





# SOIL FERTILIZER AND WATER RESOURCES CENTRAL RESEARCH INSTITUTE

**ANKARA** 

2023



## History



#### T.C. TARIM VE ORMAN BAKANLIĞI

- The Institute was established in March 1st, 1954, in Ankara as a National Specialization Institute under the General Directorate of Agricultural Affairs with the purposes of;
- performing studies about "Soil Survey, Classification and Mapping in Turkey;
- Soil, Fertilizer, Water and Plant Analysis;
- Determining the suitability of Soils in terms of Irrigation and Soil Salinity, Alkalinity and Reclamation;
- Protection of Soil Fertility and Utilization of the Soils at Optimum Level









## Research Departments

Agricultural Irrigation and Land Reclamation

Soil Science and Plant Nutrition Climate
Change and
Agricultural
Ecology



#### T.C. TARIM VE ORMAN BAKANLIĞI

Our Laboratories serve as the reference laboratory of our ministry.

Our laboratories are authorized by our ministry as Proficiency Testing Regulators.

Laboratories have member GLOSOLAN since (2017) and INFA since (2021). Also, GLOSOLAN the reference laboratory.

Chemical Fertilizer Analysis Laboratory

Soil Microbiology Laboratory Soil Quality
And Fertility
Analysis
Laboratory

**LABORATORIES** 

Plant And Organic Fertilizer Laboratory

Irrigation
Water Quality
Analysis
Laboratory

Irrigation, Soil
Physics And
Salinity
Laboratory











#### **SOIL ANALYSIS**



Electrical Conductivity	Calcium (Ca)
Soil pH	Magnesium(Mg)
Lime	Microelement
Organic Matter	Total Nitrogen (N)
Phosphorus (P2O5)	Amonium Nitrogen (NH4-N)
Potassium(K2O)*	Nitrate Nitrogen (NO3-N)
Boron (B)	Heavy Metal

Cation and Anion	Sodyum Absorpsiyon Ratio (SAR)
Exractable Cation(%)	Exchangeable Sodium (ESP)
Cation Capacity	Bulk Density
Water Permeability	Total Pore Volume
Physical Analysis	Field Capacity
Green Emision Gas	Exractable Cation(%)
Clay Type	Water Permeability



#### PLANT AND FERTILIZER ANALYSIS



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Total Nitorgen	Phosphorus (P2O5)*
pH*	Potassium (K2O)*
Nitrate Nitrogen	Calcium
Amonium Nitrogen	Magnesium
Urea Nitrogen	Sulfur
Phosphorus	Boron
Phosphorus Pentaoksit (P2O5)*	Nötr Amonyum Sitratta ve Suda Çöz. Fosfor (P2O5)*

Heavy Metal	Microelement
Potassium	Boron
Soluble in Water Potassium	Toplam Kükürt (S)
Total Humic	Soluble in Water Sulfur
Leaf Analiysis	Total Sulfur
Organic Nitrogen	Total Carbon
Organic Matter	Magnesium



### **Center of R&D**

Geographic Information Systems

 Microbial Fertilizer Research, Technology Development and Culture Collection Center



#### **SERVICES**

In our accredited laboratories, which are accepted by the Ministry of Agriculture and Forestry as the "Reference Institute" for soil, plant and water analyses, soil, plant, fertilizer and water analysis services are provided, in addition to research project samples.

#### In 2022;

- 4099 Soil and Plant Analysis
- 376 Water Analysis
- 354 Organic Fertilizer Analysis
- 577 Chemical Fertilizer Analysis
- 60 Microbiyal Fertilizer Analysis
- 280 Proficiency Test



#### National Laboratory Network

- Have started all laboratories to make member GLOSOLAN in TURKEY.
- Have divided the two part of this process (University-Ministry)
- Our responsibility as the reference laboratory to inspect 21 ministry laboratories.
- As Glosolan Turkey Ministry Reference, we continue to work on the establishment of the National Laboratory Network and we have started by making 10 of our laboratories members of this network.

