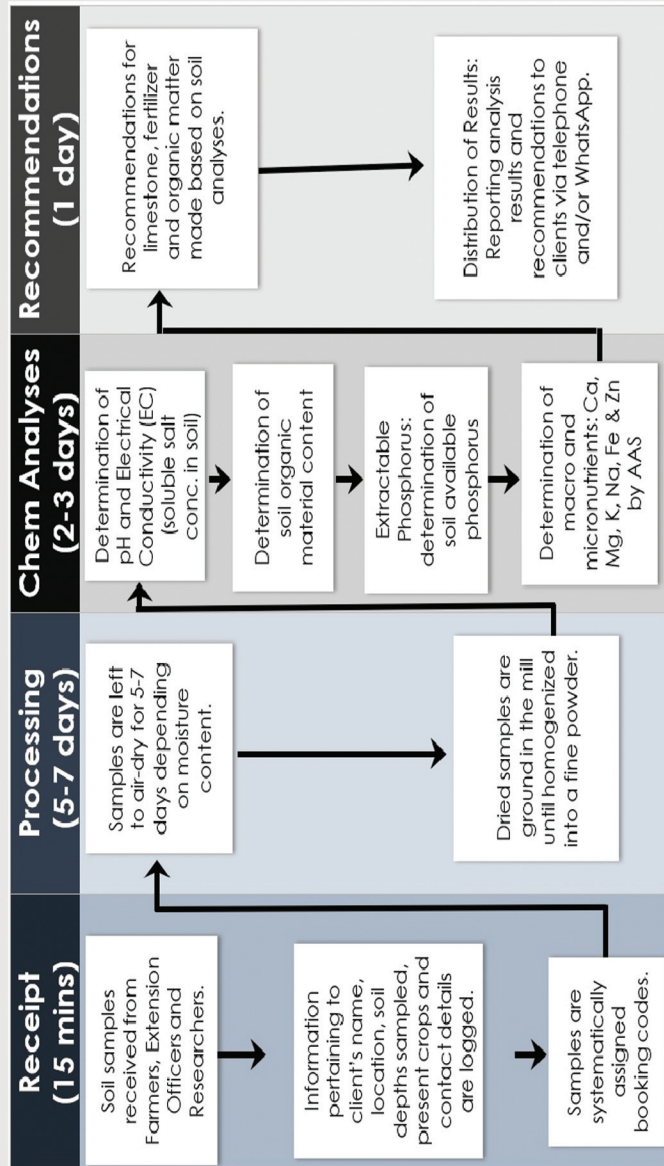


Soil Analysis Work Flow



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Communications Unit
January 2023



Soil Chemical Services Laboratory

Soil Chemical

Laboratory Services

The competent and professional research scientists, chemists and technicians of the SM&FM laboratory use modern analytical techniques and equipment to provide soil chemical analysis to farmers and all other agricultural crop stakeholders. The analyses facilitates understanding the fertility status of soils in relation to nutrient availability and toxicities and their effects on crop growth and productivity. Unguided limestone and fertilizer application can lead to nutrient imbalances, which affect crop yield and quality. However, systematic soil testing and analysis allows for timely application of recommended amounts of fertilisers and soil amendments.



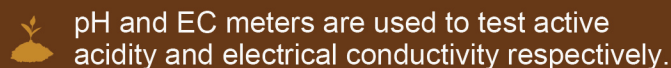
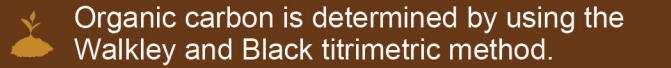
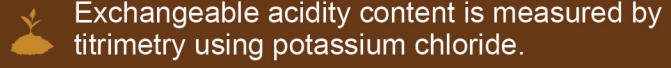
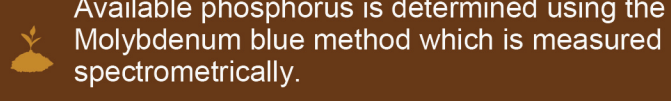
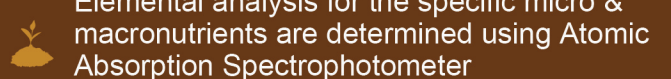
Analyses Conducted

The soil chemistry laboratory provides analyses of pH, organic carbon, electrical conductivity, exchangeable acidity, available phosphorous content and elemental analysis (macro and micronutrients: potassium, magnesium, calcium, sodium, copper, manganese, zinc and iron).

Sample Preparation

Before each analysis, soil samples must be thoroughly air-dried and ground into a fine powder. The higher the moisture content of the soil, the longer the drying process. This means that different soil textures will influence the waiting time for drying. For example, sandy soils could take a minimum of 2 days, while clay soils may require 7 days for complete air drying.

Equipment & Procedures

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Impact

The Soil Chemical Services Laboratory promotes the judicious use of limestone, fertilizers and organic matter.

We serve farmers, agro-entrepreneurs, researchers, students and other stakeholders by providing them with timely and accurate guidelines for sustainable soil management.

Soil chemistry data from soil samples informs the recommended inputs and interventions that will help farmers achieve cost-effective, consistent and high-quality crop production.