

By Dr D Naicker

THE PPECB LABORATORY

and its role in the South African groundnut industry

The PPECB Laboratory has been serving the South African groundnut industry for over 20 years. The laboratory, previously known as the Oil Seeds Laboratory, was established in the 1960s under the auspices of the Oilseeds Board.

In 1994 the laboratory was privatised, but with the closure of the Oilseeds Board in 1997, the laboratory was transferred to the Perishable Products Export Control Board (PPECB). It serves as a central testing facility and is situated in Pretoria. The food safety services of the PPECB Laboratory are illustrated in Figure 1.

has traceability measures in place and forms part of international proficiency testing schemes to ensure that trade regulations and standards are met. In order to achieve this, the laboratory is ISO/IEC 17025: 2005 accredited (T0248) for chemical analysis since 2005, lending credibility to the accuracy of results generated and ensuring international compliance and recognition.

Testing methods

The laboratory has six technical signatories and is accredited for the following test methods:

Foods, spices, beverages and agricultural products

HPLC analytical techniques: Method LM102 for aflatoxin B1, aflatoxin B2, aflatoxin G1, aflatoxin G2, aflatoxin B1+B2+G1+G2 (total), aflatoxin M1, ochratoxin A (OTA), zearalenone (ZON), fumonisins, deoxynivalenol (DON) and patulin.



Cereal products, nuts and nut products / edible fats and oils, margarine and pet foods

Free fatty acids: Method LM108, titration; peroxide value method LM106, titration.

Quantitative determination of pesticide residue

Agricultural products of plant origin: Method LM126, GC MS MS.

Figure 1: Food safety services offered by the PPECB Laboratory.



The laboratory reaches pack houses from Hartswater to Viljoenskroon, Schweizer-Reneke and Pretoria via its satellite laboratories, where 20kg groundnut samples (representative of an 18–20 ton groundnut consignment) are processed before being express couriered for extraction, cleaning up and analysing at the laboratory in Pretoria.

The facility strives to function within internationally recognised compliance criteria and demonstrates competence,



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Value propositions

The laboratory offers the following value propositions to the food and feed industry:

- Technical support, relevant information (European Union, Codex and South African legislation documents) and advice on result interpretation.
- Lead time of 8 to 24 hours for aflatoxins in groundnuts and 72 hours for all other service offerings.
- The capability of analysing large volumes (10kg samples).
- The capability of managing the homogenisation of samples at slurry points in satellite laboratories in different parts of the country.
- Accreditation for the analysis of mycotoxins in spices.
- Dairy compositional testing with a lead time of 24 hours.

The laboratory has also gone lean and green by implementing Just-in-Time (JIT), and the Laboratory Information Management System (LIMS) uses recycled paper to generate certificates of analysis and recycles printer cartridges, paper and glassware. The facility ensures compliance to good laboratory practices, continuously endeavouring to improve and optimise workflow processes, thereby re-engineering the way it conducts business.

For more information, contact the PPECB Laboratory at Lab@ppecb.com or www.ppecb.com.