

VOL 3 NO 4 • NOVEMBER 2023



**agbiz** GRAIN  
QUARTERLY

Finding solutions to futures quandaries

---

Occupational health in the workplace

---

Putting the 'ability' into traceability

---

Insurability of the storage sector

---

Fumigation in the spotlight

---





► Commercial Banking

# Make Nedbank Agriculture your next big move.

Nedbank Agriculture has the knowledge and expertise to guide you through the opportunities and challenges your agribusiness experiences. Our team offers innovative, specialised and sustainable solutions to support your growth.

**Think bigger. Think Nedbank Commercial Banking.**

For more information about our solutions, scan the QR code.



see money differently

**NEDBANK**





On the cover:  
Photograph courtesy of VKB.

## EDITORIAL COMMITTEE

### Editor

Wessel Lemmer  
071 354 2948  
wessel@agbizgrain.co.za

### Agbiz Grain Steering Committee

012 807 3002  
annelien@agbizgrain.co.za

### Publisher

Plaas Media (Pty) Ltd  
217 Clifton Ave, Lyttelton, Centurion  
Private Bag X2010, Lyttelton, 0140  
Tel: 012 664 4793  
www.plaasmedia.com

### Chief executive officer

Lynette Louw  
084 580 5120  
lynette@plaasmedia.co.za

### Deputy editor

Jayne du Plooy  
jayne@plaasmedia.co.za

### Subeditor

Nanette Botha  
nanette@plaasmedia.co.za

### Layout & design

Inge Gjeros  
inge@plaasmedia.co.za

### Sales manager & accounts

Marné Anderson  
072 639 1805  
marne@plaasmedia.co.za

### Advertisement sales

Karin Changuion-Duffy  
082 376 6396  
karin@plaasmedia.co.za

Susan Steyn  
082 657 1262  
susan@plaasmedia.co.za

Zona Haasbroek  
082 960 7988  
zona@plaasmedia.co.za

### Subscriptions

Beauty Mthombeni  
064 890 6941  
beauty@plaasmedia.co.za

*Agbiz Grain Quarterly, Plaas Media and its staff and contributors do not necessarily subscribe to the views expressed in this publication.*

© Copyright: No portion of this magazine may be reproduced in any form without the written consent of the publisher and Agbiz Grain.

### Published on behalf of

Agbiz Grain  
012 807 3002  
1st floor, Grain Building,  
477 Witherite Road,  
The Willows, Pretoria  
Email: annelien@agbizgrain.co.za  
www.agbizgrain.co.za

# CONTENTS

03 Preface

05 News

## TOPICAL ISSUES

09 A legend greets the grain industry

11 The function and role of South Africa's Maize and Wheat Forums

## ECONOMY OF THE GRAIN STORAGE SECTOR

12 The silo tariff conundrum thrashed out

16 Finding solutions to future quandaries

20 Putting the 'ability' into traceability

25 Spotlight on risk management and insurance in the storage sector

## RESEARCH & TECHNOLOGY

31 Fumigation in the spotlight

35 How soya beans benefit the American economy

## REGULATIONS & OPERATIONS

38 Occupational health in the workplace

41 Overview of the annual Maize Crop Quality Survey of 2021/22

45 Policy and legislation: Overview of 2023 and outlook for 2024

48 Points to ponder: The hole in the wall



# Symposium success for Agbiz Grain

By Francois Froneman, managing director, VKB Grain and Corporate Services

**A**gbiz Grain held yet another successful symposium from 5 to 8 September 2023 with the theme “Building certainty and creating sustainability”. Discussions by qualified and experienced members of the industry provided valuable input and contributions to the grain and oilseeds value chain in South Africa.

## Sustainability in the spotlight

On day one, Dr Theo Vorster from Galileo Capital facilitated a discussion on the sustainability of the storage sector and return on investment. The panel members were Prof Ferdi Meyer of the Bureau for Food and Agricultural Policy (BFAP), Francois Strydom, CEO of Senwes, Tom Meintjes, vice-chairperson of Agbiz Grain, and Vuyo Mpumza, commodity derivatives manager at the Johannesburg Stock Exchange (JSE).

Although South Africa has a well-functioning supply chain, there are concerns regarding the sustainability of the grain storage business model. Note was taken of the concentration of maize production that moved from the west to the east of the country, and silos that are not within the main production areas anymore.

Rising storage costs and solutions to storage issues were discussed and the question was raised whether current storage tariffs are correct when compared to the actual inflation bucket for a storage facility and how the tariff is referenced. Balancing the tariff with the actual cost competitively was also discussed.

The message was that South Africa needs to invest in storage facilities, whether new or by upgrading current facilities, and that tariffs should allow a reasonable return on capital while still being competitive. Harbour and railway infrastructure requires investment to allow a better functioning market. Moreover, government must take hands with the private sector to achieve this.

## The agricultural derivatives market

JSE consultant, Chris Sturgess, facilitated the second day’s discussion, with panel

members Jerry Maritz, chairperson of Agbiz Grain, Willie Dreyer, grain procurement manager at Pioneer Foods, Anelisa Matutu, head of commodities at the JSE, Derek Matthews, chairperson of Grain SA, and Dr André van der Vyver, executive director of Sacota (South African Cereals and Oilseeds Traders Association).

The discussion focussed on access to stock, understanding client requirements, and guarantees that storage operators must supply. There will always be concentration risk at the end of the season together with price convergence. Also considered were time guarantees when a trader is in possession of a South African Futures Exchange silo certificate, changes made by the JSE to bring more visibility to the market, transport differentials, and basis trading.

## Traceability and regulatory compliance

This discussion was facilitated by Jannie de Villiers, former CEO of Grain SA and the National Chamber of Milling, with panel members Paul Adams, research and development senior manager at PepsiCo Global Quality Assurance, David Meder, director of the French co-operative, EMC2, Dr Charles Hurburgh, professor of agricultural and biosystems engineering at Iowa State University, Casper Schmidt, executive committee member of Agbiz Grain, and Dr Francois Koekemoer, Syngenta’s research and development director for sub-Saharan Africa.

De Villiers moderated a panel on traceability of grains and oilseeds from the United Kingdom, United States (US) and France. The traceability model followed in each country depends on the extent to which the industry is regulated. In the US, with its strong grain derivatives markets, producers and storage operators are exempt from traceability requirements for bulk handling and storage of grains and oilseeds. The mixing and blending of grains at different stages of the supply chain makes full traceability impossible.

In France, producers must register for government subsidies and third parties sell their products. Traceability in the French grains and oilseeds sector is easier than in



Fransois Froneman.

South Africa and the US. For South Africa, full traceability will remain a challenge as the private sector must bear the costs. Full traceability from producer to consumer is not currently a viable option to pursue in a free-market environment.

## Insurability of the storage sector

The session was facilitated by Kobus Truter, head of structured commodity finance at Absa, and the panel included Sean Harper, national survey manager at Santam Insurance, Zhann Meyer, head of global commodity finance at Nedbank, Ebbe Rabie, managing director of speciality at Price Forbes, Gerard Ramage, VKB Group’s manager for safety, health, environment and quality, and Letisha van den Berg, director of the Aggregate and Sand Producers Association of Southern Africa.

The Grain Storage Cost Index developed by Agbiz Grain highlighted the increase in insurance costs. Experts indicated that the increase is due to the global insurance sector’s concern regarding the insurability of the global grain sector. Panel members commended the commitment of the South African handling and storage sector, represented by Agbiz Grain, to work with the local insurance and financial sectors. [a](#)

Read this issue of *Agbiz Grain Quarterly* for in-depth articles on each of the panel discussions.



*To all our readers, contributors, clients  
and the South African agricultural family.*

*May this festive season be filled with joy,  
meaning, togetherness and blessings for yourself  
and those you hold dear.*

*Best wishes for 2024 and here's to facing  
all the challenges it holds in store.  
Together, we will make it count.*

*From the Plaas Media family*

# AGBIZ GRAIN GAZETTE

## 2024 Agbiz Congress: REGISTER NOW!

Be sure to diarise the 2024 Agbiz Congress that will take place from 5 to 7 June next year. This exciting annual congress to be held at Sun City in North West, will be exploring the challenges facing the agricultural sector. The theme of the congress is “Sustaining growth in a changing global landscape”.

Registrations are open and stakeholders are invited to register now to secure their seat. [Click here](#) to register.

## Fumigation in the spotlight

It is becoming increasingly important that the commercial storage sector, including producers who store grain with the goal of making it available for commercial purposes at a later date and not just for own use, keep a watchful eye on fumigation requirements and acceptable levels of sectoral fumigation standards. Certainty on various aspects is needed in order to maintain and improve sufficient access to the latest fumigation products available.

Keep an eye out for news on Agbiz Grain’s fumigation policy and regulations workshop during the first quarter of 2024. The workshop will be held in collaboration with Dr Gerhard Verdoorn of CropLife SA. Contact Annelien at [annelien@agbizgrain.co.za](mailto:annelien@agbizgrain.co.za) if you wish to attend. – *Agbiz Grain*

## Passport system in a cul-de-sac

Agbiz Grain invested heavily and assembled a panel from the United States, United Kingdom, France and South Africa, led by Jannie de Villiers, former CEO of the National Chamber of Milling and Grain SA, to discuss the issue of traceability and challenges of handling and storing bulk grain around the world. During the panel discussion at the 2023 Agbiz Grain and Oilseeds Value Chain Symposium, a generic passport system was referred to. This system is voluntary and not legally enforceable. Similar contractual systems already exist between producers, storage operators, and buyers who share the costs and benefits thereof.

However, stakeholders have different views due to the *Competition Act* guidelines, such as those relating to buyer power guidelines with respect to producers with a turnover of R35 million and less. This is dangerous ground for stakeholders involved in a sector that may decide to turn customers away on the basis of a mutual horizontal agreement that is not legally enforceable. Also, stakeholders cannot pursue initiatives that potentially interfere with existing agreements and business practices of value chain members and their customers.

Agbiz Grain has responded to the need for a generic passport system by creating the Agbiz Grain Food Safety Conduct, which can be adapted annually at the request of other applicable sectors, within the given legal requirements, and where it has merit. The system has already been implemented. As such, Agbiz Grain recognises the legal obligations that the storage sector must meet without affecting the competitiveness and market access of any stakeholder.

The implementation of a generic passport system is, however, not necessarily supported throughout. To comply with *Competition Act* requirements (including buyer power guidelines) and issues of traceability, the buyer should provide the passport to the contracted storage operator. This is because the buyer/processor sets the requirements for traceability concerning mycotoxins and MRLs for his product. Grain buyers can contact Agbiz Grain members and communicate their needs individually in order to negotiate a workable system, where it is practically feasible, as there are already some workable examples in South Africa. – *Agbiz Grain*

## Crop estimates remain unchanged

The latest Crop Estimates Committee (CEC) report released on 26 October indicates that the size of the commercial maize crop in South Africa will remain unchanged at 16,395 million tonnes. The area estimate for maize is 2,586 million ha, and the expected yield is 6,34t/ha. The estimated maize crop is 5,98% or 925 225 tonnes greater than the 2022 crop. The production forecast of white maize remained unchanged at 8,5 million tonnes

and the yellow maize production forecast remained unchanged at 7,895 million tonnes.

Also unchanged is the sunflower seed production forecast at 729 110 tonnes, soya beans at 2,755 million tonnes, and groundnut production at 51 910 tonnes.

Wheat production is forecast at 2,167 million tonnes, which is 1,66% or 35 450

tonnes more than the previous forecast with an expected yield of 4,03 t/ha. Barley production is forecast at 380 120 tonnes and canola at 237 450 tonnes. The expected oats crop is 41 600 tonnes and sweet lupine production is 19 200 tonnes.

The fourth production forecast will be released on 28 November 2023. – *CEC media release*



## Transnet cancels private sector contract

Transnet's efforts to get private sector players to run its crucial railway lines have bombed further, with the state-owned transport group cancelling a contract awarded to one of only two companies that showed interest in partnering with it.

Transnet Freight Rail, the largest division at Transnet in terms of revenue generation, recently announced that it had cancelled a conditional contract with Traxtion Sheltam, which emerged as a successful bidder in November 2022 to operate the Kroonstad to East London railway line.

The line, known as the Cape Corridor, is crucial for South Africa's economy as it is the main line for manganese exports and agricultural commodities. Transnet said the cancellation of the contract was by mutual agreement with Traxtion Sheltam, which operates railway lines in several African countries. – *Daily Maverick*

---

## Large part of Ukraine grain storage lost

Ukraine has lost nearly 15% of its grain storage capacity in the war with Russia, threatening its role as a key food supplier to the world. The US government-backed conflict observatory said Russians have seized 6,24 million tonnes' worth of food storage capacity, and that another 2,25 million tonnes of capacity in Ukrainian hands had been destroyed.

In total, the war has removed around 8,5 million of Ukraine's 58-million-tonne storage capacity, threatening the country's future ability to get crucial supplies of wheat, maize and sunflower oil to the world market, according to the report.

As a result, producers are running out of room to store their output for shipment, which could discourage plantings for the next crop, especially winter wheat, the report said. – *France 24*

## Anton Duvenhage welcomed to steering committee

Anton Duvenhage, the executive manager of grains at TWK Agri, replaced Bernie de Klerk as a new Agbiz Grain steering committee member on 1 September this year. Agbiz Grain and its members welcomes Anton at the table.



Anton Duvenhage.

---

## US storage capacity can buffer disruptions

Mississippi River water levels have reached record lows in the first half of October this year. At Memphis, for example, the river stage, or height of the river's surface relative to the zero-stage level of 189,9 feet, fell to a record low of minus 11,5 feet on 11 October.

These low river levels have reduced and delayed barge traffic and increased transportation costs for producers during peak harvest season. One factor that helps

mitigate the impact of transportation disruptions is the quantity of available grain storage in on-farm and off-farm facilities.

The United States Department of Agriculture's (USDA) latest *Grain Transportation Report* from the Agricultural Marketing Service highlighted national agricultural statistics service data on grain storage capacity for both on-farm (including bins, cribs and sheds used to store grains and oilseeds on

farms) and off-farm facilities (including elevators, warehouses, terminals, mills and crushers). As of 1 December 2022, the US had 25,4 billion bushels worth of total grain storage capacity: 11,8 billion (47%) of off-farm storage and 13,6 billion (53%) of on-farm storage.

A general increase in both on-farm and off-farm storage is a good sign for producers facing uncertain transportation conditions. – *FarmWeek Now*





## Grain storage silos market size analysis

According to a new report, the worldwide grain storage silos market size is estimated at US\$1,76 billion in 2023, and is expected to reach US\$2,17 billion by 2028, growing at a compound annual growth rate of 4,2% during the forecast period of 2023 to 2028.

The growing demand for grain storage from the leading grain-producing countries in the world, namely the US, Russia, India, Brazil, and others, have driven the grain storage silos industry during the study period. Further, rising input costs and heavy investments required in grain storage led to a rise in demand for silos across all regions. According to the International Grains Council, the global wheat stock increased from 276 million metric tonnes in 2020, and the stock accounted for 278 million tonnes in 2021. This increase in the production of grains led to the market's growth in the forecast period.

North America held the largest share in using silos for grain storage in 2020. As per the USDA, in the last ten years, on-farm storage increased by 1,6 billion bushels and off-farm storage by 2,2 billion bushels, registering a growth of 14 and 24%, respectively.

The recent imposition of tariffs by both the US and China on primary commodities led to the accumulation of grain surplus for US producers, resulting in 20% of the total available storage filled with soya bean, maize, and wheat. It is anticipated to further boost the need for more large storage silos across the country during the forecast period, as the existing ones are reaching full capacity. [Click here](#) for the complete report. – *Yahoo Finance*

---

## Malawi's first large-scale wheat harvest

Malawi has yielded its first successful large-scale wheat harvest after years of attempts to find a variety of grain suitable for its soil. Wheat farming is seen as a solution to mitigate the impact of the Russia-Ukraine war on grain imports to the African continent.

Ronald Ngwira, chief executive officer of Malawi-registered US company, Pyxus Agriculture Limited, which operates a farm in central Malawi for the diversification of wheat seeds, said about four varieties of wheat have been found suitable for Malawian soil out of approximately 80 varieties trialled since 2019.

Agricultural experts in Malawi say wheat farming is expected to produce about 90 tonnes, which is 50% of the country's wheat consumption. – *Africa.com*


---

## UK wheat stocks forecast to decline

With an anticipated 10% decline in production, and consumption expected to increase, wheat stocks in the UK in the 2023/24 marketing year are forecast to decrease, according to a report from Agriculture and Horticulture (AHDB). Total wheat availability is forecast at 17,3 million tonnes, down 1,3 million tonnes from 2022/23. Production for 2023/24 is seen at 14 million tonnes, almost 1,5 million tonnes lower than the previous year.

The UK-based agency sees wheat consumption rising in both the human and industrial (5%) and animal feed (up 3%) sectors.

Consumption is projected to increase by 534 000 tonnes over 2022/23 levels, rising to 15,1 million tonnes.

The report noted that barley stocks are expected to increase even though production is forecast to fall by 5%. This is partially due to a 3% decline in animal feed consumption, the AHDB said. Barley stocks in 2023/24 are projected at 8,3 million tonnes, around 101 000 tonnes lower than the previous season, the AHDB said. Production is seen declining 404 000 tonnes year-on-year to 6,9 million tonnes. – *World-grain.com* 

## Concerns regarding Leaf Services' inspection costs

Since deregulation, stakeholders have ensured that commodities meet the grading specifications set out in contracts. In this regard, it is important to note that the *Agricultural Product Standards Act* facilitates trade, and not food safety. Product is checked when producers deliver it to the silo, when a buyer's consignment is outloaded at a silo, when it arrives at the mill door or when the processor disputes the quality. If it differs from the contract, a dispute is declared. The additional cost of around R18 million to perform this non-essential function is causing concern as the sector has to pay for services from an appointed agent that the Department of Agriculture, Land Reform and Rural Development (DALRRD) cannot provide from public funds.

In this regard, DALRRD and Leaf Services met with industry on 19 September this year. Since the meeting, the assignee has been contacting individual sectors to discuss the proposed methodology to be established before the end of the year. The projected cost of inspecting processed products is R30 million. In total, the introduction of these services will cost the grain and oilseeds sector an additional R48 million.

Engagement is ongoing and Agbiz Grain and other stakeholders will use every opportunity to express its concerns and propose more affordable alternatives, where possible. – *Agbiz Grain*



# GRAIN STORAGE MANAGEMENT DEVELOPMENT PROGRAMME

### PURPOSE OF THE PROGRAMME:

Enable aspiring and existing managers in the grain storage sector to apply sound management principles in the practical day-to-day management of the facility, the quality of the grain and the effectiveness of the operations.

The aim of the programme is to polish the inherent qualities of grain silo managers to optimise their ability to respond effectively to the real business challenges faced in the grain silo environment in rural communities. A custom-made solution to your company's grain handling requirements.

### MODULES INCLUDE:

- BUILDING INTERPERSONAL STRENGTH
- GRAIN HANDLING INFRASTRUCTURE AND PROCESSES
- MANAGING QUALITY OF GRAIN IN STORAGE
- MANAGING THE GRAIN CYCLE
- GROWING MARKET SHARE
- CUSTOMER RELATIONS AND SERVICE EXPERIENCES
- MOBILIZING PERFORMANCE
- MANAGE A BUDGET
- LEGISLATION IN GRAIN STORAGE
- ENHANCE ENGAGEMENT AND TEAM SYNERGY

Various short courses on grain handling available

Contact us for more information: [marketing@peritumagri.com](mailto:marketing@peritumagri.com) / 051 451 1120



client financing | grain | insurance | livestock | loyalty scheme | mechanisation | motors | trade | wool & mohair

# ENJOY SPACE

like never before

**OVK GRAIN** NOW OFFERS MORE SILO CAPACITY FOR OUR PRODUCERS

**OVK**

FOR FURTHER INQUIRIES REGARDING OVK GRAIN, CONTACT:

Bloemfontein 051 011 1592 • Elliot 045 931 2344 • Ladybrand 051 923 4732  
Hopetown • 053 203 9200

# A legend greets the grain industry

By Koos du Pisanie, Plaas Media

**Willie Dreyer, grain procurement manager at Pioneer Foods and pioneer of modern grain trading in South Africa, is retiring after 40 years in the industry. Willie started at Pioneer Foods on 1 December 1984 and worked for PepsiCo after their acquisition of Pioneer Foods in 2020.**

While studying at Stellenbosch University, he worked for Sasko's internal audit team during holidays, and joined the business full-time upon completing his studies.

Willie has been part of the grain-milling industry from the get-go and negotiated with the wheat and maize boards to secure Sasko's monthly grain allocation. After deregulation in 1995, he participated in the grain trading market and served on the National Chamber of Milling's operational committee for many years.

Under the leadership of chairperson, Jannie de Villiers, he collaborated with the South African Futures Exchange to establish trading contracts (South African grains and oilseeds standard contracts or SAGOS), which were not part of the Johannesburg Stock Exchange (JSE) yet.

*Agbiz Grain Quarterly* spoke to him about his career and his take on the current and future state of the grain and oilseeds industry.

**You are about to retire. Looking back, is there anything you would change or do differently?**

Quick decision-making by the JSE will benefit the grain industry. It should be less tolerant by introducing penalties against role-players that delay performance.

One example is the ongoing negative impact of load shedding on grain owners. Despite this, they are required to continue paying daily storage rates even when silo owners do not have

self-generation capabilities to make grain available. Other silo owners have generators enabling loading at a fixed rate per tonne.

**Taking from your experience and looking at the systems and industry, do you think some aspects can be changed or eliminated completely?**

I support technology but unfortunately, the JSE's introduction of algorithmic trading to enhance liquidity is ineffective and interferes in the market through price forming.

The industry needs to eradicate any expectation to impose changes within very short periods of time. The system should not tolerate changes due to inherent seasonal nuances. The full cost and impact across the value chain cannot be appreciated. It results in unintended harm across the value chain, eroding trust and impacting the consumers relying on grain as a stable dietary source.

**What would the ideal grain trading business look like?**

Trading is one of the oldest practices in the world and should be kept simple to ensure transparency to reduce price volatility. Basis trading should be expanded to cater for spot buying and short- and longer-term contracting.

South Africa needs to dedicate funds and expert technical resources to investigate the introduction of genetically modified organism (GMO) wheat varieties given the benefits observed with the introduction of GMO maize varieties. The South African maize yield doubled from 2,5 to 5t/ha.

South Africa is a net exporter of maize. When it comes to wheat, the country imports between 1,25 to 2 million metric tonnes of wheat annually. GMO technology may increase yields to reduce our imports. Argentina, Australia and New Zealand already approved the development of wheat GMO technology.

**What does a miller want from the system?**

The miller needs an efficient system that enables him to make informed decisions



Willie Dreyer.

when considering the price he is paying for a specific quality of grain. This allows the manufacturing of his product without market interference. Grain delivery is extremely costly and time-intensive due to the degradation of the South African railway system. A solution is required.

**What is your message to industry role-players?**

Farming requires continual innovation to implement sustainable farming practices that are better suited to accommodate changing weather patterns.

Dedicate time and resources to focus on innovative ways to increase the yield potential of grains. The future of the grains industry in South Africa is dependent on an efficient rail network as road transportation of grains and mining commodities will not be sustainable long-term. If you cannot effectively transport your grain to where it is needed, its value declines.

The importance of port infrastructure for the grains industry is material. The industry is best placed to emphasise the importance thereof to the government through active engagement and co-operation. Moreover, government should grasp the impact of a lack of functional infrastructure on the grain industry. <sup>a</sup>

For more information, email  
Willie Dreyer at  
Willem.Dreyer@pepsico.com.

# INTRODUCING SeedSecure

*Trichoderma Asperellum & Endo-Mycorrhiza*



Enhanced soil structure and soil organic matter

Improved soil biodiversity and soil health

Better nutrient solubilisation and uptake

Reduced nutrient leaching

Earlier grain set

Increased plant biomass and yield

Enhanced pest defence mechanisms

Soil Carbon sequestering

Drought tolerance

Improved water availability/holding capacity

Breathe new life into your Rhizosphere with Nutrico's brand new range of Biological seed treatments, tailor-made for field crops. The formulation of **SEEDSECURE** combines the benefits of *Trichoderma Asperellum* and endo-*Mycorrhizae* to promote overall soil health, resulting in abundant root growth and health, and improving the plants' growth performance.



+27 (0) 11 392 4072  
info@nutrico.co.za  
Postnet Suite 114,  
Private Bag X27,  
Kempton Park, 1620  
www.nutrico.co.za



# The function and role of South Africa's Maize and Wheat Forums

By Elmarie Helberg, Plaas Media

South Africa's Maize and Wheat Forums are collective bodies representing all the major role-players in the grain industry – from input suppliers, through to producers, the grain storage industry, millers, bakers, consumer unions as well as government. According to Dr John Purchase, former CEO of Agbiz who headed up both these forums, these structures are critical in ensuring the competitiveness of the industry. The chairmanship of both forums and their steering committees was recently taken over by Prof André Jooste. We caught up with Dr Purchase just before he stepped down from this role.

The forums have two main functions, the first being to enquire into cross-cutting industry issues and developing plans to engage government and other role-players. The other goal is focussed on innovation through, among others, the Maize Trust and South African Winter Cereal Industry Trust. These trusts fund research projects that relate either to crop/plant breeding or food safety.

There are also various industry bodies that require funding, including the South African Grain Laboratory NPC which monitors crop quality in South Africa, and the South African Grain Information Service.

The Maize Trust deed emphatically states that the trust must consider the recommendations from the Maize Forum or Maize Forum's steering committee. The steering committee has two subcommittees, one on trade and logistics issues, and the other one on technical issues, which tackles research, etc.

On the input side, the entities that form part of these forums are, among others, CropLife SA and the South African National Seed Organization. They ensure that when new seed varieties are bred, it is done in such a way that quality and yield requirements are adhered to so as to remain competitive on the international market. "This productivity increase is what makes us competitive, and hence seed breeders and seed

companies are incredibly important role-players," Purchase explains.

Other entities that form part of these forums are the Fertiliser Association of South Africa, which represents the fertiliser industry, Grain SA, representing grain producers, Agbiz Grain, representing the grain storage industry, and the South African Cereals and Oilseeds Trade Association, which is critical for a functioning market. All role-payers, right up to the consumer, are represented and may participate in these forums. "The stronger we make these structures, the stronger our leverage with government becomes so that we can ensure the right policies and systems are in place for South Africa to become competitive on the international front."

## Relevance in 2023

The success of a free-market system, he says, is dependent on rules and regulations. There are various cross-cutting issues in the industry and value chain that need to be addressed. In this regard, one of the functions of both forums is to look into critical issues that undermine the competitiveness of our industry. "If we want to maintain our competitive edge and be able to export three million tonnes of maize every year across the world, we have to make sure our ducks are in a row and everybody in the value chain is playing their role in ensuring its competitiveness.



Dr John Purchase, former head of the Maize and Wheat Forums.

"Competitiveness relates to your ability to put your product on the international market at a price equal to, or lower than, the international price and still make a profit. One of the issues currently threatening our competitiveness is that of Transnet, both rail and ports.

"A free market can only function if equal information is available to all role-players. This is why these industry bodies were established – to ensure that we have the best information available in and for our market." [🔗](#)

Use this QR code to watch a Plaas TV interview with Dr John Purchase regarding the importance of the Maize and Wheat Forums.



# The silo tariff conundrum thrashed out

By Susan Marais, Plaas Media

Current Johannesburg Stock Exchange (JSE) storage rates that are based on the producer price index (PPI), do not inspire joyful reinvestment among owners. Will reinvestment in long-term storage structures render any returns? Not according to Agbiz Grain members. A tweaked storage rate path must therefore be forged.

For over 15 years the JSE's South African Futures Exchange (Safex) has been fixing its JSE storage rates against the PPI of final manufactured goods, but this practice has not kept up with the real operational and structural costs of South Africa's long-term storage solutions.

This was made clear during the first day of the Agbiz Grain and Oilseeds Value Chain Symposium, which focussed on the storage sector's sustainability and return on investment.

## Realistic storage costs

"I am not questioning the JSE, but rather the use of the PPI of final manufactured goods," said Wessel Lemmer, general manager of Agbiz Grain, during his

opening remarks. He added that the PPI figure does not reflect the reality of storage cost increases within the sector. "Generally, service delivery is better in metropolitan areas. Because of this, the PPI unit cost is much more expensive in rural areas than it is in cities."

A comparison of the JSE storage rate and maize price trends over time would suggest that the JSE storage rate should be between R1,30 and R1,34 rather than the current rate of R1,07, Lemmer added. "It is also problematic that the storage rate is applied countrywide. So, the domestic environment in which you do business does not play a role. It is an administered storage rate."

When comparing the JSE storage rate with the Chicago Mercantile Exchange (CME) storage rates, the two were on par in 2018 when it came to the percentage of the maize price (Table 1). "Looking at it now, the JSE storage rates are between 25 and 30% lower when compared to the CME" (Table 2).

Lemmer mentioned that if the storage rate is decoupled from the PPI and the storage rate is closer to R1,30 or

R1,34, the industry would probably see more investment than is currently observed.

According to Lemmer, this is not a reflection on Safex as it needs to have a reliable reference to adjust the JSE storage rate yearly. However, a better reference is needed.

Tom Meintjes, vice-chairperson of Agbiz Grain, said after the disbandment of the control boards it was crucial for certain rules to remain in place to ensure that the free market, as well as the futures market, functioned properly.

"Certain elements still needed to be controlled," Meintjes explained, adding that it was important to keep in mind that every storage operator is still at liberty to charge whatever storage rate he or she wants. "The JSE rate is not a forced rate, but the JSE rate does set the benchmark."

## Reinvestment obstacles

The sustainability of storage structures and return on investment boils down to one thing, namely capital, said Francois Strydom, CEO of the Senwes Group. "Capital is a coward and will flee to where it gets returns," he said, emphasising the fact that each investment within a company needed to at least service the cost of the capital and the risk involved. "If you subsidise one part of your business with another, it will eventually catch up with you and you will pay for it."

Currently, storage operators need to do more than merely reinvest in silos to ensure that their current structures remain functional. They also need to increase their investments to address the needs of modern users.

"For example, if we can accept grains with a higher moisture content or increase the intake speed, it would greatly benefit our producer clients. It is expensive to rent a freight link for a day. The link will cost a producer R6 000/day, whether he is able to turn it once or five times. So, obviously, the quicker you can turn it

**Table 1: Comparison of JSE and CME storage rates for maize in 2018. (Sources: JSE, CME, South African Grain Information Service, and Agbiz Grain calculations)**

	Daily storage fee	Monthly storage fee	The average annual price of maize	Cost of storage as % of the maize price
CME	0,05 c/bushel	US\$1,97/tonne/month	US\$154/tonne	1,28%
JSE	0,76 c/tonne	R 22,80/tonne/month	R1 791/tonne	1,27%

**Table 2: Comparison of JSE and CME storage rates for maize in 2023. (Sources: JSE, CME, South African Grain Information Service, and Agbiz Grain calculations)**

	Daily storage fee	Monthly storage fee	The average annual price of maize	Cost of storage as % of the maize price
CME	0,06 c/bushel	US\$2,33/tonne/month	US\$208/tonne	1,12%
JSE	R1,07/tonne	R32,10/tonne/month	R3 603/tonne	0,89%
<b>Required JSE daily storage rate to equal the daily storage rate in the United States</b>				
JSE	R1,34	R40,20/tonne/month	R3 603/tonne	1,12%

around, the lower your transport cost per tonne will be.”

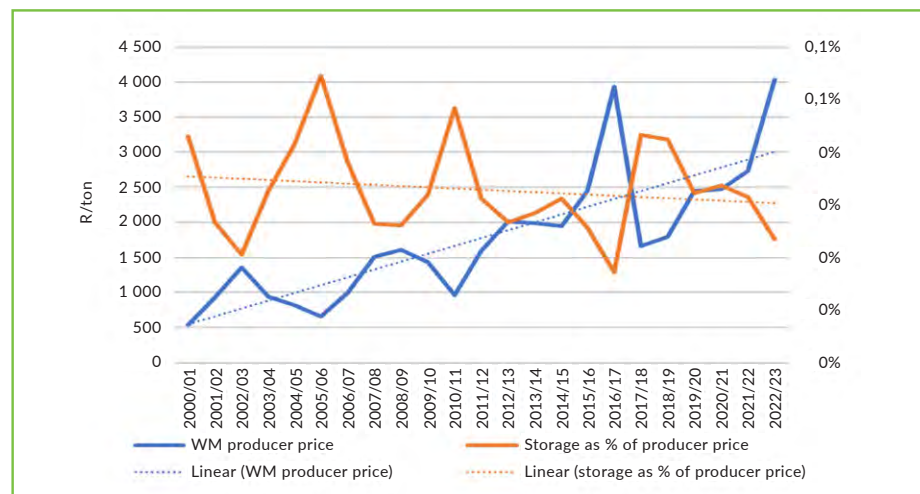
These challenges require ‘out-of-the-box’ thinking. “Storage operators also need to keep in mind that some of their silos may be situated in areas where production has decreased. In such instances, it might be sensible to let go of that asset as soon as possible. The sooner you can do that, the sooner you can better utilise the rest of your investments.”

### Why reinvest?

South Africa’s grain and oilseed production has doubled since 1994. Over the past four years, the five-year average year-on-year growth has consistently been 6,9%. Meintjes indicated that it stands to reason that storage capacity will need to increase in future to ensure that greater volumes can be stored in the long term. “South Africa’s exports could increase, but that is subject to our logistical infrastructure – rail, roads and ports. Meanwhile, we will need to store the bigger crop somewhere sustainable without compromising food quality.”

Apart from the fact that more permanent long-term storage will soon be needed, modern clients’ requirements from storage systems, such as traceability, must also be addressed and could demand greater investment, Meintjes added. “Traceability means greater product segregation guarantees. But we cannot just invest and push up prices. After all, grain and oilseeds make up the staple of South Africans’ food and therefore it must remain as affordable as possible.” He emphasised the importance of maintaining a balance.

**Figure 1: Comparison of the white maize producer price trend and the declining JSE storage rate as a % of the white maize producer price in the 2001/02 to 2022/23 marketing years.**



Lemmer alluded to the fact that South Africa’s current cement silo infrastructure is rapidly reaching the end of its life expectancy. “This is why we need to reinvest in long-term storage. Without it, we won’t have food security.”

Prof Ferdi Meyer, director at the Bureau for Food and Agricultural Policy (BFAP), highlighted the importance of not disregarding on-farm storage. “Over the years South Africa has seen an inflection point. When deregulation commenced, South Africa’s cement silos had a combined capacity of 20 million tonnes of storage space. Currently, we have approximately 30 million tonnes of storage space. This gap was filled by bunkers and silo bags.”

While there was a time and place for these alternatives, Prof Meyer said as the

country’s cement silos are reaching the end of their lifecycles, it is important to keep in mind that they remain the gold standard when it comes to delivering grain and oilseeds that adhere to the market’s needs in terms of quality and long-term storage.

He also emphasised the fact that South Africa’s shifting planting areas have resulted in certain long-term permanent silo structures now being situated in less than ideal regions. Furthermore, the country’s export routes are also changing; this could have a significant impact on the optimal location for storage sites going forward.

### Cement silos

Strydom said while the JSE’s current storage rate discouraged investment in cement silos, it is clear that this storage option retained a superior quality over time. Food companies that own a premier food brand often demand product that is stored in a cement silo. “They will defend their brand with everything in their power. We cannot undervalue the importance of product quality when it comes to the South African market.”

Furthermore, the risk of storing products long term in non-permanent structures such as bunkers and silo bags is higher than that of permanent structures such as cement silos, which means higher financing and insurance costs. “It all comes down to capital; thus it is clear that one might have to charge a higher rate for products stored long term in a semi-permanent structure.”



The panel members on the first day of the Agbiz Grain Symposium were, from the left, Theo Vorster, CEO of Galileo Capital, Prof Ferdi Meyer, director at the Bureau for Food and Agricultural Policy, Vuyo Mpumza, manager of commodity derivatives at the JSE, Tom Meintjes, vice-chairperson of Agbiz Grain, and Francois Strydom, CEO of Senwes.

# CONNECTING YOUR BEST INTERESTS, GRAIN BY GRAIN

*Flexible, safe, rewarding:  
words every grain producer  
understands. And us too.*

A partnership with BKB Grain Storage, which has depots throughout South Africa's summer and winter grain growing regions, ensures cost-effective grain flow from the farm to the customer.

This is why at BKB Grain Storage, we realise how valuable it is to combine experience and innovation to offer you practical management and handling solutions for your grain.



gs.bkb.co.za



To scan, download  
a free QR Code app





**WAM** South Africa

## Silo Safety System **KCS**

**PROTECTION AGAINST EXCESS-PRESSURE,  
VACUUM AND DUST EMISSION**

- Avoid damage to silo and accessories;
- Reduce risk of air pollution;
- Eliminate risk of filling the incorrect silo;
- Start and stop filter cleaning automatically;
- Receive indication from electronic pressure meter whether filter might need attention; Benefit from control panel monitoring of:

- ✓ Internal pressure of any silo
- ✓ Maximum level indicator - three
- ✓ Presence of compressed air to venting filter (if air jet filter is used)
- ✓ Presence of compressed air to pinch valve



**Lets Talk!** +27 (0) 87 148 7555


info@wamgroup.co.za




In theory, this should bring equilibrium back to the market and it is also the reason why all storage operators have not completely switched to semi-permanent structures to store grain long term, Strydom added.

### Reimagining rates

Vuyo Mpumza, manager of commodity derivatives at the JSE, said they are open to changing the manner in which the JSE's silo storage rates is determined. He noted that while the JSE's basic function is to provide a platform for willing buyers and sellers, it is vital to note that the physical delivery of its futures contracts is critical to ensuring a functional market.

"When you take a position in the futures market, you are committing to a future delivery time," Mpumza indicated. "That is why our contracts or terms and conditions need to be standardised so that a person knows he or she will secure a specific storage rate fixed at a certain location, as well as standardised quality and quantity in terms of a silo receipt."

However, going forward, it isn't essential to use the PPI as a base for determining the storage rate. What is important, though, is that the JSE must have a single number that can be used as a maximum storage rate charge.

According to Prof Meyer, the gap between the PPI and actual storage costs ought to be as small as possible. "The PPI has not kept up with storage costs and we need to find a way to solve it. Role-players need to know that the information available is as accurate as possible, because accuracy will attract new investment.

"Agbiz Grain has already conducted several studies using specific indices, such as electricity and labour, which provide a relatively accurate view of the average silo storage operator's true running costs. These figures are quite close to PPI. However, they are not close enough, which means we need to determine the actual costs. But how do we do this?"

Prof Meyer stated that the obvious way of determining a storage operator's costs is through physical data collection. "This can be tricky, as we now need to tread carefully due to the competition issues that arise when collecting data from competitors."

### Competition Act concerns

Dominique Arteiro, competition law specialist at Werksmans Attorneys, warned that Agbiz Grain members need to take care if they intend to utilise competitively sensitive information for benchmarking.

"In general, benchmarking and the exchange of information can be pro-competition and good for consumer welfare," Arteiro said. "However, the sharing of competitively sensitive information among competitors can give rise to contraventions of the *Competition Act, 1998 (Act 89 of 1998)*, such as collusion. This includes price fixing, market division, or a substantial prevention or lessening of competition within a particular market."

Arteiro said there are various factors to consider, making it risky to collate competitively sensitive information. For example, one should not collate more information than is necessary to achieve the desired pro-competitive outcome. Benchmarking must take place within the confines of applicable legislation, such as the *Competition Act*.

"Keep in mind that the Competition Commission considers exemption applications under Section 10 of the Act." Parties could apply to the commission for exemption from the provisions of the *Competition Act* in relation to agreements or conduct which meet the objectives referred to in Section 10(3)(b). However, an exemption is not granted after discussions. This means that role-players need to apply for an exemption from the Competition Commission before any discussions or information exchanges take place.

"You have to err on the side of caution because the risks are high and there are serious consequences for contravening the *Competition Act*."

### Information sharing alternatives

Strydom indicated that Senwes is not interested in any discussion pertaining to the exchange of competitively sensitive information. "We need to keep in mind that the Safex storage rate is but one aspect within the entire price-forming system," Strydom said, adding that it makes no sense for a storage operator to charge a single rate throughout all of its storage options at all storage facilities.

"If the current system is not working for a storage operator, it needs to be changed. If storage rates are a problem for storage operators and they do not change it to a profitable model, they could end up cross-subsidising one aspect of their grain business with another. This strategy will always end in long-term failure."

### The political arena

A better political landscape is needed to address the underlying issues causing the disparity between the PPI in rural and urban areas.

"The system currently in place does not work and needs to be fixed at a political level," remarked Strydom. In this regard, the low-hanging fruit that should be addressed are energy and the infrastructure of South Africa's critical corridors, including Durban, Richards Bay, East London, Cape Town and Saldana Bay. "Addressing the issues in these corridors is a matter of urgency, and it includes rail, road and pipelines."

The last grave concern is criminality. "If you allow criminal activity, the undesirable consequences will continue. This is an issue every voter should consider carefully before casting their vote in the 2024 election. If we do not address this at political level, there is no doubt that South Africa will continue its downward spiral."

Prof Meyer agreed with Strydom that these issues need to be addressed if we are to truly see long-term growth within the silo storage sector and hence the agricultural sector in general. [a](#)

To watch a wrap-up discussion of day one of the Agbiz Grain and Oilseeds Value Chain Symposium, scan the QR code with your smartphone.



For more information, send an email to Wessel Lemmer at [wessel@agbizgrain.co.za](mailto:wessel@agbizgrain.co.za), Tom Meintjes at [tomm@gwk.co.za](mailto:tomm@gwk.co.za), Francois Strydom at [francois.strydom@senwes.co.za](mailto:francois.strydom@senwes.co.za), Prof Ferdi Meyer at [ferdi@bfap.co.za](mailto:ferdi@bfap.co.za), Vuyo Mpumza at [VuyoM@jse.co.za](mailto:VuyoM@jse.co.za), and Dominique Arteiro at [DArteiro@werksmans.com](mailto:DArteiro@werksmans.com).

# Finding solutions to futures quandaries

By Susan Marais, *Plaas Media*

Storage operators as well as producers, traders, processors, and the Johannesburg Stock Exchange (JSE) should flesh out their communication skills to improve the status quo of physical delivery on futures contracts. This was one of the key messages delivered during the second day of the 2023 Agbiz Grain and Oilseeds Value Chain Symposium.

The second message concerned storage facility clients' willingness to pay more if it meant quicker outloading at facilities and hence faster access to stock.

However, before issues concerning possible price non-convergence or other stock and futures market problems can be discussed, everybody needs to be on the same page, said Chris Sturgess, the discussion leader of this panel. "That sets the scene for the rest of the conversation.

"The spot market is where we are trading physical grain today. It could be in Mkhondo, Paulpietersburg or Makwassie." In short, it could be anywhere a buyer and seller are negotiating to transact the sale of grain and/or oilseeds.

"The derivatives or futures market allows market participants to manage price risk on a future basis. Setting the price for December or July next year is the function of the futures market." This market is commonly referred to as the South African Futures Exchange (Safex) and was founded in 1995. Today it is independently owned and operated by the JSE.

"What we are discussing, however, is the price convergence component. We want the futures price to reflect what is happening in the spot market when the futures contract expires. It is what keeps the integrity of the futures market intact – the futures market at expiry and the spot market reflect the same price level," Sturgess said. For instance, a futures contract that will expire in December should reflect the spot price for that specific commodity at that specific time.

This highlights the importance of Agbiz Grain members. "Without storage, you cannot have physical delivery on the futures market," Sturgess said.

"This reaffirms the critical role secure storage plays in ensuring price convergence for the futures markets."

### Listening to clients' needs

However, simply storing grain and oilseeds is not enough. Commodities must be moved at some point. Jerry Maritz, chairperson of Agbiz Grain, said the organisation's members are committed to delivering services on the expected level – the expected level from a storage operator's perspective is the minimum threshold set by the JSE.

"If a client expects service to be delivered on a higher level than the JSE standards, it should be communicated with the silos. If a client does not let the storage operator know that he/she expects more from the storage operator than the minimum expectations, chances are the silo might not be able to deliver on these expectations on the day of delivery."

Maritz added that storage operators will be able to meet higher client requirements if these requirements have been communicated to the storage operator to start preparing and planning in a timely manner. "Traders have come to us saying they are willing to pay a premium if a certain outloading volume can be guaranteed at a certain point, because there is value in certain guarantees."

### Timeous communication is key

Willie Dreyer, manager of grain procurement at Pioneer Foods, agreed with Maritz that early communication works. "I negotiate directly with storage operators if I want to offload stock at a specific silo – especially if it entails high volumes. Then I will be negotiating the terms and conditions and offloading directly with the storage operator."

Dreyer said it is critical to have the same discussion with the transporter who



The panellists who discussed the solutions to perceived problems in the futures market were, from the left, Chris Sturgess, consultant at the JSE, Dr André van der Vyver, executive director of Sacota, Derek Mathews, chairperson of Grain SA, Anelisa Matutu, head of commodities at the JSE, and Jerry Maritz, chairperson of Agbiz Grain. Willie Dreyer, manager of grain procurement at Pioneer Foods, joined the discussion virtually.



will collect the grain, as it is to no one's advantage if the storage operator is ready at a given time, but there is no transport to collect the grain.

Dr André van der Vyver, executive director of the South African Cereals and Oilseeds Trade Association (Sacota) said while it is within the rights of parties to discuss the details of grain delivery outside the JSE, it is crucial that those arrangements also take place while JSE contracts are negotiated. "If we fail to do so, we will start doing all transactions outside the JSE."

Dr Van der Vyver added that this slippery slope could lead to Safex only serving as a reference price and all parties eventually negotiating outside the JSE for costs and everything else. This would effectively lead to the implosion of the market. "Hence, it is better to rather increase the requirements of the JSE before we get to that point."

However, if the JSE's requirements for offloading were to increase to 600 tonnes per day, for example, the country would lose 124 of the 299 silos currently

registered with the JSE, Sturgess warned. This is a mere 100 tonnes per day increase in offload tempo from the current minimum standard of 500 tonnes per day.

Maritz said finding a balance is crucial. "If industry wants to increase the minimum standard, there will have to be infrastructural investment to meet the external need. How will we finance this?"

If the market were to give the go-ahead to increase silo tariffs, with the precondition that minimum standards also need to increase, it could leave room for such a discussion. "But it will require some finetuning to make sure we enable the necessary investment to sufficiently increase service levels in the market."

#### **A willingness to pay premiums**

Dr Van der Vyver said owners will be willing to pay a premium for improved storage functionality, but added that it is crucial to also improve service delivery. "Sacota believes that Safex's minimum requirements aren't enough and should increase."

There are two components at stake: the minimum tonnage per day requirement should be increased and/or guaranteeing a minimum outloading period.

"Traders will rather pay a higher JSE storage rate, but then it needs to go hand in hand with additional guarantees. This is something we see in practice daily. The buyer/owner of the stock is willing to pay more so he/she can access the stock within the required timeframe."

The reason why this is so important is because buyers pay for commodities based on their need to access the stock at certain periods. In other words, at certain times of the year, certain commodities are in shorter supply and at those times they want to take possession of the stock within a reasonable timeframe. "This idea of a reasonable timeframe is something the industry can negotiate because we have many different opinions regarding what is reasonable."

According to Dr Van der Vyver, the timeframe should be standardised so as to give a buyer the assurance that what he/she paid for will be accessible within a certain period. "This will enable the trader to deliver the product to the processor, miller, exporter or whoever on the counterside of his/her contract."

#### **A revisit of JSE standards**

Anelisa Matutu, head of commodities at the JSE, said Safex will be happy to facilitate a discussion pertaining to the increase of tariffs and standards. Over the past eight months, Matutu's team has been actively visiting silos and engaging with industry in a bid to identify the hiccups in the system. "We have seen negligible issues at silos, but those were sorted out. Most of the time buyers taking physical delivery from the JSE tell us they do not have problems accessing stock."

Matutu said whether issues experienced at storage facilities are perceived or real, she and her team remain committed to addressing the issues because the JSE ultimately finds itself in the middle of the conflicts.

"On the one hand, traders want timeous access to acquired stock because they have to honour their own contracts, while on the other, silo operators say people must be realistic about the realities of

# Prevention! is better than cure!



**TREATMENT  
WITHOUT PREVENTION  
IS SIMPLY UNSUSTAINABLE.**

★ **Bill Gates** (Businessman and philanthropist)



**K-Obiol<sup>®</sup>  
EC 25**

- // **The Right Cost:** For longer residuality and efficiency.
- // **The Right Result:** Using the correct dose rates and directions for use are critical to achieving the right result.
- // **The Right Thing To Do:** Various application methods to control major stored-product pests on: Maize, Sunflower, Wheat, Rye & Oats.

load shedding and staff that are already working overtime. Those are practical challenges. Furthermore, silos were not built for extensive outloading. They were built for long-term storage.”

One way in which the JSE provides more certainty in terms of accessing stock is by ensuring that buyers taking delivery from the JSE have access to 25% of the booking slots at storage operators specific to the main hedging months. “This way, preference is given to JSE certificate holders, which ensures access to the grain,” Matutu said.

However, Maritz said thus far they have not seen clients make use of this benefit. “It will probably be some time before industry takes Safex up on this offer.”

While every storage operator’s booking system fits that facility’s particular situation, Maritz said it is important for these systems to be fair. “These systems could always improve if we know more about the needs of our clients.”

To put Dr Van der Vyver’s fears regarding Safex’s liquidity to rest, Matutu explained that JSE has seen a steady increase in transactions of between 2 and 4% every year over the last decade. “Last year we traded over 3,5 million contracts for the year. So, the growth is definitely there.”

### An inefficient market

Derek Mathews, chairperson of Grain SA, said Safex was not failing its producer clients. “If the market was failing the producer, it would fail in totality. After all, a market is where two parties, including a willing buyer and a willing seller, meet. If the market fails one of them, it fails both.”

However, Mathews added that the deterioration of South Africa’s previously well-functioning infrastructure is of great concern. “Under regulation, the trains worked. The silos worked. And for several years after deregulation there

was still a level of efficiency. The years of deterioration, however, have revealed several problems, which the market needs to address.”

While not failing, the market is definitely lacking, he said. “In the end, market sustainability rests on one word, namely integrity.”

In other words, futures markets and spot markets must converge, and buyers and sellers can rest assured that when they sell their grain, three things are certain: quality, quantity and time. This means that when producers sell their grain, they know they will receive payment timeously. When clients buy grain, there must be certainty as to when and how it can be obtained, as well as what level of quality is guaranteed.

“In my experience the futures market has stood the test of integrity. The issues that were there were sorted out by the market,” Mathews said, adding that the free market should be left to bring about equilibrium.

In bygone days it was fine to assume that everything worked. That put storage operators in a comfort zone. They were used to calling the shots, and clients had to adapt to their way of operating. “That’s no longer the case. These days clients stipulate what they want, and the silo industry must step up and deliver. If you don’t, you will be out of business tomorrow. That is the way the free market works.

“As a producer, I experienced a lot of frustration during the Maize Board years before deregulation over the fact that I was afforded the opportunity to take on production risk, but I was not given the opportunity to take on marketing risk. It was against the law to trade my own grain. That is why I will keep on defending the free market.”

Mathews believes the free market did much to improve the country’s situation,

as opposed to what it went through under a controlled system. “In the end, the entire industry will sort out issues such as stock access. And as we sort it out, the market will improve.”

### Failing infrastructure

Dr Van der Vyver expressed concern over the country’s failing infrastructure. “Sacota’s members engage in 80% of the formal grain trade, including imports and exports, and for us the movement of grain is therefore of great concern. Infrastructure, he added, is currently members’ biggest challenge. “This includes storage facilities, road and rail and also the inefficiencies at ports.”

Dr Van der Vyver said while it is good news that the Port of East London has come back online after ten years – it will likely handle six vessels this year – South Africa needs to expand its capacity to keep growing the industry. “If we earmark an additional million tonnes for export it will create a huge problem, because it encompasses more than merely adding two or three additional vessels. We do not want the grain to be stuck in an inland silo, because the impact on price will be significant.”

Although Pioneer Foods mainly imports wheat, Dreyer said the company supported the idea of exports as it was good for the country and its economy. “However, a balance adjustment is needed if you look at the current rate of maize and soya bean exports versus wheat imports.”

The reason for this is that vessels exporting grain are loaded once they’ve docked, while vessels carrying wheat are often stuck in ports for extended periods. “The costs associated with this are massive. There is no fair balance, and that needs to change.”

On the flip side, Dreyer commended the industry on the way grain is still being exported despite the dilapidated rail system.<sup>2</sup>



To watch a wrap-up discussion of this second-day session of the Agbiz Grain and Oilseeds Value Chain Symposium, simply scan the QR code.

For more information, send an email to Chris Sturgess at [sturgesscj@jse.co.za](mailto:sturgesscj@jse.co.za), Anelisa Matutu at [AnelisaM@jse.co.za](mailto:AnelisaM@jse.co.za), Willie Dreyer at [willie.dreyer@pepsico.com](mailto:willie.dreyer@pepsico.com), Dr André van der Vyver at [andre.vandervyver@sacota.co.za](mailto:andre.vandervyver@sacota.co.za), Derek Mathews at [djmethanol@gmail.com](mailto:djmethanol@gmail.com), or Jerry Maritz at [jerry.maritz@afgri.co.za](mailto:jerry.maritz@afgri.co.za).

# Putting the 'ability' into traceability

By Susan Marais, Plaas Media

**T**raceability has become a global buzzword among consumers, non-governmental organisations (NGOs) and regulators. It is not just a South African problem, and this seemingly insurmountable hill will not simply be climbed by pressing a few buttons on a new piece of technology. However, Agbiz Grain's members are not shying away from tackling this problem head-on. This became clear during the third day of the Agbiz Grain and Oilseeds Value Chain Symposium.

"Do not underestimate the hill you are facing when it comes to grain traceability." This warning came from Jannie de Villiers, facilitator of the third session. He spoke from a lifetime of experience which includes being a former CEO of Grain SA as well as former CEO of the National Chamber of Milling.

"Consumer demands are increasing, but technology cannot address all concerns and challenges. Young people in particular need to understand that a lot of hard work goes into resolving traceability issues."

Traceability within the grain sector can be divided into three distinct categories: quality, food safety and origin. Quality has to do with the grading of grain, which South Africa's grain system has done for a long time. "This is a well-established practice and not the current focus of discussion."

However, food safety with regard to mycotoxins and maximum residue levels (MRLs), as well as tracing grain back to its place of origin, are the more important issues.

## The Agbiz Grain approach

Wessel Lemmer, general manager of Agbiz Grain, said its members handle over two-thirds (70%) of the grain produced in South Africa. Therefore, the organisation understands the responsibility that rests on its shoulders, not only to ensure grain safety but also food safety for its clients.

"Storage operators must comply with legislation and regulations governing the storage of grain to satisfy the demands of our clients, which include grain processors and consumers. This is where compliance becomes part of handling and storage."

All Johannesburg Stock Exchange registered silos are required to qualify as food business operators and are audited by the Perishable Products Export Control Board every two years. Furthermore, an Agbiz Grain Food Safety Code of Conduct has been put in place, which forms part of the organisation's members' storage agreements with producers and buyers. The Agbiz Grain Food Safety Conduct testifies that members comply with the full set of legislation prescribed by the Department of Health. The Agbiz Grain Food Safety Conduct is updated yearly in co-operation with stakeholders in the value chain.

"Before any grain is taken in by storage operators, it is graded," Lemmer explained. This grading is done in accordance with regulations set out in the *Agricultural Product Standards Act, 1990 (Act 110 of 1990)* or *APS Act*. The purpose of the *APS Act* is to facilitate trade and not to regulate food safety, as is frequently misunderstood by stakeholders in the value chain.

Grading is a sensory or visual exercise. In order to mitigate the risk of fungal growth and mycotoxin production in the long-term storage of grains, grading requirements to prevent contamination before outloading to a buyer should ideally be as strict as possible at intake of a producer's grain deliveries.

In general, storage operators do not test for mycotoxins or pesticide MRLs when grain is received at silos. Except for the fact that the storage sector is not required by law to do so, the reasons for this vary and include the availability of reliable equipment and time constraints. The reason why this is an important point of discussion is the fact that mycotoxins and pesticide residue levels have an

impact on food and feed safety. "That is why traceability is crucial," Lemmer said. The storage operators that do invest in the capacity to perform tests at intake do so where problems occur or in collaboration with a buyer as part of a conditional agreement.

"This brings us to an important question: How do we monitor grain accurately enough to effectively prevent the intake of grain that does not meet food and feed safety requirements?" In this regard, it will be crucial for storage operators to install the necessary equipment if testing for MRLs and mycotoxins becomes mandatory. However, this will bring about additional costs which must be recovered at the first point of delivery. "It is the only way in which this additional testing will be feasible. Keep in mind that the latest testing technology's turnaround time is still not sufficient to prevent significant delays at the intake and outloading of grain at the silo."

Another traceability issue that needs addressing in future is the comingling of grain, which remains an issue at present. According to Dr Charles Hurburgh, a producer and professor of agricultural and biosystems engineering at Iowa State University, full traceability cannot be achieved. The best probability a United States (US) study found, is 70%.

In addition, the Competition Commission's buyer power guidelines clearly state that producers with a turnover of less than R35 million cannot be prevented access to a market or service such as handling and storage by a voluntary agreement between stakeholders.

## Global pressure

According to Paul Adams, senior manager of research and development at PepsiCo Global Supplier Quality Assurance, a multinational food, snack and beverage corporation, these issues are not just problematic for South Africa.

"This is a global problem within the cereal trade in terms of difficulties with traceability and compliance. For me,

traceability is part of compliance. Any standard practice of compliance should include traceability as a key part of it, so they go hand in hand.”

Adams added that the questions food manufacturers receive from regulators, NGOs, investors, and consumers regarding traceability are on the rise. “They are all seeking more transparency when it comes to food safety. How is a certain food produced? How can we demonstrate that it is produced with food safety and sustainability in mind? These types of questions are not uncommon.

“Furthermore, pesticides are posing a greater risk to PepsiCo’s business. Environmental groups are continuing to publish data regarding pesticides in our food.” Recently, glyphosate in oats has received much press coverage and numerous legal cases ensued due to it.

Although the data provided by environmental groups regarding food safety is questionable, Adams said they should always be taken seriously, as research indicated that consumers trust environmental groups, while they did not necessarily trust governments, scientists, or food manufacturers.

### Potential residue levels

When it comes to issues such as food grading it is important to note that food quality does not merely pertain to grain grading, the correct moisture content, protein levels, and bushel weight. “There is a whole other crucial part to it which has to do with mycotoxin levels, the MRLs of pesticides, heavy metals or any

other contaminants,” Adams said, adding that each one of these issues is just as important as quality, if not more so.

“While an expert may pick up a handful of wheat and have a relative idea what the quality in terms of grading is, there is no knowing what the potential residue within the wheat is. And that’s why storage operators need to test for this before accepting grain.”

However, grain storage operators can only be held accountable for grain for the period it is in their care. “Yet it is important to understand that many people will be looking for a scapegoat, and therefore it is a risk that storage operators must manage,” Adams added.

“Any storage operator that supplies grains to food or animal feed manufacturers must know that processors will return to the storage operator to recover their costs if they encounter any food safety issues. If there is no traceability in place, you will not be able to go back to identify the problem, so you will be liable for the damage.”

The question of how one link in the value chain receives quality assurance from the preceding link that everything pertaining to food safety and quality is in order remained a big and practical challenge, Adams admitted. “This is a prominent issue especially when it comes to pesticide and MRL testing, given their expense and complexity.”

However, if a faulty or suspect product does reach retail shelves and needs to be recalled, it usually costs millions, and somebody needs to foot that bill. “This is a

very risky area and therefore storekeepers would like to reduce their risk by 100%, although this is not possible. The next best thing is mitigating that risk through assurances from producers. If producers follow good agricultural practices and traceability is in place, it should theoretically ensure food safety, which will keep everybody’s business safe.”

Each country has a different way of mitigating these risks, an aspect that was highlighted by the other members of this multinational panel during the symposium session.

### The French connection

The grain sector in France continues to be a formally regulated market, according to David Meder, a director of the French agricultural co-operative, EMC2. EMC2 is situated in northeastern France and serves over 3 000 producers daily.

“Regulations stipulate that no cereal producer may legally sell his or her products openly on the market. All grain must be sold to a grain collector, who has been designated and certified as a grain collector by the state,” Meder said. These grain collectors will in turn sell the grain to users such as millers and processors.

“There are several documents in place that regulate the relationship between buyers and sellers. For us, this framework gives great clarity on how we should work and interact with the different stakeholders.”

One of these regulations is that a registered grain collector qualifies for certain subsidies, and this enables grain collectors to absorb the cost of traceability, rather than carrying that cost forward to the point where it is finally recovered from the end user.

“However, if a grain user’s requirements exceed that which is stipulated in the regulations, the user needs to speak up and discuss it with the grain collector. There is usually a premium fee to compensate the value chain for the additional costs to meet the demands of that specific consumer.”

The interesting thing, said De Villiers, is that traceability seems like a very complex issue from a South African viewpoint, yet the French system runs relatively smoothly. “So far they haven’t really experienced any



The third day of the Agbiz Grain symposium featured various international speakers. Jannie de Villiers, on the left, anchored this session. He was joined in the studio by Casper Schmidt, a board member of Agbiz Grain.

problems in their system and that is very interesting. It is also interesting to hear how France has been able to successfully recall grain in the past. In South Africa, other commodities, such as citrus, are far ahead of the grain sector when it comes to the recalling of produce. Grain is blended at various stages during processing, which makes recalling it more challenging.”

### The United States strategy

Dr Hurburgh said traceability in the US is driven by consumer awareness, rather than legislation. “The only regulation that currently requires traceability is the *Public Health Security and Bioterrorism Preparedness and Response Act of 2002*, which was enacted due to 9/11.”

According to this Act, any link in the value chain must be able to state where the produce originated from and where it is going. “One link up and one link down. And this regulation will only be implemented if the government feels there is cause for concern,” Dr Hurburgh indicated, adding that to his knowledge this regulation has never been enforced on US grain.

The other Act that does speak to traceability in the food production arena is the *Food Safety Modernisation Act* or FSMA, but this was more of an audit requirement, rather than a law that needed to be adhered to, said Dr Hurburgh. “To honour this law, a company must show that they have a strategy in place to mitigate risk.”

However, the grain industry is able to politically exempt producers and grain handlers from the FSMA, so it currently has no impact on the industry. “Presumably none of these parties change the grain. They merely store it or move it along the value chain.”

Yet there is a slow-growing demand from the US market for greater traceability. “There are various reasons for this, including brand protection, consumers wanting assurance as to the safety of their food and the origin thereof.”

Of these, food safety is the biggest issue, Dr Hurburgh said. “This is largely driven by concern over mycotoxins.”

### Tricky but necessary

Mycotoxins are indeed the number one issue in the US grain industry. Apart from the new FSMA, which is not a regulation,

there are no regulations governing the sector.

Seeing as traceability in the US is business-based and driven, it is paid for by businesses, explained Dr Hurburgh. “Generally, if a grain buyer wants to trace stock, they want to trace it back to the farm, which causes problems as grain is comingled, making it impossible to accurately trace it back to the specific producer.”

However, if traceability is broken down into simple steps, it can be done to an extent. “We’ve refined traceability to a point where we have previously been able to recall grain. The question that needs to be asked is: How precisely does your country want to trace grain? The answer will drive the entire traceability network.”

One of the biggest obstacles for traceability in the US is the fact that consumers typically want the industry to measure things that aren’t easily measurable. This includes mycotoxins, genetically modified grains, and pesticide residues. “While this isn’t impossible and the US grain industry isn’t failing consumers, we are struggling to have traceability coupled with consumers actually paying for the added services.”

Dr Hurburgh believes that carbon counting will be the reason why full traceability will become a reality in the US. “The importance of carbon counting is growing because buyers can receive carbon credits. Buyers are increasingly asking producers about their production methods, because grain grown in a way that saves on carbon inputs means that buyers can become carbon neutral. In my opinion this will eventually be the big driver for traceability.”

There are many end user companies that want to boast about being green and US consumers are willing to pay a premium for so-called green products, Dr Hurburgh added.

“The US is ramping up its ability to track products in markets, not just food or grains. Technology and large databases are enabling and simplifying that. The only question is what the consumer wants and what the price will be to get it.”

### The South African perspective

According to Casper Schmidt, executive committee member of Agbiz Grain, South Africa’s grain industry is still in its infancy. “Some are ahead of the curve, while others

are way behind. Making it a regulatory requirement can be a good thing.

“It is important to note that traceability is not an exact science, and that the industry must still identify the country’s traceability needs and then, if it is feasible, implement a strategy based on those needs,” Schmidt said. “Can we test, mitigate and trace the risk throughout our elevators and bins to determine what is going where, and then trace it back?”

Clarity is still needed on forward as well as backwards traceability, Schmidt added. “It doesn’t help if we have traceability in place, but you need a detective to track it throughout the system.”

The different industries must come together and discuss what South Africa requires in terms of a grain traceability system. “Storage operators service the market and if the market wants something specific, we need to come together and create that service in a bid to service the free market.”

Wiana Louw, general manager at the Southern African Grain Laboratories NPC (SAGL), said while technology is improving, and along with it SAGL’s ability to test grain, it comes with a price tag. “Technology and equipment are changing faster than ever. There are plenty of new advancements. But while it allows for a quicker turnaround time, it does cost more.”

She added that it is crucial, however, to strike a balance since grain still needs to be affordable.

### The wheat processing industry

Dr Francois Koekemoer, Syngenta’s research and development director for sub-Saharan Africa, said greater traceability can assist seed breeders in protecting their intellectual property rights regarding new and current varieties or cultivars.

Dr Koekemoer said the end point royalty (EPR) administered by the South African Cultivar and Technology Agency significantly increased the return on investment for wheat breeding companies and thus attracted many new role-players, which is a positive outcome for the wheat producer. Only varieties or cultivars that have been approved by the Wheat Forum Cultivar and Technical Committee (WFCTC) will qualify for an EPR calculation.



The South African wheat processing industry (millers and bakers) has specific requirements a cultivar needs to meet before it can be approved. These requirements differ drastically from the requirements set in the other countries in which these role-players operate. Breeding efforts the last three decades yielded cultivars with improved performance and qualities that satisfy milling and baking needs. The milling and baking performance of South African wheat cultivars compares very well with the best-exporting wheat classes internationally.

It can be difficult for new role-players to identify cultivars that possess the required milling and baking qualities. This will require new financial investment and research into the development of new cultivars.

However, this system is voluntary, and nothing prevents the commercialisation of cultivars outside the WFCTC process from getting some return on investment. The milling and baking performance of such

cultivars may, however, not be acceptable to local millers and bakers, and when the seed of such cultivars are delivered at the silo, it can negatively influence or even destroy the processing quality of wheat in that silo.


Hence, the risk is very high for the silo owner when the client he wants to sell the grain to is not interested in purchasing the grain. The best course of action is for the silo owner to only accept grain from cultivars that have been approved by the WFCTC.

“Strip trials are being planted across the country and while these trials could yield a large harvest, the quality might not be as good – and this grain needs to be delivered at some point,” Dr Koekemoer said.

When the open-pollinated grains planted in such trials are ready for harvesting, the subpar quality grain can easily end up in a storage facility where it could remain

indefinitely, while the owner struggles to sell the inferior quality product.

Dr Koekemoer believes that this is one issue that can be addressed through greater traceability at the delivery and storage levels.

De Villiers said while the case for greater traceability is clear, a balance must be maintained throughout. “When we look at a small-scale producer, who only produces five or six tonnes from a single hectare, it can create a massive problem for that individual if his or her grain is rejected due to an issue with MRLs. This is a reality we should keep in mind.” 

Scan this QR code to watch a wrap-up discussion of the Agbiz Grain and Oilseeds Value Chain Symposium's traceability session.



For more information, send an email to Wessel Lemmer at [Wessel@agbizgrain.co.za](mailto:Wessel@agbizgrain.co.za), Casper Schmidt at [casper.schmidtbkbg.co.za](mailto:casper.schmidtbkbg.co.za), Jannie de Villiers at [jannie@devilliersfamily.co.za](mailto:jannie@devilliersfamily.co.za), Wiana Louw at [wiana.louw@sagl.co.za](mailto:wiana.louw@sagl.co.za), Paul Adams at [paul.adams@pepsico.com](mailto:paul.adams@pepsico.com), David Meder at [David.Meder@emc2.coop](mailto:David.Meder@emc2.coop) or Dr Charles Hurburgh at [tatry@iastate.edu](mailto:tatry@iastate.edu).



An independent contract laboratory specializing in a range of tests vital to the agricultural sector

**FAST. ACCURATE. ESSENTIAL.**

- ▲ FEED & FOOD NUTRIENTS
- ▲ IN-FEED MEDICATION
- ▲ MINERALS
- ▲ MYCOTOXINS
- ▲ PHYTASE ACTIVITY
- ▲ BIOGENIC AMINES
- ▲ OIL QUALITY
- ▲ SOYA QUALITY
- ▲ LEAF ANALYSIS
- ▲ PHYTOHORMONES

**AWARDED** by industry for our professional performance.  
**CHOSEN** by clients for our personal service.

+27 (11) 316 8800  [www.chemnutri.co.za](http://www.chemnutri.co.za)  [info@chemnutri.co.za](mailto:info@chemnutri.co.za)



# YOUNG PEOPLE

SEE THE FUTURE

# Differently



The way in which **young people see the future** speaks of a positive attitude – and of the choice to be relevant in a new era. AgriSeker shares this excitement about the future of agriculture in South Africa. Our motto is 'A **certain future**', after all.

AgriSeker is motivated to make a contribution to the future of our country with a dedicated focus on agriculture through knowledge, understanding and participation in this sector. Our focus is on producers and young people, because for agriculture to survive, we need you.

**Ask your insurance broker or find us online at [agriseker.co.za](http://agriseker.co.za)**

# Spotlight on risk management and insurance in the storage sector

By Susan Marais, Plaas Media

Insurance is like a parachute. If it is not there the first time, chances are you won't be needing it a second time ... This was how Kobus Truter, Absa's head of structured commodity finance, kicked off the last day of discussions at the Agbiz Grain and Oilseeds Value Chain Symposium. The session focussed on insurance and risk management in the grain storage sector.

"It is important to pick the right partner when choosing who will provide that parachute for you. Would you risk your life with somebody you don't know or don't trust? Why would you risk your business with an unknown or untrustworthy entity just because they are less expensive or able to save you costs in the short term?"

## Reassessment necessary

South Africa's storage operators are working hard to become the type of partners that insurance companies want to parachute with, said Gerard Ramage, a member of Agbiz Grain and Agbiz's safety, health, environmental and quality (SHEQ) forum and VKB Group's SHEQ manager. "Storage facilities and machinery are changing in terms of capital investment,

thus changing our risk profiles. Therefore, we need to continuously reassess our risk profile."

For this reason, the grain storage sector has committed to protecting its investment through best management practices. "This is where the Agbiz Grain/Agbiz SHEQ Forum, which commenced in 2022, has a truly big role to play as a central point where we can discuss issues regarding risk mitigation and controls. Companies are investing a lot of effort, time and money in compliance."

Ebbe Rabie, managing director of speciality at Price Forbes, commented: "All underwriters in the world focus on one thing: the quality of the risk. If the risk is

clean, the fire protection measures are adhered to, and you comply with all the necessary regulations, then you'd most likely qualify for insurance in South Africa." Rabie agreed that the South African storage sector has worked hard in recent years to improve its risk management. "Previously, storage operators found it challenging to obtain insurance. The country's cement silo values are very high, and we must realise that the local insurance industry can only carry a limited amount of risk. Once it goes over a certain threshold, we need to look internationally for insurance but this can become incredibly expensive."

## Eye on insurability

Wessel Lemmer, general manager of Agbiz Grain, stated that the insurability of the



The panel members on the fourth day of the Agbiz Grain and Oilseeds Value Chain Symposium were, from the left, Kobus Truter, Absa's head of structured commodity finance, Sean Harper, Santam Insurance's national survey manager, Zhann Meyer, head of global commodity finance at Nedbank, Ebbe Rabie, managing director of speciality at Price Forbes, Gerard Ramage, a member of Agbiz Grain and Agbiz's SHEQ Forum and VKB Group's SHEQ manager, and Letisha van den Berg, director at the Aggregate and Sand Producers Association of Southern Africa.

grain and oilseeds storage sector needed some scrutiny due to the sharp rise in insurance costs in the sector in recent years. "At Agbiz Grain we developed the Grain Storage Cost Index three years ago and one of the cost items that has increased the most is insurance costs." It was only superseded by electricity costs.

He emphasised that the trend of rising insurance costs is mainly due to increasing risks within the global grain storage arena. This includes commodities stored inside the grain structures and aging storage infrastructure and equipment. This is, however, not due to the negligence of grain storage operators.

To demonstrate the high standards of the country's storage infrastructure, Lemmer referred to a visit by a French delegation to South Africa's silos earlier this year. "While we were up in a gantry, I was walking behind two French delegates and saw one placing a finger on the plastic insulation enclosing an electric cord that ran across the gantry. When he looked at his finger, it was clean. I heard him remark to his companion: 'These guys are managing these silos with military precision.'" In that moment he could burst with pride because of the way in which the grain storage facilities in South Africa are managed.

"This type of management decreases risk and therefore insurance cost, and I think we need to show that more."

**Stay informed**

However, while Lemmer sang the praises of the industry's management practices, he warned that global insurance costs and financial requirements for grain storage operators are increasing. "This not only affects our members, but all commercial and on-farm grain storage sites."

One of the ways in which Agbiz Grain, with the support of Agbiz, is helping its members to stay informed of new developments on the SHEQ front is through quarterly workshops covering relevant issues pertaining to legislation and regulations applicable to the storage sector. "The content of these workshops are being assessed for continuous professional development credits," he added.

Agbiz Grain plans on introducing industry-specific benchmarks in this regard. "While there are already general manufacturing benchmarks in place, there is a need among our members to differentiate the grain storage sector from that of general manufacturing."

As the demand for farm-to-fork traceability becomes greater, it is important to understand and mitigate the associated

risks, Lemmer said. "For instance, we must ensure that grain storage operators cannot be held liable for the risks associated with producers. Storage operators must take responsibility and manage the risks posed by our own structures."

To efficiently mitigate future risk, the following questions must be answered:

- What role can the insurance sector play to mitigate risk associated with increased traceability?
- If a producer unloads a trailer full of contaminated product into a bin, it could contaminate the entire bin or lead to a quality downgrade of several other producers' product. How should that risk be mitigated?

**Best-practice criteria**

During the Covid-19 lockdowns Agbiz Grain did much to assist its members and that was when the idea of an Agbiz Grain SHEQ Forum was born. At the time a vast number of new legislation was published daily, Ramage recalled. "During that period Agbiz Grain assisted us in summarising and interpreting the new laws quickly to understand issues such as what a travel permit meant and who needed to use it and who couldn't. This gave the industry direction and helped us to make decisions quickly. We hope to maintain that momentum with the new SHEQ criteria initiatives."

Ramage said the introduction of a criteria-for-best-practice document was largely based on the Aggregate and Sand Producers Association of Southern Africa's (ASPASA) criteria for best practice for smaller open-pit mines.

"I often think insurance companies don't really understand the risk associated with the industry. So, the idea is to draft criteria for the industry which will include the legislative requirements we need to comply with, as well as the best practice standards we want to manifest."

The industry can use that standard as a starting point for any discussions pertaining to new legislation that is introduced. "Through this, we hope to be able to give feedback to the government in terms of whether we agree with the legislation or whatever the issue may be. Currently, this is not the case." Ramage added that it was nice to have a benchmark to measure yourself against.

### Lessons from other industries

Letisha van den Berg, director of ASPASA, stated that this route works very well within ASPASA, especially for smaller role-players who do not have access to legal assistance when it comes to reviewing and complying with new legislation. "Usually, you have 30 to 60 days to comment on a new piece of legislation and now ASPASA can take that document, peruse it, and send it to our members stating that this is the law and these are the problems we foresee because we know the industry. Then we can ask members for their input and opinions.

"We can take whatever feedback they send us and submit it to the legislature within the required timeframe for comments. This is very effective, because the more people with a similar response to the legislation, the more likely you are to influence the legislation." She added that the value of forums and lobbying should not be underestimated.

Ramage said if Agbiz Grain is to formalise an industry standard, it is crucial that this needs to be done in conjunction with insurance companies. "If we do draw up the criteria, we will need to know exactly what impact it will have and the benefits it will offer members. Will we for instance be able to move safely from a point where it is considered a grudge purchase? There must be method to the madness."

Rabie said a criterion of best practice is very attractive to underwriters because it immediately makes it a cleaner risk, which may lead to lower insurance costs.

There currently is no formal inspection of grain silos taking place other than the Department of Employment and Labour whose inspectors check the facilities from a health and safety viewpoint, Ramage said.

### Injury benchmarks

Ramage explained that Agbiz Grains' SHEQ Forum is in the process of building benchmarks for total injury frequency rates and time lost as a result. The benefit of such a benchmark system is if a storage operator's frequency rate is too high, the operator knows that it needs to implement greater control measures because the current measures aren't protecting employees, and it falls outside industry norms. "But if your frequency rate is too low, you need to possibly train your employees on how to report the injuries, as there is no such thing as an injury-free workplace," Ramage added.

Zhann Meyer, head of global commodity finance at Nedbank, said it would be a horses for courses type of application in terms of risk management. "The risk of injury at a large cement silo complex, which reaches 30 to 40m into the air, will be different than for a silo bag or bunker site where you don't have as much of a height risk. Hence, there needs to be a different set of rules for the different types of storage infrastructure."

Rabie said the minute a company complies with a specific risk management benchmark, the insurer will lower its insurance costs, which has a direct benefit for storage operators. "That applies to any insurance cost. If you consider it, insurance really is the backbone of any capitalist system, so if you don't have that as a security measure to protect your risk going forward, everything fails."

### Personnel risk mitigation

Van den Berg said the people working at a premises have a massive impact on the risk profile of that premises. ASPASA was invited to the discussion, because there are many similarities between the risk profiles of agricultural open-pit mines, such as lime and fertiliser, and grain storage structures. "People are continuously changing and while they might be skilled, you need to

critically ask whether they possess the in-depth experience required to manage a grain silo and to manage the dust and the dust explosion risks that might occur? Who is coaching them?" Van den Bergh asked, adding that this may have a serious impact on a storage operator's risk profile. "This type of succession planning is a huge concern in the mining industry. Where are our next engineers and mining managers? It should also be a concern in the grain storage industry."

Van den Berg said it is crucial that new entrants to the grain storage industry are coached and that mentoring is linked to relevant legislation.

Sean Harper, Santam Insurance's national survey manager, agreed with Van den Bergh, saying this is also true in an agricultural setup. "We need to keep in mind that risk is not about the things you see around you. Risk starts with me, the manager, and the decisions I make as well as the people I employ and the way I train them."

### Smaller and larger set-ups

Meyer said that when it comes to agricultural commodity financing, it is interesting to note that commodities are moving in two directions away from large commercial silos, which are typically registered with the South African Futures Exchange. "Commodities are moving either to being stored on the farm in silo bags or zinc silos erected by a producer or group of producers; or it moves to a processor, where the processor has put up storage capacity at its processing facilities to be close to the manufacturing facilities."

At the traditional concrete silos across the country, the management has ample knowledge of the operations and associated risks. At the on-farm storage sites, a farm manager, who is unfamiliar with the risks associated with grain storage, is expected to manage the storage facilities, Meyer added. "To manage 5 000 metric tonnes of maize on top of all your other farm management duties must surely have an impact on that site's risk profile. Skillsets are becoming eroded."

Truter agreed and said from a financier's perspective they prefer to back the jockey. From a brokerage perspective, Rabie said they often see privately owned silos that do not meet requirements when it comes to issues such as fire risk management. "Large corporates such as AFGRI, NWK or OVK

## ► Commercial Banking

# The year that was for agriculture and what to expect in 2024.

John Hudson,  
Nedbank's National Head of Agriculture



85%

22%

The year 2023 has, in many ways, been a year of consolidation and recovery, particularly for exports. And while there has been some easing of input costs, many challenges and elevated risk in the sector remain.

On the plus side, the Agbiz/IDC Agribusiness Confidence Index rebounded by 6 points to reach 50 points in the 3rd quarter, after having remained below the 50-point mark for 3 consecutive quarters. This suggests that agribusinesses are adapting to long-standing challenges such as deteriorating infrastructure, failing municipalities, intensified geopolitical tensions, and persistent load-shedding.

### **2023 was a mixed bag of blessings and challenges.**

Various sectors such as wheat, soybeans and maize have continued to yield excellent harvests, but we are seeing the impact of downward pressure on commodity prices. Commodity prices have on average declined by roughly 11% this year, while stringent regulations relating to citrus black spot disease in the European Union and restrictions on some livestock product exports due to foot-and-mouth disease are likely to lower export earnings.

Livestock diseases remain a concern, particularly the recent avian influenza outbreak, which has had far-reaching consequences affecting producer and consumer. A report released

by a government-appointed task team in May warned that South Africa's veterinary and animal disease controls are 'broken' and in a state of crisis, which threatens the viability of the country's livestock industry.

### **What's in store for 2024?**

Unfortunately, many of the 'usual' challenges of doing business in South Africa will remain in 2024. Uncertainty around load-shedding persists but many agribusinesses have taken matters into their own hands and are producing their own power. Underlying infrastructure issues are unlikely to be addressed as paralysis in an election year will mean limited progress. Pressure around household food security is likely to continue into 2024, and any food price increases will add immense pressure to already stretched household budgets.

Another factor that is unlikely to improve next year is the export environment. Our potential exclusion from the African Growth and Opportunity Act (AGOA) and ever-increasing regulations in the EU remain a threat, and geopolitical tensions are expected to continue into 2024 with the Russia-Ukraine and Israel-Palestine conflicts showing little sign of resolution. It is our view, then, that attention must be urgently focused on improving logistics efficiency, intensifying the promotion of South African products in export markets, and sustaining solid relations with existing critical export markets while securing expansion into new markets.

Fortunately, El Niño will have less of an impact than initially expected in terms of rainfall due to improved soil moisture from past rainy seasons. However, above-normal minimum and maximum temperatures are expected for the summer, while warnings from the World Meteorological Organization indicate that globally El Niño, along with climate change, would usher in record-breaking temperatures in the next 5 years. This has already been experienced during the northern hemisphere summer and does not auger well for crops and livestock, while water loss through evaporation and increased wildfires are additional threats.

The year 2024 is being hailed as a defining moment for South Africa and it is bound to have its highlights and obstacles. Agriculture has been a highlight since Covid-19 and, despite all the challenges we face, there are encouraging signs that it will continue. However, it is important to view the immense opportunities in the sector through the lens of the reality of doing business in South Africa. It is not easy but there is always hope, and the challenges we have faced as an industry and as a country have made us more resilient. Through it all, we believe the private sector will continue to forge the way ahead – with or without government.

**Think bigger.  
Think Nedbank Commercial Banking.**

Email us at [agriculture@nedbank.co.za](mailto:agriculture@nedbank.co.za) to find out more.

## see money differently

## NEDBANK

at least have proper corporate governance in place and they employ engineers, insurance specialists and accountants who advise them on risk mitigation strategies.”

Rabie said private owners need to understand that the standard multi-mark policy does not cover their insurance if they erect storage facilities. “Do not believe it if the local broker in town says: ‘Don’t worry, we can do R500 million.’ You will have a problem when the bank rejects that insurance policy as assurance. You will need to find somebody who will be able to truly insure it and that is when the insurance cost goes up.”

### Structural adherence

Van den Berg said when it comes to constructing silos on farms, one cannot help but wonder if all structures are adhering to the construction regulations specified by occupational health and safety, and whether these structures are signed off by competent engineers. “Would an insurer be willing to insure something built by someone who doesn’t know the rules?”

Rabie said they recently dealt with a claim where a silo was blown over during a huge storm. “The first thing the underwriter looked at was the fact that the silo was of substandard construction. So yes, reverse underwriting does happen where underwriters look for reasons not to pay a claim.”

Ramage remarked that it is often regarded as a grudge purchase to properly implement occupational health and safety standards and the necessary control measures – storage operators do not necessarily recognise a capital return on investment in these instances.

### Compliance over the decades

Have South Africa’s large silo storage facilities remained compliant over the past 50 or 60 years? Or are we playing catchup? Ramage said while some of the silos are

old and new legislation has come into play, the country’s industry has to a large extent kept up quite well with adhering to new and changing legislation.

“What does play a significant role in the industry is something as simple as having a fire hydrant nearby. This has always been crucial. However, while the necessary equipment might be in place today, it is not to say that there will be water available given the poor municipal service delivery levels. That is why it is important to understand that risk profiles are constantly changing. Many more challenges have cropped up over the past number of years.”

In occupational health and safety there are always two pivotal points, namely a regulatory aspect and a risk assessment aspect. Available legislation speaks to that directly, Ramage added. “The obligation of the storage operator strongly relies on doing and conducting those risk assessments, understanding what your risk is, and then putting controls in place to effectively mitigate the risk.”

Rabie said he always tells clients to act as though they are not insured. “How would you handle your risk then?”

### Grain storage audit process

One of the points raised during the session was Agbiz Grain’s consideration of implementing an audit system for the country’s grain storage sector.

Van den Berg said while this is a good idea, the organisation needs to ensure that such an audit system is practical and as inexpensive as possible so that all members can afford and implement it. “Besides the large storage operators and big producers in the country, we need to keep in mind that there are smaller entrepreneurial role-players who must also be able to comply. It must not be too onerous, because South Africa’s free-market economy depends on more people contributing towards the economy.”

### Grain storage-specific risks

Ramage said dust explosions, such as the Beirut explosion, are one of the bigger risks associated with silos. However, specific circumstances are required for a dust explosion to occur. “Airborne dust, a confined space, ignition points, and the correct amount of oxygen are needed. That is a raw risk. Once you know what your raw risk is, you are able to put controls in place to eliminate all these elements at the same time.”

If a storage operator can eliminate one or two of these elements, such as the ignition source, you are eliminating the possibility of a dust explosion. “The possibility in other words still exists, but you have attempted to avoid it.”

Meyer said they had a question a while back regarding grass around silo bags at a silo bag site. “We sent a collateral manager whose report noted that we should not finance the bags because there was a difference of opinion when it came to the length of the grass. The collateral manager insisted that there should be no grass, and the storage operator disagreed, stating that if the grass was five centimetres high and was mowed regularly it would be fine. It is critical that all parties are aligned on all aspects related to these risks.”

In this case, they are still in limbo because the collateral managers have a set idea of how they think things should work which differs from the actual broker or underwriter’s viewpoint.

“Financial brokers or intermediaries are not experts in everything. This is where entities such as Agbiz Grain play an important role in educating us as intermediaries, and insurers in general,” Rabie said. “An underwriter might insist on the installation of a sprinkler in a silo or big storage facility. However, grain and water do not go together. In fact, that is the worst thing you could do. This is the type of education that is required.”<sup>a</sup>



To watch a wrap-up discussion of the fourth session of the Agbiz Grain and Oilseeds Value Chain Symposium, scan this QR code.

For more information, send an email to Gerard Ramage at [Gerard.Ramage@vkb.co.za](mailto:Gerard.Ramage@vkb.co.za), Kobus Truter at [kobus.truter@absacapital.com](mailto:kobus.truter@absacapital.com), Ebbe Rabie at [EbbeRabie@priceforbes.com](mailto:EbbeRabie@priceforbes.com), Zhann Meyer at [ZhannM@Nedbank.co.za](mailto:ZhannM@Nedbank.co.za), Sean Harper at [Sean.Harper@santam.co.za](mailto:Sean.Harper@santam.co.za) or Letisha van den Berg at [letisha@aspasa.co.za](mailto:letisha@aspasa.co.za).

# WASTE PESTS, NOT TIME.

# ProFume®

## ELIMINATE HIGH-COST *emergency* FUMIGATIONS

FUMIGANT

REG NO. L 10394 ACT NO. 36 OF 1947 | CONTAINS SULPHURYL FLUORIDE



### 100% Control with a Single Application

Phosphine Resistant Insects  
Rust Red & Flat Grain Beetle

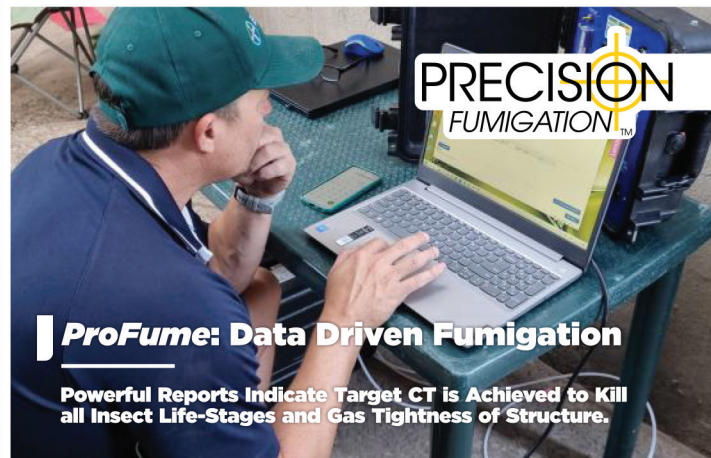


### Flexible Fumigation:

- **Long-Term Fumigation:** *ProFume*® provides a highly dependable long-term fumigation (5 to 7 days) for cost effective fumigation.
- **Short Term Fumigation:** *ProFume*® provides quick short term fumigation (8 to 24 hours) for highly efficient turn-around time.
- **Total Pest Eradication:** *ProFume*® eliminates all life stages of stored product pests, including Phosphine resistant varieties like Rust Red and Flat Grain Beetle.
- **Purity and Speed:** This non-flammable, odorless, and colorless gas rapidly vaporizes and swiftly disperses, penetrating porous materials and efficiently aerating from commodities.

### Proven Quality and Efficacy:

- **Proven Track Record:** *ProFume*® has over three years of proven success in South Africa, and fumigated over 500 million tons of grain and other commodities without issue.
- **Minimal Sorption:** *ProFume*® exhibits little to low sorption on any fumigated materials, leaving your commodity products safe.
- **Preserve Quality:** Safeguard your commodities' quality, taste, commercial value, and nutritional attributes, as *ProFume*® leaves no impact on these critical aspects.



### ProFume: Data Driven Fumigation

Powerful Reports Indicate Target CT is Achieved to Kill all Insect Life-Stages and Gas Tightness of Structure.

### Commodity & Environment Safe:

- **Environmentally Responsible:** *ProFume*® active ingredient (sulphuryl fluoride) is a non-ozone depleting substance and does not lead to global warming.
- **Wide Commodity Use:** *ProFume*® is approved for use on a wide range of commodity products, including: grains, nuts, dried fruits, herbs and spices, legumes, and other dried commodities.
- **Surface Safe:** Inorganic and inert gas, which does not effect materials such as metals, glass, ceramic, and rubbers.



### Use Our National Network of Henchem Approved Fumigation Contractors



Scan Here to Learn More

### National Distributor & Technical Support



**Cape Town**  
+27 (0) 21 948 7366  
hello@henchem.co.za

**Eastern Cape**  
+27 (0) 69 593 4169  
exdepot@henchem.co.za

**KwaZulu Natal**  
+27 (0) 61 473 0162  
kzndepot@henchem.co.za

**Gauteng**  
+27 (0) 67 223 3760  
gauteng@henchem.co.za

Find Us Online:

www.henchem.co.za

@henchempro

@henchempro



# Fumigation in the spotlight

By Wessel Lemmer

Grain and oilseeds production has doubled since deregulation and has grown at a five-year average of 6,9% over the past four years. This is a remarkable achievement, driven by technological developments and good production conditions.

During the recent Agbiz Grain and Oilseeds Value Chain Symposium, four aspects relating to sustainability were addressed. The first focussed on what is needed to encourage investment in the storage sector and improve service delivery. The second addressed challenges that must be effectively addressed to ensure the sustainable functioning of the grain market in the future. Thirdly, experts focussed on how to address traceability in the grain and oilseeds market where grain is handled and stored in bulk. Finally, the fourth panel discussed what needs to be done to demonstrate and increase the insurability of the storage sector in South Africa.

In addition to these four important items on the Agbiz Grain agenda, fumigation is another very important focal point that

will be addressed during the first quarter of 2024.

## Increase in fumigation practices

The practice of fumigation is rapidly gaining ground along with the expansion of production and storage capacity in commercial storage facilities and on farms where grain and oilseeds are stored for both own and commercial use.

It is very important that the commercial storage sector (including producers who store grain to make it available for commercial purposes at a later date and not just for their own use) keeps a watchful eye on the requirements of fumigation.

Use of such a dangerous gas is allowed on label by a 'bona fide farmer' for own use

on seed and pests on the farm. Once a producer erects silos on a farm it changes to commercial storage and producers then need to also do their fumigation training and qualification under the *Fertilizers, Farm Feeds, Seeds and Remedies Act, 1947 (Act 36 of 1947)* to apply phostoxin correctly during fumigation. Incorrect application leads to tolerance which influences the effectiveness of future fumigations. This includes ensuring that the sector's standards of fumigation remain at an acceptable level. It is therefore important to provide certainty on fumigation and fumigation practices, so that the sustainability of the entire storage sector can be maintained and even improved.

## Fumigation and the value chain

Fumigation is relevant to all four issues raised at the Agbiz Grain symposium. Firstly, it is essential to ensure that affordable fumigants are available on the South African market. We cannot afford to have the availability of fumigants restricted because the players in the value chain do not comply with the legal requirements that give access to the use of these products in South Africa. This includes the legal importation and acquisition of products, and ensuring that fumigators are qualified and adequately trained to carry out fumigation correctly and efficiently. Gas measurements should be taken to assess correct gas release.

According to Eddie Engelbrecht of Degesh SA, there is a great need for more information and knowledge sharing regarding available fumigants, such as phostoxin and methyl bromide, and how they work. Sulfuryl fluoride or SF is a relatively new gas that requires insight into especially its residue levels which, if the product is wrongly applied, can reach



Correct handling by properly trained staff is key in the correct application of fumigants.

# DIFENOBIN 325 SC

FUNGICIDA

**DVA**  
GO FURTHER. TOGETHER

Say Goodbye to fungal worries  
in Maize & Groundnuts!



#### ACTIVE INGREDIENTS :

**Azoxystrobin 20** : Inhibits mitochondrial respiration in fungi  
**Difenoconazole 12.5** : Provides curative effect

#### KEY BENEFITS :

- > **TRIPLE ACTION FORMULA**
- > **WIDE SPECTRUM CONTROL**
- > **SYSTEMIC & MESOSTEMIC POWER**

[WWW.DVA.COM/ZA](http://WWW.DVA.COM/ZA)

**SAFEGUARDING YOUR HARVEST JUST GOT EASIER WITH DIFENOBIN 325 SC!**

#### TARGETED CROPS :

Dry beans,  
Groundnuts,  
Maize, Sweetcorn,  
Grain sorghum,  
Potatoes &  
Tomatoes

#### DISEASES :

**MAIZE** - Grey leaf spot  
Northern corn leaf blight  
Rust  
**GROUNDNUTS**  
Early leaf spot  
Web blotch

**GO FURTHER. TOGETHER.**



illegal maximum residue levels (MRL) in the grain being treated. This requires additional equipment to apply and monitor.

Silo managers at commercial and farm silos need to understand the dosages that apply to different types of grain, and they need to follow the correct protocols when applying fumigants. For example, he explains, it is illegal to allow any third party or worker who hasn't received proper training in fumigation, to apply these fumigants. In fact, it is downright dangerous. The qualified fumigator must always be at the point of application.

### Markets and competition

Fumigation plays an important role in the functioning of the market to ensure good quality standards of stored grain and oilseeds by allowing proper competition between different fumigant brands. Its importance is even recognised in the JSE rules.

If pellets or tablets (phosphine) are applied according to label and are of good quality, they should fully develop into a powder and if any piece stays solid, all the gas was not released. This indicates poor quality that leads to failed fumigations and phosphine tolerance.

The quality of fumigants are determined by gas readings with calibrated equipment, not by a strong smell.

Market participants understand the potential delay in unloading grain at a silo complex because fumigation of the grain is necessary, not only to ensure its quality, but also to ensure consumer safety. Some fumigants have to be held back for a certain period of time before the grain can be outloaded in order to ensure consumer safety; this is in accordance with the regulatory guidelines associated with the respective fumigants.

Dosage, for one, is a very important aspect of fumigation, especially when it comes to SF, Engelbrecht explains. Both grain producers with on-farm silos and co-operatives with silos need to understand the technical aspects of fumigation and what levels will be effective in killing all insect stadia, not just the adult stage. It is essential that a single fumigation kills all

four stages of insect development. Using one fumigant to kill just one stadium of develop is simply ineffective. In short, erroneous application of fumigants is not only dangerous; it can also have dire consequences for the silo and the entire value chain, up to the end user if SF is used repeatedly at the incorrect dosage.

Although SF is a great fumigant, it can only be used once at full dosage in the lifetime of the grain's storage.

Phosphine at full dosage can be used repeatedly (even up to four times) without exceeding the MRL on grain and cereal. This is important because even after grain was fumigated properly, re-infestation will occur over months of storage and then a second or third fumigation has to be applied. Incorrect residue levels can cause a health risk as well.

### Food traceability

This ties into the third vital aspect of commercial grain storage, namely traceability – an aspect that is playing an increasingly important role in food security as a whole. Although Agbiz Grain's members store more than 70% of all grain and oilseeds produced in South Africa and meet the strict legal requirements, there has been a sharp increase in the percentage of individuals in the remaining 30% who purchase fumigants themselves. The products are used to fumigate grain in private storage facilities such as on-farm storage structures where grain is later made available for commercial trading.

Growers are exempt from the legal requirements that commercial storage operators have to meet to purchase and use fumigants, and the unregulated purchase and use of fumigants for on-farm storage is increasing rapidly. It is not difficult to see that the unregulated use of these products poses great potential risks. Buyers such as millers and feed manufacturers who purchase grain directly from commercial storage structures know that grain and oilseeds have been properly handled and fumigated.

Engelbrecht points out, however, that they have identified a serious lack of knowledge at a number of storage facilities which must be addressed. "It is in everyone's best

interest that they acquaint themselves with the right knowledge regarding the fumigants themselves, but also the legal requirements."

### Managing and covering risk

Finally, Agbiz Grain has specific initiatives that distinguish the commercial storage sector from the manufacturing sector in general. It is very important that the storage sector demonstrates to insurers that it is diligently meeting legal obligations to cover risks, and that it has initiatives in place and developing it to address risks.

It is essential not only to ensure that the sector is insurable, thus combatting the sharp rise in insurance costs in general, but also to build the industry's reputation. These initiatives and the industry's reputation can be undermined by the indiscriminate use of fumigants in the value chain by individuals who are able to obtain and use them without meeting legal requirements, and when inadequately trained personnel handle these products. It takes but one incident to place the commercial storage sector in a less favourable light with local and international insurers. This also has a direct impact on the financing of grain and oilseeds storage and storage infrastructure.

### A sector worth protecting

South Africa is privileged in that the grain and oilseeds sectors are growing at a rate above the global economic growth rate of 3,5% per annum. To sustain this growth, we need to create certainty. One of the areas where greater certainty is needed is in the use of fumigants by storage operators in the bulk handling and storage of grain.

The indiscriminate use of fumigation products can lead to higher costs, health risks, have a direct impact on the efficiency of the market, make the need for traceability more important, and unnecessarily increase insurance and financing costs. Illegal residue levels that go undetected can even lead to loss of life in the wrong hands. This is why Agbiz Grain will be sharpening its focus on fumigation; we anticipate that in 2023/24 the issue will receive more attention in the storage sector, in collaboration with importers, suppliers and operators in the sector. [2](#)

For more information, email the author at [wessel@agbizgrain.co.za](mailto:wessel@agbizgrain.co.za) or Eddie Engelbrecht at [eddie.degesch@gmail.com](mailto:eddie.degesch@gmail.com).

# HIGH-PERFORMERS THAT WILL KEEP YOU AND THE BEAN COUNTERS HAPPY

Offering a profitable combination of yield potential and exceptional agronomic characteristics, Pannar's cultivars demonstrate stability over different yield potentials, production areas and seasons. We provide a full range of maturity classes covering almost all planting dates and densities.

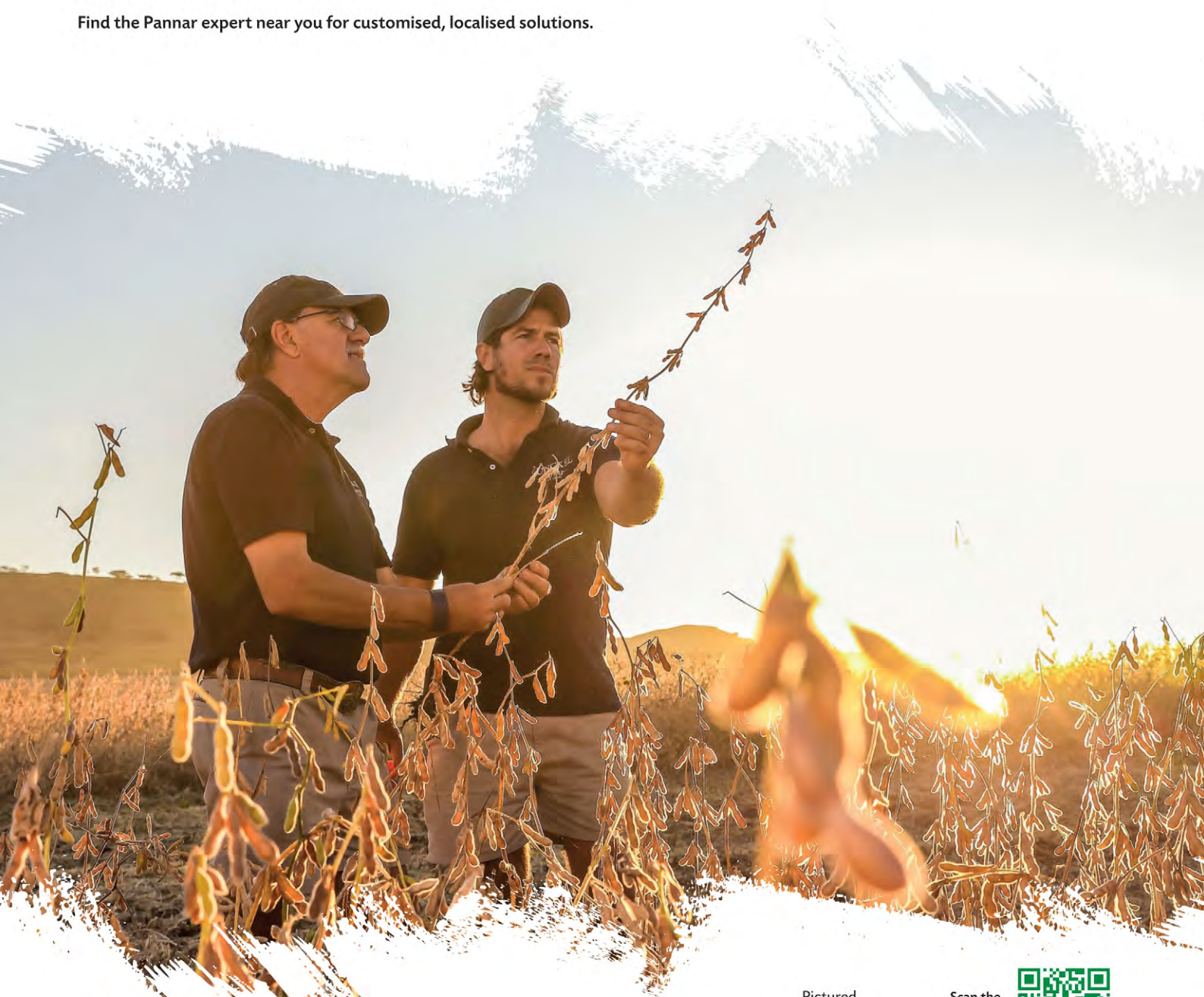
Find the Pannar expert near you for customised, localised solutions.



**PANNAR**®

Together we farm  
for your future™

[www.pannar.com](http://www.pannar.com)



**Pictured**  
Farmer: Egon and his son Tyson Zunckel  
Farm: Rustenberg  
Area: Bergville, KwaZulu-Natal  
Pannar Rep: David le Roux

Scan the  
code for more  
information on  
these exceptional  
Pannar products





# How soya beans benefit the American economy

Report summary by Carin Venter, Plaas Media

**T**he United Soybean Board and the National Oilseed Processors Association commissioned an independent analysis which was undertaken in 2018/19 by LMC International to determine the economic impact of soya beans and end products on the United States (US) economy.

In the resulting report, it emerged that the soya bean sector remains substantial in the US economy, having been boosted over the last few years by higher commodity prices and greater domestic processing within the national supply chain. Soya bean production makes up close to 70% of the economic impact of the soya value chain in the US and provides around 50% of paid jobs.

## Economic impact

This report is an update of the original study and estimates the value added in soya bean production and at each subsequent step in the value chain, focussing on production, distribution and the use of soya beans and soya bean products. This spans the value chain, from soya bean production and processing to the delivery of soya products to end users or ports of export.

Economic benefits are added to the livestock sector by making use of soya bean meal. The economic impact of soya bean oil as an edible commodity in food production is also briefly covered.

The results capture:

- Direct impact includes the value-added jobs and wages directly attributable to the soya bean sector.
- Indirect impact from associated industries and market activities.
- Induced benefit from household spending of income earned from the soya sector.
- Total impact which represents the sum of the calculated direct impact, as well as the indirect and induced multiplier effects.

As seen in *Table 1*, the economic benefits from soya beans culminated in 2021/22 and this coincided with sharp rises in prices for soya beans and other commodities, resulting in the following market trends:

- The soya bean sector contributed US\$160 billion to the US economy during this period. The higher prices added over 20% to the 2021/22 value compared to 2020/21 and added over 50% to the impact when compared to 2019/20.

- This is equivalent to 0,6% of the US gross domestic product (GDP). In some states such as Iowa and South Dakota, the share of the economy is much higher, upwards of 8%.

## Soya meal and oil applications

Capturing the end uses of soya bean meal for livestock, the assumption is that US soya meal represents the most competitively priced source of protein for some livestock species, particularly poultry and swine, and is generally as good as, or better than, competing meals in meeting the protein needs of all livestock species, aside from dairy. This benefit is measured by quantifying the cost saving of local soya meal relative to the major competing meal, assumed to be canola, on a protein-equivalent basis. This per-pound saving is then multiplied by meal use for all species, except dairy, to arrive at a figure for the total saving for US livestock.

Access to US soya beans has increased savings for the domestic livestock sector over the past decade due to the increases in the volume of domestic soya bean meal used over time. Also, in recent years, soya bean meal has become more competitively priced compared to imported canola meal.

**Table 1: Economic impact of the soya bean value chain.**

Total contribution to the US economy – impact average for 2019/20 to 2021/22		
<b>Economic impact</b>	From lower production in 2019/20 to very high prices and economic benefits peaking in 2021/22.	US\$124 billion
<b>Jobs</b>	People involved in soya bean farm decision-making in the US.	504 000
	Throughout this study, all jobs supported are presented on a full-time basis (defined as an individual working 2 000 hours per year), throughout the entire soya bean value chain.	223 000
	Methodology estimates of 2021/22 full-time equivalent jobs where an individual works 2 000 hours per year.	306 000
	Resident additional family members on soya bean farms (beyond the growers themselves) are integral to soya bean farming operations.	62 000
<b>Total wage impact average</b>	Producer wages (wages that they pay themselves) are valued at their opportunity cost and do not include farm business profits or losses.	US\$10 000 billion

For the value added to soya bean oil, the focus is on food uses where the product is reliant on the oil and the oil component is the dominant ingredient. This includes salad oil, shortening and margarine. The food processing sector adds value to soya oil after the refining stage by incorporating refined oil into industrial food applications. This is the value chain sector that is the most difficult to quantify accurately.

Further processing of refined soya oil into food end uses is also difficult to quantify due to the sensitive nature of information regarding ingredient use and product formulations of processed foods from the perspective of industrial food manufacturers, and branding and

marketing which add a significant value to consumer products.

Estimates for the value added in these limited food end uses are calculated as the difference between the wholesale prices of the food product and the price of refined soya bean oil. The economic contribution and volumes used in these sectors were fairly stable. However, in 2021/22, higher food prices have seen the value added in food uses increase.

**Effects of household spending**

Total results in the report include indirect, direct and induced effects associated with household spending. These are estimated by applying economic multipliers to the

direct results. The following is an overview of how the impact is calculated in the soya bean value chain.

**Production, delivery, elevation**

Soya bean production is an input-intensive sector which supports many upstream industries, including production and distribution of fuel, fertilisers, crop protection, machinery, and water and seed technology, among others. All of these have been combined under the broader heading of ‘soya bean production’ along with the value added to these inputs by the producers themselves.

The economic impact of soya bean production is therefore calculated by multiplying the price of soya beans by soya bean output. Thus, unlike all the downstream sectors hereafter, soya bean production does not represent the value added by the producer: It is the aggregate of all steps up to and including the farming stage.

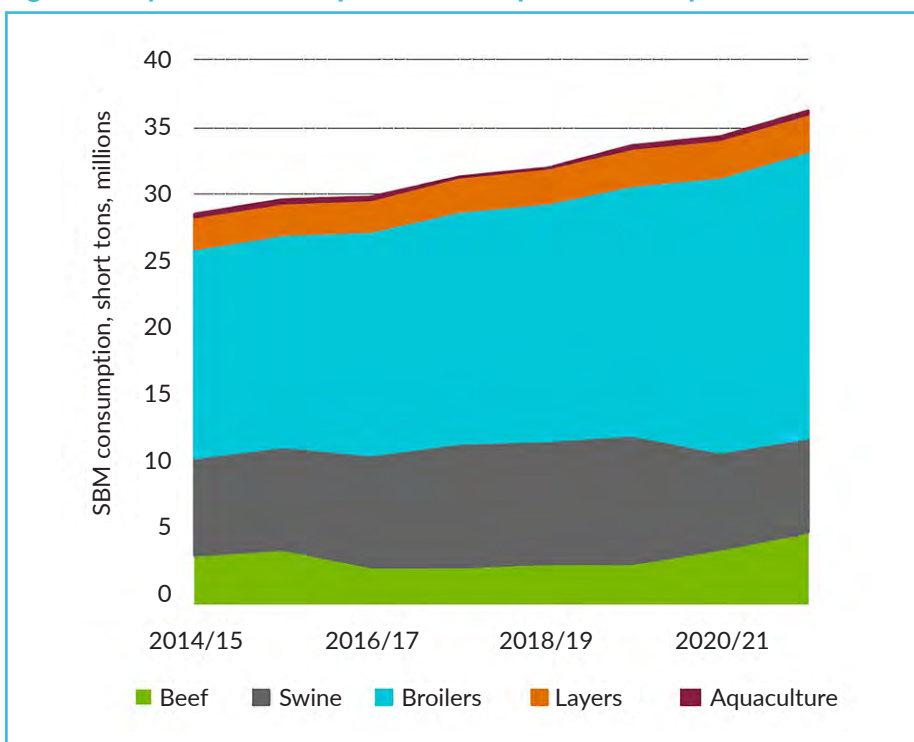
Whether soya beans are being processed domestically or shipped internationally, it must first be trucked from the farm, adding value to the crop delivery stage. Average distances, determined by interviews, along with trucking rates form the basis for the value added in crop delivery from the farm. The number of jobs supported in local soya bean trucking is estimated based on the time required to cover the average distances, keeping the full-time equivalent job assumption in mind.

**Crushing, refining, biofuel**

Crushing, refining and biofuel production all represent forms of processing where further value is added to soya beans.

- Value added in crushing: The value of by-products (oil, meal, hulls) minus the value of soya beans. Value added per

**Figure 1: Soya meal consumption estimate per livestock species.**



bushel is used in conjunction with total volumes crushed to arrive at a national total for economic impact. This total is allocated across crush districts according to estimates for crush by plant, based on estimates of individual plant capacities.

- The economic impact of refining soya bean oil for both edible applications and biofuels is calculated in a similar way: The impact equals value added per pound of oil multiplied by estimates of pounds processed.
- The biofuel production impact is calculated in the same manner, allowing for the fact that soya bean oil typically accounts for around 50% of feedstocks used for biofuel production annually.

#### Livestock and feed milling impact

Essentially, all meal crushed from commodity soya beans is fed to livestock, with approximately 75% of domestic production being used within the US. While soya meal is an integral part of livestock production, it is important to recognise that livestock production is a

distinct industry, and soya bean's claim to economic impact in this domain is inherently limited. Nevertheless, it still offers tangible benefits to the US livestock sector as the most competitively priced source of protein for some livestock species, particularly poultry and swine.

“Although the direct effects of the soya bean value chain on the broader US economy are significant, it fails to capture the indirect effects of soya on supporting industries.”

The geographical impact of feed milling was allocated from a comprehensive feed mill list maintained by the US Food and Drug Administration.

#### Transportation and port activities

US soya bean and soya products may be transported from America's heartland across the country by rail and/or barge

before reaching the customer. Distances can range from hundreds to thousands of miles, particularly in the case of US export shipments. The final economic impact for exported soya products is felt at US ports.

#### Multiplier effects

Although the direct effects of the soya bean value chain on the broader US economy are significant, it fails to capture the indirect effects of soya on supporting industries. Similarly, direct effects fail to capture the economic activity that stems from expenditures of households drawing a salary from a given sector. While these 'induced' effects are smaller than indirect effects, they can still constitute a sizable economic force, particularly in a local economy.

It is important to note that the latest multiplier estimates by the US Department of Commerce's Bureau of Economic Analysis, used in this report, estimate slightly lower multiplier effects for employment, economic and wage effects than those used in the previous study. [a](#)

A copy of the complete study and related national and state summary sheets are available for download from [www.nopa.org](http://www.nopa.org).



# National Fumigants

Your Partner in Post-harvest Crop Protection  
Suppliers of: Fumigants & Fumigation Equipment

National Fumigants provides a range of products and services to the post-harvest crop protection industry in particular the fumigant, Aluminium Phosphide. We also supply sprays for the protection of stored grain, fogging solutions, and thermal foggers for use in silo complexes, warehouses & mills.

Website: [www.natfum.co.za](http://www.natfum.co.za)

Tel: 032 061 0044

e-mail: [orders@natfum.co.za](mailto:orders@natfum.co.za)



Photograph by Melanie Els Photography  
(Courtesy of Senwes)

# Occupational health in the workplace

By Christal-Lize Muller

Employers in South Africa are required to provide a safe working environment for their employees and occupational health in the workplace is therefore of great importance. Occupational health is focussed on employees' wellbeing and maintaining it throughout employment. It also helps to assess whether the employer or work environment has an impact on the employee's health or wellbeing during the term of employment.

If an employer did have an impact on the health of an employee, that incident needs to be documented and then submitted to the Compensation Commission as an occupational health disease. The main objective of occupational health requirements is to enable the employer to create working conditions that do not negatively affect the employee.

## Identifying possible risks

In this regard, employers have to identify possible risks in the workplace in terms of occupational health aspects. These aspects are based on the same principles of identifying safety risks, which means control measures have to be in place to reduce risk. An employer who understands what occupational health aspects entail will have a greater understanding of the impact work conditions have on employees, and will put in place additional measures to monitor employees exposed to noise, toxins, chemicals, dust and the like. This can be done by means of occupational hygiene surveys conducted

by registered and qualified occupational hygienists.

For an employer to avoid the risk of legal liability, information regarding an employee's health status needs to be acquired by means of an occupational medical surveillance. Employees must complete an entry medical examination before or within 14 days of commencing employment. In most cases, medical surveillance or medicals should be conducted once a year, depending on the outcome of the risk assessment. For example, medicals in the trade sector are only done every two years, because of the lower risk involved. Grain storage facilities will need to conduct medical surveillance annually as there are more risks involved.

An exit medical also needs to be conducted when an employee retires or the employment contract is ended for whatever reason. This will provide the employer with a record of the employee's

health status at the time of his or her leaving the business.

## Occupational health and the law

During the 6th Agbiz Grain/Agbiz safety, health, environment and quality virtual workshop, Dr Dankiso Mkwana, an occupational and travel medical consultant, highlighted the importance of undertaking and promoting occupational health in the workplace. The session provided a South African perspective and approach to occupational health. He pointed out that the term 'occupational health' includes everything that has to do with health in the working environment.

The legislation that enables role-players to practice occupational health include the *Occupational Health and Safety Act, 1993 (Act 85 of 1993)* or OHSA, the *Compensation for Occupational Injuries and Diseases Act, 1993 (Act 130 of 1993)* or COIDA, the *Labour Relations Act, 1995 (Act 66 of 1995)* and the *Road Traffic Management Corporation Act, 1999 (Act 20*





Dr Dankiso Mkwanazi, occupational and travel medical consultant.

of 1999). According to Section 8 of the OHS Act, employers are legally obligated to ensure that the working environment is safe and without risk to the health of employees.

In order to accomplish this, employers must rely on the services of competent role-players who can assess the exposure of employees to hazardous environmental conditions in the workplace. One of the consequences of not applying occupational health regulations in the workplace, is that a company can be held liable since an employer is indefinitely held responsible for occupational injuries. An advantage of having occupational health practices in place is that employers are protected by the COIDA from being personally or privately held liable for occupational injuries. The employer should also be in good standing with the Compensation Commissioner.

Dr Mkwanazi explained that if a South African company is registered and comply with this Act, they cannot be sued for injuries that occur in the workplace as the Compensation Commissioner acts as the insurer for occupational injuries and pays for the medical expenses.

### Hazards in the workplace

Five risk hazards, all of which can potentially have an impact on the grain storage and handling sector, have been identified in the workplace:

- **Physical hazards** include any elements that can cause physical harm which can range from amputations to damage caused by noise or vibration.
- **Chemical hazards** can cause injuries to either the skin, respiratory tract, or the digestive system if ingested. These include hydrocarbons (petrol and diesel fumes), solvents such as benzene, and pesticides such as organophosphates and fumigants.
- **Biological hazards** include bacteria, viruses, parasites, mould and even mycotoxins that can affect a person in the workspace.
- **Psychosocial hazards** include a stressful environment and can lead to post-traumatic stress disorders.
- **Ergonomic hazards** cause wear and tear on the body, or injury. An example is when employees pick up and carry heavy bags. These movements have an impact on employees' bodies as muscles could be overworked, leading to injuries.

### Ensuring the health of employees

Medical surveillance, which is required by legislation, risk assessments and management are major components of occupational health. Medical surveillance is a structured medical assessment that is performed at intervals or during specified periods to minimise the risk of exposure to hazards and the impact thereof. It forms part of risk assessment and management because illness can be detected early, and further complications can be prevented.

It is a form of free healthcare employees receive, he explained. "Certain conditions identified during medical surveillance can be managed, and we are able to timeously refer them to physicians for treatment."

### Types of medical surveillance

There are other types of medical surveillance apart from pre-employment medical assessment (before an employee is hired or within 14 days of employment) and exit surveillance.

**Medical pre-placement surveillance** can establish whether a person is fit to work in a different section of the workplace. All pre-employment assessments are considered to be baseline medical assessments because it is done prior to exposure.

**Periodic medical assessments** are preferably performed annually or on a scheduled basis.

A **return-to-work medical assessment** is hardly ever conducted but remains important if an employee has missed work for at least five consecutive days after an injury or illness.

A **fitness-to-work medical assessment** establishes whether a person is fit to perform work in terms of an assigned job and includes any medical that is done on the spot, either through referral or booked by a clinic.

### Competent role-players

Competent occupational healthcare workers have a clear understanding of the occupational risks that exist in the workplace and what the consequences will be in the absence of a health and safety plan. The legal mandate for occupational healthcare workers includes risk assessment and medical surveillance, as well as other responsibilities such as medical incapacity, injuries on duty, and a general health advisory for the company.

Occupational medical practitioners (OMPs) possess the required additional qualifications in occupational medicine that enable them to be appointed. General practitioners, he explained, cannot be appointed as OMPs as they do not have the necessary qualifications. Occupational health nurses are registered nurses who hold additional qualifications in occupational health and are qualified to conduct medical surveillance within the working environment.

It is crucial, said Dr Mkwanazi, to differentiate between a medical examination required for issuing a professional driving permit (PrDP) and medical surveillance in the workplace. A general practitioner can conduct a medical exam for a PrDP. A PrDP medical is performed in accordance with the Road Traffic Management Corporation. This is similar to normal medical surveillance conducted at a company and the employee is declared fit or unfit to drive public transport or transport consumer goods. [🔗](#)

# The Next Generation of Mycotoxin Testing



## Neogen's Reveal

Perfect for use onsite, the tests have unmatched accuracy and reproducibility allowing for quick and convenient testing.

### Why Use Our Reveal Q+ Tests?

- ✓ **Quantitative** - Knowing the accurate level of toxins present allows you to evaluate the safety of your raw materials and compliance with regulatory levels
- ✓ **Provides Fast, Actionable Results** - From processing through to production and end product testing, instant results can ensure the product is fit for purpose and avoid any unnecessary delays
- ✓ **Detects Low Levels** – Have confidence that our tests can detect even low toxin levels, especially important for those products with lower threshold legislation
- ✓ **Easy To Use** - Suitable for all skills levels with only minimal training and equipment required

Our Reveal Q+ MAX aqueous extraction tests are available for:

	Testing Time	Range of Detection*		Testing Time	Range of Detection*
Reveal Q+ MAX Aflatoxin	6 min	3-300 ppb	Reveal Q+ MAX T-2/HT-2	5 min	50-3000 ppb
Reveal Q+ MAX DON	3 min	300-30000 ppb	Reveal Q+ MAX Zearalenone	5 min	25-1500 ppb
Reveal Q+ MAX Ochratoxin	5 min	2-100 ppb			

Results from our Reveal Q+ MAX test are interpreted using our innovative Raptor Reader. The Raptor reader allows the user to simply add sample and walk away - the instrument controls the volume, temperature and timing of your assay. The system allows you to run three samples at one time.

	Testing Time	Range of Detection*
Reveal Q+ Fumonisin	6 min	300-6000 ppb

\*Range of detection with dilutions



**Why not ask how we can improve on your current testing today?**



**Analytical & Diagnostic Products**  
 JHB: +27 (0)11-794-5959  
 CPT: +27 (0)21-975-6390  
 Email: support@adpsa.co.za  
 Website: www.adpsa.co.za

# Overview of the annual Maize Crop Quality Survey of 2021/22

Summarised by Izak Hofmeyr, Plaas Media

The 2021/22 maize crop, in terms of quality, was below average, according to the 25th annual *Maize Crop Quality Survey* conducted by the Southern African Grain Laboratory NPC (SAGL). According to the report, only 50% of the white maize samples received for analysis were graded Grade WM1, compared to 69% the previous season. As for yellow maize, 65% of the samples were graded Grade YM1, compared to 78% the previous season.

To address a perception that maize quality had been deteriorating over the years, it was imperative that results of two and a half decades was analysed.

## Results over 25 years

The average percentage of white maize samples graded as Grade WM1 over 25 years was 73%, with the previous ten years averaging 71% and the previous five years 75%. For yellow maize, the average for the 25 years was 77%, the ten-year average was 79% and the five-year average was 75%. These figures highlight the fact that the influence of seasonal cycles on maize production and quality must be considered (*Figure 1*). This illustrates the value of utilising long-term monitoring data to identify trends.

## Harvesting in 2022

According to the report which was published on the SAGL website ([sagl.co.za](http://sagl.co.za)), a total of 1 000 composite

samples, representing white (524) and yellow (476) maize of each production region, were received and analysed to determine the quality.

The quality attributes tested, include:

- **South African grading:** According to the South African grading regulation, defective kernels above and below the 6,35mm sieve, total defective kernels, foreign matter, other colour kernels, combined deviations and pinked kernels were tested.
- **United States (US) grading:** According to the US grading system, the following factors are determined: test weight per bushel (pounds), heat-damaged kernels, total damaged kernels, broken corn, foreign matter and other colours.
- **Nutritional values:** Moisture, crude protein, crude fat, crude fibre and starch.

- **Physical quality factors:** Test weight (kg/hl), 100 kernel mass, kernel size, breakage susceptibility, stress cracks, milling index and grit yield.
- White maize samples were milled on the Roff Laboratory mill, and the whiteness index (WI) of the maize meal was determined.
- Mycotoxin analyses were performed on 350 samples representative of white and yellow maize.
- The presence of a selection of traits present in genetically modified (GM) maize was determined on 60 white and yellow maize samples

## South African grading

The percentage of total defective kernels above and below the 6,35mm sieve, 7,6% for white and 6,7% for yellow maize respectively, were 1,5 and 2,5% higher than the previous season. Defective white maize kernels above the 6,35mm sieve increased by 2,7 to

5,7% and yellow maize increased by 2,2 to 4,3%.

The percentage of defective kernels below the 6,35mm sieve for white maize decreased slightly from 2,1 to 1,9% and that of yellow maize increased slightly from 2,1 to 2,3%. The average percentage of *Diplodia*-infected kernels in white and yellow maize was 1,2 and 1,5% respectively. In the previous season, the average for both was 0%. *Fusarium*-infected kernels of white maize were 1,7% compared to 0,8% in 2020/21, and that of yellow maize 1,6% compared to 0,6% previously.

The 100-kernel mass ('as is' basis) of white maize was 35,1g (33,3g in 2020/21) and averaged higher than yellow maize's 31,1g (previous season 31,2g). This trend was also observed in previous seasons. The percentage of white maize kernels above the 10mm sieve (28,2%) increased by 6,6% compared to the previous season.

The percentage of white maize samples that were downgraded to class other maize as a result of the percentage of foreign matter exceeding 0,75%, increased from 5 to 6%.

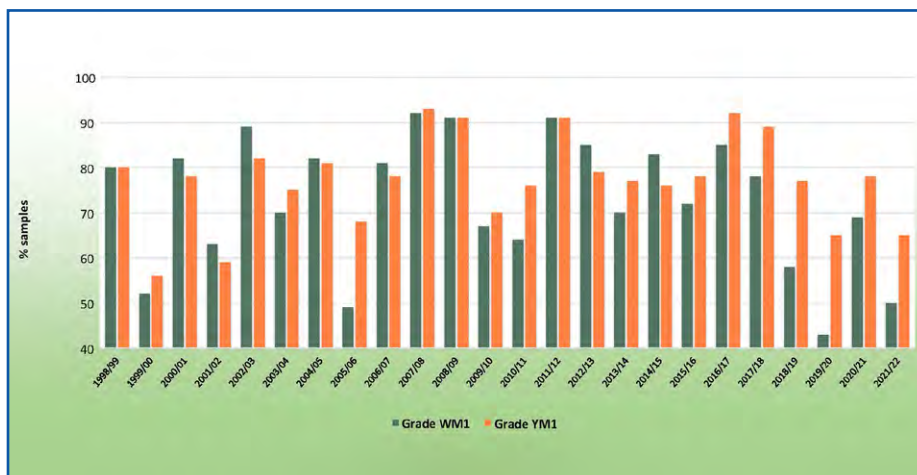
The percentage for yellow maize equalled the previous season's 5%. No samples were downgraded due to other colour maize exceeding the 10 and 5% maximum permissible deviation for Grade 3 white and yellow maize respectively. The average percentage combined deviations of white maize were 8% compared to 5,6% in the 2020/21 season and that of yellow maize's 6,9% compared to 4,5% previously.

Of the 1 000 maize samples graded according to US grading regulations, 27% were graded US1, 31% US2, 15% US3, 12% US4, and 8% US5, while sample grade and class mixed maize represented 6 and 1% respectively.

### Physical quality characteristics

Bushel weight or test weight applied as a grading factor in the US grading regulations is also routinely done at intake points locally for stock verification purposes. White maize had an average test weight of 75,5kg/hl compared to the 75,4kg/hl of yellow maize. The average test weights of white and yellow maize were respectively 0,4kg/hl and 1,1kg/hl lower than in the previous season. The test weight in total varied from 56,6kg/hl to 83,9kg/hl.

Figure 1: Percentage samples graded as Grade 1 over seasons.

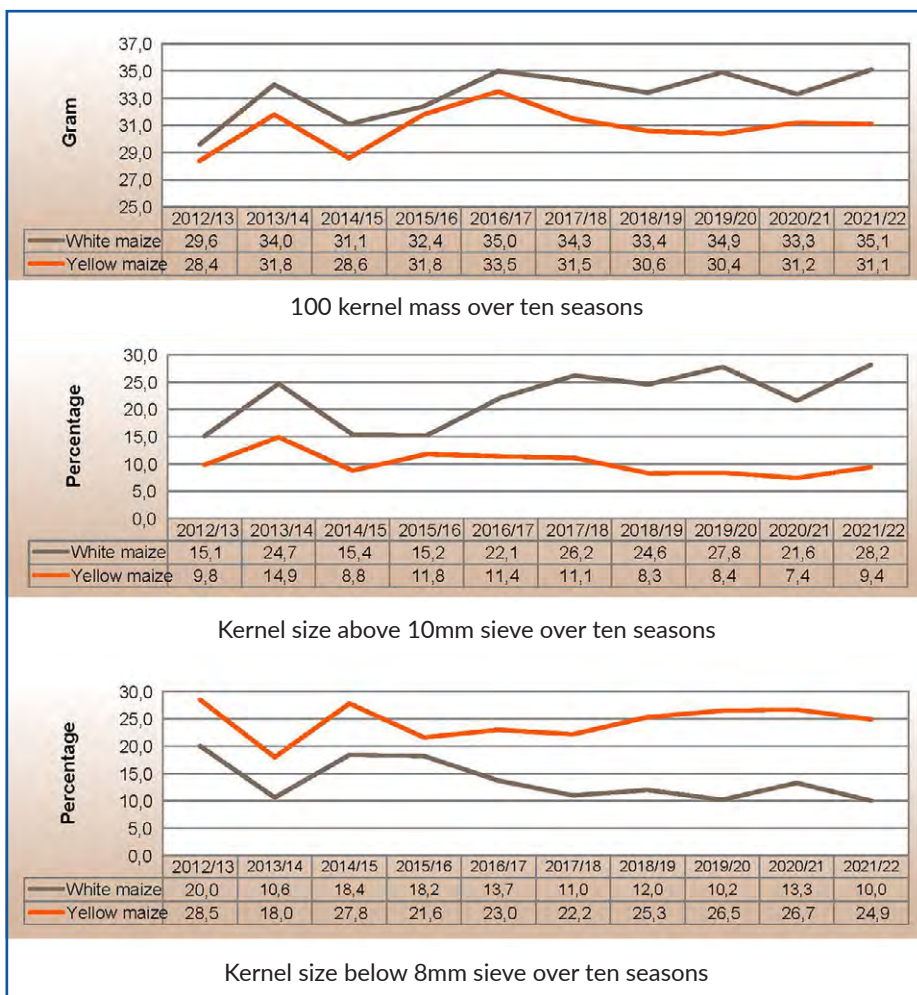


The percentage of total defective kernels above and below the 6,35mm sieve, 7,6% for white and 6,7% for yellow maize, were respectively 1,5 and 2,5% higher than the previous season. Defective white maize kernels above the 6,35mm sieve increased

by 2,7 to 5,7% and yellow maize increased by 2,2 to 4,3%.

The percentage of yellow maize kernels above the 10mm sieve (9,4%) was 2% higher than the previous season. The

Figure 2: Kernel mass and sizes.



percentage of yellow maize kernels above the 10mm sieve was on average 18,8% lower than white kernels and the percentage of yellow kernels below the 8mm sieve was 14,9% higher than that of white maize.

The percentages of maize below the 6,35mm and 4,75mm sieves indicate the breakage susceptibility. White maize was slightly more susceptible to breakage than during the previous season and the same can also be said for yellow maize. The percentage of stress cracks observed varied overall from 0 to 50% and averaged 11%. White and yellow maize both also averaged 11%, the previous season both averaged 12%.

### Milling

The milling index varied from an average of 68 (it was 73 in 2020/21) for white maize to an average of 72 (it was 76 previously) for yellow maize. 'Grit yield all' values averaged 62 for white maize and 63 for yellow maize, with 63 and 64 respectively in the previous season.

### Roff milling and whiteness index

The average percentage extraction of total meal in white maize obtained with the Roff mill averaged 76,2% (1,4% lower than the previous season) and varied from 63,5 to 81,4%.

The WI averaged 38,9 for unsifted and 35,7 for sifted maize meal. Sieving the sample eliminates differences in the readings as a result of particle size. The WI of the previous season averaged 36,3 and 27 for unsifted and sifted maize meal respectively. The main contributing factors causing differences in WI values are the presence of other colour maize like yellow maize, the presence of defective kernels, the type of cultivar and the soil composition.

### Nutritional values

The average fat content of white maize equalled the 4% of the previous three seasons. Yellow maize averaged 3,9%, 0,1% lower than the previous season. The ten-year average fat content of white maize is 4,1% and that of yellow maize 4%. The average protein content of yellow maize was 8,4%, while white maize averaged 8%, both the lowest levels since the 2010/11 season. The ten-year average for yellow and white maize respectively is 9% and 8,8%.

The average starch content of both white maize (76%) and yellow maize (75,1%) was respectively 0,5 and 0,4% higher than in the previous season. Ten-year averages for white and yellow maize were 73,6% and 73,1% respectively. The average crude fibre content of white maize was 2,2% and that of yellow maize 2,3%, similar to the previous season.

### Genetic modification (GM)

The SAGL quantitatively determines the presence of genetically modified maize (Cry1Ab, Cry2Ab and/or CP4 excitatory postsynaptic potentials [EPSPs] traits). Of the samples, 88% tested positive for the Cry1Ab trait, 92% for Cry2Ab and 98% for the CP4 EPSPs trait.

### Mycotoxins

None of the 350 analysed samples tested positive for aflatoxin or ochratoxin A residues. During the 2021/22 season, T2-toxin and HT-2 toxin residues were found for the first time since the 2012/13 season. Two samples, a yellow maize sample collected in Mpumalanga and a white maize sample from KwaZulu-Natal, reported 28µg/kg T2-toxin and 93µg/kg HT-2 toxin and 30µg/kg T2-toxin and 47µg/kg HT-2 toxin respectively.

The average fumonisin level (sum of B<sub>1</sub>, B<sub>2</sub> and B<sub>3</sub>) on all 350 samples tested was 111µg/kg (parts per billion), compared to the previous season's average of 100µg/kg. Levels ranged from not detected (ND) to 18 301 µg/kg. The second highest value detected was 2 286 µg/kg. Of the 350 samples tested, 55 samples (16%) tested positive for fumonisin levels, and the average of these positive results was 709µg/kg. The previous season, 22% of the samples tested positive, with an average of 459µg/kg.

The deoxynivalenol (DON) level was 6 879µg/kg, compared to the 3 256µg/kg of the previous season.

The average level of all samples tested was 621µg/kg, 279µg/kg the previous season. Both the percentage of positive results as well as the average of the positive results increased in the 2021/22 season and compared with the results of the 2019/20 season. Of the samples, 64% tested positive for DON the previous season with the average of positive results 434µg/kg. Of the samples, 83% tested positive with an average of 749µg/kg.

Of the samples, 31% tested positive for 15-acetyl-deoxynivalenol residues, compared to 18% the previous season. The average of the positive results was 211µg/kg compared to 176µg/kg in the previous season. Zearalenone residues were found in 16% of the samples and 3% during the previous season. Values ranged from ND to 428µg/kg. The average of the positive samples was 58µg/kg compared to the 38µg/kg of the previous season. [a](#)

For more information, visit [www.sagl.co.za](http://www.sagl.co.za) or email Wiana Louw at [Wiana.Louw@sagl.co.za](mailto:Wiana.Louw@sagl.co.za).

**The Southern African Grain Laboratory NPC**

The Southern African Grain Laboratory NPC is an independent ISO/IEC 17025 accredited laboratory, acting as reference laboratory for the South African Grain industry.

The *Crop Quality Division* focus on grain and oilseed quality analyses:

- Mycotoxins
- Grading & Milling
- Nutritional analyses
- Rheology & Baking
- Vitamins, Minerals & Amino Acids

The *Crop Protection Division* is also ISO/IEC 17025 accredited and OECD GLP Compliant for analyses on plant protection products:

- 5-batch testing
- shelf-life testing
- quality control

Since 1997

**GENERAL ENQUIRIES**  
CPD Email: [info.cpd@sagl.co.za](mailto:info.cpd@sagl.co.za)  
CQD Email: [info@sagl.co.za](mailto:info@sagl.co.za)

**OUR LOCATION**  
The Grain Building, Agri-Hub Office Park  
477 Withente Street, The Willows,  
Pretoria, 0040

**CONTACT US**  
Tel: +27 (0)12 807 4019  
Fax: +27 (0)86 216 7672

A man with a serious expression, wearing a tan short-sleeved work shirt and dark cargo pants, stands with his arms crossed. He is positioned in front of a yellow excavator. The background is a clear blue sky. The text 'OUTWORK THE HEAT' is overlaid in large, bold, yellow, distressed font.

# OUTWORK THE HEAT

**JONSSON<sup>®</sup>**  
**WORKWEAR**

[jonssonworkwear.com](http://jonssonworkwear.com)

# Policy and legislation: Overview of 2023 and outlook for 2024

By Annelize Crosby, head of legal intelligence, Agbiz

This past year was a busy one from a legislative perspective. And the year is not over yet. Up until the end of September 2023, Agbiz was making submissions on the *One Stop Border Post Bill*, the *Preservation and Development of Agricultural Land Bill*, the *Climate Change Bill*, the *Expropriation Bill* and the *Tobacco Products and Electronic Delivery Systems Control Bill*.

We are also preparing submissions on the *Companies Amendment Bill* and the *Plant Health (Phytosanitary) Bill*. We expect a call for comments on the *National Water Resource Infrastructure Agency Bill* and the *Employment Services Amendment Bill* soon.

Agbiz participated in the National Economic Development and Labour Council processes of the *National Water Resources Infrastructure Agency Bill* and the *Employment Services Amendment Bill*. The latter deals with the employment of foreigners. Agbiz also commented on various policies and draft regulations, such as the draft employment equity regulations, draft water licencing regulations, food labelling regulations, South African Renewable Energy Masterplan, water quality policy, and minimum wage adjustment.

## Outlook for 2024

Next year is an election year and it is therefore difficult to predict what new policies and laws will be proposed. The sixth Parliament will be dissolved prior to the elections and the seventh Parliament constituted after the elections.

All legislation that has not been passed when the sixth Parliament is dissolved will lapse. This means that in all likelihood, not all the legislation that is currently before Parliament will necessarily be passed in time. The lapsed business may be revived by way of a House resolution. A motion will then have to be tabled to revive bills that lapsed from the previous parliament. If this is not done, the process would need to start anew.

Draft bills that have been in the pipeline for some time include the *Agricultural*

*Produce Agents Amendment Bill*, the *Feeds and Pet Food Bill*, the *Fertiliser Bill*, the *National Land Reform Framework Bill*, and the *Communal Land Tenure Bill*. We are likely to see amendments to the *National Water Act, 1998 (Act 36 of 1998)* during next year as well.

## Issues of concern

With regard to the *Companies Amendment Bill* there are some concerns over the provisions in the *Bill* that require listed companies to disclose the ratio of their top-paid employees in relation to those in the bottom-paid 5%.

Shareholders will have to be advised at annual general meetings of remuneration policies, the remuneration of specified top executives, and the gap between the earnings of the top and bottom 5% of earners in a company. Both the social and ethics committee report and remuneration report are required to be discussed during shareholders' meetings.

In its draft comments, Agbiz points out that remuneration is the responsibility of a company's board of directors and in most instances, the remuneration committee can only make recommendations to such a board. Shareholders do not owe any duty to the company and can therefore not be held accountable if incorrect decisions are made which proves not to be in the interest of the company. The proposed voting requirements may impede the directors' ability to exercise their judgement and duties in an unfettered and objective manner.

The *Employment Services Amendment Bill* provides for quotas on foreign workers that the minister of employment and

labour can set. Business Unity South Africa has taken the view that quotas can only be considered if there is reliable market intelligence to base that on.

The contents of the *Preservation and Development of Agricultural Land Bill* is mostly positive and should be supported. However, the search and seizure powers provided for are quite invasive and the penalties for non-compliance are very steep.

The *Tobacco Products and Electronic Delivery Systems Control Bill* involves drastic measures including doing away with designated smoking areas in public places and the complete ban on the display of tobacco products as well as the plain packaging requirements. Wide-ranging powers are also afforded to the minister of health to regulate all aspects of tobacco products. In its submission regarding this *Bill*, Agbiz points out that tobacco products are legal products. While the potentially harmful consequences of smoking are recognised, this kind of restriction on advertising, promotion and display does not apply to any other product that is legally sold in South Africa. This constitutes a very severe restriction on the free market.

There are still two major concerns regarding the *Expropriation Bill*. The limited definition of what constitutes an expropriation and will thus attract compensation is one of the concerns. The potential application of the 'rand nil compensation provision' beyond the specific circumstances or examples cited in the *Bill* is of further concern. [a](#)

For more information, email the author at [annelize@agbiz.co.za](mailto:annelize@agbiz.co.za).



+27 11 063 8000  
jerry.maritz@afgri.co.za  
www.afgri.co.za



+27 21 807 8936  
casper.schmidt@bkbgs.co.za  
www.bkb.co.za



innovate agriculture  
+27 53 298 8200  
tomm@gwk.co.za  
www.gwk.co.za



+27 22 931 8205  
akriel@kaapagri.co.za  
www.kalgroup.co.za



+27 18 633 1000  
jdurand@nwk.co.za  
www.nwk.co.za



+27 28 214 3854  
johanl@overbergagri.co.za  
www.overbergagri.co.za



+27 51 923 4500  
rudolphvw@ovk.co.za  
www.ovk.co.za



+27 18 464 7800  
Wikus.Grobler@senwes.co.za  
www.senwes.co.za



+27 57 391 1900  
cassie@silostrat.com  
www.silostrat.com



+27 28 514 8600  
Pieter.Malan@ssk.co.za  
www.ssk.co.za



+27 17 824 1005  
aduenage@twkagri.com  
www.twkagri.com



+27 58 863 8111  
francoisf@vkb.co.za  
www.vkb.co.za



+27 13 665 7700  
brent@witklip.co.za  
www.schoemangroup.co.za





Malcolm Holman  
malcolmh@aelab.co.za  
www.AELab.co.za



Paul Burke  
paul.burke@adpsa.co.za  
www.adpsa.co.za



Taryn Browne  
taryn.browne@buhlergroup.com  
www.buhlergroup.com



Chantelle Henning  
chantelle@henchem.co.za  
www.henchem.co.za



Philip van der Merwe  
philip@rhineruhr.net  
www.rhineruhr.net



Munro van der Westhuizen  
munro@thisisronin.com  
www.thisisronin.com



Hanlie Kroese  
hanlie.kroese@santam.co.za  
www.santam.co.za



Gianluca Della Riccia  
gianluca.dellariccia@wamgroup.com  
www.wamgroup.co.za

# Points to ponder

By Jannie de Villiers



## The hole in the wall

I read a very difficult piece of scripture the other day. It is a part of the Bible that isn't read all too often. In Ezekiel 8:7 we read about a hole in a wall: "Then He brought me to the entrance to the court. I looked, and I saw a hole in the wall." After noticing it, the prophet was encouraged to start digging. Eventually, he came to a door and was told to go in. There he saw what God wanted him to see – the leaders of the nation worshipping idols in a secret place inside the temple.

I continued to read, but my mind kept dwelling on the question of what God is seeing through the holes in the walls of South Africa? Even more so, what is He seeing through the holes in the church's walls or those of my own heart? Identifying similarities between scripture and South Africa is very easy. Leaders are not doing what they are supposed to do. They are secretly involved in corruption and crime. Some are even openly neglecting the job they are getting paid for. There seems no end to the things one can list.

### Is God still here?

Similarly, one can look at the church today and wonder what God is seeing. The focus might only be on serving the current members instead of preaching the gospel to the lost. If we look at the number of new converts every year, in most cases, the church seems to be a dying business with a declining customer base. But church aside, it is more important to start with my own heart.

After some deep soul-searching and upon further reading, I observed in chapter ten that the glory of God departed from the temple. This was a major loss! Could it be that after looking through our hole in

the wall, God is also departing from South Africa? There is no short answer to this, but it could be possible. The Bible mentions in Ezekiel that the leaders the prophet saw had no idea that God could see what they were secretly up to. They were under the impression that God had forsaken the land. This is an important message to us as well.

“When God looks through the holes in our hearts, and He sees things that make Him want to depart from us, His character, through His son, Jesus, prevents Him from leaving us.”

How ignorant are we to assume that God cannot see what we are doing when no one is watching? What is even more upsetting about the scripture in Ezekiel is that almost nobody noticed that the presence of God left the temple. Are our lives so busy and our programmes so full

that we have failed to notice that the Holy Spirit is no longer here?

### Presence for Christmas

But true to God's character, He provides a plan of salvation. Later in the Bible, we find the story of the birth of a saviour. This is why we celebrate Christmas. It is almost that time of year when we celebrate the coming of the Christ as a ransom for us. When God looks through the holes in our hearts, and He sees things that make Him want to depart from us, His character, through His son, Jesus, prevents Him from leaving us. Jesus becomes a gracious bridge between our sinful selves and God. That is why the angels sang when they heard that Jesus was born: "Glory to God in the highest, and on earth peace to men on whom his favour rests" (Luke 2:14).

Take some time off this December holiday, look through the holes in your own heart and repent. Then, accept the biggest present that God ever sent us. He sent His son to this world so that you do not have to fear His departure. He will not leave you, your family or South Africa. Hold on to this message this holiday season.

Merry Christmas! 

For enquiries, send an email to Jannie de Villiers at [jannie@devilliersfamily.co.za](mailto:jannie@devilliersfamily.co.za).



**As an analytical laboratory we use state of the art techniques to offer the following services to our clients:**

- Full spectrum of nutritional analyses (finished feeds, raw materials and roughages)
- Full spectrum trace mineral and heavy metal analysis on feed and water
- Full range of in vitro pepsin digestibility assays
- In vitro ruminant digestibility assays for protein, starch and fibre
- Limestone and MCP analyses and solubility studies
- Water analyses
- Manure analyses
- Oil quality (PV, FFA, anisidine)
- ABC and buffering capacity analyses
- Amino acid, sugar and FAME analyses
- Perten, FOSS and Bruker NIR analyses and calibration services
- Official satellite laboratory for Cumberland Valley Analytical Services (CVAS)

**Call us (+27)11 977 7748**

**Labworld@labworldsa.co.za**



**CVAS**



# GRAIN MANAGEMENT

WORLD-CLASS TECHNOLOGY  
SECURE STORAGE

- WORLD-CLASS TECHNOLOGY
- INNOVATIVE GRAIN MARKETING
- SECURE STORAGE
- LOGISTIC SOLUTIONS
- SAFEX BROKING

## WHEN YOU DELIVER AFGRI DELIVERS

With all our delivery points equipped with back-up generators to ensure continuous service during load shedding. Supported by our unique **ZERO** Silo intake rate with season- and capped storage.

For more info contact your AFGRI Grain marketer or Silo manager.

[www.afgri.co.za](http://www.afgri.co.za)

Your partner in **Agribusiness**

