

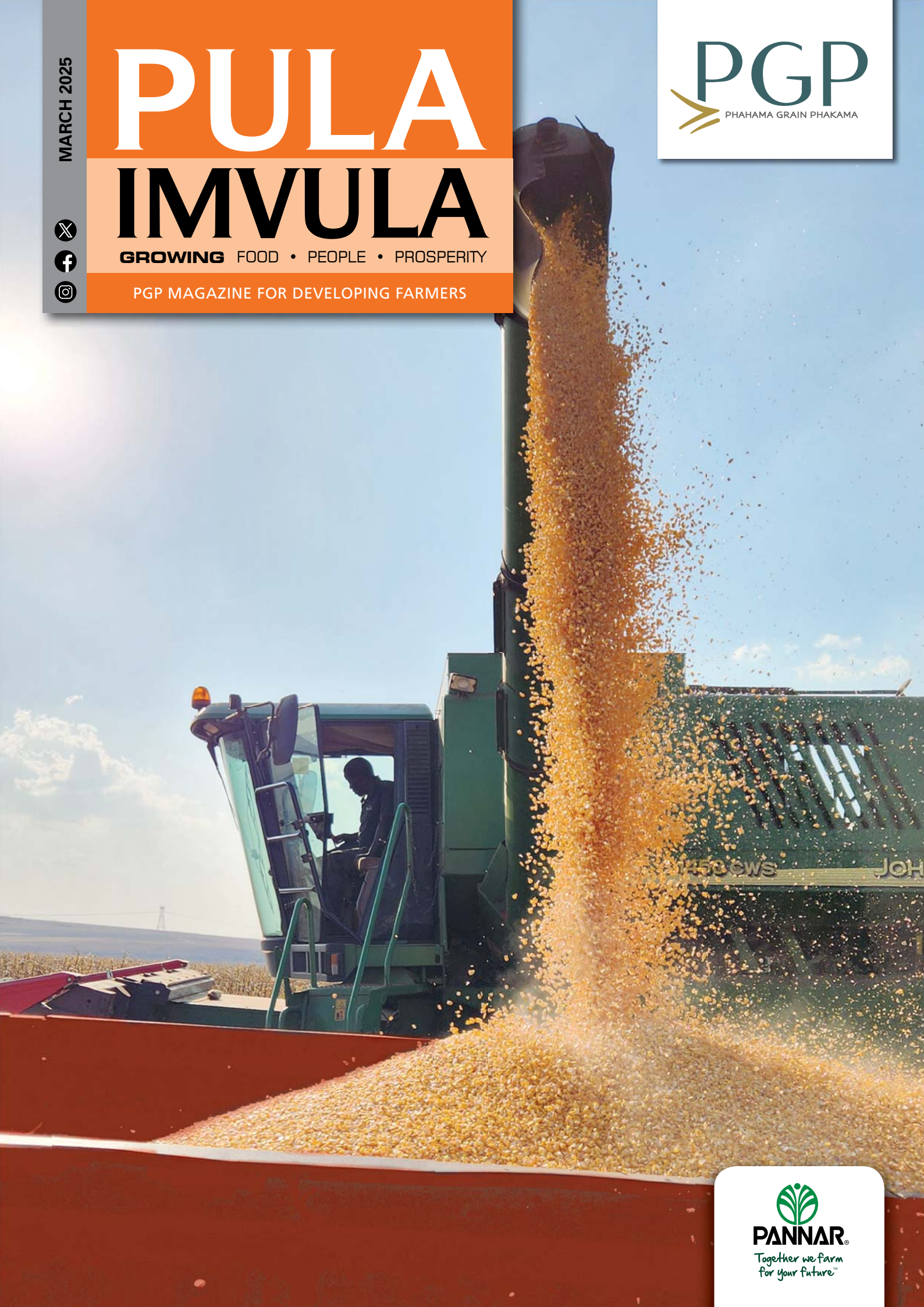
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PULA

IMVULA

GROWING FOOD • PEOPLE • PROSPERITY

PGP MAGAZINE FOR DEVELOPING FARMERS



PANNAR

Together we farm
for your future™

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Top tips FOR FARMERS

The planting has been done, and farmers are watching their crops grow. For some farmers hail has caused destruction in the fields. Farmers who are hoping for a better yield than last season, remember scouting is important. It is one of the best weapons farmers have in their arsenal to combat pests and diseases.

✓ Be a hands-on farmer

Invest in your farm by spending enough time in your business. 'Always be in your fields during the season – scouting, making sure your plants are healthy,' says Phumzile Ngcobo, assistant regional manager at the Dundee office. This way you will be able to rectify a problem before too much damage has been done.

Mentor Martin Botha from Mpumalanga reminds farmers to send photographs of any problems in the field to their mentor so that they can assist them with a solution. These include any leaf diseases on maize and soybeans as well as the sprouting of problem weeds in the fields. The earlier you see the problem, the quicker it can be addressed.

Phumzile also encourages the smaller farmers to invest in a knapsack sprayer. 'This way you can get into the fields in time to control pests and weeds.'

In areas where fields are susceptible to high runoff, it is important to have diversion ditches to control the flow of water. 'We can see a notable difference where water has been controlled through trenches and ditches,' says Phumzile.

✓ Administrative tasks need attention

Paperwork is often the least liked part of farming, but it is a very important matter that needs effective management. Whether you attend to it yourself or employ someone else to do it, remember that in the end it remains the responsibility of the farm owner/manager.

Lunga Mhloyana, a mentor in the Mthatha and Kokstad regions, urges farmers to keep record of everything. 'Be organised and plan ahead. Farming is driven by time.'

The PGP farm management for profit course trains farmers to file correspondence in one of the following correspondence files:

- **IN** file for temporary filing and attending to later
- **FOR ATTENTION** file for immediate attention
- **FILING** file for permanent filing after the correspondence concerned has received attention

✓ Some other helpful hints

'Attend all study group meetings,' advises Phumzile. 'Here you can engage with other farmers and share ideas and common problems. More often than not, the solution of the problems lies within your own community.' Other farmers may have found a solution for the very problem you currently face.

'Remember that a farmer needs patience,' says Lunga. Farming is challenging: discover your strengths and work on your weaknesses. Listen to advice given by those who know...and then follow that advice. ■

COMPILED BY LOUISE KUNZ, ASSISTANT EDITOR: PULA

Passion, planning and perseverance makes a winner

'EXPECT THE BEST, PLAN FOR THE WORST, AND PREPARE TO BE SURPRISED' A QUOTE BY MOTIVATIONAL SPEAKER AND WRITER DENIS WAITLEY, IS A GOOD SUMMARY OF HOW THE 2024 GRAIN SA/ABSA/JOHN DEERE FINANCIAL NEW ERA COMMERCIAL FARMER OF THE YEAR, PETRUS RANKO TSOTETSI (57), SEES FARMING. ALTHOUGH THIS HUMBLE FARMER IS OPTIMISTIC, HE ALSO PREPARES FOR ANY OUTCOME THE SEASON MAY PRESENT.

Farming has taught Ranko many valuable lessons. One is that a farmer must work hard and keep his eyes and ears open. 'I have also learned patience, as farming is a long-term project. You have to be focused, love what you are doing and be devoted.' He has also come to realise that nothing on a farm is 'set in stone' – even if you plant on time and do everything right, you cannot predict the weather. 'Somewhere in your farming career you will experience drought or floods and veld fires may wreak havoc, so being prepared at all times is crucial.'

ITS ABOUT MORE THAN JUST THE FARMER

This winning farmer, who farms on Die Bult, a 316-hectare farm in the Thabo Mofutsanyane District, near Kestell in the Free State, plants maize, soybeans and sugar beans in a rotation system. Last season he planted 191 ha in total – 85 ha of maize with a yield of 5,3 t/ha, 76 ha of soybeans realised a yield of 1,5 t/ha and 30 ha of small white beans where a yield of 0,9 t/ha was achieved. This season he planted a total

of 235 ha – 110 ha maize, 110 ha soybean and 15 ha sugar beans and is feeling positive about what the season has in store.

To Ranko farming is about more than just making a living. 'It's about feeding the nation, contributing to job creation especially for the youth and helping my community.' One of his big dreams is that as a seasoned commercial farmer he will be able to provide more jobs in the community and influence people to acknowledge the importance of agriculture.

He is also passionate about changing the youth's perspective on farming and believes that their interest in agriculture should be kindled from a young age. 'Introducing farming at primary school level and providing basic courses for the youth could help develop their interest.' (Read more about PGP's Schools Programme on page 22.)

CHANGING PATHS SUCCESSFULLY

Ranko's journey into farming was not preordained. Born in QwaQwa, he was the son of Joseph Tsotetsi, a versatile entrepreneur who balanced roles as a grain and cattle farmer, taxi owner and mechanic. From a young age, Ranko was immersed in mechanics, assisting his father with car repairs – a passion that led him to study motor mechanics in Bethlehem during the early 1990s. By 1995, he had established his own business, providing employment to several individuals.

However, the tides turned around 1999 when business challenges prompted Ranko to close his business. He relocated to Pretoria with his wife, Philia, and took on a supervisory role at Metrorail. In 2003, tragedy struck when his father passed away. This loss became a pivotal moment for Ranko. In 2010 he chose to honour his father's legacy by returning to the family farm, Die Bult, transitioning from the hustle and bustle of city life (and a secure income) to the peace and quiet (and volatility) of farm life.

He made a decision to make a success of the farming operation to honour his late father. With little agricultural know-how, he recognised the need to equip himself with agricultural knowledge and invested in his development by successfully completing agricultural courses in 2013 and 2014. This laid the foundation for his farming endeavours.

It is this dedication to succeed that led to his nomination for the 2024 New Era Commercial Farmer of the Year. His compassion, humility and gratitude is something that impressed his Phahama Grain Phakama (PGP) mentor. Jacques Roux, regional development manager in the Free State, who nominated him for the competition, said Ranko's commitment is impressive but his gratefulness is something everyone can learn from.

Upon receiving his prize – a brand new John Deere 5075E tractor – he invited everyone who had contributed to his farming journey, regardless of when or how much time they invested, to join in the celebration. 'He told his guests that the victory wasn't his alone but the whole area's. He also generously shared his

All dressed up at the Grain Producer of the Year award ceremony – Ranko with his lovely wife, Philia.





Receiving his prize at the 2024 Day of Celebration with Johan Roux (mentor), Jeremiah Mathebula (vice-chairperson of Grain SA), Dr Langelihle Simela (business development manager, Absa AgriBusiness Centre of Excellence), Ranko, Jacques Roux (regional development manager in the Free State), Dr Tobias Doyer (CEO of Grain SA), Derek Mathews (Grain SA chairperson) and Pieter Pienaar (credit sales and marketing manager of John Deere Financial).



Technology forms an important part of Ranko's farm. His sons get very excited when they can help their father farm with a drone!

prize money with his farmworkers. These actions have earned him deep respect and admiration within the community,' Jacques shared.

In an interview about his winning farmer for the December issue of *Pula Imvula*, Jacques said 'This farmer built up the farm from scratch. He started farming with nothing and received nothing for free. He bought his equipment through PALS (Partners in Agri Land Solutions). Everything he owns, is through his own hard work and determination – and that deserves to be recognised.'

Ranko's commitment to excellence has not gone unnoticed. Apart from the abovementioned award, he was inducted into Grain SA's 250 Ton Club in 2018, and later became part of the 500 Ton Club. In 2019 he was also a runner-up in the National Sugar Beans Award.

HELP ON THE ROAD TO SUCCESS

Apart from hard work and passion, Ranko credits everyone in his life for his success. 'My parents did what they could, and I find myself where I am because of them. My siblings, mentors and funders and, importantly, my workers. He also mentioned that he could not have fulfilled this ambition of his without his wife's support.

He joined Grain SA in 2013 and became an active participant in the Farmer Development Programme in 2016. Mentorship has played a significant role in his development with Johan Kriel (a previous regional manager in the Free State) and Jacques Roux both contributing to his growth. 'They were both good mentors who taught me how to plan before planting and how to monitor my plants as they grow. They helped me to manage and handle my finances. I can now do things on my own.'

Because of the input and support Ranko has received from the PGP team and others, he is committed to farming successfully. 'If people invest their time and advice, you repay them by doing a good job.' This is why he is a hands-on farmer who checks on his growing crops to ensure that there aren't weeds or pests destroying his crop.

Learning new agricultural practices and discovering advanced technology in the sector remain important to him. He makes time to attend courses and find out more about the latest technology. Ranko believes a lack of knowledge is one of the biggest obstacles amongst developing farmers. 'I wish that all developing farmers would participate in the programmes and courses that are offered, so that they can get more information and knowledge on how to operate their farming enterprises and grow their businesses successfully.'



Ranko on his prize, a John Deere 5075E tractor.

He is driven by his passion and dedication and has truly transformed his farm into a shining example of what can be achieved through devotion and hard work. 'I became a farmer to honour my father as he was a passionate farmer. Now I have developed a passion for farming as well,' he says. Seeing the progress he has made and being able to help others through job creation motivates him to keep on going, even though there are struggles and stumbling blocks on his path. Ranko hopes his two sons, who are both developing a keen interest in agriculture, will share their father and grandfather's passion.

To the 2024 New Era Commercial Farmer of the Year passion and planning are key to succeed in the agricultural industry. 'You must love what you are doing, have a clear vision of what you want to achieve and be committed to reaching the outcome by working hard. As the American actor, Arnold Schwarzenegger, once said: Success is a ladder that cannot be climbed with your hands in your pockets. ■

COMPILED BY LOUISE KUNZ, ASSISTANT EDITOR, PULA

Mentoring project boosts small-scale farmers

ONE OF THE WAYS THAT PHAHAMA GRAIN PHAKAMA (PGP) ASSISTS SMALL-SCALE MAIZE FARMERS IN SOUTH AFRICA, IS THROUGH ITS BEYOND ABUNDANCE (BA) PROJECT. THIS PROJECT PROVIDES TRAINING, FIELD VISITS AND INPUT DISCOUNTS TO HELP FARMERS IMPROVE THEIR YIELDS. FARMERS ALSO LEARN BETTER AGRICULTURAL PRACTICES AND ARE ASSISTED TO MAKE INFORMED DECISIONS ABOUT THEIR FARMING OPERATION.

BACKGROUND

Grain SA's Farmer Development Programme partnered with the Jobs Fund during the 2015/2016 season to launch a project aimed at empowering farmers. The initiative focussed on enabling farmers to contribute towards their own input costs, while providing access to advanced production inputs and mentorship to help them achieve commercial yields. This project was called 'From subsistence to abundance'.

After the project concluded its four-year term, the programme recognised the ongoing need for support and introduced the Beyond Abundance (BA) programme, which continues to operate today.

At the beginning of the initial project, a baseline survey was conducted and it was discovered that the average yield of maize in the areas where the BA project was implemented is 1 t/ha. Many of the farmers in this project mostly produce for their own consumption and sell their surplus locally. However, some farmers who had also started on 1 ha have progressed to planting as much as 60 ha.

In the 2023/2024 season, there were 662 farmers who planted a total of 564,5 ha. **Table 1** highlights the participation in the current (2024/2025) season. A significant increase in participation is evident compared to the previous season.

1 Participation in the 2024/2025 season.

Service centre	Farmers	Ha planted
Dundee	193	251,5
Kokstad	142	154
Louwsburg	153	256,5
Mthatha	144	326
Maclear	132	136
Mbombela (Mpumalanga/Limpopo)	362	442
TOTAL	1 126	1 566

FRIENDS OF THE PROGRAMME

Sponsors form an integral part of the programme's success and the PGP team is grateful for the support of all their 'friends in agriculture' (see page 9). This project is currently sponsored by the Sasol Agricultural Trust and the South African Cultivar and Technology Agency (SACTA), with Pannar/Corteva supplying sorghum seed samples to all the BA farmers.

The suppliers who ensured that the inputs were delivered on time, to enable the farmers to plant within the planting window, are valued by the team. 'A big thank you to the suppliers, transporters and farmers for a super job done in the Eastern Cape. As everyone knows, the areas in which we operate are not easily accessible and getting input orders on time is a challenge.

'Our farmers play a huge part in the successful deliveries, as they arrive on time to offload trucks. They then transport it to their homes – sometimes breakdowns and rain can cause delays, but the farmers are super cooperative and offload the trucks with their traditional Eastern

Every picture tells a story – some of the farmers and events from the Beyond Abundance Project.



Cape smiles,' says Eric Wiggill, regional development manager in the Eastern Cape.

The suppliers for the Eastern Cape (Kokstad, Mthatha and Maclear) are:

- Bayer – chemicals, seed.
- Capestone – free maize sample packs.
- Department of Rural Development and Agrarian Reform (DRDAR) – mechanisation.
- Kokstad milling – fertiliser and transport.
- Kynoch – fertiliser.
- Lake Agriculture – seed trials.
- Oil and Protein Development Trust (OPDT) – training.
- Villa Chemicals.

In Limpopo, the Department of Agriculture and Rural Development (DARD) sponsored BA farmers with some bags of fertiliser. 'Those who

This project is currently sponsored by the Sasol Agricultural Trust and the South African Cultivar and Technology Agency (SACTA), with Pannar/Corteva supplying sorghum seed samples to all the BA farmers.

planted 1 ha each, were given three bags of 4.3.4(40) and three bags of 1.0.0(40) for topdressing. The farmers who planted from 3 ha upwards were given nine bags of 4.3.4(40) and nine bags of 1.0.0(40) for topdressing,' shares Jerry Mthombothi, regional development manager at the Mbombela regional office.



Mentoring project boosts...



FEEDBACK FROM THE REGIONS

For the BA farmers, having a mentor who visits the study groups at least twice a month has made a huge difference – not only in times when they need support, but to their farming skills in general. ‘The farmers have welcomed the idea of having a mentor who works closely with them in order to assist with duties associated with day-to-day and long-term activities on the farm,’ says Lunga Mhlonyane, a mentor in the Mthatha and Kokstad regions.

In the previous season, the yield of BA farmers in Limpopo increased drastically because of the support that they received from the Department of Agriculture. Some farmers harvested more than 6 t/ha. ‘During this planting season, we expect that some farmers will harvest more than 8 t/ha – especially those who planted a bit later, since they received a lot of rain late in December,’ says Jerry. He adds: ‘That is if they applied the correct amounts of fertiliser and controlled the weeds adequately.’

Although a successful crop is one of the most pleasing sights for farmers, as it means food on the table and money in the pocket, they (and the

mentors) face many challenges throughout the season. In certain areas in KwaZulu-Natal, the mentors had to offer more support, especially when the heatwaves and initial drought early in the season were a serious problem. For some of the farmers in Mpumalanga, the high rainfall after planting has also been a source of concern.

‘The Eastern Cape farmers planted early this season and have been rewarded with good rains – this has shown in good germination,’ says Eric. ‘Training by the mentors has really shown in the population, weed control and topdressing this season, which will contribute to a good yield.’

Although some areas in the Eastern Cape have been hit by hail, Eric is hopeful that the maize will recover, as the damage was in the vegetative stages of the maize plant.

It is clear that the BA farmers have realised how beneficial regular attendance of study group sessions is, as they get valuable information and guidance to use in the field. ■

COMPILED BY LOUISE KUNZ, ASSISTANT EDITOR, PULA

Sponsors contribute to growth of developing farmers



MAIZE TRUST



OPDT/OAC



South African cultivar & technology agency



GRAIN | GRAAN



Standard Bank



KGODISO
DEVELOPMENT FUND



PEPSICO



PHAHAMA GRAIN PHAKAMA (PGP) HAS TAKEN OVER THE FARMER DEVELOPMENT PROGRAMME (FDP) OF GRAIN SA THAT HAS BEEN WORKING IN THE FIELD FOR MANY YEARS. IT IS THANKS TO OUR FUNDERS THAT WE HAVE BEEN ABLE TO MAKE A DIFFERENCE IN THE LIVES OF MANY FARMERS AND AT DIFFERENT LEVELS.

It is a long process to develop and grow people and not an event that happens within a certain time period.

TO OUR SPONSORS

A big thank you to all the sponsors who enable us to continue developing farmers:

- **The Maize Trust** has been an extremely reliable donor to this programme. The trust has made it possible for the team to do this work and grow the entire programme through many years of funding for the study groups, demonstration trials, farmers' days, advanced farmer support, the *Pula Imvula* and training courses.
- **The Oil and Protein Seeds Development Trust (OPDT)** has also supported various projects within the programme for many years. They contribute to the *Pula Imvula* and sponsored many training courses that relate to the oil seeds industry.
- **Bayer** (previously Monsanto) remains a vital sponsor of the entire programme – all levels of farmers can be supported as a result of their funding.
- **Pannar** (Corteva) is a trusted and reliable funder and has walked the road with this programme for many years.

- **Grain SA** has contributed financially as well as with numerous other forms of support to the programme. PGP is proud to acknowledge the close association we have with Grain SA, our 'parent' organisation.

MAKING MENTORING POSSIBLE

In more recent years, various programmes have been established where farmers can get loan funding. Where loan funding is involved, it is important to have on-farm mentors who visit the farms regularly.

PGP has come to rely on many partners for the funding of mentors – the Maize Trust, OPDT, the South African Cultivar and Technology Agency (SACTA), Standard Bank and the Kgodiso Development Fund, PepsiCo as well as Absa (who joined in this year). Mentoring makes an extremely valuable difference in the farmers' lives.

The personnel of the programme have direct contact with the different levels of farmers in the various regions. It is a huge blessing to be able to bring information to the farmers. However, it is almost more important for the farmers to know and feel that their challenges are understood and that someone cares about them and their endeavours.

Without the support of all the donors, we would not be able to reach out to our developing farmers. ■

JANE MCPHERSON,
PGP ADVISOR



PROPER PLANNING

prevents poor performance

THE MINIMISING OF HARVESTER LOSSES IS ALL ABOUT PLANNING AND CONTROL. SELECT AND PLANT THE BEST SUITABLE CULTIVAR AND KNOW HOW MANY DAYS IT WILL NEED TO BE READY FOR HARVESTING. BOOK YOUR HARVESTER IN ADVANCE AND TELL THE CONTRACTOR WHAT CULTIVAR YOU HAVE PLANTED. KEEP YOUR CONTRACTOR INFORMED OF WHEN YOU THINK THE CROP WILL BE READY TO BE HARVESTED.

When you plan your crops, plant a range of cultivars with different growth lengths. This will help prevent harvest losses. Also make sure that the area you plant will be acceptable for the contractor.

The control portion will ensure that the job is done with precision. Although there will always be harvest losses, you should try to minimise them. To achieve zero losses, the combine harvester would have to move at such a slow pace that you will never finish harvesting in time. The key is to balance a suitable work rate and limiting harvest losses to acceptable levels.

Acceptable harvest losses for sunflowers are about 3% to 5% of the crop. For soybeans, it is approximately 2% to 4% of the total potential yield under good harvest conditions.

MEASURING HARVEST LOSSES

Before looking at reducing harvest losses, you must measure and assess where the losses occur. This will allow you to calculate the losses and where the seed is lost. Normally losses occur in four areas:

- Pre-harvest losses.
- Header losses.
- Combine threshing losses.
- Losses that occur with the loading and transportation of the crop.

It is important to measure every aspect to make the necessary adjustments.

To measure the loss, counting the pips per square metre is essential. This can be done by putting out metre-by-metre boards just after the header passed. Count the pips on top and under the boards, and then multiply it by an average pip weight to calculate the loss per hectare.

Ensure that all the sunflower heads and soybean pods are threshed clean. As a rough guide, 100 seeds per square metre (including the un-threshed seed) is equivalent to about 100 kg/ha for sunflowers. With this information, specific adjustments can be made.

Pre-harvest losses

This is where the seed is lost or shed before the combine harvests the crop. It can be caused by birds or mammals eating the seed, plants falling over and heads not being picked up by the combine later on, or by heads rubbing against each other in the wind, causing seeds to become dislodged.

Pre-harvest losses can be reduced by being prepared to harvest the crop when it is ready and finishing in a timely manner. Waiting for seeds to become too dry increases the risk of pre-harvest losses, so combining it at higher moisture levels is generally better. It is important that regular samples are tested to determine the moisture percentage and to start when the moisture percentage is in line with the crop regulations.

Header losses

Seed, heads and pods are lost at the combine header and are not gathered into the machine. The rate of losses depends on the combine driver's skills, crop condition and the type of header being used. Sometimes the header performance can be drastically improved, simply by reducing the forward speed and making sure the cutter bar is in a proper condition. Being patient during harvesting can be to your advantage.

Most header types will cope with sunflowers and soybeans if they are set up correctly, but investing in speciality headers can be a good



By setting your combine harvester correctly, one can minimise losses when harvesting.



A well-maintained cutter bar is beneficial to the header performance.



Invest in speciality headers. On the left is a sunflower header and on the right a maize header.

investment. Some well-made and competitively priced models for both sunflowers and soybeans are currently available.

For sunflower harvesting the main objective is to gather heads with minimal stalks entering the combine and minimal seed loss from shattering. This can be achieved by raising the combine header high enough to take in the heads while reducing the number of stalks and keeping the heads intact – so it passes through the combine whole or in a few large pieces. One sunflower head contains many seeds, so ensuring they all pass through the combine will help largely to reduce sunflower harvest losses.

The objective for soybeans is to gather the most pods, with minimal stalks entering the combine and minimal seed loss from shattering. This can be done by:

- Decreasing your ground speed.
- Positioning the cutter bar as close to the ground as possible.
- Angling the pick-up fingers on the reel back slightly to pull the lodged plants more aggressively to the cutter bar. Reduce the angle of the fingers if the plants are riding over the top of the reel.
- Move the reel axle forward to be 22,5 cm to 30 cm ahead of the cutter bar.

Combine threshing losses

Once the sunflower heads or soybean pods are gathered in the combine, the incorrect drum, concave and sieve settings can lead to excessive losses. This is because the seed is not effectively threshed out of the heads or pods, or because it is allowed to pass over the back and is ejected along with the trash.

IMPORTANT

For sunflower, the aim is to get a completely threshed head onto the straw walker in one piece. Although different combine harvesters will have different optimal settings for sunflowers, the general guide is to combine at a reasonable forward speed, use a slow cylinder speed, have concaves well open, use a low airspeed and harvest when the seed moisture is low.

For soybeans, separating problems result from worn parts on the cylinder or rotor, and improper cylinder or rotor clearance or speed settings. The separating equipment must be in good condition to handle soybeans with green or tough stems.

Adjustments made to the cylinder or rotor clearance and speed are a balancing act between separating losses, seed damage and split beans. Make one adjustment at a time and inspect the cleanliness of the grain in the tank to determine your progress towards minimising separating losses and maximising seed quality.

Pre-harvest losses can be reduced by being prepared to harvest the crop when it is ready and finishing in a timely manner.

Sunflower seeds are light, so the fan airspeed should be low. If it is too high, it will blow seed over the sieve, and seed forced over the sieve and into the tailing's auger will be returned to the cylinder and may be dehulled. Set the fan so that only enough airflow is created to keep trash floating across the sieve.

The airspeed is also very important for soybeans and regular inspections are needed to ensure the soybeans are not blown out, or there are too many sticks in the grain bin. Set the fan so that only enough airflow is created to keep trash floating across the sieve.

Aim for a combine speed of about 5 km to 8 km per hour. If the seed's moisture content is low, then a slower speed should be used to reduce shatter loss, while a higher speed can be used when the seed has a higher moisture content.

TOP TIPS FOR A SUCCESSFUL HARVEST

- Remember the 5 P's: Proper planning prevents poor performance.
- Don't wait for the crop to dry down too much.
- Resist the urge to combine too fast – patience is a virtue.
- Keep the header high to reduce the number of stalks passing through the combine.
- Make one adjustment at a time, then check the losses after each change.
- Use a well-maintained sunflower and soybean header.
- Make sure combines have earth straps touching the ground – chains usually work well. This will help to reduce fire hazards.
- Frequently blow down dust to reduce fire hazards.
- Read your owner's manual before setting the harvester. ■



PIETMAN BOTHA, INDEPENDENT AGRICULTURAL CONSULTANT



Guidelines to do your own crop estimate

CROP ESTIMATES ALWAYS REMAIN A CONTROVERSIAL ISSUE, AS MANY VARIABLES CAN INFLUENCE THE ACCURACY OF A CROP OR YIELD ESTIMATE. MORE ACCURATE ESTIMATES CAN BE MADE CLOSER TO HARVEST TIME, BECAUSE THERE IS LESS CHANCE OF MAJOR VARIABLES OCCURRING. IT IS ONLY THE GRAIN THAT HAS BEEN DELIVERED AT THE END OF THE SEASON THAT WILL DETERMINE THE YIELD PER HECTARE.

It is important to note that when a crop estimate is done, it is an estimate for that specific spot alone. If soil mapping has been done, try to estimate each spot to determine the crop. The more estimates that are made per field, the more accurate the estimate will be for the field.

The Agricultural Research Council (ARC) and other institutions do annual crop estimates for the National Crop Estimates Committee (CEC), and a map providing maize kernel masses is published annually. These guidelines and methods are handy when farmers want to estimate their potential crop yield.

One of the most critical factors is the kernel mass. It varies considerably from one season to the next and also within one season. Even after the crop is mature, factors such as ear rot and other pathogens can affect the kernel mass.

GUIDELINES

The following guidelines can be used.

Please note that the information provided should only be seen as guidelines.

MAIZE

- A guideline of 0,3 g/kernel to 0,36 g/kernel (depending on how favourable the circumstances are) can be used for the average kernel mass of maize, where the seeds can be counted in order to calculate the potential crop.
- When the seeds cannot be counted, 150 g to 220 g per ear, depending on the establishment and occurrence of multiple ears, can be used.
- First determine the average number of ears per 10 m. When the plants are in the vegetative stage, factors such as the establishment, multiple ears and sprouting ability of the plants must be taken into account.
- Determine the average mass in gram per ear.
- The formula below can be used to calculate the yield.

Number of heads/10 m		Grams per head	
1 000	X	Row width	= t/ha (yield)

- Remember to subtract the harvest loss to obtain a realistic yield.

SUNFLOWERS

- Use the following guidelines to determine the average seed mass per head at a young stage before seeds on the head can be counted.

Establishment/plants/ha	Gram seed/sunflower head
60 000	40
50 000	43
40 000	49
30 000	57
20 000	66

- Use the following method to count the seeds per head:
 - Measure the diameter of the head.
 - Measure the diameter of the centre seed set if applicable.
 - Count the number of seeds per 10 cm² (preferably use a frame with a 'window' of 2 cm x 5 cm) and divide this number by 10 to obtain the number of seeds per cm².
 - Calculate the productive area as follows:

Diameter of head = 15 cm
 Diameter of centre seed set = 5 cm
 Total area: 15 x 15 x 0,79 = 177,75 cm²
 Unproductive area: 5 x 5 x 0,79 = 19,75 cm²
 Productive area: 177,75 cm² - 19,75 cm² = 158,00 cm²

- Multiply the number of seeds per square centimetre (cm²) by the productive area to get the number of seeds per head.
- Multiply the number of seeds on the head with the average mass per seed to obtain the head's mass. Use a mass of 0,045 g per seed as guideline.
- Count the number of heads per 10 m.
- Measure the row width.
- Use the following formula to calculate the yield:

$$\frac{\text{Number of heads/10 m}}{1\ 000} \times \frac{\text{Grams per head}}{\text{Row width}} = \text{t/ha (yield)}$$

- Remember to subtract the harvester loss.
- Compare the figure with the history of the country or area.

SOYBEANS AND DRY BEANS

Follow these steps to do a crop estimate for soybeans and dry beans:

- Determine the number of plants per 10 m and the average row width.

$$\text{Plants per 10 m} \div \text{row width} \times 1\ 000 = \text{plants/ha}$$

- Determine the average number of pods per plant and seeds per pod.
 - Soybeans, ± 1,8 seeds/pod. Mass: ± 0,16 g/seed.
 - Dry beans: Seeds/pod and mass/seed vary according to cultivar.
 - Small white canning types: Mass ± 0,19 g/seed.
 - Red speckled types: Mass ± 0,47 g/seed.
- Allocate a mass per plant using the above guidelines, but always keep the following in mind:
 - Evenness of plant establishment and plant height.
 - General appearance and colour of the plants.
 - Moisture conditions (drought or waterlogged).
 - Weed, insect and disease control.
- Plant establishment guidelines:

Soybeans	
Eastern areas:	± 300 000 - 400 000
Central areas:	± 280 000 - 300 000
Western areas:	± 280 000 - 300 000

Dry beans	Large seed types	Small seed types
Eastern areas:	± 120 000	150 000 +
Central areas:	± 100 000	± 140 000 - 150 000
Western areas:	± 80 000 - 100 000	± 120 000 - 140 000

- Calculate the yield with the following formula:

$$\frac{\text{Plants/10 m}}{\text{row width}} \div \frac{\text{mass/plant (g/plant)}}{1\ 000} = \text{t/ha (yield)}$$

- Make provision for losses during the harvesting process as follows:
 - Adjust the calculated yield for soybeans by a factor of 85%.
 - Adjust the calculated yield for dry beans by a factor of 80%.
 - Also remember to consider the height of the harvester blade for soybeans.

PLEASE NOTE

It is important that the above-mentioned masses are only considered as guidelines, as they can be influenced by factors such as the plant appearance, climate, region and cultivar. ■



KOBIE DE BEER, RETIRED CROP INSURANCE SPECIALIST. FIRST PUBLISHED IN SA GRAAN/ GRAIN, MAY 2022.



Family farming creates a lasting legacy

A FAMILY FARM IS MORE THAN A BUSINESS, AS IT'S A LIFESTYLE AND AN IDEAL WORTH PRESERVING. PRESERVING FAMILY FARMING REQUIRES MORE THAN LUCK – IT DEMANDS CAREFUL PLANNING, DISCUSSIONS AND SOMETIMES EVEN CONFLICT RESOLUTION.

Family farms are vital to South Africa's agricultural industry, contributing significantly to the economy. They are key to managing natural resources, protecting the environment and enhancing community life. The United Nations has dedicated the decade from 2019 to 2028 to family farming, recognising their role in global food security and sustainable development. The generational transfer of family farms is a solid foundation for economic growth in rural communities.

However, challenges such as market uncertainty, farm attacks, climate change and the lack or hesitance of succession planning have made the environment unstable, prompting many young people to leave rural life for urban careers.

FAMILY FARMS IN SOUTH AFRICA

Dr Theo de Jager, former president of the World Farmers' Organisation, asserts that family farms are the world's largest single employer and often serve as the economic and cultural centre of rural communities. In South Africa, up to 90% of family farms generate less than R5 million annually. Despite this, smaller farms are often more resilient to market fluctuations.

Dr Andries Radley of Radley Business Solutions notes that over 80% of South Africa's agricultural producers are family farms, which account for more than 50% of the country's agricultural output and highlight the importance of succession planning.

Unfortunately, family farming businesses often last only 24 years on average. According to Yolandi Kruger, director and agricultural advisor at Dunamus Agri, the success rate drops to 30% when passed from the first to the second generation and falls to just 10% from the second to the third generation. 'This failure often arises from a lack of succession planning – a business strategy that ensures leadership transitions smoothly when the initial leader steps down.'

SUCCESSION PLANNING IN FAMILY FARMS

Succession planning is the process of identifying critical positions within the business and developing action plans for individuals to take over. It

strengthens the enterprise by ensuring the right people are in the right roles today and in the future. For family farms, it's crucial that leadership is passed to the next generation to sustain operations. Effective succession planning involves:

- Identifying critical roles and potential vacancies.
- Selecting key skills necessary for continuity.
- Developing individuals for future needs.

Succession planning ensures that family farms are prepared for transitions, allowing all involved members to grow – not just those in management roles.

Planning in advance

The initial leader plays a crucial role in succession planning. It's vital that the patriarch begins preparing for retirement or scaling down long before stepping down, allowing for proper provision. Family farming plays a significant role in feeding the world, but without succession planning, many farms fail when the patriarch leaves.

Without proper preparation, a family-run farm can grind to a halt. Setting clear guidelines before the next generation takes over reduces preventable conflicts.

Dr Johan Beukes from Authentic Living Learning emphasises the importance of clear boundaries to protect family relationships. 'In family farming, there can only be one leader – someone who has enough knowledge to manage the farm and ensure its long-term benefit.'

Communication

Theo Vorster of Galileo Capital stresses that family farming issues arise when communication breaks down between the generations involved. He emphasises the need for ongoing communication between the father, children and grandchildren to discuss their needs and aspirations for the farm.

'Ineffective communication is one of the largest obstacles and sources of conflict in family farming businesses. Regular meetings should be held to discuss the farm's financial status, business risks and succession plans, with minutes taken for reference.'

FAMILY STRUCTURE AND SUCCESSION

Many families use a family structure document to guide successful succession planning. This document provides the foundation for transitioning the farm across generations and should be updated regularly. If disagreements arise, professionals can assist in the process.

STRATEGIES TO ENGAGE YOUNG PEOPLE

The 20-year-old son of a North West farmer shared with *Pula Imvula* that he would never take over the family farm, citing its small size and lack of profitability. This young man, like many other young people, prefers an urban career to farming.

To encourage the youth to stay in farming, the industry should present agriculture as a modern and viable career.

Here are some strategies to engage young people:

1. Showcase farming as a profitable career:

- Diversify the income through value-added ventures such as farm-to-table products or eco-tourism.
- Use smart technologies such as drones and automated systems to increase efficiency.
- Provide entrepreneurial training to help young farmers view the farm as a growing business.

2. Modernise rural life:

- Improve infrastructure, such as roads and healthcare, to make rural life more convenient.
- Foster community hubs, sports leagues and events to keep young people engaged.

3. Provide education and mentorship:

- Offer agricultural scholarships and mentorship programmes.
- Organise internships and exchanges to expose young farmers to innovative practices.

4. Offer financial support:

- Provide start-up grants for young people to launch their own farming ventures.
- Ensure clear succession plans to offer stability for future generations.

5. Foster a sense of purpose:

- Show how sustainable farming practices benefit the planet and communities.
- Involve young farmers in local leadership roles to build pride and responsibility.

6. Celebrate farming success:

- Share success stories of young farmers thriving in the industry.
- Recognise innovation and sustainability through awards.

7. Create fun and fulfilment:

- Offer flexible schedules to provide work-life balance.
- Integrate hobbies such as photography or camping into the rural lifestyle.

8. Build stronger family ties:

- Embrace the innovative ideas that younger generations propose for the farm.

Farming can become a fulfilling and attractive career when aligning rural life with young people's aspirations for growth, purpose and connection.



Father and son team, Thomas and Simphiwe Sibiyi, who are mentored by Timon Filter from the Louwsburg regional office.

The family structure should include the following elements:

1. **Succession plan:** This plan should detail the personal and business aspects of the transition. The more precise this plan, the greater the chances of success.
2. **Management succession:** The management philosophy should be clearly described, including decision-making processes and identifying the successor.
3. **Ownership and asset transfer:** The transfer of assets – land, livestock and implements – should be well understood. Questions like asset rights and how to divide assets should be addressed.
4. **Estate planning:** Estate planning should account for taxes and expenses when the patriarch passes away. It is important to calculate the farm's liquidity to avoid cash shortages affecting operations.
5. **Jobs for family:** Clear criteria should be set for appointing family members and addressing disciplinary issues.
6. **Shareholding:** Clarify who can own shares and the terms for selling them.
7. **Advisory council:** Define the board of directors and voting procedures. ■



KARINA MULLER,
PULA CONTRIBUTOR

One of the things we often miss in succession planning is that it should be gradual and thoughtful, with lots of sharing of information and knowledge and perspective, so that it's almost a non-event when it happens.

~ ANNE MULCAHY

former chairperson and CEO of Xerox Corporation





FMD and vaccination:

Familiarise yourself with the facts

CONFUSION REIGNED AMONGST LIVESTOCK FARMERS AFTER A MEDIA PLATFORM STATED THAT THE PUBLIC COULD PURCHASE FOOT-AND-MOUTH DISEASE (FMD) VACCINES FROM ONDERSTEEPOORT BIOLOGICAL PRODUCTS (OBP). THE NATIONAL RED MEAT PRODUCERS' ORGANISATION (NATIONAL RPO) TOOK THE MATTER UP WITH THE RELEVANT PUBLICATION, WHICH THEN ISSUED A CORRECTION AFTERWARDS.

However, many farmers were left confused and there were questions as to why it could not be done. Why can't farmers protect their animals from FMD by vaccinating them? The RPO wants to implore farmers to always be aware of the facts regarding the regulatory steps that pertain to FMD vaccination.

A STATE-CONTROLLED DISEASE

FMD is listed as a controlled animal disease under the *Animal Diseases Act, 1984 (Act 35 of 1984)*. Other diseases included in this list of controlled diseases are brucellosis, anthrax, rabies, sheep scab and approximately 33 other animal diseases. The list can be obtained from the National Animal Health Forum's (NAHF's) website at <https://nahf.co.za/controlled-and-notifiable-diseases/>.

A controlled and/or notifiable disease means that veterinarians, farmers, farm managers, animal owners and laboratories are legally

required to report the disease to the authorities as soon as it is suspected on a farm or in an area. A disease reporting form is used for this purpose and can be obtained from the NAHF's website.

Once reported, a state veterinarian must intervene and test for FMD while the necessary quarantine barriers are implemented. The World Organisation for Animal Health (WOAH) must also be informed of any suspected or confirmed outbreaks.

VACCINES AND VACCINATIONS

The FMD vaccines used by the National Department of Agriculture (NDA) are procured from the Botswana Vaccine Institute (BVI), according to the stipulated doses needed. The BVI has hosted the WOAH's regional reference laboratory for FMD since 1985.

As OBP is not a manufacturer or distributor of FMD vaccines, this parastatal cannot sell them. Although it is possible for farmers to purchase and administer vaccines for certain controlled animal diseases (for example, brucellosis and anthrax) from vaccine manufacturers, it is essential to understand that it cannot be done for FMD.

In South Africa, vaccinations are only administered continuously (chronic) in the so-called buffer zone (basically an area surrounding the Kruger National Park). Outside of the buffer zone, vaccination is only administered on farms affected by outbreaks.

Due to the devastating impact of FMD on dairy herds during the recent 2024 outbreak in the Eastern Cape, the Department of Agriculture



Photo: Dijan de Waal

Animals vaccinated against FMD must be branded with an 'F' on the neck to identify them as vaccinated.

deviated from the rule, stating that only animals on affected farms can be vaccinated, allowing neighbouring dairy farms to also apply for vaccination.

Vaccination against FMD is the sole responsibility of the NDA. Only this department can decide when and where animals will be vaccinated against FMD – this state organ administers all FMD vaccines. Once the vaccines have been procured from BVI, they are distributed to the various state veterinarians in the affected areas for administration.

Animals vaccinated against FMD must be branded with an 'F' on the neck to identify them as vaccinated. The state veterinarians will handle any leftover doses and communicate them to the government, who then decide where to use them.

KNOW THE FMD STATUS OF YOUR AREA

According to the latest update by the NDA (end of November 2024), there are still 38 open cases of outbreaks in the Eastern Cape and 140 in KwaZulu-Natal, with none in the remainder of the provinces.

FMD is quite a unique disease in terms of management, as infected animals and vaccinated animals are treated in the same way. This is

due to the difficulty in determining whether the animals test positive due to antibodies from the active virus or the vaccine.

Infected or vaccinated animals cannot just be moved, sold or slaughtered – specific procedures must be followed if anything needs to be done. The procedure to move, slaughter or introduce new animals to the herd is based on a timeframe, starting with Day Zero as the vaccination date, on condition that no new active virus is detected. This is why the vaccine is not available in the open market and cannot be administered as a precautionary measure by everyone.

CONCLUSION

- While vaccinating animals against FMD is the state's duty, it must be said that biosecurity is everyone's duty, and it starts at the farm level.
- Contracting FMD on your farm is devastating. Your income is halted since you cannot move or sell your animals.
- Farmers are once again implored to follow the rules when it comes to buying and transporting animals by insisting on health certificates and proof of said results, and if the government has declared a moratorium on the movement of livestock, not to transport animals in and from the designated zones.
- The only way the spread and, thus, the impact of FMD can be limited in the future, is for every farmer to ensure that he/she does not purchase or sell infected animals and to apply the correct biosecurity rules and quarantine measures on the farm. ■



Photo: Lehanke Seymore

If you want to check the FMD status of your region, scan the QR code or visit the NAHF's website and navigate to <https://nahf.co.za/update-report-foot-and-mouth-disease-outbreak-2022-2024/>.



Keep these **EPR regulations** for waste management in mind

SOUTH AFRICA IS NO DIFFERENT THAN MOST OTHER COUNTRIES IN THE WORLD WHEN IT COMES TO WASTE. WE AS CITIZENS POLLUTE THE ENVIRONMENT WITH SOLID AND LIQUID WASTE TO THE POINT WHERE THE ENVIRONMENTAL AUTHORITIES (DEPARTMENT OF FORESTRY, FISHERIES AND ENVIRONMENT, OR DFFE) HAD TO PROMULGATE REGULATIONS TO BRING SOME ORDER INTO SOCIETY AND REDUCE WASTE.

The DFFE went about their business in quite an ingenious way by placing the onus for waste management systems upon the farmers of commodities. This is what is known as the extended producer responsibility (EPR) regulations, which require that farmers of commodities must devise mechanisms and infrastructure to allow end users of their products to dispose of the waste of such products in an environmentally responsible manner.

A sectoral approach was taken by the DFFE. For example, in the case of pesticides, a special notice was promulgated by the DFFE to place a 'burden' (read here more of a responsibility) on the pesticide industry to have ways and means of collection and disposing of empty pesticide packaging and redundant (obsolete) pesticides.

EPR SCHEME FOR THE PESTICIDE SECTOR

The EPR scheme for the pesticide sector is one of many similar notices that have been developed by the DFFE, with the aim of reducing, re-using or recycling waste. A similar set of regulations was promulgated for the electronics industry to reduce the quantity of electrical appliances being dumped at landfills in the country. Perhaps the biggest difference between the pesticide industry and other industries is that it has two waste streams, namely obsolete pesticides that are hazardous substances and empty pesticide packaging that may be hazardous, depending on how the packaging is managed.

In the EPR scheme for the pesticide industry there is a direct instruction to any person or company who produces a pesticide or pesticides to register itself as such with the DFFE's South African Waste Information Centre and to establish a producer responsibility organisation (PRO) to manage empty pesticide packaging and obsolete pesticides at the post-consumer stage. In simple terms, the requirement of the DFFE for pesticide farmers is to have an organisation that can assist end users of pesticides, such as farmers, to dispose of empty packaging and obsolete pesticides.

The regulations allow for pesticide farmers to operate singularly or collectively, which means that a pesticide producer must have a system and infrastructure through which end users can get rid of their pesticide packaging and obsolete pesticides, or join an existing establishment (PRO) that has systems and infrastructure to perform the functions of pesticide waste management.

THE FARMER'S ROLE

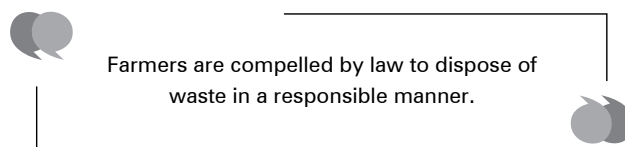
Farmers, like the general consumer (in fact all of us), are waste generators. Much of the waste generated on a farm is general waste, and farmers are



Triple rinsing according to the CropLife SA triple-rinse protocols.

compelled by law to dispose of waste in a responsible manner, as dictated by the *National Environmental Management: Waste Act (NEMWA)*.

The problem for the farmer lies in pesticide waste because, as mentioned earlier, pesticide waste (packaging and obsolete pesticides) is hazardous or potentially hazardous. The NEMWA and SA National Standard 10206 prohibit the burning or burying of hazardous waste. This is not an unreasonable prohibition – any such action pollutes the environment and poses a severe risk to human health. What options are then available to a farmer to dispose of empty pesticide packaging and obsolete pesticides?



Farmers are compelled by law to dispose of waste in a responsible manner.

CropLife SA is currently registered as the only pesticide PRO (registration number: 19/7/5/P/PRO/20230428/038). It has a very large network of CropLife SA-certified recyclers that operate all over the country to receive and recycle nominally empty pesticide packaging – mostly the High Density Poly Ethylene (HDPE) drums. Here, the catch phrase 'nominally empty' is the key element of CropLife SA's commitment and plea to farmers: Make sure that all pesticide packaging is cleaned according to the container management guidelines, which are available on the CropLife SA website at <https://croplife.co.za/Home/ContainerManagement>.

Most farmers already know about the triple-rinse principle – rinsing an empty container three times with clean water and decanting the rinse water into the spray tank, after which the container must be punctured to render it unsuitable for other uses. Such packaging is not hazardous and will be accepted by the CropLife SA-certified recyclers. Therefore, the balance in the equation lies between the farmer and the CropLife SA

PRO – one generates a clean, general waste product, and the other takes it over and recycles it.

The CropLife SA PRO and its associated recyclers are funded by the pesticide farmers who are subscribers of the CropLife SA PRO and who pay an annual subscription fee (also called a waste management fee). This fee is used to subsidise the recycling efforts with administrative support, equipment, consumables, infrastructure and logistics to collect and recycle nominally empty pesticide packaging. Approximately half of the funds generated is used to dispose of obsolete pesticides.

The cost of obsolete pesticide disposal is very high because these products have to be incinerated at a fee of more than R20 000/metric ton. A question that may arise from farmers is how the regulations and the CropLife SA PRO benefit them? The cost of the disposal of empty pesticide packaging is not for the farmer's pocket – it is for the CropLife SA PRO's account. In future, the PRO will also collect and dispose of obsolete pesticides, which would have cost farmers an enormous amount of money.

South Africa is one of only two countries in the world that manufactures new pesticide containers from recycled container materials.

Key points for farmers in terms of the EPR regulations

1. EPR regulations place an onus on pesticide manufacturers to have a system and infrastructure in place to manage pesticide waste at the post-consumer stage, also known as end-of-lifecycle. However, it does not abscond waste generators of their duties to dispose of pesticide waste responsibly and according to the statutes of the country.
2. Farmers must insist that their crop advisers guide them on the appropriate cleaning of pesticide packaging and where the closest CropLife SA-certified recycler is situated.
3. Empty pesticide containers and obsolete pesticides should never be burned or buried.
4. All farmers have a right to question whether a pesticide producer (manufacturer or supplier) is a subscriber of the CropLife SA PRO. If the supplier is not, the CropLife SA PRO is under no obligation to manage his packaging and obsolete pesticides at the end of their lifecycles.
5. Farmers have the right to request assistance from the CropLife SA PRO in terms of hurdles experienced with empty packaging and obsolete pesticides.



ADVANTAGES FOR SOCIETY AND THE ENVIRONMENT

- Farmers may not realise it, but the pesticide containers from the agricultural sector supply career opportunities for hundreds of people. The recyclers are not the only ones benefitting – it is also their workers and people in companies who manufacture other goods from the recycled plastic.
- CropLife SA's motto for the recycling effort – 'It's the right thing to do' – carries more weight than simply a few words. It has a message of clean farms, job opportunities and adherence to the waste management regulations of South Africa. South Africa is one of only two countries in the world that manufactures new pesticide containers from recycled container materials.
- South Africa is also under the top five countries in the world with success in the recovery and recycling of empty pesticide containers. Is it not time for all farmers to take South Africa to be the world leader with the recovery and recycling of empty containers? We can do it, down here in the southernmost country in Africa. It is the right thing to do! ■

For more information, contact the CropLife SA stewardship and operation manager, Dr Gerhard Verdoorn, on 082 446 8946 or gerhard@croplife.co.za.



**DR GERHARD H VERDOORN,
STEWARDSHIP AND OPERATION
MANAGER, CROPLIFE SA. FIRST
PUBLISHED IN SA GRAAN/GRAIN,
NOVEMBER 2024.**



Urgent need to **modernise** agricultural training in SA

AGRICULTURAL EDUCATION IN SOUTH AFRICA MUST EVOLVE RAPIDLY TO KEEP PACE WITH SCIENTIFIC ADVANCEMENTS, TECHNOLOGICAL INNOVATIONS, AND THE PRESSING DEMANDS OF CLIMATE CHANGE. DR TOBIAS DOYER, CEO OF GRAIN SA, HIGHLIGHTED THESE IMPERATIVES, URGING STAKEHOLDERS TO TRANSFORM AGRICULTURAL TRAINING FOR A SUSTAINABLE FUTURE AT AGRISETA'S AGR-EDU SYMPOSIUM.

Dr Doyer noted that young people entering the field must be equipped to evaluate, adapt, and adopt cutting edge methods to sustain food security and economic growth.

SHAPING THE FUTURE OF FARMING

He pointed to significant advancements in three critical areas – genetics, biostimulants, and robotics – that are shaping the future of farming globally and in South Africa.

- **Genetics:** He highlighted milestones such as the application of CRISPR technology to combat pests and diseases, including the RNA-based solution for the California potato bug in 2024. These breakthroughs illustrate the potential of molecular-level innovations to address agricultural challenges.
- **Biostimulants:** Once considered traditional remedies, biostimulants have re-emerged as a scientific frontier. Doyer stressed their potential to enhance crop health using natural plant extracts, urging further research into scaling production and application.
- **Robotics:** From self-driving tractors to precision farming tools, robotics is transforming the way farmers monitor and manage their environments. Innovations in this space promise greater efficiency, reduced environmental impact, and enhanced productivity.

EDUCATION AND SKILLS DEVELOPMENT

Dr Doyer furthermore noted the urgent need for transformation in agricultural education to align with these advancements. 'Educational programmes must not only address current skills shortages but also anticipate the evolving needs of the sector.'

He advocated for fostering critical thinking, problem-solving and entrepreneurship among students, equipping them to navigate an ever-changing landscape. 'Agriculture's unique role in developing future business leaders cannot be overstated.'

The symposium revealed pressing challenges within agricultural education:

- **Outdated infrastructure:** AgriSETA chairperson Gaitsiwe Sepeng noted that many agricultural colleges lack modern facilities, impeding effective training.
- **Inconsistent curricula:** Dr Whitfield Green, CEO of the council for higher education, acknowledged discrepancies across colleges and universities, calling for standardisation and integration.
- **Leadership gaps:** Madoda Sambatha, North West MEC for agriculture, stressed the importance of robust leadership in driving innovation, commending AgriSETA for initiatives like the Agri-Edu Symposium.



Dr Tobias Doyer called for an overhaul to modernise agricultural training in South Africa. Photo: Iwan Dirksen/Food For Mzansi

Grain SA, under Dr Doyer's leadership, remains committed to human capital development. Initiatives like the Leadership in the Connection Economy programme, exemplifying the organisation's focus on empowering farmers with the tools and knowledge needed to thrive. 'The Agri-Edu Symposium serves as a rallying call for all stakeholders to collaborate, innovate, and ensure our sector remains resilient,' he stated.

By addressing infrastructure gaps, modernising curricula, and fostering partnerships, South Africa can develop a new generation of skilled, adaptive, and entrepreneurial agricultural leaders. ■



IVOR PRICE,
EDITOR-IN-CHIEF: FOOD
FOR MZANSI GROUP

Corner Post

BY LOUISE KUNZ, ASSISTANT EDITOR

FOR ERIC WIGGILL, REGIONAL DEVELOPMENT MANAGER AT PGP'S FARMER DEVELOPMENT OFFICE IN THE EASTERN CAPE, HIS PERSONAL GROWTH AND THE SMILES HE SEES WHEN VISITING OR TEACHING THE FARMERS, HAVE MADE HIM A COMMITTED MENTOR OF THE PROGRAMME FOR THE PAST TWELVE YEARS. IN THIS TIME, HE HAS GUIDED MORE THAN 10 000 FARMERS.

He believes that a mentor needs patience, perseverance and humility, and that when you treat someone with respect, it will be returned. His advice to other mentors is to 'step back a notch' and come down to the level of the farmer you are teaching.

'If you need to start teaching at grass-roots level, build on that. Remember a step in the right direction is a win, so take that win and build on it.' He explains that this process takes time as development does not happen overnight. 'So praise the things that are done correctly and fix the errors without an attitude.'

Changing poor agricultural practices that have been used by the farmers for generations is difficult. Trying to get the farmers using specific planting times was a huge challenge in the early years of his involvement, as they planted on the same date every year. 'No

one had taught them that various factors, such as the weather patterns, should be taken into account when it comes to planting dates,' Eric shares.

To Eric, the rewards of being a mentor are huge. 'Mentoring is really about going the extra mile.' One of the farmers who has benefitted from Eric's mentorship, is Mhlangenqaba Mkizwana, the 2024 Grain SA/Absa/John Deere Financial Subsistence Farmer of the Year. Eric has been involved in Mhlangenqaba's growth as a farmer for the past three years and was thrilled when he was announced as the winner at the Day of Celebration.

When Mhlangenqaba's farming operation started flourishing, he wanted to ensure that his village could experience the same success. As chairperson of the study group he has taken on a mentoring role making sure that the farmers follow the advice shared at the study group sessions. 'Seeing a whole community harvesting and being happy, realising things are looking more positive, makes the effort you put in worthwhile.'

Eric's dream for Mhlangenqaba is that his sons will learn from him, continue improving this area and inspire other young people in the area to start farming. His dream for his own farming operation is that he will be able to pass his knowledge on to his children and grandchildren and see them flourish.



ERIC WIGGILL

FACTS ABOUT THE MENTOR

Name: Eric Wiggill
Region: Kokstad/Mthatha/Maclear (Eastern Cape office)
Position: Regional development manager
Mentors: Everyone who crosses his path

Eric's winning farmer, the 77 year old Mhlangenqaba Mkizwana, at the 2024 Day of Celebration.



WHAT IMPRESSES YOU MOST ABOUT HIM?

This old man lives far away from any towns and has become genuinely self-sufficient through his farming. His whole operation is done with dedication and precision. As chairperson of the Gamakhulu Study Group, Mhlangenqaba has developed his area over the years by ensuring that the other study group members are focussed on doing what they are taught. They have all improved their maize yield.

WHAT HAVE YOU LEARNED FROM HIM?

To never think that your age can limit learning. ■

THREE IMPORTANT FACTS A MENTOR NEEDS TO REMEMBER:

- You are not a boss on the farm where you are mentoring, but a teacher.
- Small farmers are not less important than big farmers, as they all believe in farming and aspire to have a super crop.
- Believe in the good characteristics of people and you will be rewarded.



THE MENTOR AND MENTEE

WHY DID YOU NOMINATE MHLANGENQABA?

Because of his super attitude towards life and farming. In 2023 it became clear to me that this farmer (who is 77 years old) could easily become a winning subsistence farmer. He enjoys the training at the study group sessions and follows the advice he is given. He plants by hand and managed a yield of 9 tons on his 1½ ha.

A programme that is changing lives



Schools programme promotes agriculture

PGP'S SCHOOLS PROGRAMME IS AN EDUCATIONAL INITIATIVE AIMED AT RAISING AWARENESS AMONG PUPILS ABOUT AGRICULTURE'S VITAL ROLE AND THE DIVERSE CAREER OPPORTUNITIES IT OFFERS. EDUCATING THE YOUTH ABOUT AGRICULTURE IS CONSIDERED AN IMPORTANT STRATEGY IN THE DISASTER RISK MANAGEMENT TOOLBOX TOWARDS MANAGING THE THREAT TO FOOD SECURITY LEVELS.

In a post on LinkedIn, Mpho Sekati, a sustainable agriculture specialist, mentioned that the average age of South African farmers is 62. This is notably higher than the average age of farmers in many other countries. 'This trend poses a significant challenge when considering the rising population in South Africa.

'With an ageing farming population, there is a growing concern about the ability to meet the food and agricultural demands of a rapidly expanding population. The need for succession planning and encouraging younger individuals to pursue careers in agriculture has become increasingly pressing to ensure food security and sustainable agricultural development in South Africa,' states Sekati.

BRINGING AGRICULTURE TO SCHOOLS

The Schools Programme is a result of a partnership between the Maize Trust and the Agricultural Sector Education Training Authority (AgriSETA), which both fund the programme in different ways and in different areas. This programme emphasises the potential of the youth to significantly impact the agricultural sector in South Africa by encouraging their participation as future farmers or professionals in related fields.

Although Grade 9 pupils were previously the target group, a new direction is now in motion where the world of agriculture is opened to Grade 5 to 7 pupils. Several people have been contracted to do presentations at identified schools in all nine provinces of South Africa. These facilitators visit selected schools to show the DVDs that Grain SA

developed to introduce the pupils to all aspects of farming and the value of farming.

The programme components include educational DVDs, which focus on different aspects of agriculture. These informative DVDs are shown throughout the academic year.

- **Food, fibre, life:** A DVD shown to Grade 5 to 7 pupils to create awareness among them about the type of products that are derived from agriculture.
- **Dig in:** This is an introduction to farming, which introduces pupils to the agricultural production areas in South Africa and what is grown where, as well as crops, soil factors and conservation methods.
- **Economics: What's in it for me?:** Emphasises various economic concepts related to agriculture and looks at the economic importance of agriculture.
- **Plant yourself in the future:** Highlights career choices within the agricultural sector.
- **Careers in agriculture – livestock:** Provides an in-depth look at careers associated with livestock farming.

STATISTICS

A total of 208 schools were visited between 1 October 2023 and 29 September 2024:

- KwaZulu-Natal: 30 schools.
- Free State: 59 schools.
- Eastern Cape: 31 schools.
- Mpumalanga/Limpopo: 88 schools.

One of the teachers who attended the presentations gave the following feedback about the programme: 'The visit was very informative. It encouraged children to participate in various careers that play a vital role in their lives. It exposed them to many things that are usually taken for granted. As a teacher, I think programmes of this nature should get more attention.'



Girls who attended a presentation at Edu College in the Phuthaditjhaba district actively participated in the session. Some of them even stayed behind to ask more questions.



The teachers at Tiga Primary School in Mbombela in Mpumalanga said the presentation made pupils aware of the wonderful career opportunities in the agricultural field.



At Thuto Tsebo Full-Service School, the learners were fascinated by the various jobs agriculture has to offer.



Learners from Emdeni JSS in the Kokstad region said they now realise that agriculture is behind everything they eat and wear.



Assisting farmers to achieve their goals

THE Phahama Grain Phakama (PGP) team ensured that all farmers had received their inputs and were planting, with a total of 178 farm visits taking place during December 2024 and the first half of January this year. Visits ranged from four farmers in the Kokstad area to 35 farmers in the Louwsburg region.



One of the 20 farmers in the Dundee region who received a farm visit is Sanele Mbhele, who is mentored by Paul Wiggill. Sanele has shown a positive response to this year's training. He successfully calibrated his machinery and mentor Paul is satisfied with the timely planting of his maize.



Regional development manager, Jacques Roux, in the maize field of a Free State farmer. The farmer's maize recovered well after the heat and drought.



Malindi Joyce is one of the eleven farmers in the Free State who was visited. This farmer wants to plant 300 ha of white maize and 150 ha of sunflowers, but lacks the necessary knowledge as her husband passed away. She will be assisted by the PGP team to develop as a farmer.

Lichtenburg saw twelve different farmers receiving visits. Du Toit van der Westhuizen, regional development manager, visited Mokgoetsi (Bokgotlo Ltd) Maleshoane Teresia, while he was busy planting. Arrangements were made for the chemicals to be delivered so that the farmer can spray as soon as possible.



NOTHING BEATS FIRST-HAND TRAINING

DEMONSTRATION trials, or on-farm demonstrations, are a way to help farmers learn about new technologies, practices and products. They can be used to introduce farmers to new crop varieties, fertilisers and pesticides. They can also help farmers to learn about the best practices for soil preparation, weed and pest control and harvesting.

In the period from 1 December 2024 to 10 January, nine demonstration trials were planted: Kokstad planted two 1 ha blocks – one maize and one sunflower. In Dundee, one soybean trial plot of about 2 ha was planted, which is aimed at the more advanced farmers in the area, while subsistence farmers planted a maize block of less than 0,5 ha by hand.

The Mbombela regional office saw five trials planted:

- In the Luphisi area, a 1 ha block of groundnuts was planted by the study group members.
- A soybean trial was planted by the farmers of Sehlakwane in Limpopo under the watchful eye of Jerry Mthombeni, regional development manager.
- In the Makgukubjane Village, a maize trial plot was planted with six different seed varieties.
- In the Dundonald areas in Mpumalanga, a 1 ha soybean trial plot was planted, as in Slovo near Dundonald, where a maize plot was planted with two Roundup Ready varieties.

Some of the trial planting action can be seen in the photographs below. ■



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