

22ND ANNUAL GENERAL MEETING OF THE SOUTHERN AFRICAN GRAIN LABORATORY NPC

We measure so that you know!

Since 1997



Thank you for being part of
our journey!



THE SOUTHERN AFRICAN GRAIN LABORATORY NPC

CHAIRMAN'S REPORT 2018/2019



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FOREWORD BY THE CHAIRMAN

It is an honour to deliver the 22nd Chairperson's Report of the SAGL for the financial year 2018/2019.

Since 1997, the SAGL developed and maintained the capacity and capability to perform quality analyses on different grain and oilseed commodities. Continuous benchmarking through participation in international and local proficiency schemes made it possible for the laboratory to effectively support the grain and oilseed value chain. The global and local emphasis on food safety necessitated a need for proactive monitoring systems, hence the increased value of the National Crop Quality Surveys on wheat, maize, soybeans, sunflower seed and grain sorghum. These surveys serve as evidence of the South African industry's contribution to provide enough and safe food to the South African population. The Trusts' investment in the annual Crop Quality Surveys has created a unique and extremely useful database of crop quality measurements over several seasons and regions. The quality of imported grains which forms part of these surveys provides a good foundation for quality comparisons between local and imported grain.

During 2019, SAGL was presented with a certificate of recognition from the South African National Accreditation System (SANAS) for the successful maintenance of its ISO 17025 Accreditation for more than 20 years. This international recognition enables the laboratory to fulfil the aim of delivering accurate quality analyses to the agricultural industry and vision to be internationally competitive.

The **Crop Protection Division** of the SAGL, with both ISO 17025 accreditation and OECD GLP Compliance, delivers an independent and internationally recognised service to customers both locally and abroad. This initiative is aligned with the strategic imperatives to expand the services base of the laboratory to ensure long-term growth and sustainability.



MR. BOIKANYO MOKGATLE
CHAIRPERSON 2018/2019

INTRODUCTION

The Southern African Grain Laboratory is an accredited laboratory, established in 1997 as a reference laboratory on request of the South African Grain Industry. Besides the Crop Quality Division, the SAGL now also boasts a Crop Protection Division (CPD).

STRATEGIC INTENT, AIM & VALUE

STRATEGIC INTENT	To be recognised as market leader in grain and oilseed analysis and related services in Southern Africa.
AIM	To be the analytical service provider of choice for the grain and oilseed industries to enhance competitiveness and sustainability.
VALUE	Accurate measurements, agricultural prosperity, social responsibility and good governance.

HISTORY AND MILESTONES

1997 – Incorporation of the SAGL

1999 – Achieved ISO 17025 Accreditation

2010 – Move from CSIR to the Grain Building

2015 – Incorporation of Nutrient Instrument Laboratory

2017 – Crop Protection Division Launched

2017 – Achieved ISO 17025 Accreditation & OECD GLP Compliance for the Crop Protection Division – a first for South Africa

BOARD OF DIRECTORS

MR. KEVIN CLARKE
PROCESSING: MILLING

MR. BOIKANYO MOKGATLE
PROCESSING: MILLING

DR. MARINDA VISSER
PRODUCTION: WHEAT

MR. JANNIE DE VILLIERS
PRODUCTION: MAIZE

MR. GEOFF PENNY
PROCESSING: BAKING

MR. DE WET BOSHOFF
PROCESSING: ANIMAL FEED

MR. ARTHUR SCHRÖDER
BREEDING: MAIZE

MR. GERRIT ROOS
PRODUCTION: SOYBEAN

MR. DIRK KOK
TRADING

DR. ERHARD BRIEDENHANN
RESEARCH

MR. ANDRÉ DU TOIT
BREEDING: WHEAT

MR. JAAP VAN DER WESTHUIZEN
ALTERNATE FOR PRODUCTION

MS. MARIANA PURNELL
STORAGE & HANDLING

EXECUTIVE COMMITTEE MEMBERS



Mr Boikanyo Mokgatle
Chairperson



MS. MARIANA PURNELL
EXECUTIVE COMMITTEE MEMBER

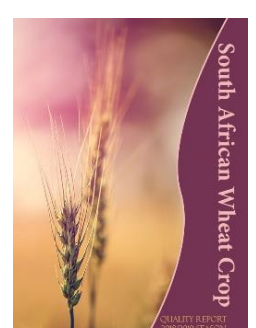
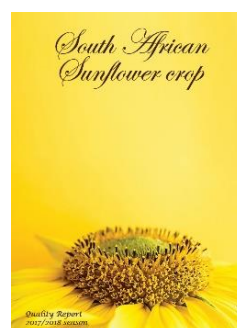
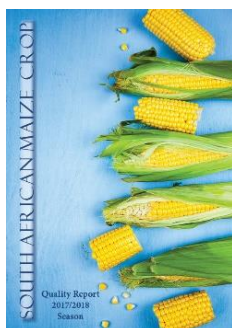
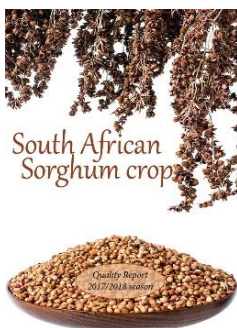


MR. DE WET BOSHOFF
VICE CHAIRPERSON



DR. ERHARD BRIEDENHANN
EXECUTIVE COMMITTEE MEMBER

RECENT CROP QUALITY REPORTS



CORE BUSINESS

The Southern African Grain Laboratory (SAGL) provides fit-for-purpose measurement services to the Agricultural Industry in South Africa. Compliance with the requirements of the international ISO 17025 standard as well as the OECD Principles of Good Laboratory Practice provides confidence that the measurements are accurate, comparable and internationally accepted.

The laboratory has two divisions, namely the Crop Quality Division and the Crop Protection Division. The scope of testing offered in both these divisions is determined by the needs of the industry and constantly expanded in line with changes in the regulatory environment to support a competitive agricultural industry in South Africa. An example was the recent expansion of the scope of accreditation whereby SAGL was accredited to perform Vitamin D2 testing on fortified bread, making it the first accredited laboratory in South Africa for Vitamin D2 testing. This is of vital importance to the food industry as regulations make it compulsory for companies to test their products when making specific claims.



Figure 1: SAGL’s core business and capacity in different areas

A major focus of the laboratory is to continuously engage with stakeholders in order to understand market requirements on quality and safety of food and feed for high-value markets. Reliable measurements provide a much needed foundation in support of a competitive South African industry and national strategic initiatives. The capabilities established as a result of the annual crop quality surveys created additional opportunities for involvement in collaborative research studies, development of unique tools for the grains and oilseeds as well as associated food and feed industries. This also facilitates public private partnerships for the ever changing regulations. (The different testing areas included in the scope of testing is illustrated in Figure 1.)

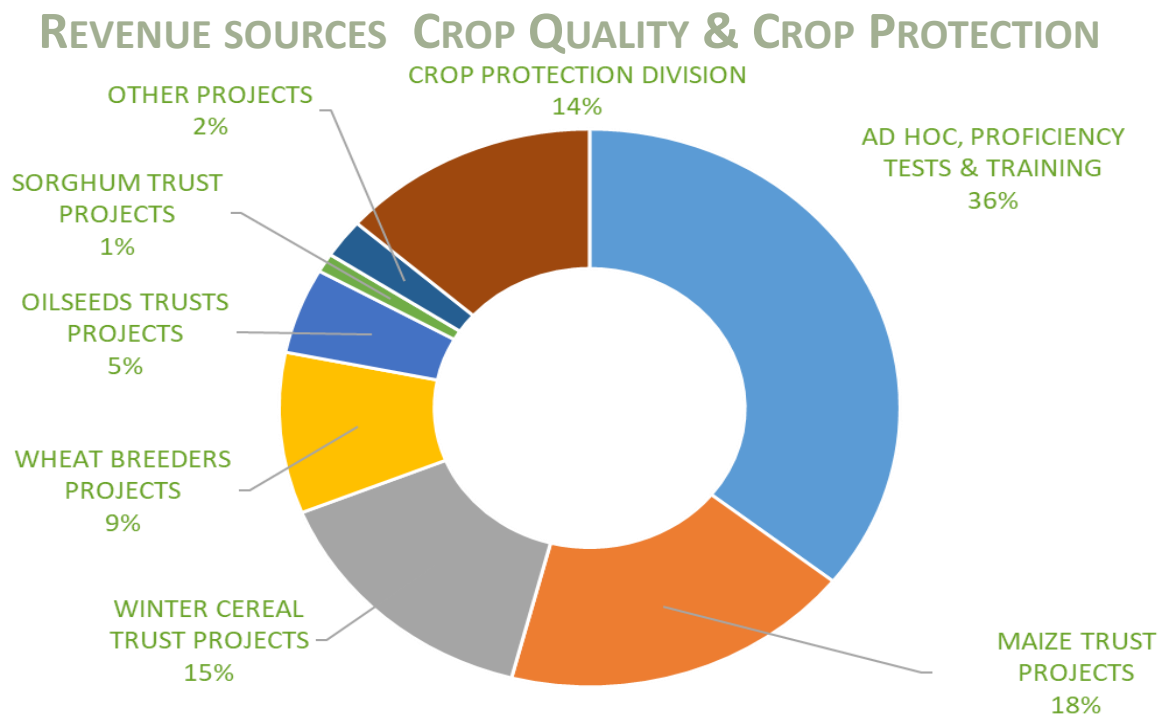
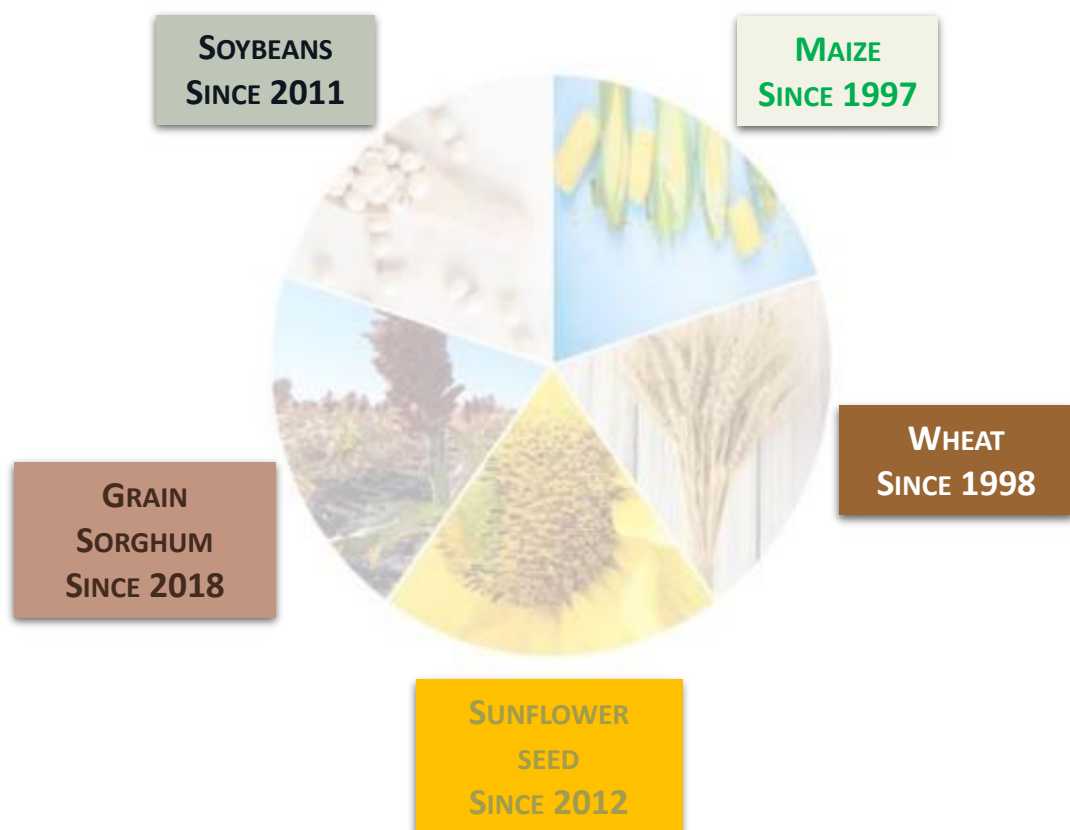


Figure 2: Different Revenue Sources for 2018/2019 financial year

The focus areas of the Crop Quality Division:

<u>CROP QUALITY SURVEYS:</u> MAIZE, WHEAT, SOYBEANS, SUNFLOWER SEEDS AND GRAIN SORGHUM	<u>BREEDING – WHEAT CULTIVARS</u>	<u>IMPORTED WHEAT AND MAIZE</u>	<u>ANALYSES ON REQUEST FOR INDUSTRY</u>	<u>TRAINING COURSES OFFERED</u>	<u>SAGL PROFICIENCY SCHEMES OFFERED (RINGTESTS)</u>	<u>RESEARCH PROJECTS \ADDITIONAL REQUESTS (EXAMPLES)</u>
Grading, Milling and Physical testing	Milling and Physical testing	Grading, Milling and Physical testing	Grading, Milling and Physical testing	Wheat and wheat flour	Grading	Milling Index Calibration
Nutritional Values	Nutritional Values	Nutritional Values	Nutritional Values	Maize meal	Wheat flour	Mycotoxin screening kit evaluation
Rheological and baking tests (Wheat)	Rheological and baking tests	Rheological and baking tests (Wheat)	Rheological and baking tests (Wheat)	Grading	Maize meal	Fortification analyses for new Regulations
Amino Acids, Vitamins, Minerals		Mycotoxins	Amino Acids, Vitamins, Minerals	ISO 17025 quality systems	Wheat colour	Elemental Analyses on wheat
Mycotoxins			Mycotoxins	Mycotoxins		Sampling devices evaluation



The focus areas of the Crop Quality Division:



5-BATCH TESTING (OECD GLP OR ISO 17025)

- ✓ 5-Batch analysis is a regulatory requirement in the global Agro-chemical Industry
- ✓ Five or more batches of technical material, from a specific manufacturer, are analysed to determine the impurity profile and to assess the purity of the active ingredient
- ✓ All relevant impurities (of toxicological significance) are quantified to ensure compliance with international specifications
- ✓ This work is usually conducted according to OECD GLP (OECD Series on Principles of Good Laboratory Practice (GLP) and Compliance Monitoring).

PHYSICAL AND CHEMICAL STUDIES ON FORMULATED PLANT PROTECTION PRODUCTS

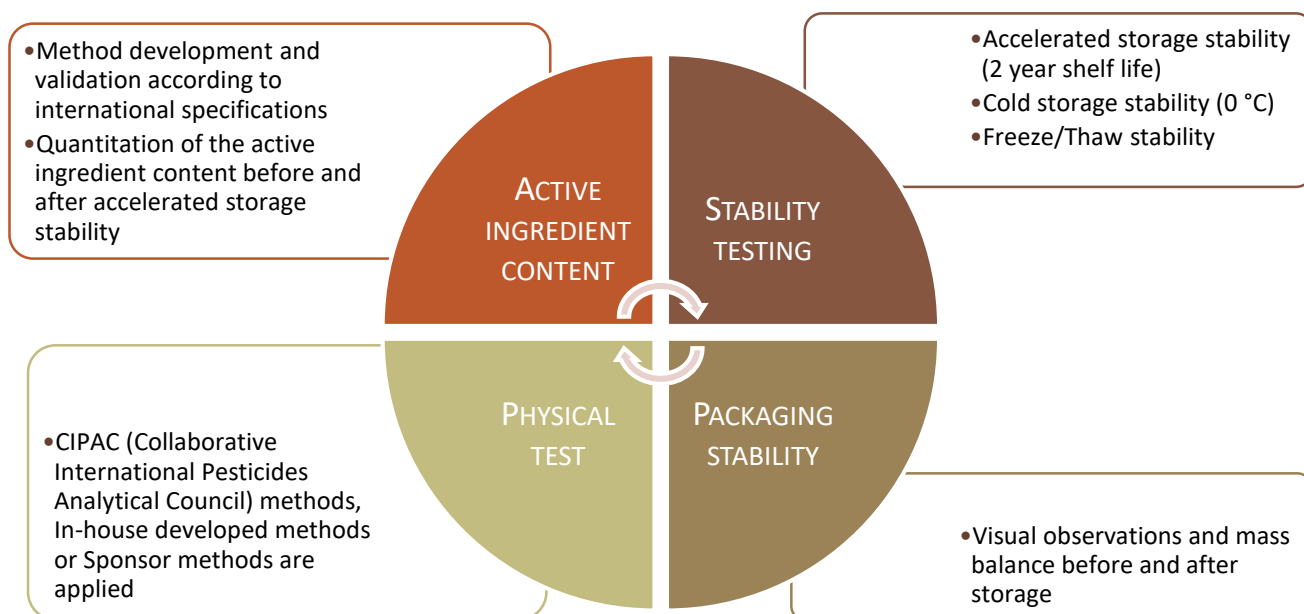


Figure 3: Physical and Chemical tests performed on Plant Protection Products

MARKETING INITIATIVES

Non-disclosure agreements have been concluded with several companies to provide development and validation of testing methods for company specific applications. These methods involve different technologies available in the various testing areas.

The Milling Index developed at the SAGL was refined for specific applications in processing industries such as the snack food companies.

Presentations at different forums and popular articles published are listed in this report.

The website of the SAGL was re-designed and launched in May 2019. The report from this new website indicates that most visitors originated from South Africa (58%), followed by the USA (18%). Only 5.3% of visitors left the site before interacting with it and on average each visitor looked at 5 pages in each session. The most commonly viewed page was the homepage, followed by the analysis/quote request form, laboratory training page and the Maize Quality Reports. It can be concluded that the website's message and customer journey are clear and well defined with visitors reaching the site and finding the content that is useful.

The **Crop Protection** capabilities are included in the marketing material and reflected on the SAGL website.

SAGL participated in the Agri Gauteng Expo with an exhibition stand and presentations on the services offered and increased exposure to the funding bodies for upcoming farmers in South Africa.

SAGL is represented on the Technical Committees of the various industry associations to ensure alignment with changes relating to regulations as well as additional industry-specific requirements.

SAGL continued the collaboration with the animal feed industry in developing calibrations for specific applications and were co-authors of a paper presented at a conference and a publication submitted.



"Never underestimate the power of dreams and the influence of the human spirit. The potential for greatness lives within each one of us."
– Wilma Rudolph

PRESENTATIONS

- *Soybean quality*: Grain SA Conference Breakaway Session - 7 March 2019, Wiana Louw
- *Sunflower quality*: Grain SA Conference Breakaway Session: 7 March 2019, Wiana Louw
- *Mycotoxin monitoring in South African Maize and Wheat Crops: FOSS Grain Network Meeting – Athens – March 2019*, Wiana Louw
- *Dispute handling, sampling and services offered by the SAGL*: GOSA Kaap – July 2019, Wiana Louw
- *Grain challenges and solutions*: Agri Expo – August 2019, Theresa de Beer
- *Quality parameters on grain and oilseed commodities - we test so you know*: Agri Expo – August 2019, Wiana Louw
- *Mycotoxins*: Agri Expo – August 2019, Wiana Louw and Hannalien Meyer
- *Development and validation of SAGL Inhouse method for the determination of vitamin D2 in bread and yeast products*: Test and Measurement 2019 Conference - 16 September Andriëtte de Jager
- *Quality of grain and oilseeds in South Africa*: Soilborne Plant Disease Symposium – September 2019, Wiana Louw
- *Proficiency testing and statistics*: Premier Laboratory Conference – October 2019, Wiana Louw
- Feedback presentations at Maize Forum, Wheat Forum and Sorghum Forum Meetings – October & November 2019

POPULAR ARTICLES

Wheat Focus / Koringfokus

- *National Wheat Crop Quality of the 2017/2018 season*, Jolanda Nortjé

SA Grain/SA Graan

- *Sunflower Crop Quality – A look at the 2017/2018 season's results*
- *Annual Soybean Crop quality under scrutiny*, Jolanda Nortjé
- *Maize Crop Quality – a look at the 2017/2018 season's results*, Jolanda Nortjé
- *Local and imported Wheat Quality scrutinised*, Jolanda Nortjé
- *Quality of the 2018/2019 season's wheat crop examined*, Jolanda Nortjé

Oilseeds Focus

- *Soybean Crop Quality 2017/2018*, Jolanda Nortjé
- *Sunflower Crop Quality – A look at the 2017/2018 season's results*, Jolanda Nortjé

GROOTPLAAS (Groot FM)

- *Grain Sorghum interview* - 20 June 2019, Wiana Louw

RSG Landbou

- *Grain Sorghum interview* – 9 July 2019, Wiana Louw

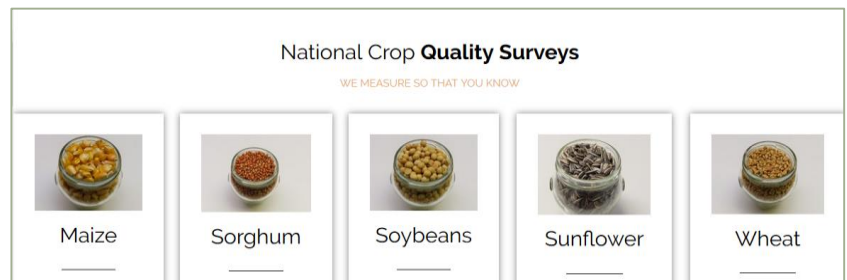
MEDIA INTERVIEWS

PUBLICATIONS

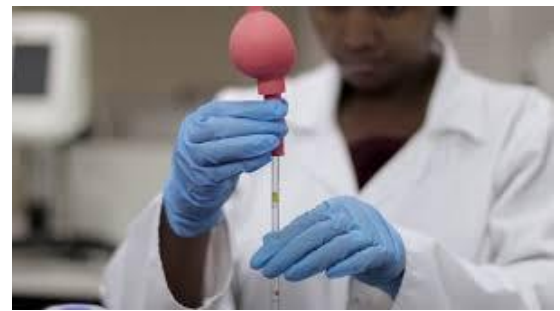
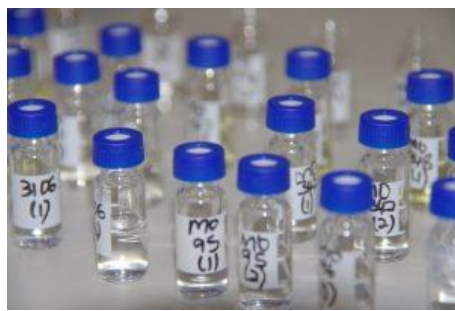
- *Long term monitoring (2014-2018) of multi-mycotoxins in South African commercial maize and wheat with a locally developed and validated LC-MSMS method: TOXINS2019*, Volume 11, Issue 5, 271 – 14 May 2019, Hannalien Meyer, Zanele Skhosana, Mamsy Motlanthe, Wiana Louw, Egmont Rohwer.

INITIATIVES TO IMPROVE THE EFFICIENCY OF THE SAGL

- SAGL's website was re-designed and went live in May 2019. Part of the new design was to simplify the quotation request and sample submission process for our customers. Based on the report of the last 6 months, indications are that the Analysis/Quotation Request page is the most commonly viewed page on the website.



- Over the past two years, a custom designed Laboratory Information Management System (LIMS) was developed. The LIMS went live on the 1st of October 2019. The complexity and unique scope of testing services offered by the SAGL, made it impossible to procure any existing product on the market. An in-house developed system provides flexibility and the opportunity for continuous improvement to ensure an efficient service to our customers and the ability to align with changing requirements and regulations.



PROFESSIONAL AFFILIATIONS

SAGL IS REPRESENTED ON THE FOLLOWING COMMITTEES/ASSOCIATIONS:

- ✓ AACCI: American Association of Cereal Chemists International (United States of America)
- ✓ AFMA: Animal Feed Manufacturers Association
- ✓ AgriLASA: Agri Laboratory Association of South Africa
- ✓ Campden BRI (UK Based)
- ✓ ChromSA: Chromatographic Society of South Africa
- ✓ Co-opted on various Industry Technical Committees
- ✓ CropLife South Africa
- ✓ CST-SA: Cereal Science and Technology -SA
- ✓ GOSA: Grain Handling Organisation of South Africa
- ✓ IAOM: International Association of Operative Millers in the Middle East & Africa
- ✓ Maize Trust Mycotoxin Research Review Panel
- ✓ NLA: National Laboratory Association of South Africa
- ✓ SAAMS: South African Association for Mass Spectrometry
- ✓ SAAFoST: South African Association for Food Scientists
- ✓ SACI: The South African Chemical Institute
- ✓ Technical Committees of the Winter Cereal Trust
- ✓ Wheat Focus Editorial Committee

LABORATORY VISITS / DELEGATIONS

- Delegation from TWK – 8 October 2018
- Delegation from SACD Fortification Meeting – 11 October 2018
- Dr Katy Lee – International Grains Trade Coalition (IGTC) – 11 October 2019
- Biomin – 17 October 2018
- Santiago Santamarina – GDM Seeds – 25 October 2018
- Foss Denmark – Mia Anderson – 12 November 2018
- Ukrainian Delegation – 14 November 2018
- Delegation from RCL Foods – 15 November 2019
- Delegation from FABI – UP - Fungal Isolations – 16 November 2018
- Delegation from East African Grain Company in Kenya – 12 December 2018
- Delegation from Bayer (Germany) – 24 April 2019
- Romer Labs Austria, Regional Director – 20 May 2019
- USAID - Dr Golden Mahove – 29 May 2019
- Trust Bursary Holders - 10 September 2019
- Buhler – 17 September 2019

HUMAN CAPITAL

The key to success and a major asset for any organisation is a competent and motivated staff complement. The skills development programme of the SAGL is therefore designed to ensure an efficient staff complement for the laboratory to successfully compete on an international level. The second most important aim is to create a stimulating testing environment, sophisticated enough to attract and retain scarce technical and scientific skills.

During the annual Management Review, in-house, on-the-job training processes are evaluated to maintain a much needed skills base. The staff received both in-house and external training during the period under review.

RETIREMENTS AND RESIGNATIONS



MARIE MEYER –
FINANCIAL MANAGER -
RETIRED



CECILIA BREEDT – TECHNICAL
SPECIALIST CROP PROTECTION -
RESIGNED



PAULINA MODIBA –
QUALITY MANAGER -
RESIGNED

VACANT POSITIONS FILLED



JANET STOLP –
FINANCE MANAGER



CARIN VAN DEN BERG –
SPECIALIST ANALYST –
CROP PROTECTION

"People do not decide to become extraordinary; they decide to accomplish extraordinary things." – Edmund Hillary

MEET THE SAGL TEAM

MANAGEMENT



Jolanda



Hannalien



Wiana



Beatrix



Janet



Desiré

RHEOLOGY

CONSULTANTS

SUPPORT



Dudu



Ilse



Theresa



Corinda



Rita



Natasja



Odille



Caroline

MILLING AND GRADING

CHEMISTRY



Ben



Johannes



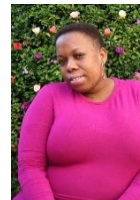
Jafta



Dineo



Gianni



Maphela



Marelize



Thabang



Tumelo



Emmanuel



Lebo



Julia



Kele



Marie

NUTRIENTS AND CONTAMINANTS

CROP PROTECTION



Zanele



Andriëtte



Mamsy



Gerty



Francé



Carin

IMPORTANT MILESTONE:



Certificate of Recognition

AWARDED TO

**SOUTHERN AFRICAN GRAIN
LABORATORY NPC**

ACCREDITATION NUMBER: T0116

**IN RECOGNITION OF MAINTAINING
ACCREDITATION STATUS FOR
MORE THAN 20 YEARS**


ROW JOSIAS
CHIEF EXECUTIVE OFFICER

30/08/2019
DATE



TRAINING

EXTERNAL TRAINING

SAGL selects external training courses to cover the technical and administrative needs of the laboratory. Figure 4 summarises the training attended during 2018/2019. The list below details the type of training events attended:

- Practical Workshop: Conflict Resolution in the Workplace
- Adobe InDesign for Beginners
- Adobe InDesign Advanced
- Basic fire Fighting
- Graphic Design Fundamentals
- Practical Workshop: Practical Report Writing
- ISO/IEC 17025: 2005 – 2017 Transition Workshop
- Online Short Course in Project Management Principles and Practices
- Maize Grading
- First Aid
- Web Design and Development
- Wheat Grading
- Sorghum Grading Refresher Course
- Soybean Grading Refresher Course
- Sunflower Grading Refresher Course
- Maize Grading Refresher Course
- Wheat Grading Refresher Course
- Scientific Sessions at SAAFoST Conference
- Test and measurement conference and Workshop 2019
- Global Grain Network Training and Conference
- Mindset Training Session
- Occupational Health and Safety

Summary of external training October 2018 to September 2019

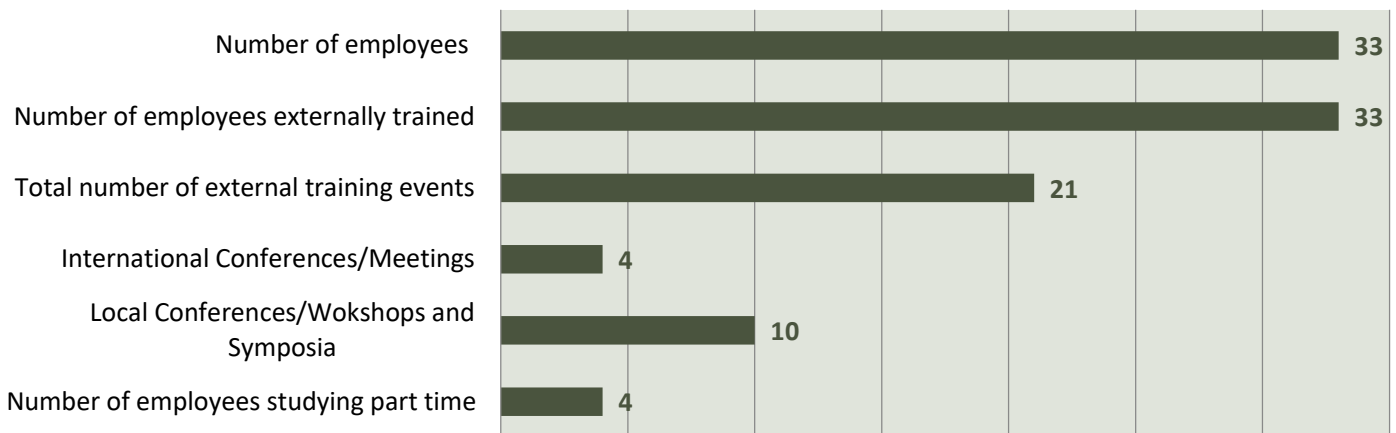


Figure 4: External training during 2018/2019

TRAINING PRESENTED

Training courses are developed and presented by the staff at the SAGL and participants are from South Africa and the rest of Africa. The needs of the industry are considered when developing these courses to ensure that both theoretical aspects and hands-on practical training in the laboratory are covered. The requirements of the ISO 17025 standard, which forms the basis of accreditation, and general good laboratory practices receive special attention in the training courses.



3 - day Wheat and wheat flour training course

- Trainees - 4

2 – day Wheat and Oilseed training course

- Trainees - 2



SAGL PROFICIENCY TESTING SCHEMES

One of the important services required from a reference laboratory for the grains and oilseeds industry is the offering of proficiency schemes. SAGL offers a wide range of proficiency schemes which are designed to provide the local and international participants with a tool to assess their quality control measures, the performance of their instruments and methods and to identify training needs. On request, SAGL also acts as the expert laboratory for African Proficiency Schemes.

Registration and other information on the proficiency programme can be found on the SAGL website - www.sagl.co.za . Also refer to table 1 on page 18.

Table 1: Proficiency tests offered by the SAGL

DESCRIPTION	# / YEAR	INTERVAL	PRODUCT	LOCAL PARTICIPANTS	INT. PARTICIPANTS	COUNTRIES	TOTAL
SAGL ANNUAL PRE-HARVEST MAIZE GRADING PROFICIENCY TEST	1	Per Season	Maize	-	-	-	-
SAGL ANNUAL PRE-HARVEST SOYA BEANS GRADING PROFICIENCY TEST	1	Per Season	Soya beans	-	-	-	-
SAGL ANNUAL PRE-HARVEST SUNFLOWER GRADING PROFICIENCY TEST	1	Per Season	Sunflower	-	-	-	-
SAGL COLOUR PROFICIENCY TEST	6	Bi-monthly	White bread flour & Cake flour	3	2	Lesotho & Namibia	5
SAGL MINOLTA DRY COLOUR PROFICIENCY TEST	6	Bi-monthly	White bread flour & Cake flour	8	1	Botswana	9
SAGL MAIZE GRADING PROFICIENCY TEST	4	Quarterly	2 x White Maize 2 x Yellow Maize	6	2	Lesotho & Namibia	8
SAGL MAIZE MEAL QUALITY PROFICIENCY TEST	4	Quarterly	2 x Super Maize Meal 2 x "Special" Maize Meal	3	3	Swaziland, Lesotho, Namibia & Botswana	6
SAGL WHEAT GRADING PROFICIENCY TEST	4	Quarterly	Wheat	15	2	Lesotho & Namibia	17
SAGL WHEAT AND FLOUR PROFICIENCY TEST	4	Quarterly	Wheat, Wheat flour & Brown bread flour	19	12	Ghana, Nigeria, Lesotho, Swaziland, Senegal, Namibia, Cameroon, Botswana & Mauritius	31

PROFICIENCY TESTING

In its capacity as reference laboratory for grains and oilseeds, SAGL offers proficiency testing to participants from South Africa and other countries in Africa. For the past four years SAGL has acted as the expert laboratory for the East African Proficiency Scheme (EAPT).

The participants use the Proficiency testing as independent assessments of their quality control measures to monitor equipment, personnel and analytical methods. These proficiency tests serve as a powerful tool for a laboratory or testing facility to demonstrate competency to stakeholders in the grain and oilseed sector. The proficiency tests offered by the SAGL detailed below.

Please contact us for our price list and more information on check samples which we have available.

Contact Person: Theresa de Beer
 Email: Theresa.deBeer@sagl.co.za
 Tel: +27 12 807 4019

Benefits to participate

- Demonstration of laboratory /analyst/grader competency to customers
- Satisfying accreditation bodies and regulatory authorities
- Evaluation of new methods against existing standard methods
- Comparison of analytical data obtained by different methods and/or analysts/graders
- Instrument verification
- Method optimisation
- Benchmarking against other laboratories/analysts/graders
- Identifying testing or measurement problems
- Comparing methods and procedures
- Improving laboratory/analyst/grader performance
- Training personnel
- Instilling confidence in personnel, management and external users of the laboratory service
- Determining method precision and accuracy
- Providing laboratories/companies with additional risk management



Product Type



Interval



Types of Analysis

GRADING

Maize Grading

250 g / 750 g White/Yellow Maize Quarterly

Full RSA Maize Grading

Wheat Grading

1,5 kg Whole Wheat Quarterly Full RSA Wheat Grading

Annual Pre-Harvest Maize Grading

250 g Maize Beginning of February Full RSA Maize Grading

Annual Pre-Harvest Soybean Grading

250 g Soybeans End of February Full RSA Soybean Grading

Annual Pre-Harvest Sunflower Grading

60 g Sunflower End of January Full RSA Sunflower Grading

MAIZE

Maize Meal Quality

1 kg Super/Special Quarterly

Ash, Fat, Fibre, Moisture, Particle size, Protein, Speck count and Whiteness Index

WHEAT

Wheat & Flour Quality

2 kg Whole Wheat Quarterly
 2.5 kg White Bread Flour
 250 g Brown Bread Flour
 50 g White Bread Flour

We measure so that you know!
 Since 1997
 Thank you for being part of our journey!

- ✓ **White Bread Flour:** Alveograph, Ash, Colour, Consistogram, Extensigraph, Falling number, Farinograph, Gluten (Wet & Dry), Gluten index, Mixograph, Moisture, Protein, RVA falling number equivalent and Starch damage.
- ✓ **Whole Wheat Sample:** Falling number, Gluten (Wet & Dry), Hectolitre mass, Mixograph, Protein, RVA falling number equivalent, Whole wheat flour-moisture and Whole wheat moisture.
- ✓ **Brown Bread Flour:** Bran content and Colour.

Kent Jones Colour

500 g White Bread Flour 6 x per year
 500 g Cake Flour

Kent Jones Colour

Konica Minolta Dry Colour

500 g White Bread Flour 6 x per year
 500 g Cake Flour

Konica Minolta Dry Colour

ACCREDITATION

SANAS (South African National Accreditation System) conducts surveillance audits in an 18-month cycle to confirm compliance with the International Organisation for Standardisation (ISO/IEC) 17025. SAGL completed the migration to the newly published ISO 17025:2017 standard. The SANAS assessments conducted during 2018/2019 were done against the new standard.

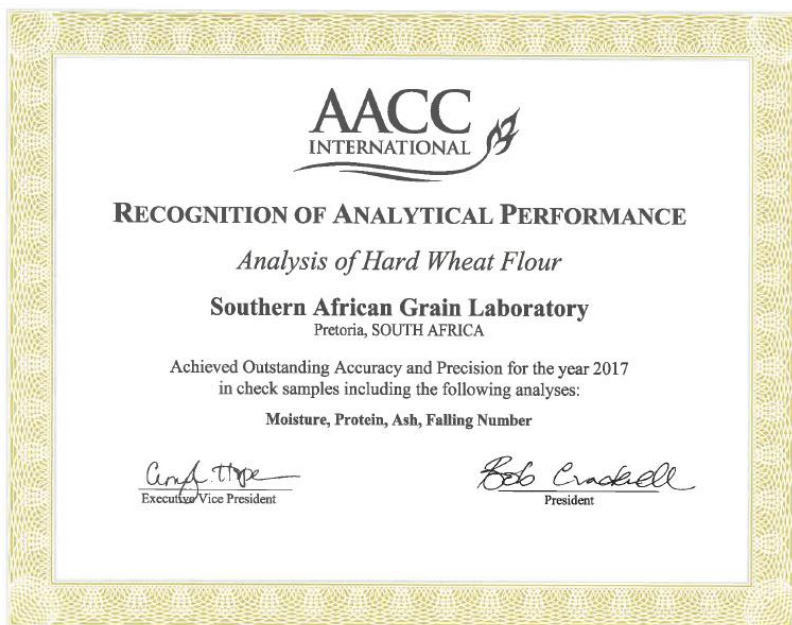
Accurate measurements are assured through the maintenance of SAGL's accreditation status to support a competitive grains and oilseeds industry. The SAGL's results are benchmarked to the international measurement system through participation in international proficiency schemes to demonstrate competence. Refer to page 23 for more detail on the scope of accreditation.

Table 2: The comprehensive range of test methods on different matrices covered to confirm traceability to international standards across the entire range of analyses offered to the industry by SAGL.

PROFICIENCY SERVICE PROVIDER	FREQUENCY OF PARTICIPATION SAMPLES PER YEAR	MATRIX	ANALYSIS	ACCREDITED
American Association of Cereal Chemists International (AACCI) United States of America	6	Wheat Flour	Moisture & Alveograph	✓
		Hard Wheat Flour	Moisture, Protein, Ash, Falling number and Diastatic activity*	✓
		Feed Samples	Moisture, Protein, Ash, Crude fat (EE) and Crude fibre*	✓
		Different Grain Based Matrices	Moisture & Total dietary fibre	✓
		Hard Wheat Flour	Moisture & Farinograph	✓
		Wheat Flour	Moisture & Mixograph	✓
Bureau Interprofessionnel der Etudes Analytiques (BIPEA) France	10	Wheat Flour (Different types)	Moisture, Protein, Falling Number, Ash, Damaged starch*, Gluten (Wet & Dry) *, Gluten index*, Alveograph	✓
		Wheat Flour (Different types)	Moisture and Farinograph	✓
		Different Matrices	Mycotoxins	✓
The Food and Environmental Research Agency (FAPAS) United Kingdom	5	Amino Acids (Animal feed)	Protein, Free and Protein bound amino acids*	✓
	7	Various Mycotoxin Matrices	Mycotoxins	✓
	1	Various Sample Matrices	Melamine*	✓
AgriLASA South Africa	6	Bread Crumbs / Biscuits / Cereal / Soy bean meal / Poultry ration	Moisture, Ash, Nitrogen, Starch*, Total dietary fibre, Crude fat, Crude fibre* and Sodium	✓
		Various Feed Samples	Moisture*, Protein, Ash, Crude fat, Crude fibre*, Dietary fibre, Starch* and Minerals	✓
		Milk Product	Amino Acids	✓
NMISA	1	Bread / Noodles	Sodium	✓
	2	Maize and Wheat	Mycotoxins	✓
Romer Labs Check-Sample-Survey	1	Maize	Aflatoxins B ₁ , B ₂ , G ₁ , G ₂	✓
Aflatoxin Proficiency Testing and Control in Africa, Asia and Americas (APTECA)	2	Barley (Milled)	Moisture & Protein	✓
World-wide Inter-Laboratory: World Grain Network	1	Wheat (Milled)	Moisture, Protein, Falling number and Wet gluten*	✓
		Canola/Rapeseed (milled)	Moisture & Crude fat	✓
		4 different pesticides	Different active ingredient content	✓
Association of American Pesticide Control Officials (AAPCO)	1	Pesticide formulations	Tests: Active ingredients content Physical tests: Suspensibility*, Emulsion stability*, Foaming*, pH range*, Density	✓
National Laboratory Association – South Africa (NLA)	3			

* Not accredited method.

COMPLIANCE CERTIFICATES AND AWARDS



We measure so that you know



ISO 17025 ACCREDITATION AND OECD GLP COMPLIANCE

The scope of SAGL's accreditation is aligned with the needs of the Industry. It expanded over the years as regulatory requirement and needs changed.

Technical Signatories form the backbone of a successful quality system – the development and training of laboratory personnel to become technical signatories were a primary focus of the SAGL over more than 20 years since the laboratory achieved its accreditation. SAGL prides itself in maintaining this solid foundation.

		
		
<p>ISO 17025 Accredited Since 1999 Scope: 22 Methods Technical Signatories: 15</p>	<p>ISO 17025 Accredited Since 2017 Flexible Scope: HPLC & GC/GC-MS, Density Technical Signatories: 2</p>	<p>OECD Principles of GLP Compliant Since 2017 Study Directors: 2</p>

SANAS AUDITS/INSPECTIONS DURING 2018/2019:

- **Crop Protection Division** – ISO 17025 Audit: 21 February 2019
- **Crop Protection Division** – OECD GLP Inspection: 2 April 2019
- **Crop Quality Division** – ISO 17025 Re-Assessment: 23-24 July 2019

We measure so that you know



FINANCIAL POSITION

The annual financial statements were prepared on the basis of accounting policies applicable to a going concern. The directors believe that the company has adequate financial resources to continue in operation for the foreseeable future and accordingly the annual financial statements have been prepared on a going concern basis.

The directors have satisfied themselves that the company is in a sound financial position and that it has access to sufficient borrowing facilities to meet its foreseeable cash requirements. However, Capex is required to sustain the organisation. The directors are not aware of any material noncompliance with statutory or regulatory requirements or of any pending changes to legislation which may affect the company. The Independent Auditors' Report indicates no material inconsistencies between the Directors' Report and the audited financial statements.

OPERATIONAL INCOME AND EXPENDITURE 2009 - 2019

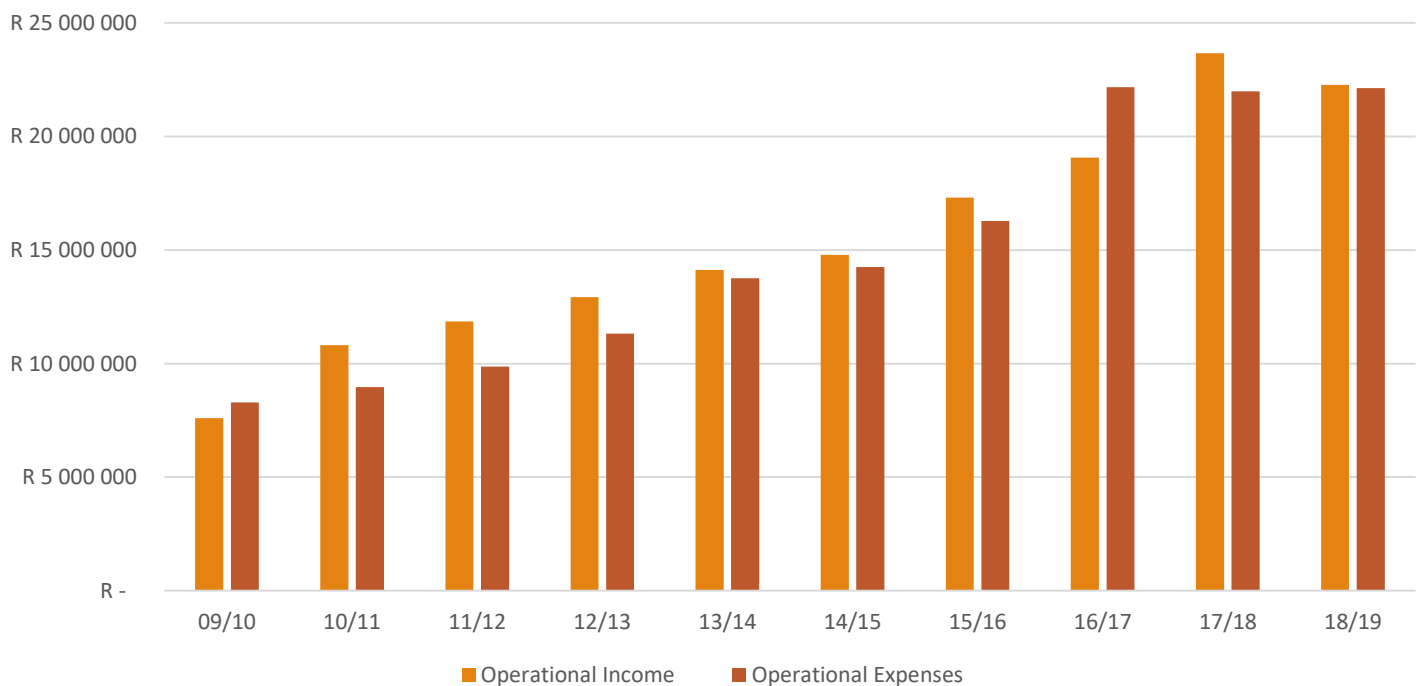


Figure 5: Operational Income & Expenditure of the SAGL over the last ten financial years

CONCLUSION

The SAGL assertively reaffirmed its relevance and reputation as a reference laboratory of choice both locally and internationally.

It differentiates itself through use of internationally recognized procedures and methods in the provision of credible and quality analyses results of international standards.

It is committed to contribute towards improving the country's food safety and quality control systems as well as continue to support and enhance industry's international competitiveness.

It has to be stated though that Capex funding remains fundamental to SAGL's long-term sustainability.

ACKNOWLEDGEMENTS

Immense gratitude to fellow Board members for support, commitment and strategic leadership.

Special word of thanks to the Executive Committee members for the all sacrifices and hard work.

Lastly, acknowledge the ever hard working management team and staff for keeping the SAGL's flag so visibly high. Your courageous and concerted efforts are highly commendable.

MR. BOIKANYO MOKGATLE
CHAIRPERSON 2018/2019

22 YEARS – 1 NOVEMBER 2019



THE SOUTHERN AFRICAN GRAIN LABORATORY NPC

The Southern African Grain Laboratory NPC (SAGL) is an independent non-profit laboratory, established in 1997 by the grain industry to act as a Reference Laboratory for the grain and oilseed industry. The SAGL provides an internationally competitive range of laboratory services for grain, oilseeds and products thereof including food, feed and feedstuffs. These services are driven by the needs of the broader grain industry.

The scope of analysis includes milling, grading, physical, chemical, rheological, baking, mycotoxin as well as macro- and micro nutrient analyses. ISO 17025 accredited test methods are implemented within a comprehensive quality system. Participation in several national and international proficiency schemes demonstrates technical competency, international comparability and traceability to international standards. The stakeholders serviced by the SAGL include grain and oilseed producers, the handling and storage industry, processors including the baking, milling and animal feed producing industries, traders of agricultural commodities, commercial seed breeding companies, agricultural research institutes and since 2016, also companies producing crop protection products.

The SAGL has expanded the scope of analysis by adding a Crop Protection Division to support the broader agricultural community in Southern Africa with accurate and reliable analytical results for registration purposes and after manufacturing quality control analysis of the final product as well as shelf-life extension.

This Division performs 5-batch analysis on technical material as well as the Physical, Chemical and stability testing on formulations as prescribed by the Food and Agricultural Organization of the United Nations (FAO) and the World Health Organization (WHO). This laboratory is equipped to perform most tests required by FAO/WHO according to the latest Collaborative International Pesticides Analytical Council (CIPAC) methods.

As an associate member of CropLife South Africa and through international involvement in the Specification Expert Group (SEG) and the English-Speaking Pesticide Analytical Committee (ESPAC), the SAGL is informed of changes in international requirements as developments take place.

