

# **ANNUAL GENERAL MEETING**

OF

THE SOUTHERN AFRICAN GRAIN LABORATORY NPC

2021/2022
CHAIRMAN'S REPORT

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#### FOREWORD BY THE CHAIRMAN

It is an honour to deliver the 25th Chairmans's Report of the SAGL for the 2021/2022 financial year. Since the inception of the SAGL, the focus has always been on developing the capacity of the laboratory to address the needs of the sectors in the grain and oilseed value chain. A reliable measurement system was developed and maintained to provide support to the industry to ensure quality and compliance. SAGL has a role to play in providing technical support and measurement services to ensure compliance with regulations in areas of trade, food safety and environmental protection. The reliability and comparability of measurement results are critical to support different regulatory requirements, provide calibration, measurement solutions, and testing of grains, food, and feed products.

SAGL provides reference measurements and proficiency testing schemes that are relevant to the industry and reflect the grain and oilseed products South Africans consume daily. These are the tools needed for food and feed testing to ensure reliable results.

With funding from the Agricultural Trusts, SAGL again successfully conducted Crop Quality Surveys on wheat, maize, soybeans, sunflower seed and grain sorghum. These annual surveys serve as evidence of the industry's commitment to food safety through the maintenance of unique and very valuable databases. Local stakeholders and international trade partners alike can rely on this information to make informed decisions. The SAGL is also involved with several investigative and research collaborative studies to provide a basis for recommendations to improve the grain and oilseed value chains.

The Crop Protection Division of the SAGL, created in 2016 to align with the strategic imperatives to expand the services and to assist with the compliance of agricultural remedies to regulations, completed its first 5-year cycle of OECD GLP Compliance and ISO 17025 Accreditation. Both certificates were renewed until 2027.

The organisation again received an unqualified audit opinion for the 2021/22 financial year and thus maintained a clean audit record.



Mr. Boikanyo Mokgatle Chairman 2021/2022

### STRATEGIC INTENT, AIM AND VALUE

The Southern African Grain Laboratory is an ISO 17025 accredited institution. The focus of the laboratory is grain and oilseed quality testing conducted in the Crop Quality Division. The Plant Protection Products testing is done in the Crop Protection Division.







#### STRATEGIC INTENT

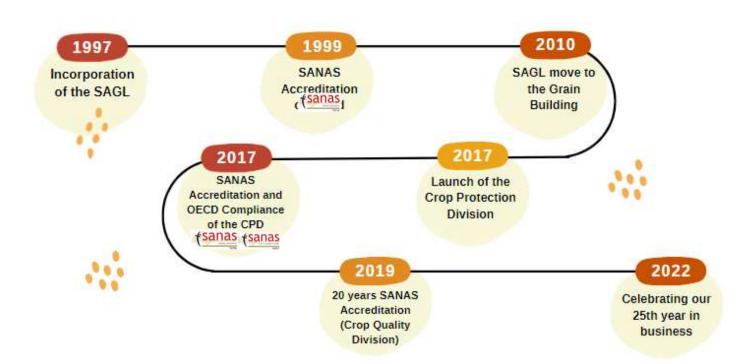
AIM

**VALUE** 

To be recognised as market leader in grain and oilseed analysis and related services in Southern Africa To be the analytical service provider of choice for the grain and oilseed industries to enhance competitiveness and sustainability

Accurate measurement,
agricultural prosperity, social
responsibility, and good
governance

#### **COMPANY HISTORY AND MILESTONES**



## **BOARD OF DIRECTORS**



**DR DIRK STRYDOM**PRODUCTION: WHEAT





DR ERHARD BRIEDENHANN
RESEARCH



MR CRAIG BINNION
PROCESSING:
BAKING



MR DEWET BOSHOFF
PROCESSING:
ANIMAL FEED



MR WILLEM GROOTHOF PRODUCTION: MAIZE



MR WESSEL LEMMER
STORAGE &
HANDLING



MR ERWIN POTGIETER
PROCESSING: WHEAT
MILLING



MR GERRIT ROOS

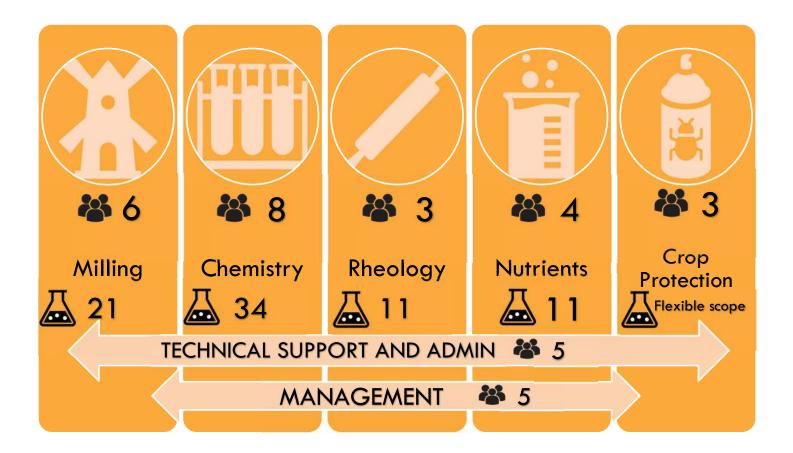
PRODUCTION:

SOYBEAN



DR ANDRÉ VAN DER VYVER TRADING

#### **CORE BUSINESS AND CAPABILITIES**



The scope of testing in the crop quality and the crop protection divisions is focused on the needs of the agricultural industry and in line with an increasingly dynamic regulatory environment, the scope is expanded to ensure continued compliance in the agricultural industry in South Africa.

The Southern African Grain Laboratory (SAGL) complies with the requirements of the international ISO/IEC 17025 standard for testing laboratories as well as the OECD Principles of Good Laboratory Practice. With this accreditation, the laboratory can provide fit-for-purpose, accurate and internationally accepted measurement results.

Each of the five testing areas specialises in a different range of analyses, using specific skills to execute the validated methods.

## **FOCUS AREAS**

CROP	BREEDING	IMPORTED	CUSTOMER	TRAINING	PROFICIENCY	RESEARCH PROJECTS
QUALITY	Wheat	wheat	requests	courses	SCHEMES	(Examples)
SURVEYS	cultivar			offered	offered	
	samples				(Ringtests)	
Grading, Milling and Physical testing Nutritional Values	Milling and Physical testing  Nutritional Values	Grading, Milling and Physical testing Nutritional Values	Grading, Milling and Physical testing Nutritional Values	Wheat and wheat flour analysis Maize meal	Grading  Wheat flour	Chemical & Physical analysis of millet and sorghum flour blends to determine grain and dough properties  Mycotoxin analyses for research study on
				quality analysis		characterising fungal communities
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 Shelf-life studies on wheat & maize products
Amino Acids, Vitamins, Minerals Malting & SDU (sorghum)		Mycotoxins	Amino Acids, Vitamins, Minerals	ISO 17025 quality systems	Wheat colour	Data mining of crop quality data Investigation: recommended changes to maize grading regulations
Mycotoxins			Mycotoxins	Mycotoxins	Soybean & soybean meal quality  Sunflower &	Sampling devices evaluation Milling and GYA Calibration Cooking and textural
					sunflower meal quality	properties of maize

## **FOCUS AREAS (CONTINUED)**

The focus areas of the Crop Protection Division:

PHYSICAL AND CHEMICAL STUDIES ON FORMULATED PLANT PROTECTION PRODUCTS

# Physical Tests

**CIPAC Methods** 

In-house developed methods

Sponsor methods

# Active Ingredient

Method Development according to International Standards

Quantification of a.i content before and after storage

# Packaging stability

Visual observations before and after storage

## Stability Testing

Accelerated Storage Stability (2 year shelf life)

> Cold storage (0°C)

Freeze/Thaw stability

### 5-BATCH TESTING (OECD GLP or ISO 17025)

Relevant impurities (of toxical significance) are quantified to ensure compliance with international specifications



5+ batches technical material are analysed to determine the impurity profile & to assess purity & concentration of the a.i

5-batch testing is a regulartory requirement Globally



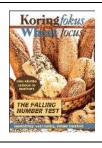
Conducted according to OECD GLP and Complinance monitoring



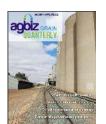
#### **PRESENTATIONS**

- SAGL Crop Quality and Post-storage Sampling Procedure Passport Workshop Meeting March 2022
- Quality of grain and oilseed crops in South Africa FABI Innovation Africa March 2022
- Mycotoxin monitoring SA maize and wheat crop surveys EU APHLIS project on Aflatoxin predictive modelling April 2022
- SAGL Feedback on Mycotoxin monitoring, Maize quality, hardness and milling Maize Forum Steering Committee May 2022
- Mycotoxin monitoring as part of SA maize and wheat crop quality surveys 3rd ASM Joint MYTOX-SOUTH Symposium September 2022
- Technical questions on Proposed Changes to Maize Grading Regulations Maize Forum Steering Committee Meeting September 2022
- Feedback on Wheat Related Projects with funding from SAWCIT Wheat Forum Meeting September 2022
- Feedback on Sorghum Trust Funded Projects Sorghum Forum Meeting October 2022
- Feedback on Maize Trust Funded Projects Maize Forum Meeting October 2022

#### **POPULAR ARTICLES**



- The falling number test in the baking context -Theresa De Beer
- Local Crop and Imported Wheat Quality -Jolanda Nortjé



- Wheat Crop Quality Overview 2021-2022 Season – Jolanda Nortjé
- Mycotoxins the part per billion challenge in grains – Hannalien Meyer



Sunflower Quality in the 2021-2022 production season - Wiana Louw



- **Book Chapter** Contributions - ICC Handbook of Cereals Science and Technology:
- Wheat Dough and **Bread Making Quality** Assessment - Theresa De Beer
- Analyses of Mycotoxins in Cereals – Wiana Louw

#### PROFESSIONAL AFFILIATIONS



















The South African Chemical Institute

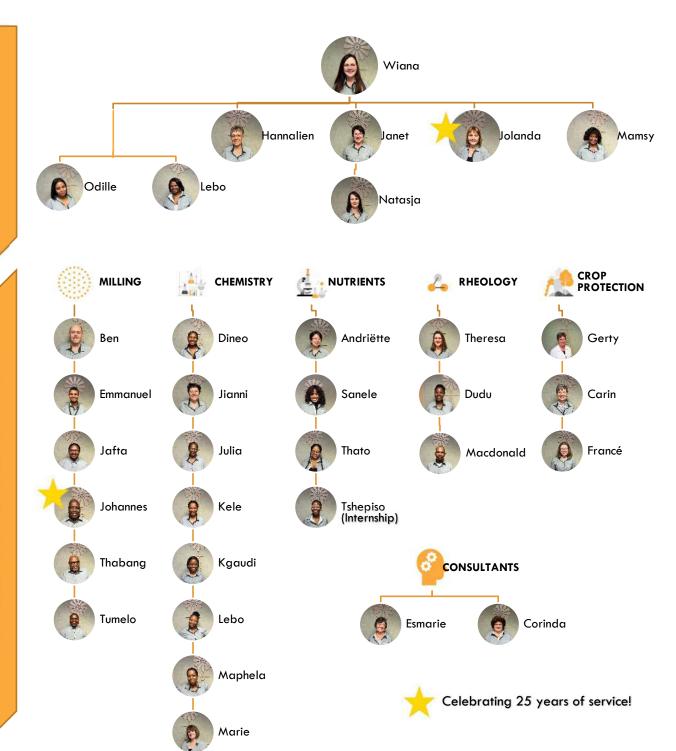
#### **COMMITTEES:**

Co-opted on various Industry Technical Committees Wheat Focus Editorial Committee

SA-RFTL Forum: SA-Regulatory Food Testing Laboratory Forum Technical Committees of the SA Winter Cereal Industry Trust (SAWCIT)

#### **HUMAN CAPITAL**

#### **MEET THE SAGL TEAM**



#### **VACANCIES AND APPOINTMENTS**



#### **VACANCIES FILLED:**

Kgaudi Magkamata - Analyst

Tshepiso Ramogkata - Internship Lebohang Maruping - Sample Registration /

Reception

#### **VACANCY:**

**Personal Assistant Position** 

#### **PROFICIENCY TESTS OFFERED**

In its capacity as reference laboratory for grains and oilseeds, SAGL offers proficiency testing to participants from South Africa and other countries in Africa.

The participants use the Proficiency testing as independent assessments of their quality control measures to monitor equipment, personnel competency 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 are 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

DESCRIPTION	INTERVAL	PRODUCT	LOCAL PARTICIPANTS	INTERNATIONAL PARTICIPANTS	COUNTRIES	TOTAL
SAGL Soybean grading	Quarterly	Soybeans	6 (grading)	-	-	1 <i>7</i>
and Quality			11 (quality)			
SAGL Soybean Meal	Quarterly	Soybean Meal	15	-	-	15
SAGL Sunflower	3 times per	Sunflower	6 (whole seed)	-	-	14
Quality	year		8 (milled seed)			
SAGL Sunflower Meal	3 times per	Sunflower Meal	14	-	-	14
Quality	year					
SAGL Minolta Dry	Bi-monthly	White bread flour &	10	1	Botswana	11
Colour Proficiency Test		Cake flour				
SAGL Maize Grading	Quarterly	2 x White Maize	8	3	Lesotho & Namibia	11
Proficiency Test		2 x Yellow Maize				
SAGL Maize Meal	Quarterly	2 x Super Maize Meal	3	4	Swaziland,	7
<b>Quality Proficiency Test</b>		2 x "Special" Maize			Lesotho, Namibia	
		Meal			& Botswana	
SAGL Wheat Grading	Quarterly	Wheat	1 <i>7</i>	2	Lesotho & Namibia	19
Proficiency Test						
SAGL Wheat and Flour	Quarterly	Wheat, Wheat flour	19	12	Ghana, Nigeria,	31
Proficiency Test		& Brown bread flour			Lesotho,	
					Swaziland,	
					Senegal, Namibia,	
					Cameroon,	
					Botswana	

#### **COMPLIANCE AND MEMBERSHIP CERTIFICATES**



# 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 and the development and training of laboratory personnel to become technical signatories remains a primary focus of the SAGL since 1999 when the laboratory achieved its accreditation. SAGL prides itself in maintaining this solid foundation.



Scope: 24 Methods
Technical Signatories: 11





ISO 17025 Accredited Since 2017
Flexible Scope: HPLC & GC/GC-MS,
Density, pH
Technical Signatories: 3



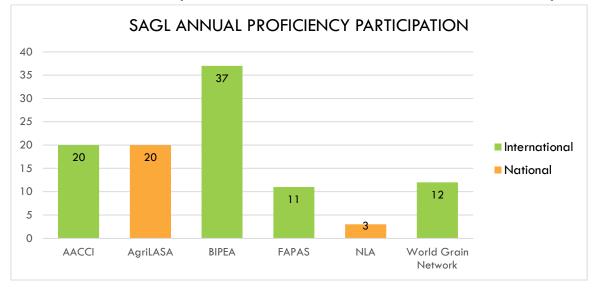


OECD Principles of GLP Compliant Since 2017 Study Directors: 3



SANAS accreditation certificates renewed during 2021/2022:

- Crop Protection Division ISO 17025 Renewed until 22 August 2027
- Crop Quality Division ISO 17025 Renewed until 31 October 2024
- Crop Protection Division OECD GLP Renewed until 26 July 2027

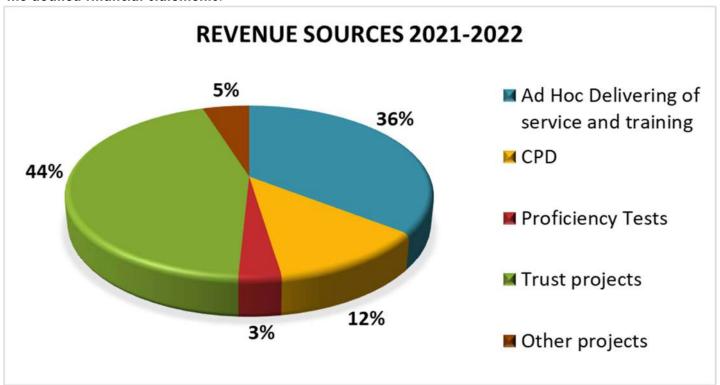


Participation in proficiency schemes, to demonstrate competence, is used as the laboratory's benchmark to the international measurement system.

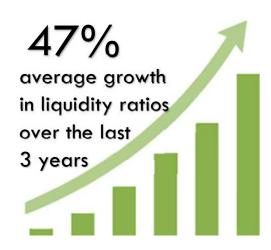
#### FINANCIAL POSITION

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.

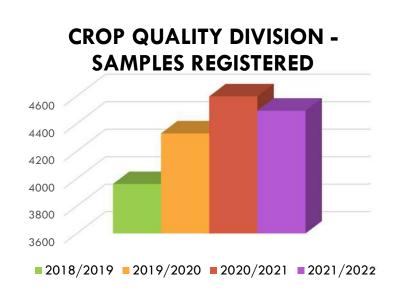
The directors have satisfied themselves that the company is in a sound financial position and that it has access to sufficient borrowing facilities to meet its foreseeable cash requirements. However, Capex is required to sustain the organisation. The directors are not aware of any material noncompliance 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.

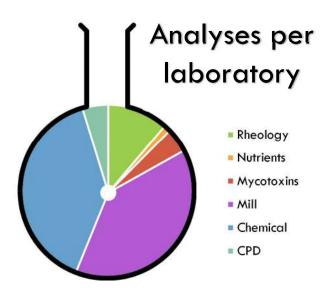






## **FINANCIAL POSITION (Continued)**

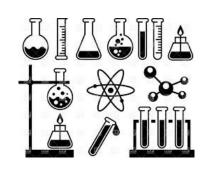




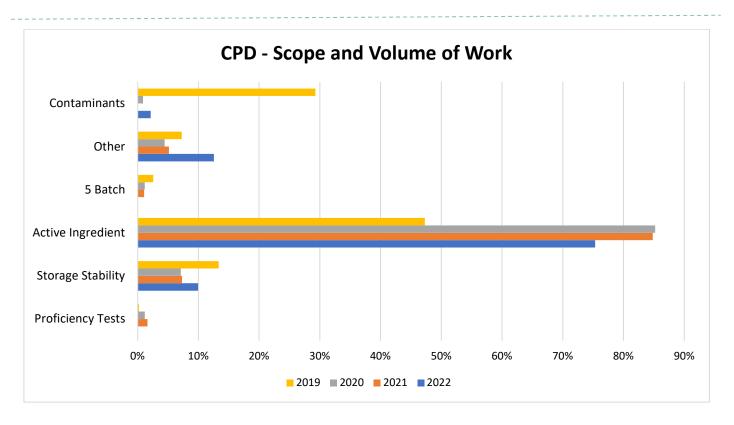
1,202



projects registered in CQD laboratory



studies registered in the CPD laboratory



#### CONCLUSION

The SAGL continues to pride itself as the reference laboratory of choice.

The laboratory will continue to serve the industry with commitment, dedication, integrity and excellence that have always been maintained over the years.

With the industry's continued solid support, the organisation is able to sustain its structures and build on the success of the last 25 years.



#### **ACKNOWLEDGEMENTS**

Gratitude to fellow Board members for being generous with their time and wisdom in ensuring that the SAGL remains committed to its strategic intent, aim and value.

To the Executive Committee members, thank you for all sacrifices, commitment, support and hard work.

Lastly, I would like to acknowledge the management team and staff for their efforts in ensuring that the SAGL continues to achieve its strategic objectives as the organisation grows from strength to strength.

To this end, I would like to convey immense gratitude to Wiana for her unwavering leadership. All the best to Wiana and the management for the next financial years to follow.

Mr. Boikanyo Mokgatle Chairperson 2021/2022