Comprehensive Soil Analysis Report

This soil analysis report provides detailed information on the soil sample collected for farming purposes. It includes chemical, physical, and biological properties of the soil, helping in effective decision-making for crop production.

Sample ID	SR-2025-001
Location	Village Test Area, District XYZ
Date of Collection	19 September 2025
Collected By	Soil Testing Department

Chemical Properties

Parameter	Value	Optimal Range	Remarks
pH	6.5	6.0 - 7.5	Neutral, suitable for most crops
Nitrogen (N)	45 kg/ha	50 - 100 kg/ha	Slightly low
Phosphorus (P)	18 kg/ha	20 - 40 kg/ha	Moderate
Potassium (K)	210 kg/ha	200 - 300 kg/ha	Adequate
Organic Matter	1.2 %	1.5 - 3.0 %	Low
Electrical Conductivity (EC)	0.8 dS/m	< 2 dS/m	Good

Physical Properties

Texture	Loamy
Bulk Density	1.3 g/cm³
Water Holding Capacity	48 %
Soil Depth	120 cm

Biological Properties

The soil shows moderate microbial activity with beneficial bacteria and fungi present. Earthworm count indicates healthy aeration and organic matter decomposition. The presence of mycorrhizal fungi supports nutrient uptake.

Recommendations

1. Apply nitrogen fertilizers (e.g., Urea, DAP) to improve nitrogen levels. 2. Incorporate organic compost or green manure to increase organic matter. 3. Maintain crop rotation to enhance soil fertility. 4. Regular soil testing every 6-12 months is recommended.