scientific Officer and In-Charge: Soil Testing Laboratory,**  
**Contact: +91 82184 54644 / +91 9548055290**

The laboratory offers a variety of tests tailored to the needs of farmers, researchers, and environmentalists. Here are the key testing services available at PLANTICA:

## Soil Testing

### Nutrient Analysis (N, P, K)

- Measures the levels of nitrogen (N), phosphorus (P), and potassium (K) in the soil, which are essential nutrients for plant growth and health.

### Organic Carbon (OC)

- Determines the amount of organic carbon present in the soil, indicating soil fertility and organic matter content.

### pH (Acidity/Alkalinity)

- Assesses the soil's pH level, which influences nutrient availability to plants and overall soil health.

### Electrical Conductivity (EC)

- Measures the soil's ability to conduct electrical current, providing insights into salinity levels and nutrient availability.

### Water Holding Capacity (WHC)

- Evaluates the soil's capacity to retain water, which affects plant water availability and irrigation needs.

### Texture Analysis

- Determines the soil texture (e.g., sand, silt, clay), influencing water retention, drainage, and nutrient availability.

### Compost/Manure and Industrial Waste Analysis

- Assesses the quality and nutrient content of compost, manure, or industrial waste materials when used as soil amendments.

## Plant Testing

### Nutrient Analysis (N, P, K)

- Measures nutrient levels in plant tissues to assess nutritional status and identify deficiencies or excesses.

### Chlorophyll Analysis

- Determines chlorophyll content, which reflects the plant's photosynthetic activity and overall health.

## Water Testing

### pH (Acidity/Alkalinity)

- Evaluates water pH, crucial for aquatic life and irrigation suitability.

### Electrical Conductivity (EC)

- Measures water's electrical conductivity to assess salinity levels.

### Total Dissolved Solids (TDS)

- Determines the amount of dissolved solids in water, affecting its quality for drinking or agricultural use.

### Total Hardness

- Assesses water hardness due to calcium and magnesium content, impacting water quality and usage.

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Date: 01 April, 2024

## Soil, Water and Plant Testing Charges w.e.f. 01 April, 2024

S.N.	Material Type	Charges (Per Sample) Rs.		
		Complete Test (Chemical and Physical)	Chemical Test Only (N,P,K,OC, pH, EC)	Physical Test Only (WHC, BD, Texture)
1.	Soil (Agriculture Land)	450/-	350/-	100/-
2.	Compost / Manure	550/-	550/-	-
3.	Industry waste/ Other	950/-	950/-	-
4.	Water	550/-	550/- (pH, EC, TDS and Total Hardness- Ca+Mg)	-
5.	Plant	950/-	950/- (N,P,K and Chlorophyll)	500/- (Only Chlorophyll)

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**(Vandana Petwal)**  
Scientific Officer  
In-Charge Soil Testing Laboratory

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**(Dr. Anoop Badoni)**  
Director  
PLANTICA- IARD