anticor
WATER PROFESSIONALS GROUP

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SOIL SAMPLING GUIDELINES

These guidelines describe standardized procedures for collecting, handling, and transporting soil samples to ensure laboratory results accurately represent field conditions and support reliable fertilizer and soil management decisions.

1. Scope

These guidelines apply to all agricultural soil samples submitted to Anticor Lab and are intended for farmers, extension officers, field technicians, and laboratory clients.

2. Principles of Soil Sampling

Soil sampling shall be based on the following principles:

- Soil samples must be representative of the field or management unit being assessed.
- Fields must be divided into homogeneous sampling units based on soil type, slope, colour, texture, crop history, and management practices.
- Multiple soil cores must be collected and combined into a composite sample to reduce field variability.
- Consistent sampling depth, timing, and method must be used to allow comparison over time.
- Samples must be protected from contamination, moisture loss, and nutrient alteration from the time of collection until laboratory analysis.

3. Responsibilities

The client is responsible for ensuring that samples submitted to the laboratory are collected according to the proper procedures.

4. Materials and Equipment

				
Clean Plastic Bucket	Clean spade, auger or soil sampling tube	Soil sample bags (plastic or lined paper)	Permanent marker or pre-printed labels	Knife or trowel (if using spade)
***Important**: All tools must be clean, rust-free, and stored away from any fertilizers or chemicals. Galvanized or brass equipment must not be used, as it may contaminate samples with micronutrients.*				

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5. Sampling Procedure

Field Preparation	1. Divide the field into homogeneous sampling units. 2. Clearly identify and number each unit. 3. Exclude or separate sample: • Headlands and field edges • Fertilizer or manure spots • Areas where animals congregate • Eroded, compacted, or visibly poor patches	
Sampling Time	• Sample after harvest and before planting • Sample at the same time each year or during the same cropping stage • Do not sample waterlogged or saturated soils	
Sampling Depth	Topsoil (routine fertility)	0-15cm (up to 20cm depending on tillage)
	Dryland subsoil	30 – 60cm
	Irrigated subsoil	30 – 60cm
	Irrigated deep subsoil	60 – 120cm
Collecting Soil Cores	• Remove surface vegetation and debris • Use a clean spade, auger, or sampling tube, take vertical core to the required depth • If using a spade: insert the blade to the required depth and discard the first slice. Take a thin vertical slice. Cut 50mm wide core from the center of the slice • Place each core into a clean plastic bucket	
Number of sub-samples	• Collect 20-40 soil cores per sampling depth for each homogeneous unit (should represent no more than 15 irrigated hectares or 40 dryland hectares) • Sample randomly across the entire area • Avoid visibly abnormal areas	
Preparing the Composite Sample	• Break large clod and remove stones, roots and foreign material • Mix the soil thoroughly in a clean container • Spread soil thinly and take small scoops evenly across the mixture • Place 1.0 – 2.0kg of soil into a labeled sample bag	

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6. Sample Identification

6.1 Each sample must be clearly labeled with sample or field identification number, sampling depth, date of sampling.

6.2 Samples are accompanied by a sample list.

7. Transport & Delivery

Samples must be protected from contamination, moisture loss, and nutrient changes from collection until laboratory analysis.

Situation	Action
Immediate delivery	Deliver to laboratory within 24 hours
Short delay	Keep samples cool
Extended delay	Air-dry or refrigerate samples

8. Sample Submission Address

Anticor Water Professionals Group

Anticor Lab and Salt Technologies

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