Interfield Food Testing Laboratories

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.

<table>
<thead>
<tr>
<th>Test</th>
<th>Sample Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grading (Grain Type)</td>
<td>0.5 Day</td>
</tr>
<tr>
<td>Moisture (Rapid)</td>
<td>30 Mins</td>
</tr>
<tr>
<td>Moisture (Conventional)</td>
<td>1 Hour</td>
</tr>
<tr>
<td>Protein (Rapid)</td>
<td>0.5 Day</td>
</tr>
<tr>
<td>Crude Fat/Oil (Rapid)</td>
<td>0.5 Day</td>
</tr>
<tr>
<td>Ash Content (Rapid)</td>
<td>0.5 Day</td>
</tr>
<tr>
<td>Water Content (Rapid)</td>
<td>0.5 Day</td>
</tr>
<tr>
<td>Protein (Conventional)</td>
<td>5 Days</td>
</tr>
<tr>
<td>Ash Content (Conventional)</td>
<td>7 Days</td>
</tr>
<tr>
<td>Yeast and Moulds</td>
<td>3 Days</td>
</tr>
</tbody>
</table>

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 re-tests in case 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.

Microbiology

Our microbiological testing portfolio includes pathogens such as E.Coli, Salmonella, Listeria, Bacillus sap and organisms that indicate poor hygiene or contamination such as Staphylococcus Aureus and Yeast and 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 safety testing and food safety.

Our laboratory has 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 strictly 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)
- Enterobacteria (ISO 21527)
- E. Coli (ISO 7932)
- Staphylococcus Aureus (ISO 6888)
- Total Yeast and Moulds (ISO 11290)

Additional tests for other pathogens are also performed on request.

CONTRACTS

For enquiries, please contact:
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+254 714 101 325

Trainig

Grading of grains and pulses

Microbiological analysis

Chemical analysis

Our Profile

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

- Proximate Analysis (Moisture, Protein, Fat/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 (NIRS) 12098 of grain have shown superior performance and provide fast and reliable compositional data.

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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. 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.

Moisture Content Determination
Variations in moisture content of cereal grains not only result 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 7117/12) 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.

Interfield laboratories offers complete aflatoxin and aflatoxin testing and monitoring for:
- Farmers/Producers
- Shippers/Transporters
- Animal Feed Processors
- Millers
- Starch factories/watermakers
- Field Agronomists

Our robust aflatoxin testing equipment with low detection limit enables detection and quantification of aflatoxins (Aflatoxin M1).

Testing of other mycotoxins such as Patulin, Ochratoxin A and Fumonisin in corn is also arranged by the laboratory upon request.

Aflatoxin reference method: AOAC 996.09

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