

Proximate Analysis (Moisture, Protein, Fats/Oil, Ash, Starch) + Zeleny & Gluten

With increasing legislation and consumer concerns on nutritional factors, proximate analysis provides basic nutritional components of food or feed and often used to estimate the nutritional value of products. Near Infrared measurements (AOAC 989.03/ISO 12099) of grain have shown superior performance and provide fast and reliable compositional data.

Below tests are routinely analysed in the lab and are calibrated against conventional wet chemistry methods.

- Crude Fat
- Moisture Content
- Protein Content
- Ash Content
- Starch
- Wet Gluten
- Zeleny



Microbiology

Our microbiological testing portfolio includes pathogens such as E.Coli, Salmonella, Listeria, Bacillus ssp and organisms that indicate poor hygiene or contamination such as Staphylococcus Aureus and Yeasts & Moulds. The lab provides reliable and accurate results making foods safer and protecting the consumers.

Our food microbiology team has both laboratory and industry knowledge, enabling us to understand the industry demands for food hygiene testing and food safety. Equipped with advanced Biosafety Cabinet, we ensure maximum protection for the operator, product and environment during analysis of various pathogens.

Test plates and materials are safely decontaminated and disposed off according to stringent procedures. Below tests are routinely offered in grains pulses, flour and feed stuff:

Total Viable Counts	ISO 4833
Bacillus Cerus	ISO 7932
Coliforms	ISO 4831
E. Coli	ISO 7251
Staphylococcus Aureus	ISO 6888
Salmonella	ISO 6579
Total Plate Count	ISO 4833
Yeast and Moulds	ISO 21527

Additional tests for other pathogens are also performed on request.



Testing Turn Around Time (TAT)

Clients do not only require accurate and reliable test results, they also demand shorter times more than ever before to facilitate quick decisions in procurement, contract compliance, and production quality checks.

Bulk suppliers need to know quality of various batches before delivery can be arranged to avoid rejection on receipt. Millers need to know quality of inprocess products before further processing to allow re-work or remove containment. Warehouses need to know quality of batches traded to allow quick selection and optimize market price.

Our combination of both rapid and conventional methodologies offer a range of reporting Turn Around Times (TAT) per sample.

Tests	TAT(Days)
Grading (Complete EAS)	0.5 Day
Moisture (Rapid)	30 Mins
Moisture(Conventional)	1 Hour
Protein (Rapid)	0.5 Day
Crude Fat/Oil (Rapid)	0.5 Day
Ash Content (Rapid)	0.5 Day
WetGluten (Rapid)	0.5 Day
Fibre Content	0.5 Day
Starch (Rapid)	0.5 Day
Zeleny (Rapid)	0.5 Day
Total Aflatoxin	1 Day
Total Ochratoxin	1 Day
Microbiology (Complete)	5 Days
Total Plate Count	3 Days
Yeast and Moulds	7 Days

CONTACTS

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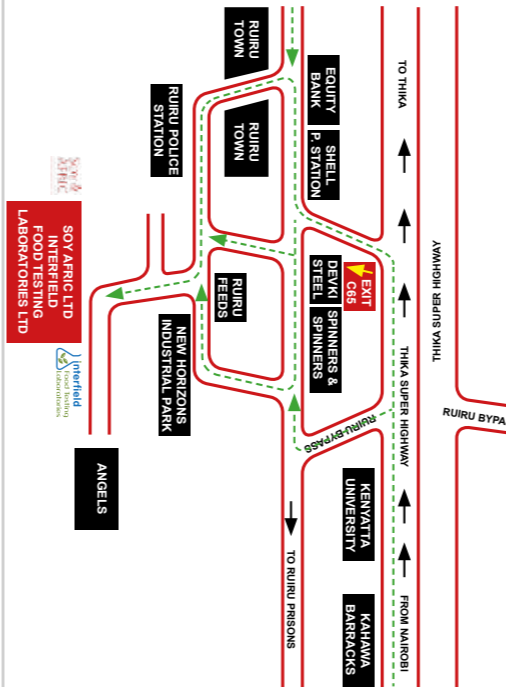
Sample Retention

As a standard practice, tested samples are retained for a maximum period of 90 days (if the condition of sample permits).

The main objectives of retaining tested samples are to:

- Perform a re-tests incase of disputed results or re-confirmation.
- Enable QC data over a period of time.
- Some contractual agreements require samples to be retained for a period of time before disposal.

MAP



Interfield Food Testing Laboratories



Training



Grading of grains and pulses



Chemical analysis



Microbiological analysis

Our Profile

Interfield Food Testing Laboratories

Who we are

Interfield Food Testing Laboratories is a food quality and food safety analysis laboratory situated in Ruiru. It is one of very few laboratories offering specialized testing of Grains, Pulses, Oilseeds and their derivatives in Kenya. This laboratory, is an initiative between Eastern Africa Grain Council (EAGC) and Soy Afric Limited (SAL).

Our Customer Value Proposition

Interfield Food Testing Laboratories helps clients achieve their objectives by providing professional expertise in quality assurance on their products delivered with short turnaround times, accuracy, relevance and at value pricing.

Testing services

The laboratory is equipped to provide complete analysis for grading of grains and pulses, chemical analysis for contaminants and microbiological analysis of various harmful microorganism/pathogens often associated with handling and processing of agricultural human food/animal feeds products at different stages within the supply chain. In order to provide comparability in test results, the lab employs both international and regional test methods such as ISO, AOAC, AOCS and EAS methods.

Training courses

In addition to testing, the lab will shortly launch various in-house practical training courses for graders and grain handlers in order to enhance marketability of produce, reduce post harvest losses and enable farmers realise a better price for their commodities.

Sample Receipt & Registration

Samples are received and every detail of the sample is recorded. This includes:

- Unique customer reference number
- Samples source/location
- Condition of sample at receipt
- Sample description (Maize, Wheat, Beans, Rice, Millet, Sorghum, Peas, Lentils etc)
- Sample receipt date and time
- Customer's desired reporting date and time
- Respective product quality specifications and tests standard required.

Dedicated Interfield Food Testing Laboratories staff will ensure that this process is carried out expeditiously in order to consistently deliver the required turn Around Time to customers.



Sample Registration

The growing volume of data created in laboratories, coupled with increased business demands and focus on profitability, means that there is increasing need for robust systems to manage the data and provide information beyond a test report.

Grading Services

Interfield Laboratories provides grading services for grains, pulses and oilseeds. This establishes grain quality confirmation based on East African Standards (EAS) and ISO Methods thereby enabling our clients to establish market prices for their commodities.

Broken Grains, %m/m
Cooking Test (min)
Discoloured Grains, %m/m
Filth, %m/m
Foreign Matter, %m/m
Immature/Shrivelled Grains, %m/m
Inorganic Matter, %m/m
Pest Damaged Grains, %m/m
Insect Infestation-Live/Dead
Rotten and Diseases Grains, %m/m
Sieve Test - Particle size
Total Defective Other Grains, %m/m

Moisture Content Determination

Variations in moisture content of cereal grains not only results in trade disputes during purchase of non-desired weights due to high moisture content but also contribute a significant influence on the length of storage and physical & mechanical properties of the grains.



Moisture content is critical from harvest, through storage, to final sale of grains and oilseeds. If moisture is too high, there is a risk of quality reduction, or even crop loss in storage. On the other hand, excessive drying is wasteful and can lead to reduced returns.

We employ both conventional oven-based method (ISO 711/712) and rapid methods of moisture determination for faster decision making often demanded by commodity suppliers and processors.

Representative samples are drawn from delivery trucks using recognized sampling protocols and moisture content measured:

- Using rapid moisture analyser for faster results.
- Using conventional oven method where product movement is not urgent.

Aflatoxins & Ochratoxins Determination

Aflatoxins are a family of toxins produced by certain fungi (*Aspergillus flavus*) that are found on agricultural crops such as maize (corn), peanuts, cottonseed, and tree nuts. Exposure to aflatoxins is associated with an increased risk of cancer in humans. Animals fed on contaminated feed also pass on Aflatoxin M1 in meat and dairy products.

Interfield laboratories offers complete aflatoxin and ochratoxin testing and monitoring for:

- Farmers/Producers
- Shippers/Transporters
- Millers
- Animal Feed Processors
- Storage facilities/warehouses
- Field Agriculturalists

Our robust aflatoxin testing equipment with low detection limit enables detection and quantification of aflatoxins (LOQ < 1ppb)

Testing of other mycotoxins such as Fumonisin, Vomitoxin/Deoxynivalenol(DON), Zearalenone is also arranged by the lab on request.

Aflatoxin reference method: AOAC 991.31



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