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SOUTH AFRICA Record Maize Harvest

2025/26 crop forecast at
17.3 million tonnes - the
largest in South African
history.

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Blossoms After the Flood

South Africa's stone-
fruit industry enters
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South Africa Celebrates Record Maize Harvest

**SOUTH AFRICA
RECORD MAIZE
HARVEST 2025/26**



South Africa's 2025/26 maize harvest is forecast at approximately 17.3 million tonnes, the largest on record, supported by favourable rainfall, expanded plantings and strong yields despite delays caused by persistent late-season rain.

South Africa is on track to produce its largest commercial maize crop in history, with the latest Crop Estimates Committee (CEC) forecast placing the 2025/26 harvest at approximately 17.3 million tonnes. Excellent summer rainfall, expanded plantings and exceptional yields across the country's major maize-producing regions have combined to deliver a season that will be remembered as one of the best on record.

DID YOU KNOW?

South Africa is one of the world's top 15 maize producers and is typically the largest exporter of maize in Southern Africa. In a good season, the country produces enough maize not only to feed its own population and livestock industry but also to supply neighbouring countries across the region.

This year's estimated harvest of 17.3 million tonnes is more than 5 million tonnes above South Africa's annual domestic requirement of approximately 12 million tonnes, creating one of the largest exportable surpluses in the country's history.

The bumper crop is expected to comfortably exceed domestic demand, strengthening South Africa's position as a leading maize exporter on the African continent while supporting regional food security. With annual domestic maize consumption estimated at around 12 million tonnes, the country is expected to have a substantial export

surplus, creating significant opportunities in regional and international markets while

helping to stabilise local grain supplies.

While persistent late-season rainfall slowed harvesting in several production regions, it had little impact on the outstanding yield potential. The record crop has been driven by excellent rainfall, increased planted area and exceptionally strong yields, highlighting the resilience of South African grain producers and the benefits of improved genetics, modern farming practices and favourable growing conditions.

Key Highlights

 **Expected maize crop: Approximately 17.3 million tonnes (latest CEC estimate).**

 **Historic milestone: The largest maize harvest in South African history.**

 **Export opportunity: South Africa consumes about 12 million tonnes annually, leaving a substantial export surplus.**

 **Drivers of success: Excellent rainfall, expanded plantings and outstanding yields, despite slower harvesting caused by persistent late-season rains.**

The 2025/26 season represents more than a production milestone—it is a testament to the resilience, innovation and determination of South Africa's grain producers. As combines continue rolling through the country's maize fields, this record harvest reinforces agriculture's vital contribution to food security, rural economies and South Africa's growing reputation as one of Africa's leading grain producers.

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Notes from the EDITOR

Spring arrives with promise – and questions.

As South Africa welcomes spring on 1 September, our fields, orchards and pastures come alive again with renewed energy and hope. It's a season of planting, growth and fresh opportunities – a reminder of why we do what we do.

Yet, global agriculture still faces uncertainty. The risk of a Super El Niño looms large, with potential impacts on rainfall, temperatures and food security across many regions. For South African farmers, this makes careful planning, water management and adaptability more important than ever.

Whatever the season brings, our farming community continues to show remarkable resilience. Together, through knowledge, innovation and determination, we will navigate the challenges and seize the opportunities ahead.

Here's to a productive spring and a strong season!



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Blossoms After the Flood

South Africa's stone-fruit industry enters the new season with full dams, damaged infrastructure and another climate warning on the horizon

Across South Africa's stone-fruit regions, winter is beginning to loosen its grip. Peach, nectarine, plum, apricot and cherry orchards are stirring. Buds are swelling, the first blossoms are opening and rows of pink and white are once again softening the agricultural landscape.

It is a beautiful sight, but not an uncomplicated one.

These blossoms are appearing only months after floods and storm winds tore through some of the country's most important deciduous-fruit districts. Orchards, farm roads, dams, irrigation systems, electricity infrastructure, packhouses and workers' homes were damaged across the Western and Eastern Cape. In places, productive soil was not merely saturated but physically washed away.

Hortgro's official flood assessment, released on 22 May 2026, placed the potential losses to the pome- and stone-fruit industries at R6.3 billion. More than 75 hectares

of farmland were estimated to have been severely lost or degraded that replanting will not be possible, while approximately 150 hectares of orchards were destroyed or badly damaged. Around 30% of the affected stored-water capacity was also compromised.

Those figures give scale to the destruction, but not its full meaning. A hectare of mature orchard represents years of investment before it reaches full bearing. A damaged dam is not simply a repair item; it may determine whether the surviving orchard can be carried safely through summer.

A washed-out access road can interrupt spraying, pruning, harvesting and the daily movement of labour long after the water has receded.

The new season therefore begins with optimism rooted in blossom, but also with an uncomfortable question: how much of last season's damage is still hidden beneath the surface?

A Remarkable Season Against the Odds

The floods arrived after South African stone-fruit growers had already endured a difficult production cycle. Early heat and dry conditions affected fruit size, while hail, high winds and repeated flooding added further pressure.

Yet the final export figures were exceptional.

Hortgro's final 2025/26 stone-fruit update, released on 29 June, recorded 32.4 million cartons packed or available for export, 15% more than in the previous season. Peach exports rose by 41% to 2.7 million cartons, nectarines increased by 21% to 12.6 million cartons, and plums remained the country's largest stone-fruit export category at 15.8 million cartons, up 6%.

Apricot exports were broadly stable, while cherry volumes more than doubled as younger orchards came into production.

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These figures deserve recognition. They reflect investment in new plantings, improved cultivars and the resilience of growers, workers, packhouses and exporters. They also show that the industry retains the productive capacity to expand its presence in demanding international markets.

But national totals can conceal local hardship. A strong export season does not restore an eroded orchard, desilt a dam or rebuild a washed-out farm road. It does not replace a broken trellis, damaged irrigation mainline or lost block of mature trees.

The industry enters spring carrying both achievement and scars.

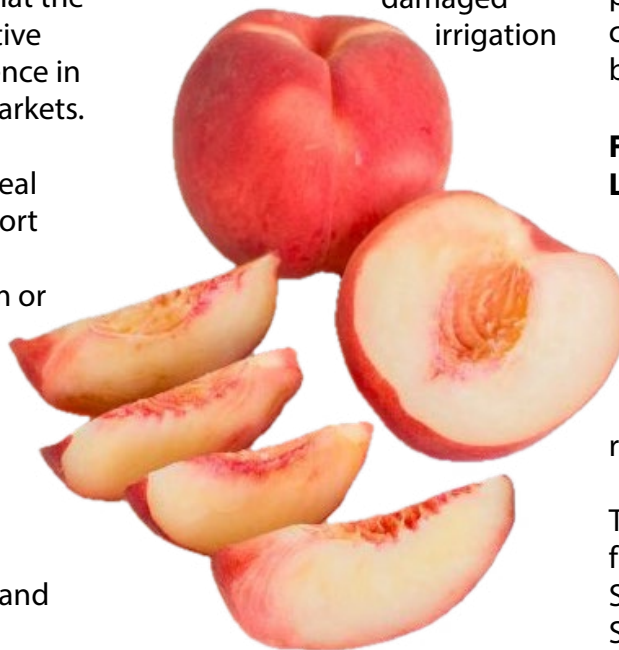
Bringing Flooded Orchards Back Into Production

The immediate temptation after a wet winter is to see full dams and moist soil as an unquestioned advantage. In a water-scarce country, abundant stored water is valuable. But an orchard does not benefit from water simply because water is present. It benefits when moisture, oxygen and nutrients remain balanced in the root zone.

Prolonged saturation displaces oxygen from the soil. Fine feeder roots may die back, nutrient uptake becomes less efficient and trees can enter spring with reduced root capacity precisely when flowering, fruit set and early shoot growth place increasing demands on them.

The priority is therefore not to push damaged trees into production at any cost. It is to determine what each orchard can realistically carry.

Growers should inspect low-lying blocks, drainage lines and areas where floodwater deposited silt. Compacted soil, blocked drains, exposed roots, unstable trees and damaged irrigation



equipment must be identified before irrigation schedules and fertiliser programmes return to normal.

Soil and leaf analyses will be especially important. Heavy rainfall may have moved soluble nutrients below the active root zone, but applying additional fertiliser without measurement could create further imbalance. Nutrition must be aligned with actual root activity, tree vigour and anticipated crop load.

The same discipline applies to irrigation. Full dams do not justify automatic watering. Soil-moisture monitoring, irrigation-system testing and careful scheduling will be essential as spring temperatures rise. Waterlogged blocks may require time to dry and recover, while shallow or damaged root systems could later become vulnerable to heat stress surprisingly quickly.

Flowering orchards will also require close disease surveillance. Wet conditions, blossom tissue

and warming temperatures can create opportunities for fungal and bacterial infection. Orchard sanitation, removal of damaged wood, correctly timed protective programmes and careful spray coverage will matter from the beginning.

From Too Much Water to Too Little

The great irony of the coming season is that growers who have just survived destructive rain may soon have to prepare for heat and declining summer rainfall.

The latest Seasonal Climate Watch from the South African Weather Service indicates that the El Niño–Southern Oscillation could evolve rapidly towards an El Niño state. SAWS is, however, careful not to overstate the forecast. It remains too early to determine the precise effects on South Africa, and the outlook will need to be reassessed through regular monthly updates.

That caution matters.

El Niño is often associated with hotter and drier conditions over parts of Southern Africa's summer-rainfall region, but it is not a farm-level drought guarantee. The Western Cape's winter-rainfall system responds differently, while local heatwaves, wind, rainfall distribution and irrigation demand will ultimately shape orchard performance.

Preparation should therefore focus on resilience rather than prediction.

Dams and canals damaged by the floods must be repaired and desilted before peak irrigation demand. Pump stations, filters, pipelines and backup power systems should be tested.

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Firebreaks and emergency water points must be restored.

Mulches and orchard-floor management can help limit evaporation, while crop loads may need adjustment where root systems or irrigation capacity remain compromised.

A tree weakened by flooding should not be expected to carry the same crop through a hot summer as an undamaged tree.

Blossom Is a Promise, Not a Forecast

The flowers now appearing across the orchards offer genuine reason for hope. They mark the beginning of another production cycle and remind us why growers continue

rebuilding after droughts, floods, hail and market disruption.

But blossom alone does not guarantee a crop.

The coming months will test pollination, fruit set, root recovery, water infrastructure and the industry's readiness for another possible climate extreme. Last season proved what South African stone-fruit growers can produce under pressure. The new season will test how well that resilience has been converted into preparation.

After the floods, the orchards are flowering again. The task now is to ensure that today's blossom survives to become tomorrow's harvest.

Written by: (M.O)



After the Flood: Five Orchard Checks Before Fruit Set

The return of blossom can make an orchard look fully recovered long before its roots, soils and water systems are ready for another crop. Following the exceptional rainfall and flood damage of the past season, growers should use the short period between bud break and fruit set to establish what each block can realistically carry.

Start below ground. Waterlogged soils may have lost oxygen, damaged fine feeder roots and moved soluble nutrients beyond the active root zone. Dig inspection pits in vulnerable areas and compare root colour, smell and activity with unaffected blocks.

Check drainage before irrigation. Blocked drains, compacted soils and flood-deposited silt can keep root zones saturated even after surface water disappears. Full dams are valuable, but they do not remove the need for soil-moisture monitoring.

Test the entire irrigation system. Floodwater may have damaged mainlines, pumps, valves, filters and electrical equipment. Pressure and delivery should be checked before spring demand rises.

Match crop load to tree strength. Trees with damaged roots or reduced vigour may flower normally but struggle later under fruit load and summer heat. Thinning decisions should reflect the condition of the tree, not blossom intensity alone.

Watch blossom disease closely. Wet wood, damaged tissue and warming temperatures can increase disease risk. Orchard sanitation, removal of broken material and correctly timed protection are especially important in recovering blocks.

The strongest blossom is not always the safest crop. This season, the most profitable decision may be to ask less of a weakened tree so that it can remain productive for years to come.



Preparing for the Summer Cropping Season: Building Soil Resilience for Whatever the Season Brings

September may be one of the quietest months on the summer grain calendar, but it is also one of the most influential. From soil testing and nutrient management to machinery preparation and regenerative farming practices, the decisions made before planting often determine how successfully crops respond to whatever the coming season delivers.

Long before the first maize or soybean seed is placed into the ground, the foundations of the summer cropping season are already being established.

Across South Africa's summer rainfall regions, September is generally not a major dryland planting month. Instead, it is a period of assessment, preparation and measured decision-making. Producers are preparing seedbeds, managing crop residues, controlling weeds, applying lime and fertiliser where required, servicing planters and monitoring soil moisture, temperature and the lingering risk of late frost.

This preparation is particularly important following a wet production season. High rainfall can leave fields looking productive and well supplied with moisture, but appearances may conceal important changes below the surface. Nutrients may have moved through the soil profile, acidity may have intensified in susceptible soils, compaction may have developed, and erosion or waterlogging may have affected the productive potential of individual areas.

The coming season should therefore not be planned purely according to what was applied last year. It should begin with a fresh understanding of what is

currently happening in the soil.

Soil testing after a wet season

A representative soil analysis is one of the most valuable pre-season investments a producer can make, particularly after an unusual rainfall season.

Heavy or prolonged rainfall can influence nutrient availability in several ways.

Mobile nutrients, especially nitrate nitrogen, may move below the effective root zone, with the risk generally greater in coarse-textured and sandy soils. Calcium, magnesium and potassium may also be displaced or leached under certain conditions, while high-rainfall environments are naturally more vulnerable to soil acidification.

Grain SA guidance notes that high rainfall can remove basic cations such as calcium and magnesium from the soil exchange complex, contributing to increasing acidity and declining soil fertility.

This makes routine fertiliser programmes particularly risky. Applying the same nutrient mixture and rate

Nufarmer Focus

Five questions every farmer should ask before planting

- ☑ *Has every production block been soil sampled after last season?*
- ☑ *Has rainfall changed my nutrient requirements?*
- ☑ *Is soil acidity limiting root development?*
- ☑ *Is my planter calibrated for this season's seed?*
- ☑ *Am I conserving every millimetre of moisture available?*

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used before the wet season may result in either under-fertilising a depleted field or unnecessarily applying nutrients that remain adequately supplied.

Soil testing should assess more than phosphorus and potassium. Producers should evaluate soil pH, acid saturation, calcium, magnesium, sulphur and relevant micronutrients, together with soil texture, organic carbon and the nutrient requirements of the intended crop.

Where nitrogen status must be determined, deeper sampling may be required because rainfall can move nitrate beyond the conventional topsoil sampling depth. Agricultural Research Council



guidance recognises the importance of sampling different soil depths and adapting the sampling method where nutrients from previous fertiliser bands are not distributed uniformly.

The reliability of the recommendation will always depend on the quality of the sample.

Fields should be divided into reasonably uniform management zones rather than combining visibly different soil types, slopes, yield areas or drainage conditions into one sample. Waterlogged patches, eroded areas, old livestock camps, fertiliser spills and headlands should normally be sampled separately or excluded from the representative sample.

After an unusually wet or high-yielding season, previous soil results should not automatically be assumed to remain valid.

Grain SA has previously recommended testing after unusual rainfall or production seasons because nutrient status and lime requirements may have changed.

Correcting acidity before planting

Soil acidity is one of the most costly hidden limitations in South African grain production. A crop may receive sufficient fertiliser, yet fail to access those nutrients effectively when the root environment is excessively acidic.

Low soil pH can reduce phosphorus availability, restrict root growth and increase the risk of aluminium or manganese toxicity. Shallow or damaged root systems are also less capable of reaching stored moisture during dry periods later in the season.

Lime selection should be based on laboratory

recommendations rather than price alone. Calcitic lime supplies calcium and is generally suited to soils where magnesium levels are sufficient. Dolomitic lime provides both calcium and magnesium and may be appropriate where magnesium is also deficient.

Gypsum may be considered where producers need to supply calcium or address specific subsoil constraints, but it does not neutralise topsoil acidity in the same way as agricultural lime. It should therefore not be used as a general substitute for lime.

Application timing also matters. Lime reacts gradually and should be applied sufficiently early to allow rainfall, soil moisture and, where appropriate, incorporation to support the neutralisation process. Producers working within no-till or reduced-tillage systems should discuss placement, application frequency and surface correction strategies with an experienced soil scientist or agronomist.

Fertilise according to measured need

Fertiliser remains one of the largest expenses in summer crop production, making nutrient-use efficiency central to both profitability and environmental responsibility.

A fertiliser programme should consider the soil analysis, realistic yield potential, previous crop, rainfall expectations, soil depth, texture and the

Did You Know?

Increasing soil organic matter by just 1% can substantially improve the soil's capacity to store plant-available water, while also supporting nutrient cycling and biological activity. Although improvement takes time, every season spent protecting soil cover and reducing unnecessary disturbance contributes towards greater resilience.

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amount of crop residue remaining on the field. Grain SA's integrated soil fertility guidance emphasises that neither mineral fertiliser nor biological soil processes should be viewed in isolation. Sustainable production requires locally adapted management that combines soil fertility, crop rotation, organic

moisture before the summer crop is established. They may also host insects and diseases and complicate planting operations.

Depending on the production system and weed spectrum, producers may use registered non-

selective herbicides, residual products, mechanical control, cover-crop competition or a combination of these methods. Herbicide selection must consider the intended crop, soil type, existing weed resistance and the planting interval specified on the product label.

Adjuvants, water conditioners and drift-control products may improve application performance under certain conditions, but they should be selected for a defined purpose. Adding products to the spray tank without understanding compatibility or water quality can reduce efficacy and increase crop risk.



matter and correctly timed nutrient applications.

After a wet season, nitrogen deserves particular attention. Nitrate is highly mobile and may have moved below the active root zone, especially on sandy soils. Local production guidance has specifically noted the value of split or side-dress nitrogen applications in high-rainfall environments where leaching is a concern.

Rather than applying all nitrogen at planting, producers may consider dividing applications according to crop demand, soil conditions and rainfall prospects. This can reduce exposure to early-season losses while allowing the programme to be adjusted as the crop develops.

Phosphorus, potassium, sulphur and micronutrients should also be matched to analysis results. Starter fertilisers, granular blends, liquid fertilisers and variable-rate applications may all have a place, but the selected product must address a measured limitation.

Weed control protects stored moisture

September weed control is not simply about presenting a clean seedbed. It is about protecting the soil's moisture and nutrient reserves.

Actively growing weeds can remove considerable

A regenerative approach does not exclude responsible herbicide use. Rather, it combines appropriate chemistry with crop rotation, residue retention, cover crops, reduced soil disturbance and resistance-management principles.

Keep the soil covered

Crop residues should increasingly be viewed as a protective resource rather than an obstacle to planting.

Residue cover reduces direct evaporation, moderates soil temperature and protects the surface against the impact of intense thunderstorms. It also slows runoff, improves water infiltration and reduces soil loss.

On many grain farms in the eastern Free State, producers have found that fields where residue was retained after harvest remained noticeably cooler and retained moisture longer during early spring than neighbouring conventionally tilled fields. While every farm differs, observations such as these continue to encourage greater adoption of conservation agriculture practices across South Africa.

Conservation agriculture research and guidance

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consistently link reduced soil disturbance, crop diversity and permanent soil cover with improved soil structure, biological activity and water-use efficiency. Cover crops may also help reduce erosion, nutrient loss and soil crusting while contributing roots and biomass to the farming system.

Residue must nevertheless be managed properly. Uneven material can interfere with planting depth and seed-to-soil contact, while excessive residues may temporarily immobilise nitrogen during decomposition. Row cleaners, coulters, residue managers and correctly configured no-till planters can help producers plant accurately without sacrificing protective cover.

Where cover crops are used, termination timing should reflect available moisture, the following cash crop and local rainfall prospects. A cover crop that is allowed to grow too long in a dry environment may consume water needed for establishment, while terminating too early may limit soil-health benefits.

Biological and organic inputs: support, not substitution

Interest in microbial inoculants, composts, manure, humic substances, fulvic products and biological seed treatments continues to expand. These products may support nutrient cycling, microbial diversity, root development or soil organic matter, but they should complement rather than replace sound agronomy.

Well-composted manure and compost can add organic carbon and nutrients while improving aggregation and water-holding capacity. Their nutrient content should, however, be analysed and included in the fertiliser calculation. Poorly managed organic material may introduce weed seeds, pathogens or uneven nutrient loads.

Soybean producers should ensure that an appropriate, viable rhizobium inoculant is used and handled correctly. Inoculants must be protected from heat, sunlight and incompatible chemical treatments, and seed should be planted within the recommended period after treatment.

Biological products should be evaluated according to independent trial data, local soil conditions, storage requirements and realistic return on investment. Regenerative farming is not achieved by adding a biological product to an otherwise unchanged system.

Its foundations remain living roots, diversity, residue cover, limited disturbance and careful integration of crops and livestock where appropriate.

Inspect fields, not only laboratory reports

Soil analysis provides chemical information, but producers should also assess physical soil conditions before planting.

A spade, soil auger or profile pit can reveal compacted layers, poor root channels, waterlogging, crusting and erosion that may not appear in a standard soil test. After a wet season, repeated machinery traffic may have caused compaction, particularly where operations took place before soils were sufficiently dry.

Compaction should not automatically trigger deep ripping across the entire farm. The depth, extent and cause of the restriction should first be confirmed. Controlled traffic, biological loosening through deep-rooted cover crops and reduced future disturbance may offer more lasting solutions than repeated mechanical intervention.

Prepare the planter before the planting window opens

When suitable planting conditions arrive, equipment reliability becomes essential.

Planters should be inspected for worn seed discs, bearings, gauge wheels, closing wheels, fertiliser tubes and depth-control components. Seed meters should be calibrated for each seed size and shape, while fertiliser systems must be checked for blockages and accurate delivery.

Precision systems, including guidance, section control, variable-rate equipment and planter monitors, should be tested before entering the field. A sophisticated planter cannot compensate

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for poor calibration, incorrect depth or inadequate seed-to-soil contact.

Seed choice should similarly reflect more than maximum yield potential. Producers should consider maturity class, local adaptation, disease tolerance, drought response and performance across several seasons. Certified seed and appropriately selected fungicidal, insecticidal or biological seed treatments can protect establishment during the vulnerable early growth period.

Preparation builds options

No producer can determine precisely how rainfall will be distributed during the coming season. What can be managed is the condition of the soil, the accuracy of nutrient decisions, the readiness of equipment and the amount of moisture conserved before planting.

Following a wet season, fresh soil testing is especially important. It provides the evidence needed to identify nutrient movement, acidity, imbalances and field-to-field variation before costly inputs are committed.

Regenerative farming strengthens this preparation by encouraging producers to protect the soil, maintain living roots, diversify rotations and improve biological function over time. Products and technologies can support these objectives, but they are most effective when selected in response to a clearly identified need.

September may not be South Africa's busiest summer planting month, but it is one of the most influential. The work completed now will determine how effectively each field captures opportunity when favourable planting conditions arrive.

Pre-season readiness checklist

Soil assessment

- Complete representative soil sampling, particularly after an unusually wet season.
- Sample topsoil and subsoil where nutrient movement or acidity is suspected.
- Separate different soil types, production zones and drainage areas.
- Evaluate pH, acid saturation, major nutrients and relevant micronutrients.
- Inspect soil profiles for compaction, waterlogging and restricted rooting.

Soil amendments and fertility

- Select calcitic or dolomitic lime according to laboratory recommendations.
- Use gypsum only where a specific calcium or subsoil requirement has been identified.
- Match fertiliser rates to soil results, crop requirements and realistic yield potential.
- Consider split nitrogen applications where leaching risk is high.
- Include manure and compost nutrients in the total fertility programme.

Moisture and soil protection

- Control spring weeds before they use stored moisture.
- Retain and distribute crop residue as evenly as possible.
- Plan cover-crop termination according to soil moisture and the following crop.
- Avoid unnecessary tillage and traffic on wet soils.

Planting preparation

- Calibrate seed meters and fertiliser delivery systems.
- Inspect depth wheels, closing wheels, tubes and bearings.
- Test GPS, monitors and variable-rate systems.
- Select certified seed suited to the region and intended planting window.
- Confirm that all crop-protection and seed-treatment products are registered and used according to label directions.

Every growing season presents producers with opportunities they cannot control and decisions they can. Rainfall, temperature and market conditions will always introduce uncertainty, but the condition of the soil remains firmly within the producer's hands.

As another summer planting season approaches, perhaps the most important investment is not the next input purchased, but the long-term health of the soil beneath every hectare. Farms that protect that resource today will be the ones best positioned to produce profitable crops for generations to come.



QUALITY SEED, QUALITY HARVEST

Eswatini growers demonstrate the potential of Sakata vegetable varieties

Two farmers from Mpolonjeni in Eswatini's Lubombo region have demonstrated the potential of quality vegetable production after winning the Eswatini National Farmers Competition. Their success with Sakata's Pluto butternut and Disco LL tomato varieties puts the focus firmly on the value of quality seed, committed growers and technical support.

For Miss Welile Hlophe and Miss Zodwa Ginindza, vegetable production has delivered recognition at national level.

The two farmers from Mpolonjeni in the Lubombo region of Eswatini demonstrated the potential of vegetable production after winning the **Eswatini National Farmers Competition**, hosted by the Ministry of Agriculture.

Miss Hlophe and Miss Ginindza were recognised for their impressive production of two Sakata vegetable varieties: **Pluto butternut and Disco LL tomato**.

Their success highlights their dedication and commitment to farming, as well as the important role that quality seed varieties and technical support play in vegetable production.

The farmers were supported by **Eswatini Agricultural**

Supplies, Sakata's distributor in Eswatini, which provided access to the seed varieties as well as technical support before and after planting.



National recognition: Miss Welile Hlophe and Miss Zodwa Ginindza won the Eswatini National Farmers Competition, hosted by the Ministry of Agriculture, after impressing with their production of Sakata's Pluto butternut and Disco LL tomato varieties.

"Their success highlights their dedication and commitment to farming, as well as the important role that quality seed varieties and technical support play in vegetable production."

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Excellent quality starts with excellent seed

Vegetable growers are continually looking for varieties that will enable them to produce vegetables of excellent quality.

That quality has value throughout the chain. It benefits the producer, trader and processor and, ultimately, ensures that the consumer receives a valuable product.

Sakata Seed has been investing in intensive research for more than **110 years**, resulting in the development of varieties that enable growers to successfully produce vegetables of outstanding quality.

Sakata is particularly well known for its high-quality **F1 hybrid butternut varieties**.

With varieties offering very high yields, strong and vigorous plants and resistance to Powdery mildew, Sakata has set new standards for butternut production in both South Africa and Africa.

“Excellent quality benefits everyone – the producer, trader, processor and ultimately the consumer.”

ATLAS

Large fruit, excellent quality and a long bearing season



Atlas F1 hybrid butternut produces large fruit, weighing approximately **2–3 kg in summer**, with excellent fruit quality.

Atlas is widely adapted for planting

in all growing regions, and the overall vigour of the variety tends to make it less susceptible to diseases.

Yield potential is very good, while fruit set is excellent and extends across a long bearing season.

Atlas is also well adapted for **cooler-season harvests**, when the fruit is smaller and suitable for the fresh market.

The flesh texture is very firm and the rind is very smooth, developing a tan colour when mature. Mature fruit also has an excellent shelf life.

The fruit is used as a traditional butternut; however, its superior flesh quality makes Atlas ideal for processing.

“Atlas combines very good yield potential with excellent fruit set and a long bearing season.”

BARBARA

A distinctive tropical F1 hybrid

Barbara is an exciting **tropical F1 hybrid butternut variety**.

The plants are widely adapted and yield potential is high. Fruit set is excellent and extends over a long bearing period.

It has been observed that the plants' strong vigour tends to make them less susceptible to diseases.



Barbara may be used for mature fruit production due to its exceptional quality and can be harvested approximately **85–95 days from transplant**.

Mature fruit weighs around **1–1.5 kg**.

Barbara also has a distinctive appearance.

The rind of the immature, or baby, fruit is dark green with lighter-green stripes. When mature, the fruit develops a medium-dark green colour with thinner tan-coloured stripes running from the stem base through to the blossom end.

QUANTUM

The industry standard for warm-season production

Quantum F1 hybrid butternut produces medium-sized fruit weighing approximately **0.8–1.5 kg**, with excellent fruit quality.

Quantum is the industry standard for warm-season production, producing very uniform, medium-sized

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fruit.

The plants are adaptable and vigorous and therefore tend to be less susceptible to diseases.

Yield potential is excellent and the fruit is not inclined

to crack. Fruit set is also excellent and extends over a long bearing season.

The firm, deep-orange flesh has an excellent flavour and high sugar content, while the smooth rind develops a tan colour when mature.

Mature fruit has an excellent shelf life.

Quantum has intermediate resistance to Powdery mildew (Px) (ex Sf).

“Quantum is the industry standard for warm-season production, giving very uniform, medium-sized fruit.”

PLUTO

Excellent fruit quality for cooler-season harvests

Pluto is an F1 hybrid butternut producing medium-sized fruit of between **1–2 kg**, with excellent fruit quality.

The plants are adaptable and vigorous and tend



to be less susceptible to diseases.

Yield potential is excellent and the fruit is not inclined to crack. Fruit set is excellent

and extends over a long bearing season.

Pluto produces firm, deep-orange flesh with an excellent flavour and high sugar content.

The smooth rind develops a tan colour when mature and the fruit has an excellent shelf life.

Pluto is well adapted for **cooler-season harvests where small to medium fruit are required.**

The variety has intermediate resistance to Powdery mildew (Px) (ex Sf).

Pluto also forms part of the success story from Eswatini, where Miss Hlophe and Miss Ginindza demonstrated the potential of vegetable production through their impressive production of **Sakata's** Pluto butternut and Disco LL tomato varieties.

From quality seed to quality vegetables

The achievements of Miss Hlophe and Miss Ginindza bring the story back to where it matters most – vegetable production in the field.

Growers are looking for varieties that enable them to produce vegetables of excellent quality, and that quality ultimately creates value beyond the farm gate.

For Sakata, its investment in research and variety development is reflected in a butternut range offering different fruit sizes, seasonal applications and production characteristics.

For growers, the objective remains clear: excellent-quality vegetables grown from **excellent-quality seed.**

For more information on Sakata's butternut range or to view the complete product range, visit **www.sakata.co.za**.

“Excellent-quality vegetables grow from excellent-quality seed.”

DID YOU KNOW? **More than 110 years of research**

*Sakata Seed has been investing in intensive research for **more than 110 years**, resulting in the development of varieties that enable growers to successfully produce vegetables of outstanding quality.*

For the vegetable value chain, quality matters at every stage – from the grower and trader through to the processor and, ultimately, the consumer.

SAKATA BUTTERNUTS AT A GLANCE

ATLAS F1 Hybrid

- Fruit size: 2–3 kg in summer
- Yield potential: Very good
- Fruit set: Excellent
- Bearing: Long season
- Flesh: Very firm
- Mature rind: Smooth and tan
- Shelf life: Excellent
- Best suited to: Traditional butternut use and processing
- Seasonal advantage: Also adapted to cooler-season harvests, when smaller fruit are suitable for the fresh market

BARBARA F1 Hybrid

- Type: Tropical F1 hybrid
- Fruit size: Approximately 1–1.5 kg at maturity
- Harvest: Around 85–95 days from transplant
- Yield potential: High
- Fruit set: Excellent
- Bearing: Long period
- Immature rind: Dark green with lighter-green stripes
- Mature rind: Medium-dark green with thinner tan-coloured stripes

QUANTUM F1 Hybrid

- Fruit size: 0.8–1.5 kg
- Positioning: Industry standard for warm-season production
- Fruit: Very uniform and medium-sized
- Yield potential: Excellent
- Flesh: Firm and deep orange
- Flavour: Excellent, with high sugar content
- Mature rind: Smooth and tan
- Shelf life: Excellent
- Resistance: Intermediate resistance to Powdery mildew (Px) (ex Sf)

PLUTO F1 Hybrid

- Fruit size: 1–2 kg
- Yield potential: Excellent
- Fruit set: Excellent
- Bearing: Long season
- Flesh: Firm and deep orange
- Flavour: Excellent, with high sugar content
- Mature rind: Smooth and tan
- Shelf life: Excellent
- Seasonal advantage: Well adapted for cooler-season harvests where small to medium fruit are required
- Resistance: Intermediate resistance to Powdery mildew (Px) (ex Sf)

Quality Butternut Seed



Quantum
F1 Hybrid Butternut



Barbara
F1 Hybrid Butternut

Pluto
F1 Hybrid Butternut



Atlas
F1 Hybrid Butternut



Visit our website for more info about these varieties

+27 11 548 2800 info.saf@sakata.eu www.sakata.co.za



SAKATA

PASSION in Seed



From Seed to Solution: The Multifunctional Applications of Canola

Canola is a high-value broadleaf oilseed crop belonging to the brassica family. This cool-season crop thrives in full sunlight, well-drained loamy soil and conditions with consistent moisture.

Canola plants grow between one and two metres tall, changing from green to light yellow when they are ready for harvest. Each plant produces between 60 and 100 seed pods, which are approximately 5 cm long. Each pod contains between 20 and 30 dark, round seeds measuring approximately 1 mm in diameter and containing 44% oil.

The seeds are harvested and crushed to produce a highly versatile oil. Canola oil is widely used for cooking because of its high smoke point. The crushing process also produces a protein-rich meal that serves as a nutritious livestock feed.

Beyond its agricultural and culinary uses, canola's high seed-oil content makes it a valuable resource for industrial applications, including the production of renewable biofuels, lubricants and bioplastics.

To achieve the high seed yields required for these diverse applications, canola requires specific environmental management. This includes maintaining neutral soil pH levels and supplying robust nutrient inputs of nitrogen, phosphorus and sulphur throughout the crop's growth cycle. The global canola market is a multibillion-rand agricultural

powerhouse, with the global canola oil market valued at more than R740 billion, or US\$40.5 billion. Driven by growing demand for healthy cooking oils, high-protein animal feed and sustainable biofuels, canola serves as a vital economic engine worldwide.

Major Economic Drivers

• Global production and trade leadership

Approximately 90 million metric tonnes of canola are produced worldwide each year. Canada leads global production, yielding approximately 20 million tonnes annually, and accounts for roughly 60% of the international canola trade.

Other major canola-producing regions and countries include China, India, the European Union and Australia.

• Job creation and GDP impact

In leading producer countries, the canola industry is a significant creator of employment. According to the Canola Council of Canada, the sector contributes more than R800 billion, or C\$43.7 billion, to the Canadian economy annually and supports more than 206 000 full-time jobs.

• The biofuel boom

One of the fastest-growing economic segments of the

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canola industry is its role in green energy. Investment in canola-processing plants has increased globally because canola oil is a highly efficient, low-carbon feedstock for the rapidly growing renewable diesel and biodiesel sectors.

An emerging South African success story

At a local level, canola is regarded as one of South Africa's premier agricultural success stories.

Production in the Western Cape has grown exponentially, increasing from 17 000 hectares in the late 1990s to more than 174 000 hectares.

This expansion has contributed to localised economic growth, improved crop-rotation profitability and created direct employment in rural communities.

Assessing the Versatility and Industrial Utility of Canola

Canola oil is widely used in baking, frying, marinating and salad dressings. It is also used in the manufacture of an extensive range of food and non-food products

Canola meal is processed into functional additives. Notably, commercial products labelled as "vegetable oil" often contain canola oil, as this broad regulatory term allows manufacturers to blend or substitute oils without updating the ingredient list.

Smoke Point

The following table compares the smoke points of various culinary oils:

Culinary oil	Smoke point
High-oleic sunflower oil	248°C
High-oleic canola oil	246°C
Peanut oil	244°C
Canola oil	242°C
High-oleic safflower oil	242°C
Sunflower oil	240°C
Corn oil	234°C
Soybean oil	234°C

Culinary oil	Smoke point
Safflower oil	230°C
Grapeseed oil	224°C
Processed olive oil	220°C
Extra-virgin olive oil	166°C

Recipe Conversion Chart

The following table provides a comparison between melted solid fat and canola oil when used in recipes

Melted solid fat	Canola oil
250 ml or 1 cup	175 ml or $\frac{3}{4}$ cup
175 ml or $\frac{3}{4}$ cup	150 ml or $\frac{2}{3}$ cup
125 ml or $\frac{1}{2}$ cup	75 ml or $\frac{1}{3}$ cup
50 ml or $\frac{1}{4}$ cup	45 ml or 3 tablespoons

Culinary Uses of Canola Oil

• Salad dressings

Canola oil is ideal for salad dressings because it has a light taste and colour. It remains liquid in the refrigerator and blends well with herbs and spices.

• Baking

In baking, canola oil gives baked goods a soft, moist texture and serves as an effective substitute for ingredients that are high in saturated or trans fats. Its neutral profile ensures that it does not introduce any distinctive flavours into the final product.

• Deep frying

Canola oil has a high smoke point, making it suitable for deep frying. Even after extended periods of frying, it forms only a minimal amount of trans fat and does not transfer flavours between foods.



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• Marinades

In marinades, oil helps retain moisture in meat, while acidic ingredients such as vinegar or lemon juice tenderise it.

Canola oil's mild flavour prevents it from interfering with other ingredients, allowing the natural taste of the food and marinade to prevail. Because canola oil remains liquid under refrigeration, it also optimises the marinating process and allows the liquid to be drained easily before cooking.

Margarine Produced from Canola Oil

Margarine produced from non-hydrogenated canola

oil offers several distinct nutritional and functional advantages. It:

- Is a heart-healthy food choice;
- Lowers cholesterol;
- Is a source of vitamins A and E;
- Contains essential fatty acids; and
- Contains substantially less trans and saturated fat than similar products.

Products Derived from Canola

The versatility of canola is demonstrated by the extensive range of food products, non-food products and processed meal products that can be produced from the crop.

Food Products from Canola Oil	Non-Food Products from Canola Oil	Products from Canola Meal
High stability frying oil	Cosmetics – lip gloss, creams, shampoo, soap, lipstick, massage oils	Protein isolates for human food
Margarine	Biodiesel	Livestock feed
Salad oil	Dust depressants	Poultry feed
Cooking spray	De-icer for aircraft	Pet food
Shortening	Printing ink	Fish food
Liquid shortening	Suntan oil	Fertiliser
Mayonnaise	Antistatic for paper and plastic wrap	
Sandwich spread	Biodegradable greases	
Coffee whitener	Bioplastics	
Creamer	Industrial lubricants	
Cookies		
Crackers		
Cake mixes		
Bread		
Snack foods		



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Conclusion

Canola is a highly versatile crop that offers significant value through both its oil and its processed meal by-products.

When stored correctly in a tightly sealed container in a cool, dark place, canola oil has a shelf life of up to one year. It is widely recognised as one of the healthiest dietary oils available, as it is cholesterol-free and contains no trans

fats. Canola oil is also a rich source of vitamin K, which is essential for blood clotting and bone metabolism, and vitamin E, an antioxidant that protects against oxidative damage.

Beyond its dietary benefits, canola oil provides essential raw material for the industrial manufacture of a diverse range of non-food products, from biofuels to lubricants. At the same time, the processing of canola meal produces highly versatile additives that extend the

crop's usefulness well beyond the culinary sector.

Ultimately, canola stands as a highly versatile agricultural product that delivers remarkable nutritional and industrial value.

By Theresa Siebert

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ARC Natural Resources and Engineering



CANOLA AT A GLANCE

Canola's value extends far beyond the bottle of cooking oil found in the kitchen. The crop produces oil for food and industrial applications, while the protein-rich meal remaining after processing provides valuable feed and functional ingredients.

The crop

- A cool-season broadleaf oilseed crop belonging to the brassica family.
- Plants grow between one and two metres tall.
- Each plant produces approximately 60 to 100 seed pods.
- Each pod contains around 20 to 30 seeds.
- Canola seed contains approximately 44% oil.

What the crop requires

High seed yields depend on suitable growing conditions and careful crop management. Canola performs best in:

- Full sunlight;
- Well-drained loamy soil;
- Conditions with consistent moisture;
- Soil with a neutral pH; and
- A sound nutrient programme supplying nitrogen, phosphorus and sulphur.

A crop with multiple markets

Canola supports several important value chains:

- Food: Cooking oil, margarine, salad oil, mayonnaise, shortening, baking products and snack foods.
- Animal nutrition: Livestock, poultry, pet and fish feed.
- Renewable energy: Biodiesel and renewable diesel feedstock.
- Industrial manufacturing: Bioplastics, biodegradable greases, printing ink, industrial lubricants, cosmetics and aircraft de-icer.

South African growth

Canola production in the Western Cape has increased from approximately 17 000 hectares in the late 1990s to more than 174 000 hectares, supporting crop-rotation profitability, rural employment and local economic activity.





Beyond Culling: South Africa Rewrites Its Bird-Flu Defence

South Africa's poultry industry is preparing for a fundamental change in the way highly pathogenic avian influenza is managed.

For years, the arrival of HPAI on a poultry farm has carried a brutal consequence. Infected and exposed flocks have been destroyed, movements restricted and buildings disinfected while the producer absorbs a financial and operational shock that can take months—or years—to repair.

Culling remains an important disease-control tool. What is changing is the belief that it must be the industry's principal defence every time the virus appears.

In June 2026, the Department of Agriculture announced its intention to establish a clearer legal framework for vaccination against HPAI. The department said it would amend the Animal Diseases Regulations or issue a formal control measure under Section 9 of the Animal Diseases Act.

The proposed change followed a formal objection by the South

African Poultry Association to the existing regulatory approach. Government acknowledged that mixed interpretations of the rules had caused uncertainty and weakened the ability to deal with outbreaks consistently.

Vaccination will not make biosecurity less important. It will make disciplined biosecurity, surveillance and record-keeping more important than ever.

A Shift in Disease Control



The announcement does not mean that every poultry producer may immediately purchase a vaccine and begin inoculating birds.

HPAI vaccination is more complicated than routine

vaccination against diseases such as Newcastle disease or infectious bronchitis. A national programme must be able to distinguish vaccinated birds from infected birds, track the vaccine used, measure immunity, detect circulating virus and satisfy the health requirements of trading partners.

Government's proposed approach combines vaccination with biosecurity, testing and surveillance. The department will remain responsible for national surveillance

systems, laboratory testing and enforcement of outbreak-control requirements.

This means vaccination will become one layer in a broader protection system. It will not be

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a licence to relax access control, cleaning, disinfection or mortality monitoring.

A vaccinated flock can still be exposed to the virus. Depending on the vaccine, field strain and immune response, infection may still occur even when severe disease and mortality are reduced. Producers must therefore remain able to detect unusual changes in feed intake, water consumption, egg production, behaviour and mortality.

The advantage is that vaccination may reduce the scale of losses and lower the risk of explosive disease spread through susceptible long-living flocks.

Why Long-Living Birds Matter

- **Layers and Breeders Carry a Longer Risk**

Broilers generally remain on farms for only a few weeks. Commercial layers and breeding birds remain in production for much longer, increasing the period during which they may be exposed to wild birds, contaminated equipment, people, vehicles or other disease pathways.

The 2023 HPAI epidemic demonstrated how heavily an outbreak can affect the egg and breeding sectors. The loss of long-living birds does not end when the last carcass is removed. It affects the availability of table eggs, hatching eggs, day-old chicks and replacement stock further down the chain.

A breeder flock represents accumulated genetic value, rearing cost and future production. When it is destroyed, the loss can move through hatcheries, broiler farms and processing schedules.

This is why long-living birds have been central to the vaccination

debate. Departmental planning documents published earlier in 2026 recorded that only one broiler-breeder farm had been approved for vaccination under the existing protocols and that a scientific and veterinary task team was reviewing those protocols.

The June intervention indicates that government accepts that the existing process has not moved quickly enough for the scale of the risk.

What Farmers Will Have to Prove

- **Traceability Must Begin Before Vaccination**

A workable vaccination programme will depend on accurate



farm information.

Authorities and company veterinarians will need to know where vaccinated birds are housed, which vaccine was administered, the batch number, the age of the birds, the date of vaccination and the identity of the person responsible.

They will also require records of mortality, clinical observations, laboratory samples and movements of birds, eggs, manure, feed vehicles and equipment.

For large integrated companies, many of these systems are already embedded in production management. For smaller

commercial and developing farmers, the administrative burden may be more difficult.

That does not make small producers less important to disease control. On the contrary, national surveillance is only as reliable as the information received from the farms included in it.

Government has said the new rules should accommodate both large poultry businesses and smallholder farmers. This will require practical support, clear communication and access to veterinary services—not simply another set of forms handed to producers.

- **Monitoring Cannot Stop at the Farm Gate**

Hatcheries, catching teams, transporters, abattoirs and rendering facilities will also have responsibilities.

Vaccinated populations must remain traceable as birds and products move through the chain. Where an infection is detected, investigators must be able to reconstruct movements quickly enough to identify linked premises.

A delay of several days can allow vehicles, crates, employees or equipment to connect farms that would otherwise have remained separate.

The lesson is simple: vaccination may lower biological risk, but poor

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information can still allow an outbreak to outrun the response

Biosecurity Returns to Basics.

The most effective biosecurity measures are often the least dramatic.

Farm boundaries must be



controlled. Visitors should enter only when necessary. Footwear and clothing must be changed or disinfected correctly. Vehicles should be cleaned before entering production areas. Wild birds and rodents should be kept away from feed, water and poultry houses.

Mortality must be collected promptly and stored securely. Water sources must be protected. Equipment moved between houses or farms must be cleaned and disinfected.

A disinfectant cannot work properly on a surface still covered in manure, mud or organic matter. Cleaning must therefore precede disinfection, with the correct concentration and contact time applied.

During hot, dry or unsettled weather, these controls can become more difficult. Dust moves easily between areas, surface water quality may deteriorate, wild birds gather around available water and heat places additional pressure on ventilation systems.

Producers planning for the coming

production cycles should assess backup water, cooling capacity, generator readiness, fuel storage and emergency ventilation. These are not separate from disease control. A house that loses ventilation during extreme heat can suffer losses before a veterinarian reaches the farm

The strongest vaccine programme will still fail if infected material is carried from one poultry house to the next on boots, crates or vehicle tyres.

The Export Question

Vaccination can protect domestic production, but it must be implemented without weakening South Africa's access to export markets.

Importing countries want evidence that poultry products are safe and that the exporting country can detect and contain animal disease. Some markets are cautious about products from vaccinated populations because vaccination may conceal infection unless surveillance is sufficiently sensitive.

South Africa will therefore need a programme that meets international animal-health standards and the specific conditions negotiated with each trading partner.

This places pressure on laboratories, state veterinary services and certification systems. Test results must be reliable. Records must withstand scrutiny. Outbreak information must be reported accurately.

The industry cannot ask foreign buyers to trust its disease status while operating with fragmented records or long delays in certification.

The vaccination policy and the export programme are therefore joined at the hip. Progress in one will depend on credibility in the other.

A New Contract Between Farmer and State

Government's intervention is an important step, but the success of the policy will be measured on farms rather than in statements.

Farmers need clear rules, realistic permit procedures and access to approved vaccines. Private veterinarians need consistent instructions. Laboratories need sufficient capacity. Officials need the resources to investigate outbreaks and process applications without unnecessary delay.

Producers, in turn, will have to report suspicious disease quickly and maintain the records required by the programme.

No farmer wants to invite an investigation onto the farm. Yet delayed reporting can turn a localised disease event into a regional emergency.

The aim should not be to remove culling from the disease-control toolbox. It should be to ensure that culling is applied where epidemiologically necessary rather than serving as the only available response.

South Africa now has an opportunity to build a more measured system—one that protects birds, farm businesses, workers, consumers and future trade.

The test will be whether regulation, vaccination and surveillance can move at the speed of the virus.

Written By (M.O)



Ready to Export, Waiting for Approval: What Is Holding Back South African Chicken?

South African poultry producers have spent years improving feed conversion, upgrading processing plants, expanding local capacity and rebuilding after disease and electricity disruptions.

The industry now argues that it is ready to compete beyond the domestic market.

The difficulty is that a poultry company cannot open an export market by loading frozen chicken into a refrigerated container and sending it to a willing buyer. Meat exports depend on agreements between governments, veterinary certification, disease surveillance, plant approval and confidence in the exporting country's controls.

Recent industry reporting has placed growing attention on delays in these processes. Poultry businesses say potential markets are available, but administrative and veterinary bottlenecks are slowing entry.

The concern extends beyond poultry. South African meat exporters have warned that unresolved certification matters increase costs

across farms, abattoirs, cold stores and logistics operations.

Why Poultry Exports Matter

South Africa remains a net importer of poultry meat. That fact has shaped the industry's trade debate for decades.

Exports, however, are not simply the opposite of imports. They can change the economics of the whole carcass.

South African consumers buy large volumes of bone-in portions. In several major exporting countries, breast meat earns a premium in domestic or foreign markets, allowing exporters to sell leg quarters and other cuts at lower prices elsewhere.

A South African producer that develops reliable markets for higher-value cuts, offal or specialised products can improve total carcass recovery. Better value from one part of the bird can strengthen the pricing position of other parts.

Exports can also help balance

seasonal demand, use processing capacity more efficiently and create outlets for products not fully absorbed by the domestic market.

For farmers, additional processing demand may support chick placements, feed sales and contract-growing opportunities. For grain producers, poultry expansion increases demand for maize and protein meal.

The opportunity is therefore broader than the export value recorded at the port.

The Halal Opportunity - Certification Is an Asset, Not a Passport

South Africa's established halal-production systems are frequently identified as an advantage in markets in the Middle East and elsewhere.

The country has experienced certification organisations, established processing procedures and a domestic consumer base familiar with halal requirements. This gives

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local processors a foundation from which to approach suitable markets.

Halal certification alone, however, does not grant market access.

An importing country may require approval of South Africa's veterinary authority, disease-status guarantees, residue controls, microbiological testing, traceability and inspection of individual processing facilities.

Packaging, labelling, shelf life and cold-chain requirements may differ between destinations. A product accepted in one country may not automatically qualify in another.

Exporters must therefore identify the market first and produce to its conditions from the beginning. Trying to convert an ordinary domestic production run into an export consignment at the end of the line invites rejection.

The Veterinary Gatekeeper - Government-to-Government Agreements

Animal products move under sanitary agreements negotiated between the exporting and importing countries.

The importing authority may send a questionnaire covering national disease controls, laboratory capacity, legislation, inspection systems and residue monitoring. It may request an audit of the competent authority and selected establishments.

South African officials must answer those questions, negotiate the veterinary certificate and provide credible evidence that the conditions can be enforced.

Once access is granted, approved

veterinarians certify each consignment. Their signature represents more than the condition of one load. It assures the importing country that the national system behind the certificate is functioning.

Where state veterinary capacity is thin, applications and negotiations move slowly. Where responsibilities are divided across national and provincial structures, exporters may receive inconsistent answers.

Industry criticism has focused on precisely this weakness: production investment has moved faster than the public systems required to open and maintain markets.

Export certification is not a rubber stamp at the cold-store door; it is the final link in a chain of evidence stretching back to the farm.

Bird Flu Changes the Discussion.

The developing HPAI vaccination framework adds another dimension.

Vaccination could help protect breeding and laying populations and reduce the scale of disease losses. At the same time, export partners will want assurance that vaccination does not conceal active circulation of the virus.

This makes surveillance, laboratory testing and traceability central to market access.

South Africa must be able to show where vaccinated birds are kept, how they are monitored and how infection will be distinguished from vaccine-induced immunity. Outbreak reporting must be prompt, and zones or compart-

ments must be credible.

Disease-free compartments may allow qualifying businesses to trade even when outbreaks occur elsewhere, provided the importing country recognises the arrangement and the compartment meets strict biosecurity and surveillance conditions.

Compartmentalisation is not a paperwork exercise. It requires separation of production systems, controlled inputs, auditable movements and continuous monitoring.

The same disciplines that protect a farm from HPAI also make it easier to defend an export certificate.

From Farm to Container

An export programme begins with bird health, but it also depends on infrastructure.

Processing plants must deliver consistent weights, cuts and product specifications. Laboratories must meet turnaround times. Packaging must tolerate the full cold-chain journey. Pallets, labels and documentation must match the customer's order and the importing country's rules.



Temperature control is critical. A cold chain can be broken on the road, during port congestion, during electricity interruptions or while a container waits for documentation.

Recent logistics strain and elevated freight costs have affected poultry trade, while congestion and global shipping disruptions have

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increased the cost and uncertainty of moving refrigerated goods.

Weather adds another practical consideration. High temperatures raise the load on refrigeration, ventilation and transport systems. Water interruptions affect processing hygiene. Road and port disruptions can cause delays that a chilled product cannot tolerate.

Processors pursuing exports must therefore assess backup generation, water storage, refrigeration redundancy and contingency routes as part of market development.

Can Smaller Producers Participate?

Export production tends to favour scale because certification, testing and segregated processing are expensive.

That does not mean smaller farmers must be excluded.

Contract-growing arrangements can connect independent producers to an approved integrated chain. Producer groups can share veterinary and technical services. Development programmes can focus on farms able to meet defined biosecurity and production standards.

The important point is that inclusion must be designed into the system.

Placing birds with a developing farmer without securing feed, veterinary support, reliable water, power, transport and market access is not transformation. It is the transfer of production risk to the person least able to carry it.

Export-linked development should measure survival, performance and repeat production—not

merely the number of farms supplied once.

What Government Must Deliver

The private sector can invest in houses, farms, hatcheries and processing equipment. It cannot issue the national veterinary guarantees required by foreign governments.

The Department of Agriculture must therefore treat export certification as economic infrastructure.

This requires enough trained officials, functioning laboratories, coordinated provincial services and clear deadlines for market-access applications. Where foreign authorities raise questions, responses must be assembled promptly.

South Africa does not need market access on paper. It needs approved products leaving approved plants for customers who will order again.

South Africa also needs to select markets carefully. It is better to complete a small number of commercially valuable protocols than to maintain a long list of negotiations that never reach the first consignment.



Industry must do its part by presenting realistic market cases, sharing technical information and ensuring that plants are ready when an agreement is concluded

Competing Without Losing the Home Market

Export growth should not be measured only in tonnes.

The quality of the market matters. Selling low-value product into a difficult destination may add volume without creating durable returns.

Exporters should seek markets that improve whole-bird value, reward South Africa's production strengths and can be served reliably.

Domestic food security must remain central. Chicken is South Africa's most widely consumed animal protein, and affordability matters to households.

A successful export strategy should strengthen local production rather than pull affordable food away from consumers. Greater scale, better carcass value and more efficient plants can support both goals when managed properly.

South Africa has made notable progress at farm and processing level. The next stage depends on turning technical competitiveness into institutional reliability.

The birds are being produced. The plants are operating. Potential

customers are asking questions.

The state now has to help the industry answer them.

Written by: (M.O)



Deep Dive into the Efficiency Behind South Africa's Poultry Industry

How feed performance and local grain surpluses strengthened competitiveness—and why the advantage must now be defended

South Africa's broiler industry has achieved a significant improvement in international cost competitiveness. A recent benchmark (*BFAP's 2025 broiler competitiveness benchmark, cited in USDA Foreign Agricultural Service GAIN Report SF2026-0015, published 19 May 2026.*) placed the country behind Brazil but ahead of the United States among the poultry-producing countries assessed.

The finding is important, but it must be described precisely.

South Africa is not the world's second-largest poultry producer. The country was not compared with every poultry-producing nation. The result comes from a benchmarking exercise that compared representative broiler-production systems in a selected group of major producing countries.

The costs were standardised and converted into a common currency. South Africa's position therefore reflects two forces working together: genuine

improvement in poultry-production efficiency and the exchange-rate effect of converting rand-denominated costs into dollars.

It also reflects a favourable period for South African feed costs, supported by a larger domestic maize crop and improved supplies of locally produced soya beans.

That cost advantage is real. It is not permanent.

South Africa's cost advantage was built inside the poultry house, but it was strengthened by the exchange rate and a more favourable domestic feed cycle.

What the Benchmark Actually Measured

International poultry comparisons are complex because each country produces chicken under different conditions.

Feed ingredients, slaughter weights, housing systems, energy costs, labour structures, financing

costs and processing practices differ widely. Even the value earned from different parts of the carcass affects what a processor can afford to charge for individual cuts.

A benchmark attempts to place those systems on a comparable footing. It considers major cost categories such as feed, day-old chicks, housing, labour, energy, health inputs, catching, transport and processing.

The figures are then expressed on a comparable per-kilogram basis and converted into a common currency.

South Africa's result therefore does not mean every local producer operates below every American producer. It indicates that the representative South African system used in the study produced chicken at a lower calculated cost than the representative United States system.

Brazil remained cheaper.

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The 80% Cost Statement

The USDA report states that the South African poultry industry reports feed and day-old chicks together account for more than 80% of total production costs.

That is not a universal biological constant. The exact percentage differs according to feed price, chick price, mortality, house type, stocking density, interest costs, electricity and the efficiency of each production system.

It is nevertheless a useful description of the structure of intensive broiler production: most of the money is committed before the bird reaches the processing plant. **(Source: USDA Foreign Agricultural Service GAIN Report SF2026-0015, "South Africa Claims its Poultry is More Competitive than US Poultry," published 19 May 2026.)**



The Rand-Dollar Advantage—and Its Cost

The weak rand made local labour and services look cheaper in dollars, while making imported nutrients, equipment and technology more expensive in rand.

A large part of South African poultry expenditure is paid in rand.

Local labour, locally grown maize, transport, maintenance and many processing services are rand-denominated. When these costs are converted into dollars, a weak rand lowers their value in the international comparison.

A cost of R1,000 converts to approximately \$66.67 at R15 to the dollar. At R18 to the dollar, the same domestic cost converts to about \$55.56.

Nothing has become cheaper for the South African farmer in rand terms, but the cost appears lower when compared in dollars.

The exchange rate therefore assisted South Africa's benchmark position.

It did not create the whole advantage.

Better feed conversion, shorter production cycles and improved

slaughter efficiency reduce the physical resources required to produce chicken. Those gains remain meaningful regardless of whether the cost is expressed in rand, dollars or euros.

The weak rand also has a damaging side.

South African feed manufacturers and poultry companies remain exposed to imported genetics, veterinary products, equipment,

spare parts and specialised feed ingredients. A weaker currency raises the rand price of these products.

What Is Actually in South African Poultry Feed?

A commercial broiler ration is not simply crushed maize.

It is formulated to provide energy, protein, amino acids, minerals and vitamins in the correct balance for the bird's age and production target.

Yellow Maize

Yellow maize is the principal energy ingredient in most South African broiler diets.

South Africa produces yellow maize locally, principally in the Free State and Mpumalanga. The Department of Agriculture reports that yellow maize is predominantly used in animal-feed production.

The 2024/25 commercial yellow-maize crop was estimated at approximately 7.85 million tonnes, 15.5% above the previous season and 6.6% above the preceding five-year average.

That larger crop improved domestic availability and helped reduce the pressure that had followed the drought-affected 2023/24 season.

Soya Bean Meal

Soya bean meal is the principal protein source used in broiler diets.

South Africa has expanded soya-bean production and local crushing considerably over the past decade. This has reduced the industry's former dependence on

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imported soya meal.

Locally produced soya beans are crushed into oil and protein-rich oilcake or meal. The poultry sector is one of the largest customers for this meal.

South Africa's improved local soya position has strengthened the feed industry, but local prices still respond to international oilseed values, the exchange rate, crushing margins and competing demand.



Sunflower Meal

Sunflower oilcake may be used as a supplementary protein and fibre source.

Its inclusion is limited by nutrient density, fibre content and the production stage of the birds. It does not simply replace soya meal on a one-for-one basis.

Wheat Bran and Other Milling By-products

Wheat bran, hominy chop and other cereal by-products can be used where prices and nutrient specifications justify inclusion.

Their use depends on formulation requirements and availability. Modern poultry diets are adjusted by nutritionists rather than built from a fixed recipe.

Vegetable Oil

Vegetable oil is added to increase dietary energy and support feed manufacture.

Locally produced soya and sunflower oil may be used, but the wider vegetable-oil market is internationally connected. Palm oil and other oils may enter South African supply chains directly or influence domestic pricing through import parity.

- threonine;
- tryptophan;
- valine, where required by the formulation.

These allow nutritionists to meet the bird's amino-acid requirements without adding excessive crude protein.

South Africa imports substantial portions of its specialised amino-acid requirements. China is a major global producer of feed-grade amino acids, meaning South African prices are exposed to Asian production conditions, shipping costs and the rand exchange rate.

Vitamins, Trace Minerals and Enzymes

Vitamin premixes, trace minerals, enzymes, antioxidants, toxin binders and other micro-ingredients are added in small quantities but perform essential functions.

Limestone and Feed Phosphates

Limestone supplies calcium.

Phosphorus is provided through ingredients such as mono-calcium or di-calcium phosphate. Phosphate products may be locally manufactured, imported or priced against international mineral and energy markets.

South Africa imports a range of these feed additives, including amino acids, enzymes and antioxidants.

Their physical inclusion rate is small, but their price per kilogram is high. Shortages can disrupt feed production even when maize and soya supplies are plentiful.

Salt and Sodium Sources

Salt and sodium bicarbonate help maintain electrolyte balance and support normal physiological function.

What the Grain Surplus Did for Feed Costs

South Africa entered the current feed cycle in a much stronger grain position than it had after the 2023/24 summer drought.

Synthetic Amino Acids

Broiler diets commonly require supplementary amino acids, including:

- methionine;
- lysine;

The 2024/25 commercial maize crop was estimated at approximately 16.18 million tonnes, almost 26% above the previous season.

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Yellow-maize production increased from roughly 6.80 million tonnes to 7.85 million tonnes.

This larger harvest improved availability for animal feed and exports. It also reduced the scarcity premium that had supported high prices after the smaller crop.

South African maize prices are formed in an open market and move between export-parity and import-parity levels. When domestic supplies are large enough to produce an exportable surplus, local prices tend to move closer to export parity.

That is generally more favourable for feed users than a deficit year in which the market moves towards the cost of importing grain.

The surplus therefore contributed to the lower poultry-feed environment reported during the first half of 2026.

It was not the only factor. International maize and soya prices, the rand, freight, fuel and feed-mill costs also influenced the delivered price.

The improvement is visible in the financial results of integrated poultry businesses. Astral Foods reported lower maize and soya-meal input costs during the six months ended 31 March 2026 and linked those lower feed costs to the recovery in its poultry division.

What the Wars Changed

Russia's War in Ukraine

Russia's invasion of Ukraine disrupted global grain, vegetable-oil, fertiliser, energy and shipping markets from 2022 onward.

Ukraine and Russia have historically been important exporters of wheat, maize, barley, sunflower oil and fertiliser inputs. Disruptions to Black Sea production and shipping contributed to global commodity-price volatility.

For South African poultry feed, the most direct exposure was not necessarily through large physical imports of Ukrainian poultry-feed maize.

The effect moved through international reference prices, vegetable oils, fertiliser, fuel, freight and the exchange rate.

Sunflower oil was particularly exposed because Ukraine and Russia are leading global suppliers. Higher vegetable-oil prices influence the energy component added to animal feed.

Fertiliser disruption also raises the cost of producing maize and soya beans locally, eventually moving into the price of feed raw materials.

It would be inaccurate to assign one general percentage increase in South African poultry-feed costs to the Ukraine war. Feed prices changed throughout the period and were also influenced by local crop size, currency movements and domestic energy costs.

There is no single verified South African figure that isolates the war from those other forces.

The 2026 Iran Conflict

The 2026 conflict involving Iran has introduced a different risk: oil, fertiliser and shipping through the Persian Gulf and the Strait of Hormuz.

South Africa imports much of its crude oil, fuel and fertiliser requirements. Disruption or higher risk premiums in Gulf shipping can increase fuel, fertiliser and freight costs.

For poultry feed, this can enter the cost chain through:

- diesel used in planting, harvesting and grain transport;
- fertiliser used in maize and soya production;
- ocean freight on imported feed additives;
- local road transport;
- energy and packaging costs.

A South African provincial agricultural planning document published in 2026 identified higher fuel and fertiliser costs and shipping disruption as key agricultural risks arising from the Iran conflict.

That establishes the direction of the risk, but it does not provide a defensible national percentage increase for poultry feed.

The Next 12 Months

The most recent USDA grain outlook, published on 25 March 2026, described South Africa's grain sector as stable and resilient for the 2026/27 marketing year, while warning of tight producer margins and weather risk.

That outlook preceded the rapid strengthening of El Niño observed by mid-2026.

By July, the climate outlook had changed materially.

NOAA reported on 9 July 2026 that El Niño was already under way and expected to strengthen through the end of the year. It placed the probability of a very strong event during October to

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December at 81%.

The World Meteorological Organization similarly reported a rapidly intensifying El Niño.

These forecasts do not prove that South Africa will experience a specific national drought. El Niño changes probabilities; it does not produce identical rainfall outcomes in every region or every event.

South Africa's summer-grain sector is nevertheless highly exposed because most maize is grown under dryland conditions.

The Department of Agriculture reports that approximately 83.5% of yellow maize is dryland, while only 16.5% is under irrigation.

That makes the timing and distribution of summer rainfall critical to the poultry-feed equation.

A Surplus Is Not a Domestic Guarantee

A large carry-over stock can delay the effect of a weaker harvest, but it does not isolate South African poultry producers from world markets.

South African maize is traded in an open market and its domestic value moves in relation to export and import parity. If severe weather reduces crops in major producing regions, international maize and soya prices may rise even where South Africa still has grain available.

A weaker rand would amplify that international increase when converted into local currency. At the same time, higher export prices could encourage South African grain to move to foreign buyers, requiring local feed

manufacturers to compete more aggressively for domestic supplies.

In such a situation, the poultry industry could experience a sharp increase in feed costs without South Africa first running out of maize. The pressure would arrive through export parity, currency weakness and international demand.



A very strong El Niño would not damage every agricultural region in the same way. Some areas may receive normal or favourable rainfall. Nevertheless, simultaneous crop losses, flooding, shipping disruption or defensive buying across several major markets could tighten global availability and raise prices.

For the South African poultry producer, the key risk is therefore not only the size of the local crop. It is the price at which locally produced grain can be retained in competition with international buyers.

"In a global feed shortage, South Africa's surplus would not sit behind a fence. Export parity could force local poultry producers to compete with dollar-backed international buyers for locally grown maize and soya."

How El Niño Could Alter the Equation

A poor summer crop could affect poultry feed in several stages.

First, expected maize and soya production would be revised lower.

Second, traders and users would begin pricing a smaller domestic surplus.

Third, local grain prices could move away from export parity and towards import parity.

Fourth, the weaker production base could increase South Africa's reliance on imported maize or protein material.

At import parity, the local buyer pays a price influenced by international grain values, ocean freight, port costs, inland transport and the rand exchange rate.

A drought can therefore remove two advantages at once: local physical supply and favourable domestic pricing.

Heat also affects the poultry operation directly. Birds eat less during extreme heat, while farms use more electricity and water for ventilation and cooling.

The feed may become more expensive while the bird becomes less efficient at converting it.

What the Industry Can Do Now

South Africa cannot prevent an El Niño event. It can reduce the cost of being unprepared.

Feed manufacturers and poultry companies should build procurement plans around several crop scenarios rather than one

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expected harvest.

Forward contracting and futures-market instruments can help manage price exposure, although they do not remove basis, transport or currency risk.

Strategic stocks should be assessed carefully. Holding grain carries financing and storage costs, but running short during a rapidly rising market carries a different cost.

The industry should maintain diverse approved suppliers for imported amino acids, vitamins, enzymes and phosphates. A feed mill that has maize but lacks methionine or a vitamin premix cannot manufacture a complete broiler ration.

Local soya crushing should continue to be strengthened. The greater the reliable domestic supply of quality protein meal, the lower the exposure to imported soya products and international

freight.

Farmers should not respond to higher feed prices by diluting diets without technical guidance. A cheaper ration that worsens feed conversion can raise the cost per kilogram of chicken.

Water, ventilation and cooling systems should also be serviced before summer. Heat-stressed birds waste the value built into the feed.

Competitiveness Must Be Defended

South Africa's improved broiler-cost position is not a statistical illusion.

Feed conversion, production-cycle length, processing efficiency and local grain production have all improved.

The weak rand strengthened the international comparison by lowering the dollar value of

domestic costs. The larger maize and soya cycle also reduced local feed pressure.

Those same advantages can reverse.

A stronger dollar raises the price of imported feed additives. A disrupted oil market raises transport and fertiliser costs. A poor summer-grain crop can move South Africa from export-parity pricing towards import-parity exposure.

The industry should therefore present the benchmark as evidence of progress, not as proof that the cost question has been settled.

South Africa has become more efficient.

The next twelve months will test how resilient that efficiency really is. **Written By: (M.O)**

South Africa's Poultry-Feed Risk Map

Predominantly Local

Yellow maize, soya beans and soya meal, sunflower meal, limestone, salt and several milling by-products are substantially sourced within South Africa.

Partly Local, Internationally Priced

Vegetable oils, phosphate products, protein meals and some mineral inputs may be locally available but remain influenced by global prices and the rand.

Import-Dependent or Heavily Import-Exposed

Methionine, lysine, threonine and other synthetic amino acids; vitamin premixes; specialised enzymes; antioxidants; certain trace-mineral products; toxin binders and other technical additives.

Main Risks Over the Coming Year

- A lower yellow-maize or soya crop.
- Movement from export-parity towards import-parity grain pricing.
- Rand weakness.
- Higher oil, diesel and ocean-freight costs.
- Fertiliser-price increases.
- Disruption in amino-acid or vitamin supply.
- Heat reducing broiler feed intake and conversion.
- Insufficient storage or working capital to secure raw materials.

The Practical Response

Secure multiple supply channels, use price-risk tools appropriately, protect grain and micro-ingredient stocks, strengthen local protein-meal capacity, maintain accurate feed-conversion records and prepare houses for extreme summer heat.



Napier Grass: A High-Yielding Feed Option with Real Potential for South African Livestock Farmers

Napier grass, scientifically known as *Cenchrus purpureum*, is increasingly drawing attention as an alternative feed source for livestock farmers in South Africa.

As a highly productive perennial tropical forage grass, it is valued for rapid growth, strong biomass production, drought tolerance and relatively high protein content, making it a useful feed crop for ruminant livestock.

Once properly established, Napier grass can provide continuous green forage and biomass for up to eight years.

This gives it clear potential as a long-term forage resource, particularly where livestock producers are looking for reliable feed options that can support animals through changing production conditions.

However, as with many high-yielding forage crops, successful production depends on correct establishment, proper harvesting, sound moisture management and realistic planning around labour, machinery and conservation.

A Forage Crop for Warm Production Areas

Napier grass performs best in warm tropical and subtropical climates. It requires full sun, with at least six hours of direct sunlight per day, and is sensitive to frost and extreme cold. This makes site selection important, especially in areas where winter conditions can limit growth or damage plants.

The crop is adaptable to a wide range of soil types, but it performs best in deep, fertile and well-drained soils. While Napier grass can grow across different soil conditions, poor drainage and prolonged waterlogging can negatively affect plant growth and survival.

Moisture availability remains one of the most important production factors. Napier grass responds well to adequate moisture and requires annual rainfall of approximately 750 mm to 2 500 mm, or supplementary irrigation, for optimal growth. Where irrigation is available and well managed, farmers are better positioned to achieve stronger year-round

forage production. In dryland systems, production may fluctuate according to seasonal rainfall.

Establishment Starts with Healthy Planting Material

Napier grass is usually propagated vegetatively using stem cuttings rather than seed. This means that the quality of the planting material has a direct influence on establishment success. Cuttings should be taken from mature, healthy mother plants and planted in rows at a spacing of approximately 60 cm.

Stem cuttings of 30 cm to 45 cm in length are recommended. At least two nodes should be inserted into the soil at an angle of about 45 degrees to encourage rooting and establishment.

Soil preparation and fertility support are also important. The use of cattle manure or compost at planting can improve soil moisture retention, increase soil fertility and support biomass production. Many farmers use the “Tumbikiza” method, where manure is placed in the planting furrows before

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cuttings are established.

During the first few weeks after planting, effective weed control is essential. Young Napier grass plants must not be forced to compete heavily with weeds while root systems are still developing. Early weed pressure can slow establishment and reduce the stand's future productivity.

Harvesting for Yield and Quality

The first harvest is usually possible about three to four months after planting, or approximately 12 to 22 weeks, depending on climatic conditions and moisture availability. After the first cut, Napier grass can generally be harvested at intervals of six to eight weeks.

For the best balance between forage quality and biomass yield, harvesting is recommended when plants reach a height of 60 cm to 90 cm. After cutting, a stubble height of 5 cm to 10 cm should be left behind. This helps support rapid



regrowth and allows the stand to recover for the next harvest cycle.

Napier grass can be used in different feeding systems. It may be grazed directly, harvested fresh for cut-and-carry feeding, or conserved as hay or silage. This versatility is one of the reasons it is considered a useful forage resource for livestock production.

Strong Biomass, but Timing Matters

Napier grass is known for excellent biomass yields, but its nutritional value declines quickly when harvesting is delayed. As the plant matures, the proportion of fibrous, less digestible stems increases compared to leaves. This reduces forage quality and lowers crude protein levels.

In mature Napier grass, crude protein content can decline to approximately 70 g/kg to 100 g/kg of dry matter. Livestock fed only on mature Napier grass may therefore show reduced milk and meat production unless the forage is supplemented with higher-quality feed sources.

Supplementation may include legumes or energy-rich concentrates, especially where animal performance, body condition and production levels need to be maintained. This is an important management consideration, because the need for additional feed can increase production costs.

Drought Resilience Has Limits

Napier grass is considered a resilient forage grass, but it still requires a high amount of water to achieve maximum yields. Under recurrent drought conditions, plant growth can be significantly constrained, reducing forage production.

This is particularly important in dry regions where limited access to irrigation infrastructure restricts Napier grass production to seasonal rainfall. In these areas, year-round feed availability may fluctuate, making it more difficult for livestock producers to maintain a consistent feed supply.

Although the crop has potential as

a drought-tolerant forage option, its performance depends heavily on whether enough moisture is available to support growth and regrowth after harvesting.

Conservation Remains a Challenge for Many Farmers

Commercial farmers may have access to mechanised technologies for silage production, but many smallholder farmers face real challenges when trying to preserve Napier grass as quality fodder.

Poor silage-making practices can reduce the value of the crop during dry periods. Inadequate sealing of silage structures and limited access to additives such as molasses or beneficial bacterial inoculants often result in poor-quality silage.

When Napier grass is not conserved properly, fodder conservation strategies become less effective. This can worsen feed shortages during the dry season, particularly for farmers who rely on stored feed to bridge seasonal gaps.

Bana and Super Napier in South Africa

In South Africa, the two main cultivars of Napier grass are Bana and Super Napier grass, also known as Juncoa grass. Both have high biomass production potential and perennial growth characteristics.

Despite their production potential, several agronomic and management challenges limit wider adoption, especially among emerging farmers. These include high water requirements, the need for vegetative propagation, direct-grazing risks linked to hard leaf texture and hairs, high-cost machinery for chopping silage, and labour-intensive management requirements.

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The hard leaf texture and hairs can cause injuries to livestock when the grass is grazed directly. This makes the feeding method an important practical consideration. Chopping and conservation may improve utilisation, but the machinery required for this can be expensive



and may not be accessible to all farmers.

At the same time, the crop's rapid decline in quality as it matures, especially the decline in

crude protein, means farmers must manage cutting intervals carefully. Where this is not done, additional supplementation may be needed to support animal performance.

A Crop with Promise, but More Research Is Needed

Napier grass has clear potential as a high-yielding alternative feed source for South African livestock farmers. It can provide large quantities of forage, remain productive for several years, and be used in several feeding systems.

However, its full value will depend on practical, cost-effective production and management strategies that suit different farming systems. More research is needed to help farmers benefit from this forage crop without

being limited by water needs, high labour demands, machinery costs or conservation challenges.

Future research should focus on improving water-use efficiency, optimising harvesting practices, enhancing conservation methods, and reducing input and labour requirements. This would help make Napier grass a more accessible and sustainable feed resource for livestock farmers across diverse production systems.

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Getting the Best from Napier Grass

Napier grass offers strong potential, but the crop must be managed carefully from planting to feeding.

Best growing conditions

Napier grass performs well in warm tropical and subtropical areas with full sun. It prefers deep, fertile and well-drained soils.

Moisture requirement

For optimal growth, it needs approximately 750 mm to 2 500 mm of annual rainfall or supplementary irrigation. It does not tolerate prolonged waterlogging.

Planting method

The crop is usually established from stem cuttings, not seed. Use mature, healthy mother plants and cuttings of 30 cm to 45 cm.

Planting detail

Plant in rows about 60 cm apart, with at least two nodes inserted into the soil at a 45-degree angle.

Soil improvement

Cattle manure or compost at planting can

improve soil moisture retention, fertility and biomass production. The "Tumbikiza" method places manure directly into planting furrows before cuttings are established.

Weed control

Keep the crop clean during the first few weeks after planting to reduce competition and support strong establishment.

Harvest timing

First harvest is usually possible after three to four months. Thereafter, cutting can take place every six to eight weeks.

Ideal cutting height

Harvest when plants reach 60 cm to 90 cm. Leave a stubble height of 5 cm to 10 cm for rapid regrowth.

Main caution

Do not delay harvesting too long. As Napier grass matures, crude protein declines and stems become more fibrous and less digestible.



Herd reports generated from the National Database as a selection tool.

A true reflection of your beef herd performance on profit drivers.

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National Beef Recording and Improvement Scheme

Commercial beef producers can **increase** their **profitability** by:

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ADDITIONAL BENEFITS:

- **Data captured** on the National Database (INTERGIS) and compliance with Animal Improvement Act
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- **Central bull testing facilities** and technical staff for regional support
- **On-farm Phase D bull testing**
- **Accredited technicians for Real-time Ultrasound Scanning** for carcass traits
- **Services comply** with internationally accredited standards
- **Affordable fees** (subsidised by government)
- **Training courses** in beef herd management, BLUP, performance testing and the auction catalogue
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Potentially Turning Lower Methane into Higher Returns Breed Selection Opens New Carbon Income Opportunities for Beef Farmers

As pressure grows on agriculture to reduce its environmental footprint, beef farmers are increasingly being asked a practical question: can climate-smart production also create new income opportunities?

Preliminary methane-emissions work by the Agricultural Research Council – Animal Production Institute at Irene, Pretoria, suggests that the answer may lie partly in breed-informed selection, accurate measurement, and credible carbon-market systems.

Methane produced during cattle digestion is one of the largest sources of greenhouse gas emissions from livestock farming. As carbon markets continue to develop, producers who can measure and reduce these emissions may be better positioned to establish credible baselines, improve herd efficiency, support climate-smart beef branding, and potentially unlock additional income from carbon-credit schemes.

The ARC-AP work focused on methane emissions in cattle

using the GreenFeed methane monitoring system developed by C-Lock Inc. in the USA. The system is widely used internationally for measuring enteric methane emissions from cattle. At Irene, animals had unrestricted 24-hour access to the GreenFeed unit, seven days a week, with clean drinking water always available.

This allowed methane emissions to be measured directly from individual animals throughout the day. The measurements were then converted into a standard daily methane output, expressed as grams per day, making it possible to compare animals and breeds more consistently.

Why Methane Measurement Matters

For beef producers, methane is no longer only an environmental issue. It is becoming part of the broader commercial conversation around production efficiency, market access, carbon accounting and future sustainability claims.

The ARC-AP analysis shows that

methane output can be measured directly as grams per day. However, because breeds and individual animals differ in body size, body weight was also considered when interpreting breed differences.

This distinction is important. Larger animals may produce more absolute methane simply because of their scale. If farmers and researchers want to rank animals or breeds fairly, body weight must be considered. At the same time, the ARC-AP dataset showed that breed differences remained evident even after accounting for body weight. This suggests that methane output is not explained by animal size alone.

In practical terms, methane measurement can therefore become more than a once-off environmental figure. It may become a useful selection trait when combined with other performance data.

Breed Results Before Body-Weight Adjustment

The preliminary results compared

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Afrikaner, Bonsmara and Nguni cattle.

Before body-weight adjustment, Nguni had the highest mean methane daily equivalent volume at **111.97 g/day**, while Afrikaner had the lowest at **101.49 g/day**. Bonsmara recorded **111.82 g/day**.

When methane was expressed per 100 kg body weight, the picture changed further. Nguni remained the highest at **29.06 g/day per 100 kg** body weight, while

Bonsmara was the lowest at **20.98 g/day per 100 kg** body weight. Afrikaner recorded **22.03 g/day per 100 kg** body weight.

Results

Breed	Mean BW (kg)	Mean methane daily eq. (g/day)	Methane per 100 kg BW
Afrikaner	460.6	101.49	22.03
Bonsmara	532.9	111.82	20.98
Nguni	385.4	111.97	29.06

Breed summaries before and after body weight adjustment

These figures show why body weight matters.

A breed with a larger body size may appear to produce more methane in absolute terms, while methane output relative to body weight may tell a more nuanced story.

“Lower methane output may become part of a future value chain where climate-smart beef production is measured, verified and rewarded.”

What Changed After Body-Weight Adjustment?

After body weight was included as a covariate, the highest adjusted methane value was observed in Nguni at **116.84 g/day**.

Bonsmara had the lowest adjusted methane value at **94.07 g/day**, fol-

lowed very closely by Afrikaner at **94.82 g/day**.

Breed	BW - Adjusted methane (g/day)	± SE
Afrikaner	94.82	11.47
Bonsmara	94.07	13.22
Nguni	116.84	11.4

Body-Weight Adjusted Breed Comparison

The updated body-weight adjusted analysis therefore showed Bonsmara and Afrikaner with very similar low adjusted methane values, while Nguni remained the highest among the retained breeds analysed.

The practical implication is clear: when methane phenotypes are evaluated together with breed body-weight values, breed-associated differences remain visible. This strengthens the biological relevance of breed-associated methane variation and suggests that methane volume captures differences beyond body size alone.

For farmers, this does not mean one should select only on methane. Rather, it means methane may become part of a broader breeding

and management toolkit, alongside growth rate, feed intake, fertility, diet, production stage and individual animal performance.

A Preliminary Baseline, Not a Final Ranking

The ARC-AP analysis should be interpreted as preliminary. The

body-weight adjustment used breed-level body-weight values, not the exact weight of every animal at each methane measurement. It is therefore a breed-level body-size correction, not a full time-varying metabolic-weight correction.

Another important point is the number of methane observations per animal. Animals with very few methane observations can produce uneven estimates when compared with animals that were sampled more densely. For this reason, the number of observations should be retained in the output and considered when interpreting future individual animal rankings.

This is especially relevant if methane data is eventually used in commercial selection, benchmarking or carbon-credit verification. The stronger the data, the stronger the claim.

From Methane Data to Carbon Value

The commercial interest in methane reduction comes from the possibility of linking credible measurement to carbon-credit systems.



GreenFeed-based monitoring can help farmers establish accurate baselines for methane emissions. These baselines are essential for

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MRV systems — monitoring, data collection and verification — which are required for credible carbon-credit schemes.

In the updated ARC-AP analysis, Afrikaner cattle had a low adjusted methane value of approximately **94.8 g/day**, while Nguni had the highest adjusted methane value among the retained breeds at approximately **116.8 g/day**. The adjusted Afrikaner–Nguni difference was therefore approximately **22.0 g CH₄/day**.

Over a full year, that difference equals approximately **8.0 kg CH₄ per animal**. Using a 100-year methane global warming potential of approximately **28**, this translates to roughly **0.23 t CO₂e per animal per year**.

At a conservative carbon value of about **R200/t CO₂e**, this represents approximately **R45 per animal annually**.

Scaled to a commercial herd, the gross value becomes more meaningful:

Herd size	Estimated gross annual carbon value
500 Animals	Approximately R22,504/year
1,000 Animals	Approximately R45,009/year
5,000 Animals	Approximately R225,044/year

These figures are not presented as a replacement for normal beef income. Carbon-credit income from methane reduction alone is typically supplementary rather than primary income. However, it may add value when combined with other carbon interventions.

What Farmers May Realistically Retain

Gross carbon value is only part of the picture. Carbon-credit projects include costs and deductions that reduce the amount retained by the farmer.

These may include MRV costs, registry and certification fees, project developer or shareholding fees, aggregation costs and administration costs.

Project developer or shareholding fees can often range from **20% to 50%**, depending on the arrangement.

In practice, a farmer may retain roughly **40% to 70%** of the gross carbon value.

Likely Net Farmer Income After Deductions

Herd size	Estimated net annual income
500 Afrikaner cattle	Approximately R9,002–R15,753/year
1,000 Afrikaner cattle	Approximately R18,004–R31,506/year
5,000 Afrikaner cattle	Approximately R90,018–R157,531/year

The financial signal is therefore real, but modest when methane reduction is treated in isolation.

The strongest business case is likely to come from combining methane reduction with broader carbon

and climate-smart interventions.

These could include soil carbon, improved grazing, feed additives, nitrogen-excretion management, methane produced from mechanical operations on-site, and digital emissions tracking.

Why Afrikaner and Bonsmara Matter in This Dataset

Afrikaner cattle showed one of the lowest adjusted methane values in the retained breeds analysed, at approximately **94.8 g CH₄/day**. Bonsmara was very similar

and slightly lower in the updated analysis, at approximately **94.1 g/day**.

This preliminary baseline may support higher potential value in carbon-credit schemes, low-emission branding and climate-smart beef production systems. It also points toward the possible role of breed selection in reducing herd-level methane intensity.

Importantly, the data also shows within-breed variability. This means the opportunity is not only between breeds, but also within

breeds. Future work may identify low-emission performers within a breed and retain those animals as part of genetic improvement programmes. It must be noted that these methane emissions were measured under feedlot conditions. Under natural grazing it may be different.

Methane-related traits have been shown to have genetic potential for selection in ruminants, which supports the idea that low-emission selection may become part of future breeding strategies.

Breed-Specific, Data-Driven Mitigation

The main conclusion from the ARC-AP work is that enteric methane emissions vary across cattle breeds and individuals. This means methane mitigation strategies should be breed-specific and data-driven.

Body-weight adjustment is not required to measure methane itself, because the GreenFeed system

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measures methane output directly. However, body-weight adjustment improves interpretation when comparing breeds, because it helps separate methane differences related to breed biology from differences related to animal size.

For a commercial farmer, the message is not to chase carbon credits blindly. The message is to build better data.

Continuous or periodic GreenFeed-based monitoring systems can help quantify emissions accurately, create credible baselines, and support verification.

farmers optimise both carbon-sequestration potential and economic returns within carbon markets. It also allows methane reduction to be connected to wider production decisions, rather than being treated as a stand-alone environmental target.

Future analyses should include additional traits such as growth rate, feed intake, fertility, diet, production stage and individual animal performance.

These are essential to ensure that methane reduction does not compromise productivity.

differs between cattle breeds and individuals, and that these differences remain evident even after body weight is considered.

Bonsmara and Afrikaner showed low adjusted methane values in the updated analysis, while Nguni recorded the highest adjusted methane value among the retained breeds. In the Afrikaner–Nguni comparison, the difference of approximately **22.0 g CH₄/day** could translate into about **0.23 t CO₂e** per animal per year, with a conservative gross carbon value of roughly **R45 per animal annually**.

On its own, this is supplementary income. But within a larger carbon-smart production system, methane reduction may become part of a more valuable package: better measurement, breed-informed selection, improved management, credible carbon baselines, and stronger environmental positioning for South African beef.

The opportunity is not only to reduce emissions. It is to turn accurate livestock data into better breeding decisions, better carbon-market readiness and, potentially, higher long-term returns.

By: Dr Georgette M. Pyoos
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ARC-Animal Production, Irene



“For farmers, the message is not to chase carbon credits blindly. The message is to build better data.”

These are essential steps if farmers want to participate in carbon markets with confidence.

The Future: Selection, Feeding and Digital Tracking

The best long-term strategy is therefore not simply to select lower-emitting animals. It is to identify animals that can support lower methane intensity while still contributing to profitable,



Future recommendations from the ARC-AP analysis include combining genetic selection with improved feeding strategies and digital emission-tracking platforms.

This integrated approach may help

productive and resilient beef systems.

Conclusion

The preliminary ARC-AP findings suggest that methane output

“The strongest commercial opportunity is not methane reduction on its own, but methane reduction combined with credible data, genetic selection, grazing improvement, feeding strategies and digital emissions tracking.”



The Crop Is Not Finished at Harvest

Why packaging has become part of modern farm management

By the time a crop reaches the packhouse, most of the farmer's visible work is already done.

The land has been prepared, seed or seedlings selected, fertiliser applied, irrigation managed, pests monitored, labour organised and harvesting timed as carefully as conditions allow. In a good season, the result is there for everyone to see: bins of fruit, crates of vegetables, rows of product moving from field to packhouse, and the promise of income after months of risk.

Yet this is also the moment when value can quietly begin to disappear.

A tomato bruised during handling, a punnet of grapes that warms up during transport, a carton that collapses under pressure, a pack

value of a crop that was expensive to produce.

For many growers, the final journey from farm to market has become as important as production itself. Post-harvest handling is no longer a back-end activity. It is part of farm management, part of marketing, and increasingly part of the producer's ability to compete.

South African agriculture is deeply familiar with production risk. Weather, input costs, labour pressures, disease, market access, exchange rates and logistics all shape the profitability of a season. But once produce is harvested, a different set of risks takes over. These are not always dramatic. They are often small, cumulative losses: a percentage downgraded here, a few cartons rejected there, shelf life shortened by a day, or arrival quality weakened after a

but the farmer's investment is still exposed.

The hidden cost of post-harvest loss

Fresh produce remains alive after harvest. It respires, releases heat, loses moisture and responds to temperature changes. A crop may be removed from the soil, vine, tree or plant, but it does not stop behaving like a biological product.

This is why packaging, cooling and handling have become central to modern fresh-produce supply chains.

In the past, packaging was sometimes viewed mainly as a container. Its job was to hold produce until it reached the buyer. Today, that view is too narrow.

The right packaging must protect, ventilate, support, display and transport. It must work with cold rooms, pallets, trucks, shipping containers, retailer specifications and consumer expectations. In many cases, it must also help reduce waste and fit into a more circular packaging economy.

"A crop does not stop losing value when it leaves the field. In many cases, that is when its most vulnerable journey begins."

that traps too much moisture, or a retail display that fails to show the quality inside can all reduce the

break in the cold chain.

The crop may be out of the field,

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Yield is only part of the profit story



Farmers naturally focus on yield. Tonnes per hectare, cartons per orchard, bins per block and class-one percentages all matter. But marketable yield is not only determined in the field. It is also determined after harvest, when produce is handled, cooled, packed, transported and presented for sale.

A high-yielding block is less impressive if too much of that yield is downgraded before it reaches the buyer. Conversely, a challenging production season can be softened when careful post-harvest management protects quality and extends marketable life.

This is especially important in fruit and vegetable production, where margins can be shaped not only by production volume, but by the percentage of the crop that reaches the market in premium condition.

Packaging sits at the centre of this challenge.

Protection starts before the market

For open-field and orchard producers, the first requirement of packaging is protection.

Produce may travel from harvest teams to collection points, from

bins to packhouses, through sorting and grading lines, into

cartons, onto pallets, into trucks, through distribution centres and finally onto shelves. Every movement creates an opportunity for compression, vibration, bruising or temperature stress.

"The cheapest pack can become the most expensive decision in the supply chain when cooling, bruising, rejection and shelf life are taken into account."

A carton, tray or punnet that is not suited to the crop may save a few cents at purchase but cost far more through losses, claims or reduced shelf performance. The cheapest option is not always the lowest-cost option once damage, downgrade and rejection are considered.



Different crops need different packaging logic

A blueberry does not behave like a tomato. A table grape does not travel like a cabbage. A pepper does not tolerate handling in the same way as an onion. Citrus, avocados,

berries, grapes, tomatoes, baby vegetables, stone fruit and fresh herbs all place different demands on packaging.

Some crops need strength and stacking support. Others need airflow. Some require visibility. Others need protection from moisture loss, bruising or vibration. Export fruit may require long-distance performance, while local-market vegetables may need durable packaging that can handle repeated movement and rapid turnover.

The packaging decision should therefore follow the crop, the route and the market. It should not be based only on pack size or price.

Cooling, ventilation and the journey after harvest

The second requirement is ventilation.

Fresh produce often needs to be cooled quickly and evenly after harvest. Packaging design affects

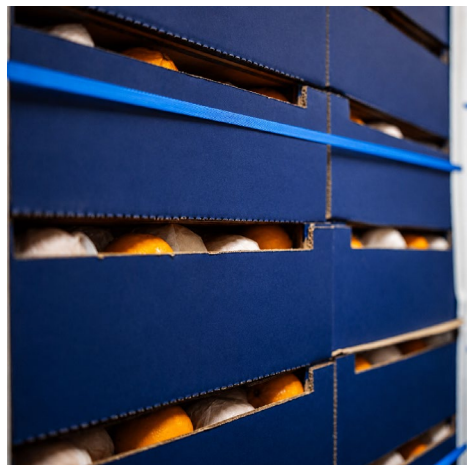
whether cold air can move through the product or whether heat remains trapped inside. This is not only a technical issue for exporters. It affects local supply chains too, particularly where produce moves long distances, waits at depots or spends time under uneven

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temperature control.

A poorly ventilated pack can slow cooling, increase condensation and create conditions that weaken shelf life. In sensitive crops, small temperature differences can have large commercial consequences.

Packaging as part of the cold chain



The cold chain is often discussed in terms of cold rooms, refrigerated trucks and shipping containers. But packaging is also part of that chain. Airflow through a carton, punnet or tray affects how quickly the product temperature can be pulled down and how evenly that temperature can be maintained.

Ventilation holes, material choice, carton alignment, pallet stacking and pack density all matter. If packaging blocks airflow, the best cold-room system cannot perform properly. If the pack cannot handle moisture or temperature shifts, the crop may arrive looking older than it should.

This is where technical packaging design becomes agricultural risk management.

Presentation is also part of value

Fresh-produce packaging provides a useful example of how different packaging functions must work together. Across corrugated

packaging, plastics packaging and recycling, solutions are developed for sectors that include fresh produce and agriculture. Within this wider context, product design is not simply about producing a box or punnet. It requires an understanding of how the crop will be packed, cooled, transported, displayed and responsibly managed after use.

For farmers and packhouses, this type of thinking matters. Packaging must perform throughout the entire route to market, not only at the point of packing.

Agriculture often speaks about quality in terms of size, colour, firmness, flavour, residue compliance and shelf life. Consumers, however, often make their first judgement visually.

A clear punnet, a strong carton, a neat retail-ready display or a well-designed pack can influence whether a buyer understands the value of the crop. Presentation cannot rescue poor produce, but poor presentation can weaken good produce.



This is where packaging becomes part of marketing without becoming advertising. A farmer may not think of a carton as a sales tool, but in formal retail and export environments, the pack is one of the final messengers between farm and consumer. It communicates consistency, cleanliness and confidence. It

also protects the grower's brand, whether that brand is printed on the pack or represented through a retailer's own label.

The final message between farm and buyer

In a competitive market, the product has to speak quickly. The buyer or consumer may not know the farm, the cultivar, the production risks or the care taken during the season. They see the product as it arrives.

If the pack is crushed, fogged, poorly ventilated, weak, untidy or difficult to handle, the crop carries that message too. If the packaging is strong, clean, practical and suited to the produce, it helps the crop arrive with confidence.

This is not decoration. It is commercial communication.

When packaging becomes a full route-to-market decision

Fresh-produce packaging is rarely a single-format decision.

A grower may need field crates, punnets, trays, outer cartons, pallet stability, labelling space, retail-ready presentation and recyclable or recycled-content options. The technical discussion stretches from the product inside the pack to the way the entire load moves through the supply chain.

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For citrus, grapes, avocados, berries, vegetables and other crops moving through formal markets, corrugated packaging remains especially important. It must be strong enough to protect produce, consistent



enough for packhouse efficiency, and designed to handle stacking, transport and sometimes export conditions.

Plastics packaging, where appropriate, has a different but equally important role. Punnets, tubs, trays and clamshells can protect delicate produce, reduce direct handling, support portioning and improve visibility.

In high-value fresh produce, these packs are often part of the consumer-facing experience.

A single weak link can compromise the crop

A well-designed punnet inside a weak carton can still fail. A strong outer carton around an unsuitable inner pack can still compromise cooling, presentation or product protection. A good pack that does not suit the pallet pattern may create transport inefficiency. A pack that looks attractive but slows down the packhouse line can become costly during peak harvest.

This is why packaging should be selected as a system, not as separate items.

Packaging should be considered as an integrated system rather than a collection of separate products. Corrugated cartons, plastics packaging, punnets, trays and recycling options all play different but connected roles in protecting produce and maintaining quality.

For commercial agriculture, this means evaluating packaging across the full value chain—from packhouse performance and product protection to transport, retail presentation and responsible material recovery. No single material will suit every crop or market, but packaging has become far too important to leave until the final stages of procurement.

Sustainability must include food loss

The sustainability discussion adds

glance. It is the pack that performs its job with the least practical waste across the full value chain.

If packaging fails and food is lost, the water, fertiliser, labour, fuel and energy already used to produce that food are also wasted. This does not remove the need to reduce packaging waste, but it does mean the conversation must include food loss, recyclability, recycled content, local manufacturing, transport efficiency and the ability of the pack to preserve quality.

Circular thinking starts with practical performance



A circular approach to agricultural packaging cannot be separated from performance. Packaging should use material responsibly, protect the crop effectively and fit, where possible, into collection, recycling or reuse systems.

For farmers, the practical question is not simply whether

“Modern packaging is no longer just a container. It is part of the cold chain, the quality system and the final sale.”

another layer.

Packaging is under pressure everywhere, and agriculture cannot ignore consumer and retailer concerns about waste. However, the debate is often too simplistic. The most responsible packaging is not always the lightest pack, the cheapest pack or the pack that looks most environmentally friendly at first

packaging sounds sustainable, but whether it protects the product, reduces avoidable loss and has a responsible end-of-life pathway.

Sustainability in agriculture must protect both the environment and the food already produced.

Written by M.O

NUFARMER Africa

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FMD: SOUTH AFRICA FIGHTS BACK

NEW LEADERSHIP. MORE VACCINES. STRONGER TOGETHER.

After months of battling the worst foot-and-mouth disease outbreak in years, South Africa has entered a new phase. Mass vaccination is underway, private sector barriers have fallen, and farmers are now part of the solution.

THE FIGHT HAS PICKED UP STEAM – BUT THE JOB IS FAR FROM DONE.



WILLIE AUCAMP
MINISTER OF AGRICULTURE

- Took office on 1 July 2026.
- A renewed, action-orientated leader focused on practical solutions, stakeholder collaboration and getting vaccines to every animal.



DR THEO DE JAGER
EXECUTIVE DIRECTOR: SAAI

- Appointed to the FMD Industry Coordination Council.
- A strong voice for farmers, now helping shape and drive results.



DR DANIE ODENDAAL
V-NET

- Appointed to the FMD Industry Coordination Council.
- Strengthening veterinary capacity and farmer support on the ground.

NEW LEADERSHIP DRIVING THE RESPONSE

THE JULY TURNING POINT – HOW THINGS CHANGED



APRIL–MAY 2026 ON THE DEFENSIVE

Outbreaks spread across provinces. Vaccine shortages, movement restrictions and capacity challenges dominate the response.



JUNE 2026 THE MACHINERY STARTS

Large-scale vaccine procurement accelerates. New national FMD-control measures give farmers a clearer path to recovery.



1 JULY 2026 NEW MINISTER, NEW MOMENTUM

Willie Aucamp is appointed Minister of Agriculture. A renewed focus on action, partnership and practical solutions.



10 JULY 2026 PRIVATE VACCINE ACCESS OPENED

Government settles the vaccine-access dispute. Private parties can import, distribute and administer approved FMD vaccines.



25 JULY 2026 FARMERS JOIN THE FIGHT

Self-vaccination authorisation system launched. Farmers can vaccinate their cattle under strict biosecurity, reporting and traceability requirements.



31 JULY 2026 INDUSTRY AT THE TABLE

Dr Theo de Jager (SAAI) and Dr Danie Odendaal (V-Net) appointed to the FMD Industry Coordination Council. Stronger industry-government collaboration.

BY THE NUMBERS (AS AT 5 AUGUST 2026)



17 MILLION
vaccine doses procured.
Another 4 million expected.



8+ MILLION
cattle vaccinated nationally.
The entire dairy herd vaccinated.



1.3 MILLION+
cattle vaccinated in KZN
(More than 50% provincial coverage)



~85%
coverage in North West
(approaching completion of first round)



2 400+
active outbreaks recorded
as at June 2026.
New outbreaks continue in several provinces.

WHAT'S CHANGED?



MASS VACCINATION AT SCALE
The largest FMD vaccine acquisition in South African history is protecting millions of animals.



PRIVATE SECTOR POWERED
Private companies can now import, distribute and administer vaccines. More capacity. Faster reach.



FARMERS EMPOWERED
Authorised self-vaccination puts farmers in control – with rules, responsibility and reporting.



SMARTER CONTROL RULES
New national framework allows risk-based recovery options. Not every farm. Not the whole herd.



STRONGER COLLABORATION
Government, industry, veterinarians and farmers are working together like never before.

REMAINING CHALLENGES



VETERINARY CAPACITY
Shortage of vets, Animal Health Technicians and data capturers slows the response.



TRACEABILITY GAPS
Tag shortages, system limitations and incomplete data weaken surveillance.



ILLEGAL MOVEMENT
Porous borders and illegal livestock movements continue to spread risk.



FUNDING PRESSURES
Provinces need more funding for vaccination, surveillance, quarantine and enforcement.



INFRASTRUCTURE
Inadequate quarantine facilities, pounds and border posts remain a constraint.

THE ROAD AHEAD

- ✓ Complete the first round of vaccination and maintain full coverage.
- ✓ Close gaps in traceability and data.
- ✓ Crack down on illegal movement.
- ✓ Invest in veterinary capacity and infrastructure.
- ✓ Work together – government, industry, vets and farmers.
- ✓ Aim for FMD-free status with vaccination.

**“VACCINES ARE OUR SHIELD.
COOPERATION IS OUR STRENGTH.
EXECUTION WILL BE OUR VICTORY.”**



DID YOU KNOW?

FMD does not pose a risk to human health or food safety. South African beef and dairy products remain safe to eat.

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The Importance of Understanding Soil Morphology: A Foundation for Sustainable Land Use

Understanding soil morphology opens a window onto how soil forms and functions, how its characteristics change under different management practices and seasons, how it responds to extreme weather, and how it is likely to behave under different land uses. For that reason, it is fundamental to virtually every decision involving land.

By examining the arrangement, colour, texture and structure of soil horizons, together with the depth and overall profile, agricultural land users can assess drainage capacity, aeration, erosion risk, depth to bedrock and the level of the water table. Each of these factors helps determine whether land is suitable for agricultural use.

In farming, an understanding of soil morphology supports accurate soil profiling, classification and mapping. This, in turn, guides on-farm decisions such as irrigation scheduling, soil-manage-

ment practices and the use of soil amendments, helping farmers maximise productivity while minimising environmental harm.

Beyond farming, soil morphology also informs environmental management. It can help predict how pollutants move through and between soil layers and supports the maintenance of natural ecosystems and agroecosystems within an area. Ultimately, a sound understanding of soil morphology enables informed and sustainable decision-making across agricultural commodities, helping to prevent costly mistakes, long-term land degradation and the loss of agroecosystems.

For many smallholder farmers who depend on farming and have limited access to science-based soil-testing services, a basic understanding of visible soil indicators offers an accessible and cost-effective diagnostic tool. Topsoil depth, horizon colour and drainage char-

acteristics can substantially improve decisions about crop selection and planting practices.

Soil profiling for farming decisions

Soil profiling is the process of examining the different soil layers from the surface downward to understand their physical, chemical and biological properties. It helps farmers determine whether a soil is suited to a particular crop and guides decisions on land preparation and design, fertiliser selection and application, irrigation scheduling, drainage and conservation.

This knowledge plays a pivotal role in helping farmers make practical decisions that increase agricultural productivity while preserving natural resources, particularly the soil itself. Effective soil profiling requires a systematic evaluation of the characteristics that influence crop selection and growth, water availability, nutrient dynamics and

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overall soil health. The principal features assessed, and their importance in sustainable smallholder farming systems, are outlined in Table 1.

Soil feature	Description	Importance for farming choices
Soil colour	Reflects organic-matter and mineral content.	Signals soil fertility status and helps identify potentially productive soils.
Soil texture	The proportion of sand, silt and clay particles in the soil.	Influences water-holding capacity, ease of cultivation and nutrient retention.
Soil structure	The arrangement of soil particles into aggregates.	Influences root penetration, water infiltration and aeration.
Soil depth	The vertical distance from the soil surface to a restrictive layer.	Determines rooting depth and water-storage capacity.
Soil drainage	The rate at which excess water moves through and out of the soil profile.	Helps farmers manage irrigation, prevent crop waterlogging and select suitable crops.
Organic matter	Decomposed plant and animal material incorporated into the soil.	Improves fertility, nutrient availability, water retention and microbial activity.
Root distribution	The depth and spread of plant roots within the soil profile.	Helps farmers select crops according to the depth of the soil profile.
Biological activity	The presence of microorganisms in the soil.	Indicates soil health and nutrient cycling.
Soil pH	A measure of soil acidity or alkalinity.	Affects nutrient availability and crop suitability.
Salinity	The concentration of soluble salts in the soil.	Identifies potential salt stress that may reduce crop productivity.

Table 1. Soil features assessed during profiling and their importance to farming systems.

The basics of soil horizons

A soil profile describes the different layers of soil, known as horizons (Table 2 and Figure 1a and b). These distinct layers are visible in a vertical cross-section. Their sequence reflects the processes of soil formation and helps determine the soil's agricultural potential.

The A horizon is the most important layer for crop production because it contains the highest levels of organic matter, nutrients and biological activity. The B horizon provides water and nutrient reserves for deeper-rooted plants, while the C and R horizons influence soil depth, drainage and rooting potential.

Together, the horizons provide valuable information for assessing land capability, crop suitability and sustainable soil management.

Differences between horizons can also reveal how water, minerals and organic material move through the soil over time. Recognising these transitions allows farmers to identify restrictive layers, possible drainage problems and changes in rooting conditions before planting, supporting more accurate crop choices and better long-term management of the land.

Table 2. Description of the soil-profile horizons illustrated in Figure 1a and b.

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Soil horizon	Description
O horizon (organic horizon)	The uppermost layer, rich in organic matter and supporting high biological activity, which improves soil fertility and structure.
A horizon (topsoil)	A dark, mineral-rich layer mixed with organic matter. It is the most biologically active horizon and the most productive layer for crop growth.
E horizon (eluviation horizon)	A light-coloured layer from which organic matter has been washed out by percolating water.
B horizon (subsoil)	Contains less organic matter than the A horizon but stores water and nutrients that support deep-rooted crops.
C horizon (parent material)	Contains little organic matter but strongly influences soil texture, mineral composition and drainage characteristics.
R horizon (bedrock)	The underlying layer of hard, consolidated and unweathered rock.

Table 2. Description of the soil-profile horizons illustrated in Figure 1a and b.

Reading soil colour

Soil colour is one of the most common morphological characteristics noticed by farmers. It is an important feature in soil-profile descriptions, where it helps identify and distinguish horizons and indicates potential agricultural use.

The colour of the soil matrix can provide information about organic-matter content, drainage patterns, aeration, iron accumulation and mineral composition. It is used diagnostically in classification systems such as Soil Taxonomy and the World Reference Base, as well as in traditional soil-knowledge systems.

The colours visible through the



Figure 1. Example of in-situ soil classification in (b) eMlondozi, Mpumalanga.

profiles in Figure 1 reflect changes in soil-forming processes with depth. Farmers often associate dark soils — black, grey or dark brown — with healthy, productive land, while lighter or paler colours, including red and yellow, are commonly associated with lower fertility.

The dark appearance of soil is mainly caused by decomposed plant and animal residues, which are known to improve soil health. This supports the common farmer perception that dark soil indicates high fertility. Even so, productivity also depends on characteristics such as aeration, water drainage and access to essential nutrients.

Light-coloured soils, particularly those showing mottled red, yellow-brown or orange colours, can provide a clear indication of redoximorphic features and therefore of drainage and hydrological conditions.

How to determine soil texture

Soil texture refers to the proportions of sand, silt and clay particles in the soil. It plays an important role in regulating carbon cycling, nutrient retention and availability, water storage and root development.

As an essential soil property, texture influences water retention, drainage, aeration, nutrient availability and root growth.

Texture can be determined and classified using field methods, including the feel or ribbon test, or by laboratory methods (Figure 2).

The ribbon test reveals differences

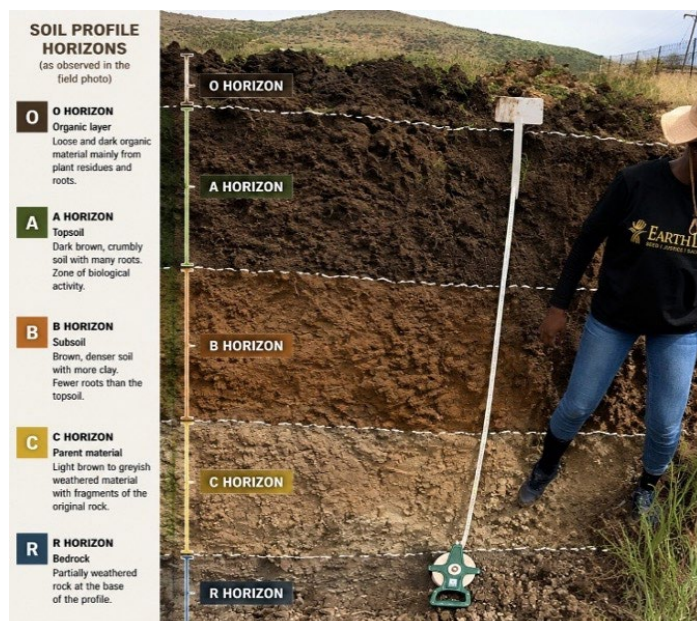


Figure 1. Example of in-situ soil classification in (a) Thaba-Nchu, Free State

Colour itself, however, primarily reflects chemical and biological processes taking place in the field. These include the weathering of geological parent material, oxidation-reduction reactions and the biochemistry of organic-matter decomposition, all of which can influence plant growth.

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in the particles that make up a soil. A handful of moist soil is rubbed between the fingers to indicate the relative proportions of those particles.

Where the soil feels smooth, sticky and heavy, it contains a higher proportion of clay and has

a greater capacity to retain water and nutrients (Figure 3a).

Soil texture should be assessed separately in every horizon because the proportions of sand, silt and clay often change with depth through soil-forming processes such as eluviation, illuviation,

weathering and deposition.

Measuring texture by horizon provides a clearer picture of the soil's physical properties throughout the profile and helps explain differences in water movement, nutrient retention, root penetration and soil fertility (Figure 3a and b).

HOW TO DETERMINE SOIL TEXTURE

Soil texture refers to the relative proportions of sand, silt and clay particles in a soil. It affects water holding capacity, drainage, aeration and fertility.

1. FEEL METHOD – FEEL METHOD (Ribbon Test)

1 Take a sample

Collect soil from 0–30 cm depth. Remove stones, roots and debris.



2 Moisten the soil

Add clean water gradually and knead the soil to a soft, pliable consistency.



3 Make a ribbon

Press the soil between your thumb and index finger and stretch it to form a ribbon.



4 Evaluate

Use the guide at right to determine the soil texture based on ribbon length and feel.

Texture	How it feels	Ribbon length before breaks
Sand	Gritty, not sticky, cannot form a ribbon.	Does not form a ribbon.
Sandy loam	Gritty, slightly sticky, very weak ribbon.	< 2.5 cm
Loam	Smooth, slightly sticky, weak ribbon.	2.5 – 5 cm
Silt loam	Smooth, slightly silky, forms a moderate ribbon.	5 – 7.5 cm
Clay loam	Sticky, plastic, forms a strong ribbon.	7.5 – 15 cm
Clay	Very sticky and plastic, forms a very strong ribbon.	> 15 cm

TIPS

- Too wet and it feels muddy, too wet or too dry.
- Practice and become used to improve accuracy.
- This is an estimation. Use laboratory method for precise results.

3. LABORATORY METHOD (Most Accurate)

- Take a prepared soil subsample using a standard lab pre-treatment method or prepare sieved soil according to accept proceeding of a soil laboratory.
- Results are used with the soil texture triangle to determine texture class.



Note: The feel method is quick and useful in the field. The jar test gives a good estimate. Laboratory analysis provides the most precise results.

2. JAR TEST METHOD (Sedimentation Method)

1 Take a sample

Collect soil and air-dry it. Remove stones and roots.

2 Put soil in jar

Place about 1/2 cup of soil in a clear jar (1 L).

3 Add water and disperse

Add water to about 3/4 full. Add 1 teaspoon of dishwashing liquid (or sodium hexametaphosphate). Shake vigorously for 1–2 minutes.

4 Let it settle

Place the jar on a level surface and leave it to settle undisturbed.

5 Measure the layers

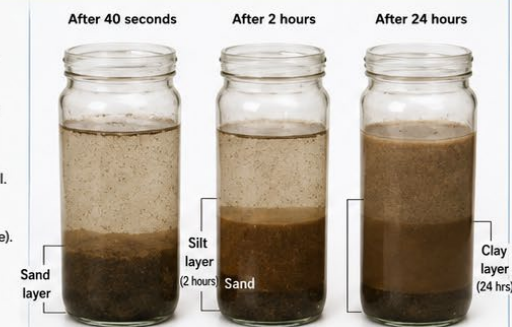
After 40 seconds, measure the thickness of the sand layer. After 2 hours, measure the thickness of the silt layer. After 24 hours, measure the thickness of the clay layer.

6 Calculate percentages

% Sand = (sand layer / total soil) × 100

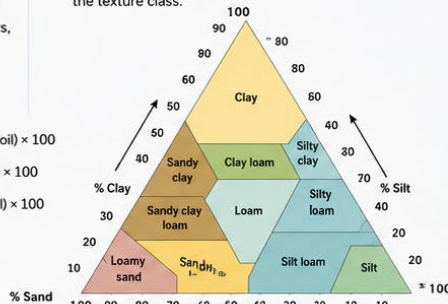
% Silt = (silt layer / total soil) × 100

% Clay = (clay layer / total soil) × 100



7 Determine texture class

Plot the percentages of sand, silt and clay on the soil texture triangle below (after 24 hours) where the three percentages met, indicates the texture class.



WHY IT MATTERS

- Guides the right crop, variety, low-nutrient and water-holding.
- Crop with shallow roots need well-drained, easy drain poorly.
- Loamy soils: balanced for most crops.



Figure 2. Infographic showing different methods of determining soil texture on-farm



Figure 3. Soil samples collected from different soil forms: (a) high clay content and (b) texture observed through soil-profile horizons.

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How to determine soil structure growth.

indicated in Figures 1, 2 and 3.

Soil structure describes how soil particles — sand, silt and clay — are arranged into natural aggregates known as peds (Figure 3). Structure develops through natural processes including wetting and drying, biological activity, organic-matter accumulation and root

Good soil structure promotes water infiltration, aeration, root penetration, nutrient availability and resistance to erosion. Assessing it is therefore an essential part of soil-profile description and soil-health evaluation for sustainable agricultural management, as

Soil structure can, however, be altered by human activity. Continuous ploughing can cause compaction, reducing soil porosity and contributing to waterlogging. Reduced tillage and the addition of organic matter help maintain good structure and keep soils productive.

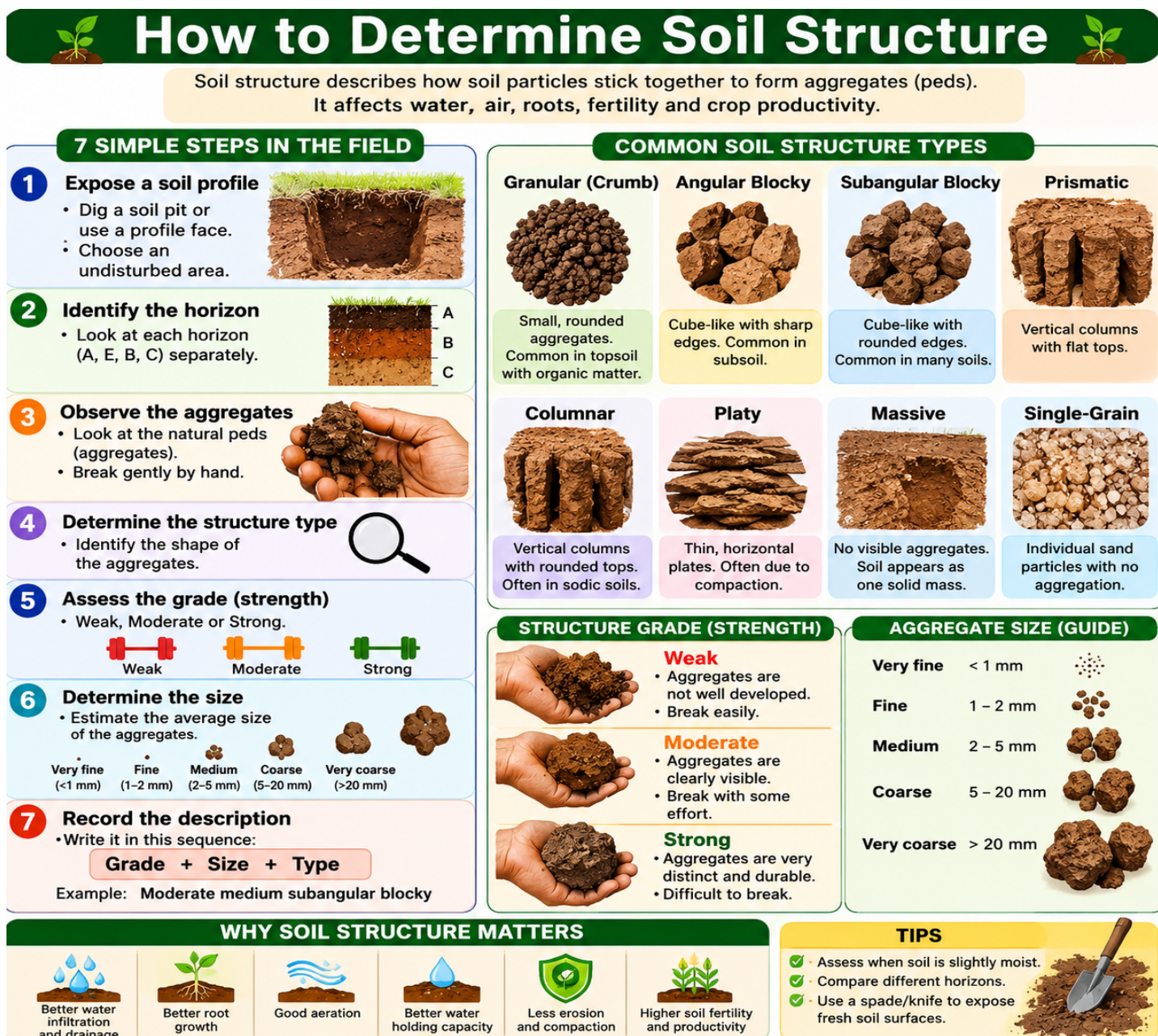


Figure 4. Infographic showing different methods of determining soil structure on-farm.

Why soil counts as a living system

Soil is the ultimate Earth-system laboratory: a dense, dynamic and porous matrix in which biology, chemistry and physics interact continuously to sustain life on land. A single gram of healthy soil may contain numerous microorganisms, organic matter and many other elements that drive a busy, interconnected ecosystem.

The soil's biological community continuously decomposes organic material, cycles nutrients, improves soil structure and supports plant growth. Healthy soil is therefore the foundation of sustainable agriculture.

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On-farm training in soil profiles, soil properties and soil capabilities enables farmers to create and sustain dynamic ecosystems and maintain agroecosystems (Figure 5).



Figure 5. On-farm knowledge transfer through hands-on demonstrations, discussions and the simplification of scientific information.

Conclusion

Soil morphology provides valuable information and insight into the physical characteristics and condition of soils, enabling farmers to understand the land they manage more clearly. By examining soil colour, texture, structure, horizons, drainage and rooting depth, farmers can identify the strengths and limitations

that influence crop growth and productivity.

This knowledge supports informed decisions on crop selection, fertiliser application, irrigation and soil-conservation practices. Ultimately, understanding soil morphology promotes sustainable land management, improves soil health, enhances agricultural productivity and helps secure

long-term food security.

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Agricultural Research Council:

Natural Resources and Engineering

University of the Free State





South Africa's Soybean Revolution: From Rotation Crop to National Protein Powerhouse

South Africa has proved that it can produce soybeans at scale. The next phase will depend less on expanding hectares and more on protecting yield, seed quality and margin in an increasingly demanding production environment.

South Africa's soybean industry has reached a turning point.

The Crop Estimates Committee's June 2026 forecast placed the crop at approximately **3.04 million tonnes from 1.213 million hectares**, with an expected national average yield of about **2.51 t/ha**. If realised, it will be the largest soybean harvest in the country's history.

That record is the result of more than favourable rainfall. It reflects two decades of expansion in domestic crushing capacity, improved cultivar availability, wider adoption of maize-soybean

rotations and the crop's steady movement beyond its traditional eastern production base.

The question facing the industry is therefore no longer whether South Africa can grow enough soybeans.

It is whether producers can continue doing so profitably while disease pressure rises, rainfall becomes less reliable, input markets remain exposed to war and the domestic market absorbs increasingly large crops.

"The next phase of soybean growth will not be driven by hectares alone. It will be decided by yield stability, seed quality and margin per hectare."

Production shifts beyond the traditional heartland

Mpumalanga remains central to South African soybean production.

The districts around Standerton, Bethal, Ermelo, Delmas, Carolina and Piet Retief combine reliable summer rainfall, established grain rotations and good access to storage, crushing and feed-manufacturing infrastructure.

KwaZulu-Natal's inland and northern production regions have also retained an important place in the sector, particularly around Vryheid, Dundee, Newcastle, Greytown and the Midlands.

The most significant structural change, however, has been the expansion of soybeans through the Free State and into the wetter parts of North West. By the 2023/24 season, approximately **545 000 hectares** had been planted in the Free State, making it the country's largest soybean planting province.

This westward movement was enabled by better-adapted cultivars, conservation farming,

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improved planting technology and the need to diversify increasingly expensive maize systems.

South Africa's soybean crop is produced by a broad base of commercial grain farmers rather than a small group of dominant estates. Official production and delivery statistics are consequently measured mainly by province. The Free State now carries the largest area, while Mpumalanga remains one of the most dependable contributors to national yield and quality.

For producers, regional expansion has also introduced greater variation. Soybeans are now being grown across colder high-altitude areas, warmer eastern districts and comparatively drier western environments. That makes cultivar placement and planting date more important than ever.

Planting date sets the ceiling

Experienced producers know that soybean yield is often determined before the crop emerges.

In cooler production regions, planting may begin during October, with the main window generally extending from around **20 October to 20 November**. Moderate regions typically plant through November, while warmer districts may continue from mid-November into mid-December.

Planting outside the optimum window carries consequences that cannot always be corrected later.

Very early planting into cold soils can slow emergence and increase seedling-disease risk. Late planting may shorten the crop's vegetative period, reduce node development and cause flowering to begin before sufficient canopy and root structure have been established.

The crop's sensitivity to day length means that a late-planted soybean does not simply shift its growth cycle forward in the same way as some other crops. It may enter reproduction with less plant structure and fewer sites on which to carry pods.

That makes the relationship between planting date and maturity group critical.

Shorter-season material generally fits cooler, higher-altitude areas or later planting windows. Medium- and longer-season cultivars can exploit warmer regions and longer frost-free periods, but may carry greater risk where late-season moisture or harvest conditions deteriorate.

There is no nationally superior cultivar. The correct choice is the one that matches the farm's altitude, planting window, soil profile, rainfall pattern, disease history and harvest capacity.

"A high-yielding cultivar in the wrong production window is still the wrong cultivar."

Genetics must deliver more than yield

Yield remains the first commercial test of any cultivar, but it should not be the only one.

South African producers must assess yield stability across seasons, lodging, pod height, shattering tolerance, growth habit, maturity consistency and suitability for dryland or irrigation. Disease response is becoming an increasingly important part of that decision.

Cultivar ratings should also be interpreted carefully. Resistance does not mean immunity, and a

cultivar that performs well under moderate disease pressure may still fail when environmental conditions strongly favour infection.

The expanding production footprint makes local trial results especially valuable. A cultivar selected from a national yield ranking without attention to regional performance can create unnecessary risk.

Seed companies including Pannar, Pioneer, Agricol, GDM and other commercial suppliers offer material across several maturity classes and production zones. Genetically modified herbicide-tolerant cultivars account for the large majority of commercial hectares, although technology choice must still be supported by responsible resistance management.

The strongest cultivar programme is not built around one product. It spreads production and harvest risk across complementary maturity groups while retaining the agronomic characteristics required by the farm.

Water remains the decisive input

Most South African soybeans are produced under dryland conditions. The crop's profitability therefore depends heavily on the timing and distribution of rainfall.



Soybeans can tolerate a degree of early vegetative stress, but moisture shortages during

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flowering, pod formation and seed filling carry a far greater yield penalty.

Stress during flowering increases flower abortion. Moisture shortages during pod set reduce pod retention, while drought during seed filling reduces seed size and final mass.

The opposite extreme is equally damaging.

Waterlogged soils limit root aeration and weaken nodulation. Prolonged canopy moisture encourages foliar, stem and pod diseases. Rain during maturity can delay harvesting, increase weathering and create ideal conditions for seed infection.

This is why an El Niño forecast cannot be interpreted simply as a disease forecast.

A typical El Niño pattern in Southern Africa may produce hotter, drier conditions that reduce some moisture-dependent diseases but increase drought and heat stress. However, a dry season followed by warm rain during pod fill or maturity can still result in severe seed-quality problems.

For soybean producers, rainfall timing matters more than the seasonal label.

Disease pressure moves with the crop

As soybean area expands and the crop appears more frequently in rotations, disease pressure is also becoming more established.

Sclerotinia stem rot remains one of the most serious threats in cool, wet flowering conditions. Dense canopies, prolonged humidity and repeated soybean or susceptible broadleaf crops increase the risk.



Sclerotinia stem rot

Charcoal rot becomes more damaging under hot, dry conditions, particularly where roots are already under moisture stress. Phytophthora, Pythium and Rhizoctonia can affect emergence and root development, while frog-eye leaf spot, bacterial blight, soybean rust and pod and stem blight remain important regional threats.



Purple seed stain has also moved into sharper focus.

Grain SA and the University of Pretoria's FABI grain-disease clinic have reported increasing observations of purple-stained soybean seed in South African production areas. The condition forms part of a broader *Cercospora* disease complex that can affect leaves, stems, pods and seed.

The stain may begin around the hilum and spread over the seed coat. Heavy infection can affect

germination, vigour, appearance and marketability. Infected seed and crop residue may also carry inoculum into the following season.

Recent international research further indicates that the disease complex may involve several related *Cercospora* species or lineages. This complicates diagnosis, cultivar resistance and fungicide response.

The practical message is clear: disease management cannot begin once symptoms become visible. It starts with clean seed, rotation, residue management, cultivar choice and awareness of conditions during flowering, seed fill and maturity.

Pests require identification, not routine spraying

Soybean insect pressure differs widely between districts and seasons.

Cutworms can reduce plant populations during establishment. Loopers and other defoliating caterpillars can remove large areas of leaf tissue, while bollworms may damage pods. Stinkbugs are particularly important because they feed directly on developing seed and can reduce quality without causing dramatic visible canopy damage.

Nematodes are often overlooked.



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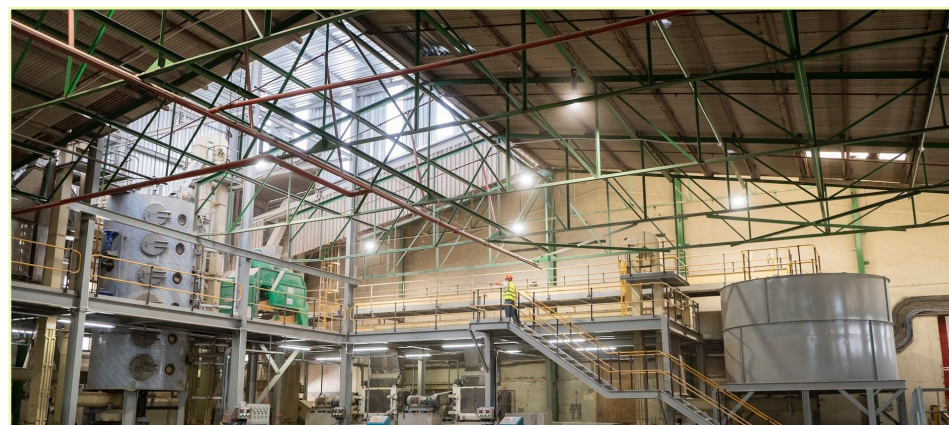
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Root-knot and lesion nematodes weaken root systems, reduce water and nutrient uptake and intensify the effect of drought.

Irregular low-yielding patches should therefore not automatically be blamed on soil fertility. Compaction, poor nodulation, nematodes and root disease can produce similar above-ground symptoms.

Integrated pest management remains the most defensible approach. Correct identification, crop-stage awareness and economic thresholds are more valuable than calendar applications that increase cost and resistance pressure without guaranteeing a return.

A domestic crushing industry changes the equation



South Africa's soybean expansion would not have been possible without a market capable of processing the crop.

The June 2026 national supply-and-demand estimate forecast total soybean availability of approximately **3,293 million tonnes** for the 2026/27 marketing year. This includes nearly **2,996 million tonnes** in expected commercial deliveries and only **5 000 tonnes** of imports.

Domestic crushing is forecast to absorb about **2,28 million tonnes**, while approximately **132**

000 tonnes is expected to move into full-fat animal feed. Exports are projected at around **280 000 tonnes**.

These figures show how substantially the industry has changed.

South Africa previously depended heavily on imported soybean meal to supply its animal-feed sector. Investment in crushing plants and the expansion of local production have greatly reduced that dependence.

Soybeans now sit at the centre of an integrated value chain linking grain producers to oil processors, feed manufacturers, poultry operations, pork producers, dairy farms and food markets.

That strength can also become a pressure point.

When production grows faster than domestic crushing and export demand, local stocks rise and prices come under pressure. Record production therefore brings both opportunity and responsibility.

The industry must ensure that processing capacity, product quality and export development keep pace with farm output.

Two wars reach South African margins

The Russia-Ukraine war continues to affect South African agriculture

through energy, fertiliser, freight and currency-sensitive input markets.

Russia remains an important global fertiliser and energy supplier, while conflict around the Black Sea continues to influence trade flows, insurance costs and commodity volatility.

The United States-Israel war with Iran has introduced a second and more immediate shock.

The conflict disrupted shipping and production through the Gulf, including flows of natural gas, nitrogen fertiliser and sulphur. Reuters reported that the disruption removed more than 30% of global nitrogen-fertiliser supply from normal trade channels at the height of the crisis, while almost half of internationally exported sulphur was trapped in the Gulf.

South African grain farmers felt the effect through higher diesel, fertiliser and logistics costs. Reuters reported in April 2026 that local farmers were already facing sharp increases in fuel and fertiliser prices as the conflict restricted energy routes through the Strait of Hormuz.

Soybeans are less exposed to nitrogen-price increases than maize when nodulation is effective. That may improve their relative attraction in planting decisions. However, the crop still requires phosphorus, potassium, lime, inoculant, crop-protection products, diesel and transport.

A lower nitrogen requirement does not make soybean a low-cost crop.

The key risk is a cost-price squeeze: expensive fuel and imported inputs combined with a large do-

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mestic crop and subdued commodity prices.

The next stage will be more demanding.

The country does not need hectares at any cost.

The next gain must come from management

South Africa has already achieved the first stage of its soybean strategy.

It has expanded production, established a domestic crushing base and sharply reduced dependence on imported protein feed.

Producers will have to extract more stable yield from increasingly variable rainfall. Cultivar placement will need to become more precise. Disease surveillance must improve, particularly where infected residue and seed-borne pathogens are becoming established. Harvest timing and seed quality will carry greater value as processors and export markets become more selective.

It needs profitable hectares producing clean, high-protein beans that domestic crushers and export buyers can use competitively.

That is now the real measure of progress.

"South Africa has built the hectares. The next task is to protect the tonnes, the quality and the producer's margin."

Written by: (M.O)

Eight decisions that will shape the next soybean crop

Match the cultivar to the production window

Use regional performance, maturity group and planting date—not national ranking alone.

Correct soil constraints before planting

Low pH, inadequate phosphorus and poor potassium status limit rooting, nodulation and yield.

Protect inoculant quality

Heat, sunlight, storage conditions and incompatible treatments can compromise living bacteria.

Establish an even stand

Uniform depth, moisture and emergence remain the basis of yield potential.

Protect flowering and seed fill

These are the periods in which drought, disease and insect feeding become most expensive.

Scout inside the canopy

Sclerotinia, stinkbugs and pod diseases are easily missed from the headland.

Investigate persistent weak patches

Sample for nematodes, root disease, compaction and nodulation failure.

Do not surrender quality at harvest

Delayed harvesting raises the risk of shattering, weathering, fungal infection and grading losses.





Okra: The Climate-Smart Crop Hiding in Plain Sight

An ancient vegetable with modern potential is quietly transforming livelihoods in some of Limpopo's rural communities.

In the fields of northern Limpopo, a crop once regarded as a minor garden vegetable is steadily gaining commercial significance.

Okra, known for its distinctive green pods and remarkable nutritional value, is emerging as one of South Africa's most promising underutilised crops. As farmers search for climate-resilient and profitable alternatives to conventional crops, okra is proving that it deserves a place in the country's agricultural future.

From the villages of Gumbu and Mayephu in the Vhembe District, farmers are demonstrating that this humble vegetable can generate income, support household food security and connect rural producers to lucrative urban markets in Johannesburg and Pretoria.

Why Okra Matters

Okra (*Abelmoschus esculentus*) is a warm-season crop believed to have originated in Africa. It is widely consumed across the continent, Asia, the Caribbean and parts of the Americas.

The young green pods are used in soups, stews and vegetable dishes, while the leaves and seeds can also be utilised for food and other purposes.

Despite its long history and adaptability, okra remains largely underutilised in South Africa's formal agricultural sector. Most commercial vegetable production focuses on crops such as tomatoes, cabbages, spinach, onions and potatoes, while indigenous and traditional vegetables often receive limited attention from researchers, policymakers and mainstream markets.

Yet okra possesses several characteristics that make it particularly relevant in the face of climate change.

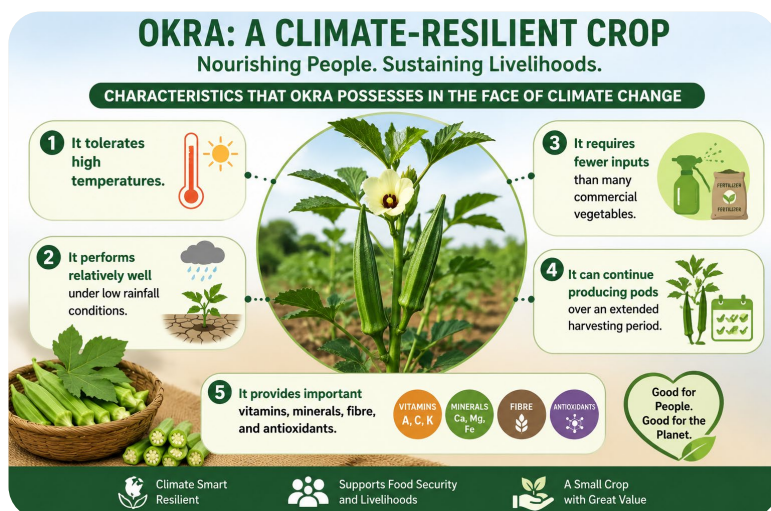


FIGURE 1: OKRA — A CLIMATE-RESILIENT CROP

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Characteristics that okra possesses in the face of climate change

1. It tolerates high temperatures.
2. It performs relatively well under low-rainfall conditions.
3. It requires fewer inputs than many commercial vegetables.
4. It can continue producing pods over an extended harvesting period.
5. It provides important vitamins, minerals, fibre and antioxidants.

These attributes make okra a valuable crop for smallholder farmers operating in drought-prone regions.

A Growing Success Story in Gumbu and Mayephu

In the villages of Gumbu and Mayephu, located in the Musina and Collins Chabane Local Municipalities respectively, farmers have been cultivating okra for many years as part of local food traditions.

However, recent years have seen growing recognition of its commercial value.

Farmers in these communities are increasingly producing okra not only for household consumption but also for sale to local traders, community markets and urban buyers.

During the harvesting season, fresh okra harvested from village fields makes its way to major markets in Johannesburg and Pretoria, where demand continues to grow among consumers from diverse cultural backgrounds.

The crop has become an important source of supplementary income for many households. Because okra can be harvested repeatedly over several weeks or months, farmers are able to generate regular cash flow throughout the production season.

Local traders often purchase fresh pods directly from producers, reducing marketing challenges and allowing farmers to focus on production.

In addition, some producers sell directly to consumers within their communities, ensuring that local households have access to fresh and nutritious vegetables.



Meeting Demand Beyond Limpopo

Urbanisation and increasing cultural diversity in South Africa have contributed to growing demand for traditional vegetables, including okra.



Consumers from various African countries, as well as South African communities with a long tradition of okra consumption, actively seek the vegetable in fresh-produce markets.

Markets in Johannesburg and Pretoria have become important destinations for okra produced in Limpopo. Fresh-produce traders recognise the crop's value and often source supplies from rural producers during peak production periods.

This market linkage demonstrates an important lesson for agricultural development: crops do not need to be mainstream to be profitable.

Niche markets can provide significant opportunities for smallholder farmers when production is aligned with consumer demand.

Nutrition Hidden in a Green Pod

Okra is often referred to as a "super vegetable" because of its impressive nutritional profile.

It is particularly valuable because it is:

- Low in calories and fat but provides useful dietary fibre.
- A good source of vitamin C, vitamin K, folate, calcium, magnesium and potassium.
- A source of mucilaginous soluble fibre, which gives cooked okra its characteristic slimy texture and contributes to its dietary-fibre content.
- Rich in various bioactive compounds and antioxidants, including polyphenols and flavonoids.

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Table 1: The proximate nutritional composition of fresh okra pods

Nutrient (per 100 g fresh okra)	Approximate amount	Why it matters
Energy	33 kcal	Low in calories
Dietary fibre	3.2 g	Supports healthy digestion
Protein	1.9 g	Contributes to plant-based protein intake
Vitamin C	23 mg	Supports immunity and antioxidant protection
Calcium	82 mg	Important for strong bones and teeth
Magnesium	57 mg	Supports muscles and normal metabolism
Potassium	299 mg	Helps maintain normal fluid balance and muscle function
Folate (Vitamin B9)	60 µg	Important for cell growth and development
Vitamin K	31 µg	Supports blood clotting and bone health
Iron	0.6 mg	Essential for healthy blood formation

okra may become increasingly important.

Farmers in Gumbu and Mayephu villages have long observed okra's ability to withstand periods of heat and water stress better than many other vegetables.

While no crop is completely

This makes okra an important traditional crop with potential to contribute to healthier and more diverse diets in South Africa.

The characteristic mucilage — the gel-like substance released during cooking — is valued for its culinary properties and has been associated with various health benefits.

Regular consumption of okra can contribute to improved nutrition and dietary diversity, particularly in rural communities where access to a wide range of vegetables may be limited.

In a country where malnutrition and micronutrient deficiencies remain challenges in many areas, promoting nutrient-rich traditional crops could contribute to healthier diets.

Climate Resilience for the Future

Climate scientists predict that many parts of South Africa will experience higher temperatures, more frequent droughts and increasing rainfall variability in coming decades.

These conditions pose significant risks for conventional crops

that require substantial water and external inputs. Under such circumstances, resilient crops such as

immune to drought, okra's natural resilience makes it an attractive option for climate-smart agriculture.

The crop's adaptability aligns with growing calls to diversify South Africa's agricultural systems and reduce dependence on a narrow range of crops.

Challenges Limiting Wider Adoption

Despite its potential, several challenges continue to limit the expansion of okra production.

FIGURE 2: CHALLENGES FACING OKRA PRODUCTION AND USE IN SOUTH AFRICA



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1. Limited research and extension support

Compared with major commercial crops, relatively little research has been conducted on okra varieties, agronomic practices, pest management and market development in South Africa.

2. Seed availability

Many farmers rely on farmer-saved seed or informal seed systems. While these systems play a crucial role in conserving locally adapted varieties, improved access to quality seed could help increase productivity.

3. Market constraints

Although demand exists, market channels remain underdeveloped. Many farmers lack access to reliable buyers, storage facilities and transportation systems.

4. Perception challenges

Traditional and indigenous crops are sometimes perceived as “poor people’s food” despite their nutritional and economic value.

Changing these perceptions will be essential for expanding consumer demand.

The way forward

Strengthening research, improving seed systems, building markets and changing perceptions will unlock the full potential of okra in South Africa.

Okra is resilient, nutritious and has great economic potential. Addressing these challenges today will secure a better future for farmers and consumers.

Unlocking the Potential of Underutilised Crops

The success of okra farmers in Gumbu and Mayephu villages highlights the broader potential of underutilised crops in South Africa.

As policymakers, researchers and development organisations seek solutions to food insecurity, climate change and rural poverty, greater attention should be given to crops that have sustained communities for generations.

Investment in research, seed systems, value-chain development and market promotion could help transform okra from a niche crop into an important contributor to rural livelihoods and agricultural resilience.

The experiences of Limpopo farmers show that innovation does not always require introducing new crops.

Sometimes the answer lies in rediscovering and supporting crops that communities have quietly cultivated for decades.

The Road Ahead

Okra may not yet occupy the same status as maize, tomatoes or potatoes in South African agriculture, but its future appears increasingly promising.

In villages such as Gumbu and Mayephu, farmers are proving that traditional crops can generate income, strengthen food security and connect rural communities to urban markets.

Their success serves as a reminder that South Africa’s agricultural future may depend not only on modern technologies, but also on the rich diversity of crops already present in its fields.

As climate pressures intensify and the search for resilient farming systems continues, the green pods of okra could become an important symbol of a more diverse, sustainable and food-secure agricultural future.

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agriculture

Department:
Agriculture
REPUBLIC OF SOUTH AFRICA





Cucumber Under Pressure: Building an Open-Field Crop for a Hotter, Less Predictable Season

Cucumber seldom claims the centre of South Africa's festive table, yet it is rarely absent from it. It brings crunch to salads, coolness to platters and freshness beside the braai. Through summer, it moves rapidly through municipal fresh-produce markets, supermarket pre-packs, hospitality kitchens, holiday resorts and informal trade.

For the open-field grower, that apparently uncomplicated fruit is one of horticulture's more revealing crops.

Every straight, firm cucumber has developed while exposed to hot winds, thunderstorms, insect vectors and sudden changes in soil moisture.

The crop establishes quickly, bears rapidly and can lose commercial quality with equal speed. A field may carry impressive biological yield while delivering too few cucumbers in the preferred market grade.

The festive opportunity therefore belongs not to the grower who

simply plants more hectares, but to the one who matches the product, planting window and field system to a defined customer.

A Commercial Crop Hidden by Incomplete Statistics

Cucumber production is spread across South Africa rather than concentrated in one dominant district. Limpopo, Mpumalanga, Gauteng, North West and KwaZulu-Natal carry important warm-season plantings, while Eastern and Western Cape growers exploit production windows shaped by coastal and Mediterranean conditions.

A reliable current national production figure remains difficult to establish because fruit moves through several channels, including direct retail, hospitality and informal markets.

Historical government data nevertheless recorded production approaching 27 800 tonnes in 2016, confirming that cucumber is a meaningful commercial vegetable rather than a peripheral line.

Plant for a Buyer, Not Merely a Season

Cucumber is a warm-season crop. Open-field planting in summer-rainfall regions generally begins once damaging cold has passed and soil temperatures allow rapid, uniform establishment. Frost-free districts can exploit wider windows, but the intended harvest programme should determine the final date.

Staggered blocks reduce the risk of the entire crop entering harvest during one heat wave, storm or market glut. They also help maintain dependable weekly volumes across the broader festive and summer trading period.

Fields should drain freely and be free from compacted layers. Cucumbers react sharply to both waterlogging and drought. Raised beds provide useful insurance in heavier soils and summer-storm regions, while drip irrigation directs water and nutrients into the root zone without repeatedly wetting the canopy.

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The Product Determines the Seed

The first seed decision is not which cucumber produces the highest headline yield. It is which product the customer intends to buy.

Fresh-market field cucumbers, Beit Alpha types, pickling cucumbers and long-English fruit are different commercial products. They vary in length, skin finish, flowering habit, pollination requirement, packaging and route to market.

Traditional seeded field types usually carry male and female flowers and rely on bees for sound fruit development. Parthenocarpic greenhouse cucumbers set without fertilisation and should not automatically be moved into an insect-exposed field without direct confirmation from the supplier. Poorly matched genetics can produce seeded, misshapen or commercially unsuitable fruit.

Field Genetics for Different Markets

The first seed decision is not which cucumber carries the highest headline yield. It is which product the customer intends to buy.

Open-field slicing cucumbers, Beit Alpha types and hybrid field cucumbers differ in fruit length, skin finish, maturity, disease protection and market destination. The best choice for a loose municipal-market trade may not suit a retailer demanding uniform short cucumbers in pre-packs.

Ashley: The Familiar Open-Pollinated Slicer

Ashley, available from **Starke Ayres** and **MayFord**, remains a familiar open-pollinated slicing cucumber for spring and summer production. It matures in approximately 60–70

days and produces high-yielding cylindrical fruit with white spines. MayFord also highlights its resilience to downy mildew.

Its value lies in accessibility and adaptability rather than the precision associated with modern F1 hybrids. Growers selling through local markets, farm stalls or less rigid wholesale channels may appreciate its dependable summer habit. Open-pollinated material may, however, show greater variation in fruit shape and maturity than a carefully selected hybrid.



Ashley is best considered for warm summer planting in frost-free or frost-cleared areas of Limpopo, Mpumalanga, Gauteng, North West and KwaZulu-Natal. It should still be trialled against the farm standard, particularly where retailers demand narrow size and uniformity specifications.

Conil: Hybrid Uniformity with Useful Resistance

Conil, supplied by **Starke Ayres**, is an early-maturing F1 field cucumber with vigorous but open plant growth and a long production cycle. It produces dark, medium-sized fruit of

approximately 14–15cm. Its published resistance package includes cucumber mosaic virus, cucumber vein yellowing virus and powdery mildew.

That resistance package gives **Conil** particular relevance in warm production areas where virus vectors and powdery mildew can shorten the crop before its full harvest potential is reached. The open plant habit also assists scouting, spray penetration and harvesting.

It is a logical commercial option for Limpopo, Mpumalanga, North West and northern KwaZulu-Natal, provided the 14–15cm fruit specification suits the intended buyer. Resistance should not be read as immunity; weed control, vector management, crop hygiene and timely intervention remain necessary.

“The strongest resistance package is the one matched to the diseases that repeatedly shorten that farm’s harvest.”

Zena F1: Built for Warm-Season Production

Zena F1, supplied by **MayFord**, is an early Beit Alpha hybrid developed for warm conditions. It continues setting under high temperatures and reaches harvest in approximately 60 days. Fruit should be picked at around 12–15cm long and 2–3cm in diameter; allowing it to become oversized can reduce subsequent production.

Its intermediate resistance package includes downy mildew, powdery mildew and zucchini yellow mosaic virus. MayFord recommends spring and summer sowing in frost areas and year-round planting in frost-free

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districts.

This combination makes **Zena F1** particularly interesting for warm irrigated programmes in Limpopo, Mpumalanga, northern KwaZulu-Natal and other frost-free districts. Its smooth, compact Beit Alpha fruit also targets a different consumer from the conventional larger slicer, fitting convenience packs, hospitality use and smaller households.

Growers should confirm pollination behaviour and open-field recommendations for their specific production situation before committing a large area. Beit Alpha material must be matched carefully to the field system and neighbouring cucurbit plantings.

Pointsette: A Traditional Dark-Green Slicer

Pointsette, supplied by **Starke Ayres**, is a high-yielding open-pollinated slicing cucumber



producing dark-green cylindrical

fruit. It is recommended for spring and summer planting in full sun and matures in approximately 60–70 days. The supplier also advises training vines onto supports where straighter fruit are required.

It provides a useful traditional option for local fresh markets and growers who prefer open-pollinated seed. Claims that it is broadly resistant to mildew and leaf spots should, however, be handled cautiously. The current South African supplier information describes the variety and its maturity but does not publish a formal pathogen-specific resistance package.

For that reason, **Pointsette** should not be selected as a disease-management solution without a current technical sheet from the supplier. Its place is as a productive summer slicer whose performance must be supported by scouting, crop rotation and a disciplined spray programme.

Four Seeds, Four Commercial Jobs

These varieties should not be presented as interchangeable.

Ashley and **Pointsette** provide familiar open-pollinated options for traditional slicing markets. **Conil** offers greater hybrid uniformity and a clearly defined resistance package. **Zena F1** serves the shorter Beit Alpha category and brings strong warm-season setting with intermediate resistance to three important diseases.

The correct choice depends on the buyer's required fruit length, the intended packaging, the disease history of the farm and whether uniform hybrid production justifies the higher seed cost.

No variety should be declared

the provincial winner without comparable independent trials. Elevation, irrigation-water quality, sowing date, pollinator activity and market specification can alter performance within the same province.

A useful farm trial should compare:

- days to first harvest;
- marketable fruit per plant;
- uniformity of length and diameter;
- resistance performance under local disease pressure;
- harvesting frequency;
- pack-out and shelf life.

The cultivar that produces the most kilograms is not automatically the most profitable. The better choice is the one that converts the greatest proportion of the crop into the grade the customer is prepared to buy.

The El Niño Case: Secure the Root Zone Before Planting

El Niño is established and expected to strengthen through the end of 2026. NOAA's July outlook states that the event is likely to persist into early 2027, while WMO guidance points to an increased likelihood of above-normal temperatures over Southern Africa. El Niño is also historically associated with an increased drought risk across parts of southern Africa, although it does not guarantee below-normal rainfall on every farm.

For cucumber, the greatest danger may not be the seasonal rainfall total. It may be the interruption of moisture during flowering and fruit expansion.

High temperatures increase transpiration and accelerate fruit development. Water stress can produce tapered, hooked, undersized or bitter fruit. Severe heat may also reduce flower

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SOUTH-EAST ASIAN SALAD WITH CUCUMBER AND ROASTED NUTS

INGREDIENTS

- 1 Cucumber, sliced
- 1 clove garlic, crushed
- 1 onion, thinly sliced
- 1 handful coriander leaves, finely chopped
- 1 handful roasted unsalted nuts (peanuts/cashews)

DRESSING INGREDIENTS

- 2 tbsp apple cider vinegar
- 1 tsp sugar
- Sweet chilli sauce, to taste

PREPARATION

Combine the cucumber, onion, garlic and coriander together in a bowl or arrange on a serving platter.

Sprinkle over the roasted nuts. Whisk together dressing ingredients and pour over the salad.

Season to taste and serve.



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retention and pollinator activity. Where irrigation water carries salts, greater evaporation can concentrate those salts around the root zone.

Preparation begins before planting. Water availability and quality should be tested, pumps serviced, filters cleaned and emitter delivery measured from the first row to the last. A pressure reading beside the pump says little about what reaches the furthest plant.

Organic matter and mulch improve moisture buffering, while windbreaks may reduce physical scarring and excessive water loss.

Raised beds and stormwater channels remain important



because an El Niño summer can still deliver intense thunderstorms

between dry periods.

Grafting Where the Root Zone Is the Weak Link

Grafted cucumber seedlings deserve consideration where salinity, soilborne disease or restricted rotation repeatedly shortens the harvest.

Shintosa Camelforce, supplied by **Starke Ayres**, is a Cucurbita maxima × C. moschata rootstock intended for cucumber, melon and watermelon. It is promoted for a powerful root system, broad adaptability, strong disease resistance and the potential to extend the crop cycle while supporting fruit quality and yield. Its listed resistance includes several Fusarium pathogens and Verticillium.

Another available rootstock option is **Vitalley** from **Syngenta Vegetable Seeds**, listed for open-field cucumber and watermelon systems. Rootstocks should not be treated as automatic yield boosters; the scion-rootstock combination must be trialled under the farm's soil, salinity, climate and management conditions.

The additional seedling cost is justified only where stronger roots improve crop survival, extend harvesting or raise marketable pack-out.

Irrigation Writes the Fruit's Shape

A cucumber contains a high proportion of water, and its shape



records every interruption in supply.

Irrigation should respond to soil texture, rooting depth, temperature, wind, canopy size and fruit load. A fixed runtime used from establishment to peak harvest is rarely sufficient. Tensiometers or capacitance probes help show when the active root zone is approaching stress and whether water is reaching the required depth.

More water is not always better. Saturated soil loses oxygen, weakening roots precisely when the plant must support rapid canopy growth and fruit fill.

Nutrition should encourage bal-

ATTENTION — THE EL NIÑO WATER AUDIT

- 1. Calculate whether available water can carry the full planned area through several consecutive hot days.**
- 2. Test borehole or dam water, measure dripper uniformity and inspect the wetting pattern at root depth.**
- 3. Service pumps and keep replacement filters, connectors and emitters ready.**
- 4. Where supply and peak demand do not balance, reduce or stagger the planting before the weather makes the decision.**

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anced growth. Excessive nitrogen produces a soft, dense canopy that traps humidity, hides insects and complicates harvesting. Potassium demand rises during fruit development, but the programme should remain guided by soil, water and tissue analysis.

IPM Begins Beyond the First Row

Aphids, whiteflies, thrips, mites, beetles and caterpillars can damage cucumbers directly or carry disease into the crop. Integrated pest management begins with field selection and the removal of old cucurbit crops, weeds and volunteer plants that bridge one planting to the next.

Scouting should start at emergence. Sticky traps can reveal the movement of winged insects, but leaf undersides, flowers and growing points still require inspection.

Seed resistance is valuable, but it does not create immunity. **Conil's** resistance to CMV, CVYV and powdery mildew can protect the productive window, but sanitation, vector control and timely intervention remain necessary.

Where pollination is required, bees become part of the yield calculation. Rain, wind, excessive

"Integrated pest management is not a gentler form of crop protection; it is a more observant and disciplined one."

heat and poorly timed insecticide applications can all reduce fruit set and straightness.

Harvest Quickly, Handle Deliberately

Cucumbers can pass beyond specification rapidly in summer. Harvesting may be required daily or every second day depending on the hybrid, weather and buyer.

Fruit should be cut rather than pulled, placed gently into clean crates and removed from direct sunlight. Compression, abrasion and field heat reduce firmness and shelf life before the crop reaches the packhouse.

Yield should be judged in marketable tonnes, not gross tonnes. A heavy crop of curved, oversized or scarred fruit may flatter the production report while weakening the sales statement.

Retail packs should protect fruit while allowing sufficient ventilation. Buyers look for consistent length and diameter, strong colour, firmness and freedom from decay. Consumers want crispness and convenience, particularly during the festive period when cucumber moves into salads, platters, snacks and outdoor meals.

Nutritionally, cucumber is low in energy, contains substantial water and contributes vitamin K, with

smaller amounts of vitamin C and

other micronutrients.

"The winning cucumber field is not the one carrying the most fruit, but the one converting the greatest proportion into straight, crisp and saleable produce."

The open-field grower cannot control El Niño, the next storm or the festive market. The controllable sequence remains powerful: select the correct cucumber type, trial suitable genetics, secure the root zone, protect pollinators, scout continuously and cool the harvest quickly.

In cucumber production, speed creates the opportunity. Precision protects the margin.

Written by: (M.O)





Growing Confidence

Why independent assurance is strengthening South African agriculture

South African farmers have always been judged by what they produce: the strength of a grain crop, the condition of fresh vegetables, the quality of livestock and the ability to deliver consistently under difficult climatic and economic conditions. Today, however, production alone is no longer enough. Buyers increasingly want proof of where a product came from, how it was produced, which inputs were used and whether every stage of the supply chain can withstand scrutiny.

Food safety, traceability, sustainability and social responsibility are no longer confined to premium export programmes. They are becoming part of mainstream commercial agriculture. Retailers want dependable suppliers, processors require consistent raw materials, exporters need credible documentation and consumers expect food that is safe and responsibly produced.

This is placing additional demands on farmers, but it is also creating

opportunity. Producers who can demonstrate control over their systems are better positioned to retain buyers, resolve disputes, protect their reputations and enter markets where trust carries real commercial value.

Independent certification, inspection and verification are playing an increasingly important role. Accredited assurance providers assess defined farming and supply-chain systems against recognised standards, buyer protocols and market requirements. Their role is not to replace the farmer, regulator or laboratory, but to provide independent evidence that the systems supporting a product are credible and consistently maintained.

The market now wants proof

A product leaving the farm is only the beginning of a longer journey. Grain may move through silos, transporters, traders and mills. Fresh produce may pass through harvesting teams, packhouses, cold rooms and

distribution centres. Livestock may move through auctions, feedlots, abattoirs and processors before entering the market.

Each stage creates another point at which quality, identity or safety can be compromised. A batch can be labelled incorrectly, a storage record may be incomplete, a residue limit can be exceeded or one consignment can be mixed with another. When this happens, the ability to trace the product quickly becomes critical.

Buyers therefore want more than verbal assurances. They want records linking the final product to the farm, field, animal group, storage facility or production batch from which it originated. They want evidence that application records are complete, storage conditions were monitored and corrective actions were taken when weaknesses were found.

For farmers, this can appear to be another layer of administration. In reality, a well-managed assurance system is not separate from good

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farming. It is the documented expression of it.

Certification beyond the audit

"A well-run assurance system is not separate from good farming. It is the documented expression of it."

Certification is often treated as an annual event: prepare the files, inspect the chemical store, brief the staff and make sure everything is ready for the auditor. That approach may produce a certificate, but it does not necessarily produce a stronger farming business.

The real value lies in the discipline introduced throughout the year. Production records can reveal patterns in crop-protection use. Calibration logs can expose inaccurate applications. Water assessments can identify contamination risks, while traceability exercises can show whether a farm can isolate one affected batch instead of withdrawing an entire consignment.

A management tool, not a wall certificate

The strongest producers use certification as a management framework rather than a once-off compliance exercise. They integrate recordkeeping, staff training, internal inspections and corrective action into daily operations. The business becomes more consistent, less dependent on memory and better prepared when a buyer raises a concern.

Independent assurance is most valuable when it tests the system honestly. An audit that exposes weaknesses before the market does can prevent a far

more expensive failure later. The certificate is therefore not the final product. The more important outcome is a farming operation that understands its risks and manages them systematically.

"The certificate is not the final product. The more important outcome is a farming operation that knows where its risks lie and how to manage them."

Traceability as a commercial safeguard

Traceability is often



described as a consumer-protection tool, but it is equally important for the producer. A strong system can prevent a farmer from being drawn unnecessarily into a wider recall, quality dispute or supply-chain investigation.

In crop production, a consignment may be linked to a specific field, planting date, spray record, harvest team and delivery note. In

"Traceability protects the consumer, but it also protects the farmer from unnecessary recalls, disputes and loss of market confidence."

livestock, traceability may include animal identification, treatment history and movement records. In grain, it may involve storage locations, sampling results, transfer records and buyer details.

The cost of weak records

When records are incomplete, the business may be unable to determine which products are affected by a problem. The response then becomes broader, slower and more expensive.

A retailer may reject an entire delivery because one batch cannot be isolated,

while a processor may suspend a supplier because the origin of the raw material cannot be verified.

Good traceability allows the issue to be contained. It identifies which batch was affected, where it was sent and which consignments remain safe. This reduces commercial disruption and demonstrates that the business is in control.

Fresh produce: quality supported by evidence

Fresh fruit and vegetables are among the most closely scrutinised agricultural products. They are

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perishable, frequently handled and often sold under strict retail or export programmes. Appearance matters, but so do residue compliance, water quality, worker hygiene, packaging accuracy and post-harvest handling.

A crop may look excellent in the field and still fail commercially if the records behind it are weak. Buyers increasingly expect proof that crop-protection products were registered, applied at the correct rate and used within the prescribed withholding period. Water testing, hygiene controls, traceability exercises and packhouse procedures may also form part of the requirement.

Residue management starts before harvest

Residue compliance is not created by the laboratory result alone. It is built through every crop-protection decision taken during the season.

Product selection, dosage, timing, resistance management and harvest planning all influence the final outcome.

Integrated Pest Management, biological controls, scouting and accurate application records can reduce unnecessary chemical use while protecting crop quality.

For growers supplying premium retail or export markets, this is becoming a commercial advantage rather than simply a compliance obligation.

Independent assurance providers can assess whether these systems meet the agricultural, food-safety or buyer requirements applicable to a particular market, supporting confidence between the producer, buyer and consumer.

Grain: confidence measured in tonnes

The grain industry operates at a scale where small discrepancies can become major financial disputes. Moisture, grading, foreign material, storage conditions, sampling and quantity all influence the value of a consignment.

Farmers, traders and buyers need confidence that what was loaded, stored and delivered matches the agreed specification. Independent inspection can provide a neutral record of condition and quantity at critical points in the chain.

Sampling, storage and transfer



A grain sample must represent the consignment accurately. Poor sampling can lead to disputes over grade, contamination or quality. Storage records must show where grain was held and whether segregation was maintained, while transfer documentation should correspond with actual quantities and destinations.

Independent inspection and verification strengthen transparency at these points. For farmers, this can reduce uncertainty and provide support when disagreements arise. For buyers, it creates confidence that

the commodity received matches the contractual specification.

Livestock: assurance from farm to processor

Livestock production carries its own traceability and assurance challenges. Animal identification, treatment records, movement controls, feed, welfare and disease management all affect whether the final product can be trusted.

South African livestock farmers have seen how rapidly animal-health concerns can disrupt trade. Disease outbreaks can restrict movement, interrupt markets and damage confidence far beyond the property where the original problem occurred.

Identification and treatment records

Reliable identification is the foundation of livestock traceability. Producers need to know where animals originated, which treatments they received, when they moved and which group or consignment they formed part of.

Independent assurance cannot replace official veterinary controls, but it can support stronger records and more credible supply chains. For processors, exporters and retailers, this evidence is increasingly important when verifying origin, treatment and compliance.

Sustainability enters the buying decision

Environmental performance was once discussed separately from commercial production. That distinction is disappearing. Water use, soil health, biodiversity, waste, chemical management and climate resilience are increasingly influencing buyer expectations.

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Farmers are being asked to move beyond broad statements and provide measurable evidence. It is no longer enough to say that water is being used efficiently or that soil health is improving. Buyers may want records, targets, assessments and independent verification.

From promise to evidence

For South Africa, this is particularly important. Water scarcity, climate variability and rising input costs already shape farm management. Producers who measure resource use and demonstrate responsible practices may be better positioned in markets where sustainability performance matters.

Independent assurance can help turn environmental claims into credible evidence, giving buyers confidence that commitments are supported by functioning systems rather than marketing language.

The role of independent assurance providers

Independent assurance providers operate across certification, in-



specification, auditing, testing coordination and supply-chain verification in agricultural and food-related sectors. Their relevance lies in the impartial assessment of systems against an applicable standard, buyer protocol or contractual requirement.

Farmers remain responsible for production, regulators for statutory oversight and laboratories for analytical testing. The assurance provider evaluates whether the relevant process, management system or requirement has been properly implemented and maintained.

Not every provider offers every service, and not every certification programme is suitable for every business. Producers should select an appropriately accredited organisation with recognised competence in the standard, commodity and market concerned.

Bridging production and proof

For farmers, independent assessment can strengthen credibility with retailers, exporters, processors and traders. For buyers, it provides a recognised point of reference. For consumers, it contributes to confidence that a product has moved through a system designed to manage risk.

The most valuable assurance relationships are not built around passing an audit. They are built around continual improvement. A farm that uses external scrutiny to identify gaps and strengthen procedures is more likely to gain lasting commercial value from certification.

Trust as a market advantage

Not every farm needs every certificate. The starting point should always be the market. A vegetable exporter, grain trader, abattoir, retailer and feed manufacturer may each require different forms of assurance. Producers should first confirm which standards are accepted and whether testing, packhouse certification, chain-of-custody

verification, or environmental and social audits are required.

They should also confirm that the chosen certification or inspection body is recognised by the buyer, scheme owner or destination market. Cost is important, but competence, accreditation, sector experience, geographic coverage and the ability to provide dependable support should also form part of the decision.

South African agriculture's future competitiveness will depend on more than production volume. Buyers increasingly reward farmers who can demonstrate control, consistency and transparency.

Independent certification, inspection and verification are part of that transition. Reputable assurance providers help connect strong production with credible proof, strengthening confidence in the systems behind the product.



The certificate itself is not the true commodity. Trust is. In a market where reputation can be lost through one failed consignment, trust may be one of the most valuable assets a South African farmer can build.

"In a market where reputation can be lost through one failed consignment, trust may be one of the most valuable assets a farmer can build."

Written by (M.O)

Kenya's Maize Shortfall

Raises a Wider African Food-Security Warning



Kenya is preparing to import maize after adverse weather damaged its 2026 crop. While the immediate problem is Kenyan, it comes as agricultural markets across Africa face mounting exposure to extreme weather, higher input costs and an intensifying El Niño — raising a broader question about the continent's food security.

Kenya Turns to Imports

Kenya is preparing to import maize following a weather-hit harvest that has significantly reduced domestic production, according to Bloomberg.

Agriculture Cabinet Secretary Mutahi Kagwe said maize production could decline by as much as 40%, with the country facing a projected deficit of approximately 5.4 million 90 kg bags by the end of September.

That equates to roughly 486,000 tonnes of maize.

The government is initially considering imports of around one million 90 kg bags, or



approximately 90,000 tonnes, as it seeks to strengthen reserves and contain pressure on domestic supplies.

For Kenya, where maize is a staple food, a substantial reduction in production has implications extending beyond the farm gate. Lower availability can feed through to grain markets, millers and ultimately food prices.

More Than a Kenyan Problem

The significance of the development lies partly in its timing.

Across Africa, agricultural systems are facing a combination of weather and economic risks.

Reuters reported in July that the African Development Bank warned a powerful El Niño could cost African economies between \$10 billion and \$20 billion, with agriculture among the sectors most exposed. The previous 2023–24 El Niño brought severe drought to Southern Africa while East Africa experienced damaging rainfall and flooding.

The pressures are not limited to rainfall.

In August, the UN Food and Agriculture Organization's chief economist, Maximo Torero, told Reuters that the world could be approaching another period of food-price inflation as extreme weather combines with higher energy, fertiliser and other agricultural input costs.

Torero warned that commodity-price increases could begin filtering through to consumer food prices towards the end of 2026 and more strongly during 2027.

Africa's Food Buffer Is Being Tested

Kenya's decision therefore deserves attention beyond its borders.

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Improving Agricultural Mechanisation for Small-Scale Farming in South Africa

Small-scale machinery is helping farmers reduce their dependence on manual labour and improve the efficiency of field operations. However, affordability, financing, maintenance support and operator training remain significant barriers to its wider adoption among South African farmers.

Small-scale mechanisation has an important role to play in improving productivity among South Africa's small-scale farmers.

For many years, farming in the country's small-scale rural production areas has relied heavily on manual labour. Labour-intensive production practices have restricted the scale at which farmers can operate and have thus contributed to low yields.

The physical demands associated with manual farming have also made agriculture less attractive to young people. As a result, farming in many rural areas has largely

been undertaken by retired and elderly people.

This situation is gradually being addressed through the introduction of machinery and equipment suited to smaller farming operations. These technologies include two-wheel tractors, small rotavators and tillers, engine-driven sprayers and mechanical threshers.

By helping farmers complete essential production activities more quickly and efficiently, small-scale mechanisation can improve crop production while reducing the physical burden placed on agricultural workers.

Reducing dependence on manual labour

Smallholder and rural farmers in South Africa continue to rely heavily on manual labour throughout the production cycle.

Workers are commonly hired to

perform activities such as tilling, planting, spraying, weeding and harvesting. One of the reasons for this dependence is that South Africa does not have a local manufacturer of small tractors and must therefore rely on imported equipment.

In recent years, private companies have begun importing tractors and implements designed for small-scale mechanisation. These machines are intended to improve the efficiency of field production and include two-wheel tractors and electric tractors.

Small tractors for field operations

The two-wheel tractors available in South Africa are mainly imported from Brazil, China and India by various suppliers.

Often referred to as walk-behind tractors or hand tractors, these machines are particularly suitable for small-scale farming. In South

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Africa, they are primarily used for soil preparation, weeding and harvesting.

of purchasing even relatively small machines remains a considerable challenge for small-scale farmers.

Different nozzle sizes can also be fitted to the sprayer, depending on the chemical application being undertaken.

“Small-scale mechanisation can reduce labour requirements, improve operational efficiency and help farmers complete critical tasks within shorter production windows.”

The tractors are powered by either diesel or petrol engines, with power outputs ranging from 3.7 kW to 15 kW.

Common implements used with these tractors include small rotavators, disc harrows, trailers and paddy wheels. The availability of different implements allows the tractor to support several operations within a small-scale farming system.

Many farmers consequently depend on government donations or grants, as well as donations from private companies, to obtain machinery.

Farmer cooperatives provide one possible approach to improving affordability. By organising into cooperatives, farmers can pool their financial resources, share the costs of ownership and maximise the utilisation of machinery across several farming operations.

Engine-driven sprayers

Sprayers are used in agriculture to apply herbicides, pesticides and fertilisers.

Large commercial farmers in South Africa generally use equipment such as boom sprayers and drones to apply agrochemicals to their crops. Small-scale farmers, by comparison, remain highly dependent on manual methods of agrochemical application.

Powered backpack sprayers have recently become available for use by small-scale farmers in South Africa. These sprayers have a relatively simple design and are easy to use and affordable.

The backpack sprayer is fitted with a small petrol engine designed for continuous operation. It can be operated for several hours without stopping and is particularly suitable for smaller fields, greenhouses and orchards.

Figure 2: An example of a powered backpack sprayer compatible with small-scale farming. Source: TAAT Clearinghouse, 2022.



Mechanical threshers reduce postharvest losses

Many small-scale farmers in South Africa still use manual threshing methods to separate grain from harvested crops.

These methods include beating, hand shelling and trampling. Although widely used, manual threshing is labour-intensive and time-consuming. It can also result in grain losses, contamination and poor grain quality.

Small-scale mechanical threshers provide farmers with a more efficient alternative by rapidly separating grain from crop residues.

Depending on their design, these threshers can be used to process maize, wheat, sorghum, millet,

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Figure 1: Examples of two-wheel, hand-operated tractors available in the South African market for small-scale farming. Source: Afrimart and AgriMag.

The use of smallholder mechanisation tractors can reduce production costs and help make agriculture more appealing to South African youth. However, the cost

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beans and groundnuts.

Most small-scale threshers are powered by petrol or diesel engines, electric motors or small tractors. This makes them suitable for use by individual farmers as well as farmer cooperatives.

access to finance, inadequate technical support, shortages of spare parts and a lack of skilled technicians.

Operators also require appropriate training to ensure that threshers are used safely and efficiently.

workers and can improve safety compared with performing the same operations manually.

Collectively, these advantages can enable small-scale farmers to undertake production activities more efficiently and manage larger quantities of crops.

Cost and support remain major obstacles

Although small-scale mechanisation offers clear operational benefits, several obstacles continue to restrict its adoption.

Machinery and implements can be expensive for small-scale farmers with limited financial resources. Farmers also struggle to access the credit and financing required to purchase equipment.

The shortage of technical support and mechanisation service providers creates an additional challenge. Farmers may have difficulty obtaining assistance when equipment requires servicing or repairs.

South Africa also faces a shortage of technicians with the skills needed to repair and maintain small-scale machinery and implements. Limited access to spare parts can further restrict the continued operation of equipment, particularly in rural farming areas.

Proper storage is another important consideration. Some small-scale farmers do not have adequate facilities or infrastructure in which to store machinery securely and protect it from damage.

Mechanisation must also be managed responsibly. Improper use of machines and implements can contribute to soil compaction, erosion and land degradation.

“Without affordable finance, technical support, spare parts and trained operators, the full benefits of small-scale mechanisation will remain difficult to realise.”

Mechanical threshers can significantly reduce labour requirements and shorten the time required to complete harvesting operations. They can also improve grain quality and minimise postharvest losses.

By increasing processing capacity, threshers allow farmers to prepare larger quantities of grain for storage or marketing. The equipment can also be shared through cooperative mechanisation services, reducing the cost that would otherwise be carried by an individual farmer.

Benefits of small-scale mechanisation across the production cycle

Small-scale mechanisation can deliver several practical benefits to farming operations.

Machinery allows farmers to complete agricultural tasks within shorter periods, helping to increase production. This is particularly important during peak planting and harvesting periods, when labour shortages may affect the timely completion of essential work.

Mechanisation can reduce overall labour requirements while im-

Figure 3: Agricultural Research Council staff testing a locally available thresher in the field.



Despite these advantages, the adoption of small-scale threshers remains limited.

The major barriers include high machinery purchase costs, limited

proving the efficiency of planting, weeding and harvesting operations.

The use of machinery also reduces the physical strain placed on

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Appropriate equipment selection, operator training, maintenance support and responsible machinery use are therefore essential if small-scale farmers are to realise the full benefits of mechanisation.

postharvest losses and lessen the physical demands placed on agricultural workers.

However, the benefits of mechanisation cannot be separated from

Addressing the remaining financial and technical barriers will be essential to expanding the responsible use of small-scale mechanisation across South Africa's rural farming communities.

A shared approach to mechanisation

Small tractors, engine-driven sprayers and mechanical threshers offer practical opportunities to improve the efficiency of small-scale agricultural production in South Africa.

These technologies can reduce dependence on manual labour, shorten production and processing times, improve grain quality, reduce

the challenges of affordability, financing, technical support, maintenance, storage and training.

Shared ownership through farmer cooperatives and cooperative mechanisation services can help farmers distribute ownership costs, improve machinery utilisation and make equipment more accessible.

"Farmer cooperatives can improve access to machinery by pooling financial resources, sharing ownership costs and maximising equipment utilisation."

By Siboniso Nkambule

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ARC-Natural Resources and Engineering



SMALL-SCALE MECHANISATION: OPPORTUNITY AND OBSTACLES

Small-scale machinery can transform the way rural farmers prepare land, manage crops and process harvested produce. Two-wheel tractors, powered backpack sprayers and mechanical threshers can reduce dependence on manual labour and allow essential farming operations to be completed more efficiently.

Key benefits

- Faster completion of planting, weeding, spraying and harvesting activities
- Reduced labour requirements during peak production periods
- Less physical strain on agricultural workers
- Improved operational efficiency
- Reduced harvesting and processing time
- Improved grain quality
- Lower postharvest losses
- Greater quantities of grain available for storage or marketing

Main barriers

- High machinery and implement purchase costs
- Limited access to credit and financing
- Lack of technical support and mechanisation service providers
- Shortages of trained technicians and spare parts
- Inadequate equipment storage facilities
- Insufficient operator training
- Risk of soil compaction, erosion and land degradation where machinery is used incorrectly

A cooperative solution

1. Farmer cooperatives can make mechanisation more accessible by allowing members to pool resources, share machinery ownership costs and improve equipment utilisation.
2. Cooperative mechanisation services can also enable several farmers to use tractors, threshers and related implements without each farmer having to purchase the machinery individually.
3. However, shared ownership must be supported by proper operator training, maintenance arrangements, secure storage and responsible equipment use.



Brown-Bag Seed Bootlegging Stopped in Its Tracks

A recent dispute involving the unlawful multiplication, conditioning and marketing of protected oats seed has highlighted the practical reach of South Africa's Plant Breeders' Rights framework and the importance of protecting investment in new plant varieties.

According to a joint media release issued by the South African National Seed Organization (SANSOR) and KISCH IP, the bootlegging of unlawfully conditioned oats seed advertised on social media in competition with Syngenta was halted following a clandestine operation and engagement by KISCH IP, working with Syngenta's Corporate Security Division.

The matter concerned the protected oats variety *Avena sativa* L. SSH4185. Information that came to light suggested that at least 65 tonnes of protected propagating material had been multiplied, conditioned and commercially marketed outside the authorised distribution chain. This reportedly took place without a licence and without the required regulatory compliance.

Dr Lukeshni Chetty, CEO of SANSOR, emphasised that every improved plant variety represents years of research and millions of rands in investment before it reaches the market. Plant Breeders' Rights are intended to protect that investment and encourage the continued development of improved genetics that benefit producers, processors and consumers.

A Dispute Extending Beyond Unpaid Royalties

The investigation indicated that the matter potentially extended well beyond unpaid royalties. The alleged conduct raised concerns across several areas of law and regulation, including the infringement of registered Plant Breeders' Rights, the unauthorised multiplication of protected propagating material and the unauthorised conditioning, cleaning and treatment of protected seed.

The concerns also included the unauthorised marketing and commercial sale of the protected material, the use of registered trademarks in connection with its marketing, and non-compliance with statutory requirements governing the production, conditioning and commercial movement of propagating material.

Further issues identified in the release included the off-label use of agrochemicals, potentially transgressing Act 36, as well as failures involving traceability, record-keeping and labelling. The conduct was described as capable of attracting civil remedies and, where applicable, criminal sanctions under the Plant Breeders' Rights Act, the Plant Improvement Act and other applicable laws.

Syngenta, as the holder of the Plant Breeders' Rights, had a range of possible remedies available. These included interdictory relief, the delivery-up of infringing propagating material, attachment of crops planted with the infringing seed, payment of reasonable royalties, damages, legal costs and any further relief available under the relevant legislation.

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At van Rooy, patent attorney and Plant Breeders' Rights specialist at KISCH IP, explained that the unauthorised commercial sale and use of protected propagating material is seldom limited to a single issue. Plant Breeders' Rights can intersect with trademark protection, unlawful competition, statutory seed regulation, certification, traceability and wider agricultural compliance.

A single instance of unauthorised multiplication can therefore transgress several areas of South African law at the same time.

Opportunity to Regularise the Position

Before litigation became necessary, the alleged infringers were invited to regularise their position. Litigation was ultimately avoided after the parties resolved the matter commercially through the framework established by Regulation 5(3)(c) of the Plant Breeders' Rights Regulations, 2025.

The resolution included an agreement on reasonable remuneration for the use of farm-saved propagating material, together with associated commercial arrangements and a contribution towards legal fees.

The outcome illustrates the practical importance of Regulation 5, described in the release as one of the most significant developments introduced by the 2025 Regulations under the Plant Breeders' Rights Act, 2018.

For generations, farmers have retained seed from one harvest for planting in the next season. The original purpose of this practice was to support food security among subsistence farmers, rather than to enable abuse by multi-million-rand commercial entities.

The challenge facing a modern Plant Breeders' Rights system is therefore to balance two legitimate interests. On the one hand is the long-established practice of saving seed on farms. On the other is the legitimate commercial interest of breeders and rights holders that invest in the development of improved plant varieties.

Qualified Farmer's Privilege

The Plant Breeders' Rights Act 12 of 2018 establishes the exclusive rights granted to breeders. Regulation 5 provides the practical framework through which effect is given to the qualified farmer's

privilege recognised in section 10 of the Act.

Rather than creating a blanket prohibition on farm-saved seed, the Regulations recognise that different categories of farmers operate under different circumstances. They also recognise that commercial seed saving carries corresponding responsibilities.

Where protected propagating material is retained in quantities above prescribed thresholds, Regulation 5(3)(c) requires that the material must have been legitimately obtained.

The breeder or Plant Breeders' Rights holder must be notified of the quantities retained, reasonable remuneration equivalent to a reasonable royalty must be agreed in a written licence agreement, and the identity of the protected variety must be preserved through appropriate labelling.

These obligations reflect three central principles identified in the release: transparency, fair remuneration and traceability.



The philosophy behind Regulation 5 is also consistent with Article 15 of the International Convention for the Protection of New Varieties of Plants, known as UPOV 1991.

The convention permits member states to recognise a limited farmer's privilege while safeguarding the legitimate interests of breeders. South Africa's 2025 Regulations give practical effect to these principles within the local agricultural context.

Protection Without Unnecessary Conflict

The oats seed dispute demonstrates that effective intellectual property protection is not measured only by the ability to institute legal proceedings.

South African law provides rights holders with extensive civil remedies and, in appropriate circumstances, criminal sanctions. However, the release stresses that litigation should not become an end in itself.

Throughout the matter, the objective remained the protection of innovation, the integrity of the

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certified seed system and the restoration of lawful commercial conduct. Once the parties regularised their position under Regulation 5(3)(c), the dispute was resolved without protracted litigation.

This approach preserved commercial relationships while ensuring that the legitimate interests of the Plant Breeders' Rights holder were recognised.

Dr Chetty described the successful resolution as



an important reminder that intellectual property protection is fundamental to a thriving seed industry and a competitive agricultural sector.

Seed companies invest heavily in research and development

to bring improved varieties to market, and that investment must be protected if innovation is to continue.

She added that SANSOR is committed to working with farmers and other stakeholders to build awareness of the Plant Breeders' Rights Act.

A strong agricultural sector depends on trust, collaboration and respect for the systems that support continued investment in innovation.

These systems ultimately benefit farmers, consumers and South Africa's food security.

Building Compliance Across Agriculture

According to the release, most seed companies regard strong intellectual property protection and a sustainable agricultural sector as complementary objectives.

Where rights need to be enforced, they will be enforced firmly. At the same time, where the law allows parties to achieve compliance through transparency, fair remuneration and responsible commercial conduct, that opportunity should be used.

The resolution of the oats matter demonstrates that protecting innovation does not necessarily require unnecessary conflict. Instead, it requires a principled commitment to the rule of law, responsible stewardship of protected plant varieties and constructive engagement across the agricultural value chain.

Seed companies are actively seeking greater compliance within the agricultural sector with the provisions of the Plant Breeders' Rights Act, 2018 and Regulation 5 before disputes arise.

They remain committed to working with farmers, seed processors, distributors and other industry stakeholders to ensure that improved plant genetics continue to benefit South African agriculture while respecting the legal framework that encourages ongoing investment in plant breeding.

Written by (M.O) based on Press Release



WHAT IS BROWN BAGGING?

You might hear the term **brown bagging** in the farming/ seed sector but what does it really mean?



In South Africa, brown bagging refers to the illegal or non-compliant sale or exchange of farm-saved seed outside the official certification and legal framework.



SIMPLY PUT:

It's when seed (often from protected varieties) is packaged informally and sold without authorisation, proper labelling, or certification.

1 WHAT DOES IT LOOK LIKE IN PRACTICE?



Cash or informal deals between farmers



No invoices or official documentation



No variety or certification labels



Sometimes sold under the guise of "animal feed"



Often advertised on social media or community groups

2 WHY IS THIS A PROBLEM?

Brown bagging is not just informal, it's unlawful and can involve:



PLANT BREEDERS' RIGHTS (PBR) INFRINGEMENT
– selling protected seed without permission



VIOLATION OF SEED LAWS
– unregistered sellers, uncertified, untested, and unlabelled seed.



FRAUD & MISREPRESENTATION
– buyers may not get what they think they're purchasing

3 WHY IT MATTERS TO THE INDUSTRY



Undermines innovation by reducing breeder income



Creates unfair competition



Puts crop quality, traceability, and biosecurity at risk



4 THE BOTTOM LINE

Any sale of seed conducted without proper authorisation and outside the framework of national regulations is classified as **BROWN BAGGING** and is **ILLEGAL**.



Protect our farmers.
Protect innovation.
Buy legal. Grow better.
Grow our future.



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with quality, performance
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Excellence isn't optional - it's expected. Pannar's **soybean cultivars** are bred for uniformity, strong standability, and consistent grain quality across diverse regions and seasons. With a broad range of maturity classes to suit nearly all planting dates and densities, they combine high yield potential with agronomic strength and adaptability. Supported by expert advice and trial-proven genetics, Pannar's versatile **soybean package** is the choice of farmers who know that quality begins with the seed.



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www.pannar.com





Growing for Gold

Strategic Planning to Capture South Africa's Festive Market

Careful planning, cultivar selection and precise timing can turn a summer crop into one of the season's most profitable opportunities

South Africa's festive season is synonymous with sunshine, family gatherings, braais, beach holidays—and fresh fruit. Among the colourful displays filling supermarket shelves and roadside farm stalls, few fruits are as recognisable as the humble spanspek. Sweet, fragrant and refreshing, it has become a staple of the South African summer.

For growers, however, successful spanspek production is about far more than planting seed and hoping for good weather. The difference between an average season and an exceptional one is often determined months before harvest begins.

Today's leading producers understand that profitability starts with strategy. By selecting the right cultivars, planting at precisely the right time, managing irrigation carefully and producing fruit that meets increasingly demanding retail specifications, growers can position themselves to capture one of the busiest fresh produce markets of the year.

With South Africans spending billions of rand during December and January on food, travel and entertainment, every hectare planted during spring represents an opportunity—not only to grow fruit, but to grow profit.

Harvest Begins Long Before December

Walk through any fresh produce market during the festive season and one thing quickly becomes clear.

👁️ Consumers are buying with their eyes. 👁️

Perfectly netted spanspek with golden skins and rich aromas seldom remain on display for long. Families preparing Christmas lunches, tourists stocking holiday homes and travellers stopping along major routes all look for fruit that promises sweetness and freshness.

Yet every one of those melons represents months of careful planning.

Unlike many agricultural enterprises that simply respond to seasonal conditions, successful sweet melon production works backwards from the marketplace.

Professional producers don't ask:

"When should I plant?"

Instead they ask:

"When do I want my fruit on the shelf?"

That subtle change in thinking transforms an ordinary farming season into a carefully planned

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commercial programme.

South Africa's Summer Advantage

South Africa is exceptionally well positioned for commercial spanspek production. Long sunny days, warm temperatures and established irrigation systems create favourable conditions across several production regions, while the country's climatic diversity allows growers to supply the market over an extended period.

Early fruit can begin moving from warmer northern districts before the main summer crop develops further south. For growers, this geographical spread offers more than continuity of supply. It creates an opportunity to target specific market windows, including the particularly valuable December and January festive trade.

The challenge is therefore not simply deciding where spanspek can be grown, but selecting a cultivar and production system that suit the local climate, expected harvest window and intended buyer.

Matching the cultivar to the production region

Limpopo is naturally positioned for some of South Africa's earliest production. Warm spring conditions around areas such as Groblersdal, Marble Hall, Bela-Bela, Musina and the Letaba region can allow crops to establish before cooler inland areas have fully entered their summer production cycle.

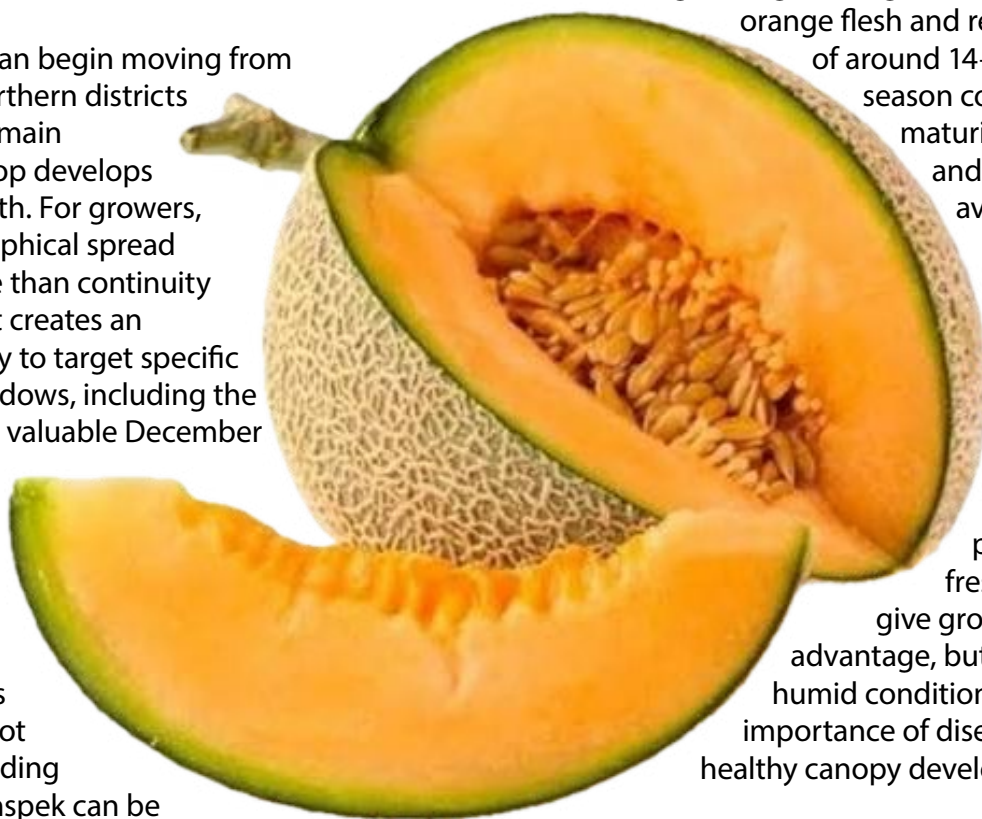
For these early northern plantings, growers need cultivars that combine relatively early maturity with strong heat performance, dependable fruit set and sufficient shelf life to withstand transport to major markets.

Starke Ayres' **Colorspring** and **Colorsweet**, for example, are both commercial cantaloupe hybrids

recommended for spring and summer production. Colorspring matures at about 70–75 days under suitable conditions and produces large, well-netted fruit with bright orange flesh, while Colorsweet falls in a similar early-main season bracket at about 73–77 days and produces 1.7–2.3 kg fruit with high Brix and long shelf life.

Sakata's **Majestic** is another useful option for warm-season production. It is an LSL Eastern Shipper type with vigorous growth, good heat tolerance, salmon-orange flesh and reported Brix levels of around 14–16%. Under warm-season conditions it reaches maturity at about 75 days and produces uniform fruit averaging 1.7–2.0 kg.

The **Mpumalanga Lowveld** offers similarly favourable opportunities. Reliable sunshine, irrigation infrastructure and proximity to Gauteng's fresh produce markets give growers a logistical advantage, but warmer, more humid conditions also increase the importance of disease resistance and healthy canopy development.



Here, **Majestic**, **Colorsweet**, **Colorspring** and **Sweet Spring** are all worth discussing with the local seed representative. Sweet Spring is a Harper-type cantaloupe with medium to large fruit, firm orange flesh, good leaf cover and resistance to several Fusarium and powdery mildew races. Its maturity is around 80 days, positioning it well for early-to-main season supply.

North West is well suited to the main summer crop. Strong sunshine contributes to good sugar development, but intense heat makes leaf cover and fruit protection important. Uniform fruit size and firmness also matter where fruit must travel to Johannesburg, Pretoria or other large markets.

For these conditions, cultivars such as **Majestic**, **Sweet Spring**, **Colorsweet** and **Divine** offer commercially useful characteristics. Divine, a Sakata Eastern Shipper type, combines vigorous growth and heat tolerance with firm salmon-orange flesh, high Brix and strong resistance to Fusarium and powdery mildew.

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The **Free State** generally enters the market later because of cooler spring conditions. Once soil and air temperatures rise, however, irrigated summer production can deliver excellent fruit quality. Cultivars with reliable establishment, good vine strength and relatively uniform maturity are particularly valuable where growers want to concentrate harvesting around December and January.

In these circumstances, **Sweet Spring**, **Colorsweet**, **Divine** and **Majestic** all fit the profile of commercially attractive orange-fleshed sweet melons.

KwaZulu-Natal presents a different challenge. Warm temperatures can allow an extended production period, but humidity places more pressure on foliage and increases the value of strong disease packages.

Cultivar characteristics by region

Production region	Typical production opportunity	Important characteristics	Commercial cultivars worth considering*
Limpopo	Early to main season	Early maturity, heat tolerance, fruit set, shelf life	Colorspring, Colorsweet, Majestic, Divine
Mpumalanga Lowveld	Early to main season	Heat tolerance, vigour, disease resistance, high Brix	Majestic, Sweet Spring, Colorsweet, Divine
North West	Main summer crop	Strong leaf cover, uniformity, firmness, sweetness	Majestic, Sweet Spring, Divine, Colorsweet
Free State	Main season	Reliable establishment, vigorous vines, uniform maturity	Sweet Spring, Colorsweet, Colorspring, Divine
Gauteng	Main season/local markets	Flavour, appearance, uniformity, shelf life	Sweet Spring, Colorsweet, Majestic, Divine
KwaZulu-Natal	Extended warm season	Disease resistance, canopy health, fruit firmness	Sweet Spring, Colorsweet, Divine
Western Cape	Irrigated summer production	Fruit cover, shelf life, heat and wind resilience	Sweet Spring, Colorspring, Majestic, Divine
Eastern Cape	Irrigated summer production	Adaptability, firmness, eating quality	Sweet Spring, Colorsweet, Majestic, Divine

Cultivar performance varies according to planting date, soil, climate and management. Growers should confirm current seed availability and regional suitability with their seed supplier and trial new material on a limited area before committing large hectares.

A variety that performs exceptionally in Marble Hall may behave very differently under cooler Free State nights or the dry winds of the Klein Karoo.

The highest-yielding cultivar is also not automatically the most profitable one. Marketable yield, fruit weight, Brix, disease tolerance, harvest concentration, firmness and shelf life all need to be weighed together.

Here, **Sweet Spring**, **Colorsweet**, **Colorspring** and **Divine** deserve consideration, particularly where growers are targeting the fresh whole-fruit market rather than maximum early-season speed.

Gauteng accounts for less commercial production than several neighbouring provinces, but proximity to the country's largest concentration of consumers provides a significant logistical advantage. Fruit may spend less time in the supply chain, allowing growers to place greater emphasis on flavour, eating quality and attractive appearance.

Cultivars with resistance to Fusarium and powdery mildew, good canopy health and firm fruit should receive preference. **Sweet Spring**, **Colorsweet** and **Divine** are examples with relevant resistance packages, although cultivar performance should always be confirmed under local conditions before large-scale planting.

In the **Eastern and Western Cape**, irrigated production can serve both regional fresh produce markets and the enormous tourism trade that develops along the coast during December and

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January. Strong winds, dry atmospheric conditions and high summer radiation increase the importance of canopy strength and fruit cover.

Commercial growers in these regions should consider **Sweet Spring**, **Colorspring**, **Colorsweet**, **Majestic** and **Divine**, depending on planting date and intended market. Long shelf life becomes particularly important where fruit must move substantial distances.

Build the crop from the roots up

Once cultivar and marketing window have been chosen, the next important decisions lie below ground.

Spanspek performs best in well-drained soil where its root system can explore freely and oxygen remains available around the root zone. Compaction, prolonged waterlogging and poor soil structure can quickly undermine an otherwise promising crop.

A soil analysis before planting allows growers to correct pH and nutrient imbalances before beds, mulch and irrigation lines make intervention more difficult.

Raised beds are particularly useful where drainage is marginal. They improve aeration around the roots, help spring soils warm faster and work naturally with plastic mulch and drip irrigation.

Plastic mulch can further reduce evaporation, suppress weeds and keep developing fruit away from wet soil. Its real advantage, however, is the level of control it gives the grower when combined with drip irrigation.

And increasingly, that root-zone strategy may begin even earlier—in the nursery.

Grafting: adding strength below ground

Grafting is becoming an increasingly useful tool in intensive cucurbit production, particularly where growers repeatedly face soil-borne diseases or difficult root-zone conditions.

The technique joins the desired spanspek cultivar, known as the scion, to a separate cucurbit rootstock selected for root vigour and disease tolerance.

Commercial melon rootstocks are often based on crosses between *Cucurbita maxima* and *Cucurbita moschata*. Sakata's **RS841**, for example, is marketed in Southern Africa as an interspecific squash rootstock for sweet melon, watermelon and cucumber. It offers high Fusarium resistance and is designed to strengthen plants under stressful conditions such as cold, heat or wind. Syngenta likewise markets *C. maxima* × *C. moschata* rootstock material for melon grafting, specifically highlighting vigour and tolerance under stressful conditions.

Did you know?

A grafted spanspek still produces the fruit of the chosen spanspek cultivar. The rootstock changes the root system, not the identity of the fruit growing above ground.

For growers with a history of Fusarium or repeated cucurbit production on the same land, grafting can therefore become part of a broader disease-management strategy.

It may also benefit plantings on weaker sandy soils or crops exposed to temperature or salinity stress.

There is, however, a cost. Grafted seedlings are more expensive, and an excessively vigorous rootstock can alter vine growth, maturity and fruit load. Rootstock and scion combinations therefore need to be trialled before a grower commits large commercial blocks.

Good nursery technique is equally important. The graft union must heal successfully before the seedling is hardened and transplanted into the field.

Irrigation: consistency matters more than a rigid schedule

Few management decisions have as much influence on final fruit quality as irrigation.

Too little water restricts vine development and fruit size. Too much water can encourage root problems, reduce fruit quality and increase the risk of cracking.

For commercial production, drip irrigation is particularly well suited to spanspek because it delivers water directly to the active root zone



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while leaving foliage largely dry. It also makes fertigation possible, giving the grower far greater control over both water and nutrients.

There is no useful national rule stating that spanspek should be watered “every second day” or “three times a week”. Irrigation frequency depends on soil type, temperature, wind, plant size, evapotranspiration and emitter output.

A sandy soil in Limpopo during a hot November week may need relatively short, frequent irrigation events. A deeper loam in the Free State may hold useful moisture considerably longer.

During establishment, the immediate root zone should remain evenly moist so that seedlings develop rapidly.

As vines expand, water demand increases. Flowering and fruit set are particularly sensitive stages. Moisture stress at this point can reduce

fruit numbers, while severe stress during fruit enlargement limits fruit size and may affect quality.

The final ripening period calls for more finesse. Excessive irrigation shortly before harvest, particularly after a dry spell, can increase the risk of fruit cracking and may compromise eating quality.

Water is therefore often moderated as fruit approaches maturity,

without deliberately stressing the crop.

The best commercial systems increasingly combine drip irrigation with soil-moisture monitoring so that decisions are based on what is happening below ground rather than on a fixed calendar.

Feeding the crop for fruit, not foliage

Nutrition should change as the crop changes.

Nitrogen is important during establishment and early vine development, but excessive nitrogen

later in the season can create impressive foliage at the expense of fruit development and maturity.

Phosphorus supports early root growth. Potassium becomes increasingly important as fruit develops because of its role in carbohydrate movement, plant-water regulation and fruit quality.

Calcium contributes to cell strength and post-harvest integrity, while micronutrients such as boron play important roles in flowering and fruit development.

But micronutrients should never be applied simply because they appear on a fertiliser programme copied from another farm. Soil, irrigation-water and tissue analyses should guide the programme.

Drip irrigation provides an important advantage because fertigation allows growers to split nutrients into smaller applications as the crop requires them, rather than relying on a few heavy applications.

The cultivar itself can also influence nutritional priorities. Sakata, for example, specifically notes the importance of adequate potassium and calcium during fruit development in Majestic to support flavour and shelf life.

Pollination: the invisible yield component

A well-fed, well-irrigated spanspek crop can still disappoint if pollination is inadequate.

Melons depend heavily on insects, particularly bees, to achieve proper fruit set. Insufficient pollination can result in fruit abortion, poor fruit numbers and misshapen melons that never make premium grade.



Pollination should therefore be considered part of the production plan rather than something left to chance.

! FIELD WARNING

Afternoon wilting during exceptionally hot weather may be temporary.

Wilting that remains visible early in the morning should be investigated immediately.

Blocked emitters, root disease or genuine moisture shortage may be involved.

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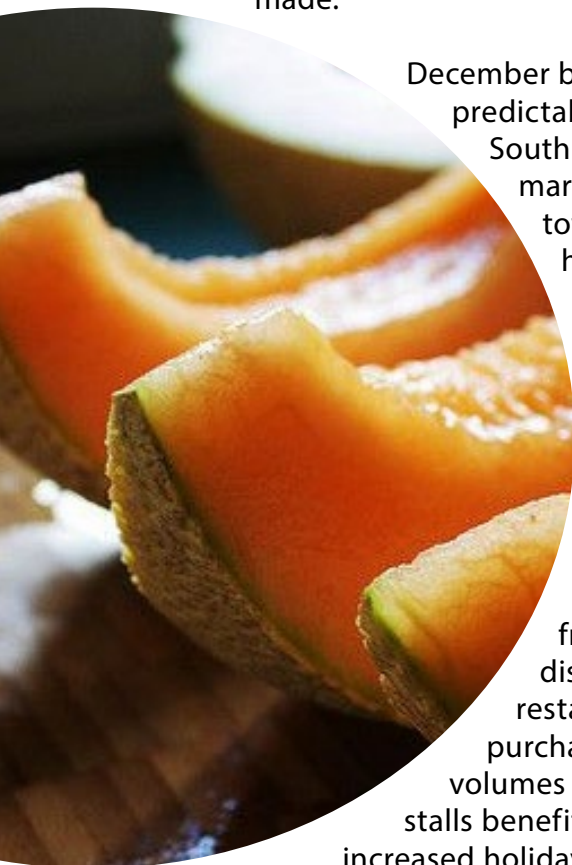
Where natural bee activity is insufficient, managed honeybee hives can be introduced during flowering. Crop protection programmes should then be managed carefully to minimise risk to pollinators, with spraying timed outside peak bee-foraging periods wherever product labels and pest pressure allow.



Healthy pollination ultimately means more evenly developed fruit—and that makes harvesting and grading easier later in the season.

The festive market begins in spring

By the time vines carry developing fruit, most of the decisions that will determine the commercial success of the crop have already been made.



December brings a predictable change to South Africa's food market. Coastal towns swell with holidaymakers, resorts and guest houses operate near capacity,

supermarkets increase their fresh produce displays, restaurants purchase larger volumes and roadside stalls benefit from increased holiday traffic.

Spanspek is naturally suited to this environment. Hot weather increases demand for fresh, chilled foods. Fruit salads appear on festive tables, melons travel to beaches and campsites, and summer entertaining creates additional opportunities through supermarkets, food-service businesses and independent produce retailers.

That is why planting decisions made in August, September and October deserve to be approached as marketing decisions as much as agronomic ones.

Planning backwards from Christmas

Spanspek generally requires roughly 75 to 100 days or more from sowing to harvest depending on cultivar, temperature and production conditions. Commercial examples currently marketed in South Africa range from approximately 70–80 days for several cantaloupe

Planting window	Likely harvest window	Primary market opportunity
Late August	Late November	Early summer retail programmes
Early September	Early December	Festive shopping begins
Late September	Mid to late December	Christmas demand
Mid-October	Early to mid-January	Coastal holiday demand
Early November	Late January	Extended summer market

hybrids under suitable warm-season conditions, while cooler production can extend maturity substantially.

For growers targeting the festive season, this means the calendar must be worked backwards from the intended marketing date. These windows are planning guides rather than guarantees. Cultivar maturity, local climate, establishment method and seasonal temperatures will shift the actual harvest date.

The safest approach is usually not to plant the entire festive crop at once.

Successive plantings two or three weeks apart spread climatic risk and harvesting pressure while creating a longer supply window.

This also gives commercial growers a better chance of supplying the same buyer continuously rather than flooding the market with one large harvest and disappearing two weeks later.



EDITOR'S NOTE

DON'T BET THE FESTIVE SEASON ON ONE PLANTING

Staggering production does more than spread harvesting. It protects the business.

An unexpected cold spell, heatwave, hailstorm or disease event may damage one planting while later blocks remain unaffected.

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Growing for the buyer

Ultimately, cultivar choice, grafting, irrigation, nutrition and planting date all serve the same objective: producing fruit consumers want to buy.

Retailers increasingly value uniform size, attractive netting, reliable sweetness, firmness and shelf life. Fresh-cut processors need good flesh colour and texture. Municipal fresh produce markets reward appearance and eating quality, while farm stalls and direct sellers often live or die by repeat purchases.

That makes consistency one of the most valuable

traits a grower can produce.

A spectacular spanspek from one harvest is easy.

Producing the same quality week after week through the festive period is the real commercial achievement.

And that is where strategic planning converts a spring planting into summer profit. 💰

Written by (M.O)





Tractor sales hit the brakes – but are we seeing the whole market?

South African tractor sales fell sharply in July, reinforcing concerns about rising input costs, farmer confidence and the outlook for the next production season. But as the local machinery market becomes more diverse, the way tractor sales are measured also deserves closer attention.

A sharp slowdown after a strong run

South African farmers appear to be tightening their grip on capital expenditure.

In his latest agricultural market assessment, Agbiz Chief Economist **Wandile Sihlobo** reports that tractor sales fell **31% year-on-year in July 2026, with 517 units sold**. He believes the

July 2026 at a glance

- 517 tractors sold
- 31% lower than July 2025
- 11 combine harvesters sold
- 83% increase in combine sales
- Record maize crop estimated at 17.3 million tonnes
- Summer grains and oilseeds expected to total approximately 21.5 million tonnes

slowdown reflects a combination of higher production costs, concerns about the expected El Niño weather pattern for the 2026/27 summer production season and a natural cooling after several years of exceptionally strong machinery purchases.

Few people understand South African agriculture

better than Sihlobo. As Chief Economist of Agbiz and a member of the Presidential Advisory Council on Agriculture and Agro-processing, his market commentary is widely regarded as one of the

industry's most trusted barometers.

His latest assessment suggests that many producers are becoming increasingly cautious about investing in expensive capital equipment, despite favourable conditions during the current production season.

A record harvest, but growing caution

Ironically, the decline in tractor sales comes during one of South Africa's strongest agricultural production years.

The latest Crop Estimates Committee forecasts point to a commercial maize crop of approximately **17.3 million tonnes**, the largest in the country's history, while the combined summer grain and oilseed harvest is expected to reach around **21.5 million tonnes**.

Strong summer rainfall, excellent yields and increased planting area have all contributed to the outstanding crop.

The difference is that harvesting a good crop and investing in new machinery are not always driven by the same factors.

Sihlobo notes that combine harvester sales remained resilient during July, increasing **83% year-on-year**, reflecting the large harvest currently being brought in from the fields. Tractor purchases, however, represent longer-term capital decisions, and many producers appear to be delaying replacement plans until there is greater certainty about input costs,

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profitability and next season's weather outlook.

Understanding the numbers

The figures most often quoted as South Africa's tractor sales originate from the **South African Agricultural Machinery Association (SAAMA)**.

For decades, SAAMA has provided one of the industry's most valuable benchmarks for monitoring agricultural machinery trends, representing many of the country's leading manufacturers, importers and distributors.

However, understanding exactly what these figures measure is becoming increasingly important.



According to SAAMA's reporting methodology, monthly tractor sales are compiled from sales submitted by participating association members through the Lightstone AUTO AgriStats reporting system.

Importantly, members may choose to report monthly, delay publication of their figures for up to six months, or elect not to report their sales at all. The published statistics therefore reflect reported sales from participating members rather than a compulsory national registration count of every new tractor sold in South Africa.

That distinction does not diminish the value of SAAMA's statistics—they remain the industry's recognised benchmark—but it does provide useful context when interpreting monthly market trends.

A changing machinery landscape

South Africa's tractor market has changed considerably over the past decade.

Traditional global manufacturers remain dominant, while established Indian manufacturers such as **Mahindra and TAFE** also have a significant local presence through SAAMA member companies.

At the same time, farmers now have access to a growing number of Chinese-manufactured tractors and machinery supplied through independent importers and distributors.

Brands such as **LOVOL**, for example, are becoming increasingly visible across Southern Africa. Whether

every one of these sales is reflected in the industry's monthly reporting system is not publicly clear, and there is currently no evidence to quantify how many sales may fall outside the reported figures.

That uncertainty is not a criticism of SAAMA's reporting system.

Rather, it highlights how rapidly the machinery market is evolving as producers seek equipment that meets their operational needs and budgets.

Looking beyond the headline

There is little doubt that South African farmers have become more cautious about major machinery purchases.

Higher fertiliser prices, elevated fuel costs, tighter margins and uncertainty surrounding the coming production season are all influencing investment decisions.

The July tractor sales figures reported by SAAMA clearly illustrate this shift in sentiment within the established machinery market.

At the same time, the increasing diversity of suppliers raises an interesting question for the future.

As more international brands and independent importers establish themselves in South Africa, should the industry begin exploring broader methods of measuring the country's total tractor market?

It is a conversation worth having—not because the existing statistics are inaccurate, but because South Africa's agricultural machinery landscape is evolving.

Understanding exactly what the industry's benchmark sales figures measure may ultimately become just as important as the numbers themselves.

? Did You Know?

The world's largest tractor manufacturer isn't American or European

Many people assume brands such as John Deere, Case IH or New Holland dominate global tractor production.

*In fact, **Mahindra & Mahindra of India** has been the world's largest tractor manufacturer by volume for many years, producing hundreds of thousands of tractors annually for markets across Asia, Africa, Europe and the Americas.*

Its growing presence in South Africa reflects the increasingly global nature of agricultural machinery.

Written by (M.O)



South Africa May Weather El Niño — But Can Southern Africa?

South Africa enters the 2026/27 season with a record maize harvest, healthy grain stocks and a stronger water position than many of its neighbours. But if El Niño disrupts production across Southern Africa and major global farming regions simultaneously, having grain may not be the only question. The bigger question could be what that grain is worth — and who can afford to buy it.

A Stronger Starting Position

South African agriculture enters an uncertain summer with an unusually substantial cushion.

Following exceptional rainfall and strong yields, the country is harvesting a record commercial maize crop of around 17.3 million tonnes. With domestic requirements considerably below production, South Africa enters the new season with significant exportable supplies.

Agbiz Chief Economist Wandile Sihlobo argues that



this leaves South Africa better positioned than it was during the devastating 2015/16 El Niño drought. Soil moisture is generally better, dam levels are healthier and the country enters the new season following an exceptionally

productive grain and oilseed year.

That is reassuring for South Africa.

For Southern Africa, however, the picture is less comfortable.

Our Neighbours Are Already Buying

Zimbabwe, Botswana and Namibia are already importing grain from South Africa. Importantly, this is happening shortly after the region's 2025/26 production season — suggesting that several neighbouring countries have limited domestic buffers with which to face another difficult summer.

If El Niño brings widespread drought and excessive heat, South Africa could consequently find itself playing an increasingly important role in regional food security.

But there is another dimension that deserves equal attention.

A Surplus Has an International Price

Having sufficient maize within South Africa does not necessarily guarantee cheap maize for South Africans.

If El Niño coincides with significant production losses across major agricultural regions, whether through drought, extreme heat, flooding, wildfires or other weather extremes, international grain markets could tighten.

South Africa's surplus would then become increasingly valuable.

Maize grown in the Free State or North West does not cease to be an internationally traded commodity simply because South Africa has more than it currently requires.

When world prices rise, export opportunities

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Your Advertisement Should Not Die When the Magazine Closes

Why agricultural, wildlife, hunting and rural-economy brands need a living, growing marketing presence

For more than **30 years**, **Nufarmer Africa Magazine** has connected agricultural businesses with farmers, growers, livestock producers, game ranchers, agribusiness owners, industry professionals and key decision-makers across South Africa and the wider Sub-Saharan African region.

What began as a trusted agricultural publication has developed into a modern, multi-channel agricultural media platform. Today, Nufarmer Africa brings together a digital magazine, an SEO-audited website, social-media platforms, online editorial content, newsletters, WhatsApp distribution and ongoing digital promotion.

Its audience reaches across the entire agricultural value chain, from emerging and commercial farmers to input suppliers, consultants, researchers, processors, service providers,

industry bodies and policymakers. It also extends into the broader rural economy, including game farmers, hunting operators, wildlife professionals, lodge owners, rural-tourism businesses, machinery suppliers, vehicle manufacturers and infrastructure providers.

Nufarmer Africa reports more than **185,000** measured reader interventions over 28 days, with longer campaigns reaching more than **1.2 million** Meta-measured interventions.

However, audience size alone is not what makes the platform different.

'Not a dead advertisement, but a living digital asset'

Not a dead advertisement, but a living digital asset

Traditional magazine advertising often follows a predictable pattern.

An advertisement appears in one edition. The magazine is distributed, read and eventually placed on a shelf, left on a table or forgotten. The advertiser receives one appearance, during one period, in one publication.

Over time, that advertisement effectively becomes invisible.

"Advertising through Nufarmer Africa works differently."

Advertising through Nufarmer Africa works differently.

An advertisement or supporting editorial becomes part of a wider digital marketing system. It can remain available through the Nufarmer Africa website, appear in online searches, be shared through social media, distributed through newsletters and WhatsApp, and direct interested readers back to the advertiser's own website.

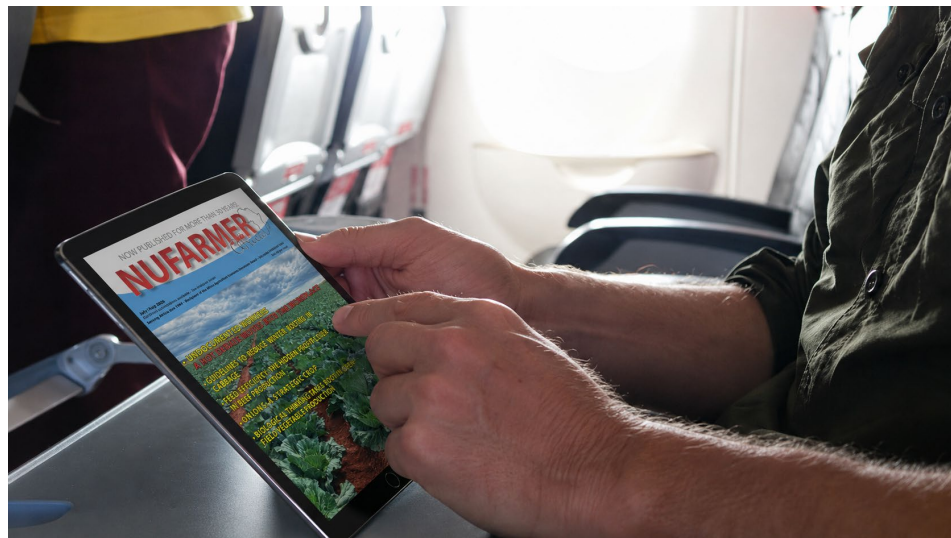
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Instead of paying for one brief appearance, the advertiser gains a searchable, shareable and continuously growing marketing asset.

This content is supported by dedicated SEO strategists and internet-marketing specialists who understand how people search for products, services and solutions online. Their role is not simply to upload an article and leave it there. The objective is to keep relevant content visible, discoverable and working long after the original magazine edition has been published.

That is the difference between buying advertising space and investing in a long-term digital presence.



The modern purchasing journey starts online

"The modern purchasing journey starts online"

Today's buyer rarely begins by telephoning the first supplier listed in a directory.

The journey increasingly starts with a search.

"The journey increasingly starts with a search."

A farmer may investigate tractors,

irrigation systems or livestock equipment from a mobile phone after the working day. A game rancher may compare fencing systems, wildlife-management services or breeding stock in the evening. A lodge owner may research solar installations, vehicles, security systems or booking technology while relaxing at home.

A prospective hunting client may explore destinations, outfitters, accommodation and personalised hunting expeditions from another country, thousands of kilometres away.

And, as almost everybody privately knows, plenty of serious online browsing happens during very ordinary moments: on the

sofa, in bed, while waiting in a vehicle or even while sitting in the bathroom.

The setting may be informal, but the purchasing intent can be extremely valuable.

People use mobile phones to discover brands, compare products, evaluate expertise, read reviews and decide which suppliers deserve

"Familiar brands win more opportunities"

further attention. By the time a prospective customer requests a quotation, that person may already have spent weeks or months researching available options.

That means your business must be visible before the buyer is ready to make contact.

Familiar brands win more opportunities

A farmer planning to replace a machine in six months may begin researching today.

A game rancher preparing to expand may compare water systems, fencing, vehicles and wildlife services long before the project receives final approval.

A hunting client may follow a professional outfitter for a year before booking an expedition.

A lodge owner may read several articles about backup energy, guest facilities or security before approaching a supplier.

During this research process, the brands that appear repeatedly become familiar. Familiar businesses feel more established. Established businesses are more likely to be trusted, and trusted businesses are far more likely to receive the enquiry.

Visibility creates familiarity. Familiarity builds confidence. Confidence influences purchasing decisions.

"Visibility creates familiarity. Familiarity builds confidence. Confidence influences purchasing decisions."

This is why consistent exposure matters.

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A once-off advertisement may create awareness for a moment. A professionally positioned advertisement supported by online editorial, search visibility, website backlinks and social-media promotion can continue building recognition long after publication.

Agriculture is far bigger than agricultural inputs

The agricultural economy does not consist only of seed, fertiliser, animal feed and crop protection.

It includes every product and service required to operate, protect, improve and expand a farm, game ranch, hunting business, lodge or rural enterprise.

This creates valuable advertising opportunities for:

- Tractor, machinery and agricultural-equipment suppliers
- Bakkie, SUV, truck and utility-vehicle brands
- Tyre, battery, fuel and lubricant companies
- Irrigation, borehole and water-management specialists
- Solar, generator and alternative-energy providers
- Fencing, security and surveillance businesses
- Veterinary and animal-health companies
- Financial, insurance and professional-service providers
- Agricultural software, drone and technology companies
- Construction and infrastructure specialists
- Game breeders and wildlife-management professionals
- Hunting outfitters and personalised expedition operators
- Game lodges, guest farms and rural-tourism destinations
- Optics, clothing, outdoor and

hunting-equipment suppliers

- Transport, logistics, cold-storage and packaging businesses

These companies may serve different sectors, but they share one essential requirement: access to an audience with land, assets, operational responsibilities and purchasing authority.

That is the audience Nufarmer Africa has spent more than three decades building.

A powerful platform for game farming, hunting and lodges



"A powerful platform for game farming, hunting and lodges"

Game farming and hunting exist at the intersection of agriculture, conservation, hospitality, tourism and rural enterprise.

A successful game ranch may require specialised vehicles, livestock trailers, fencing, water infrastructure, veterinary services, wildlife genetics, security systems, accommodation, solar energy and habitat-management solutions.

A professional hunting business must market more than the hunt itself. It must sell the complete experience: the destination, wildlife, accommodation, guides, vehicles, hospitality, ethics, safety and personal service.

A game lodge must reach travellers who value nature, privacy, comfort, authenticity and professionally managed experiences.

Nufarmer Africa places these businesses in front of readers who already understand the value of land, wildlife and well-managed rural enterprises. The

audience does not first need to be persuaded that game farming, hunting or lodge tourism matters.

Advertisers can focus immediately on what makes their offering exceptional.

For a hunting outfitter, this could be the exclusivity of a personalised expedition. For a lodge, it could be its location, accommodation, wildlife, food and hospitality. For a game breeder, it could be trusted genetics and professional

Continue on Page No. 93

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management. For a vehicle supplier, it could be performance across demanding terrain.

The right platform gives the offering context—and context gives advertising meaning.

“The right platform gives the offering context—and context gives advertising meaning.”

Machinery and vehicles must be marketed in context

Farmers do not buy machinery because it looks impressive. They buy it because it must perform under demanding conditions.

They want to know whether it is reliable, suitable for their terrain, affordable to operate and supported by available parts and technical expertise.

The same applies to vehicles, trailers, tyres, batteries, pumps, generators, drones and earthmoving equipment.

Advertising these products in a general publication may create basic awareness. Advertising them through Nufarmer Africa gives them commercial relevance.

A vehicle shown in an agricultural environment becomes an operating tool. A solar system becomes protection against costly downtime. A drone becomes a crop-monitoring or wildlife-management solution. A pump becomes production capacity. A security system becomes protection for valuable land, animals, equipment and infrastructure.

Nufarmer Africa provides the editorial environment in which these connections can be made.

Your expertise is one of your strongest marketing tools

“Your expertise is one of your strongest marketing tools”

Agricultural customers respond to businesses that demonstrate knowledge.

A company that merely says, “Buy our product,” often competes mainly on price. A company that explains a problem, offers practical guidance and shows how its solution improves performance competes on expertise, credibility and trust.

That is why editorial support is so valuable.

Full-page and half-page advertising bookings include

fencing company can discuss livestock or wildlife security. A solar business can demonstrate how energy independence protects productivity. A lodge can showcase the complete guest experience. A hunting outfitter can communicate its ethics, standards and personalised service.

The brand is no longer merely interrupting the reader.

It is helping the reader.

And helpful brands are remembered.

The cost of remaining silent

Some businesses believe they do

“The cost of remaining silent”



editorial opportunities. Articles can contain backlinks to the advertiser’s website, helping readers move directly from interest to action. Full-page bookings also receive support through Nufarmer Africa’s social-media platforms, while assistance with editorial writing and advertisement design is available where required.

A machinery supplier can explain how to reduce downtime. A

not need to advertise because they already have loyal customers or rely on referrals.

But markets change.

New decision-makers enter the industry. Farms change ownership. Younger family members take over purchasing. New operators launch. International competitors enter the market. Existing competitors introduce new products and

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communicate more aggressively.

While one business remains quiet, another builds recognition.

While one supplier assumes the market already knows its name, another explains its value.

While one lodge waits for referrals, another places its destination in front of an active digital audience.

Silence creates a vacuum—and competitors are usually happy to fill it.

Advertising is not only about generating an immediate sale. It protects market position, maintains relevance and ensures that your brand remains part of the industry's ongoing conversation.

"Be present where decisions begin"

Be present where decisions begin

Nufarmer Africa has spent more than 30 years informing, connecting and supporting the agricultural community. It now offers advertisers something far more valuable than a single appearance in a magazine.

It offers lasting visibility.

It provides an opportunity for your brand to be found while buyers are researching, comparing, planning and preparing to invest.

Whether your company supplies tractors or tyres, breeding stock or boreholes, insurance or infrastructure, personalised hunting expeditions or luxury game-lodge experiences, your future customers need to know that you exist.

They need to understand your value.

They need to recognise your name.

Most importantly, they need to trust you.

Your competitors are already working to earn that trust.

Your brand cannot afford to remain unseen.

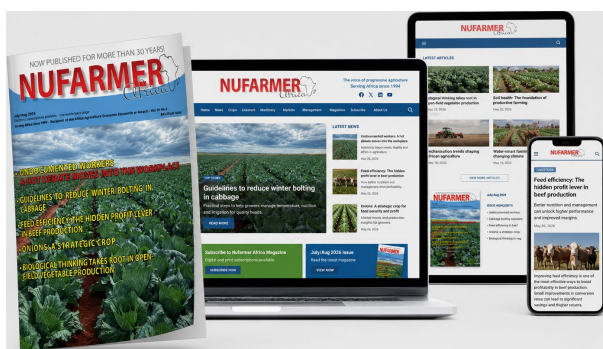
Advertise in Nufarmer Africa Magazine

Position your business in front of progressive farmers, game ranchers, hunting operators, lodge owners, agribusinesses and influential decision-makers throughout South Africa and Sub-Saharan Africa.

Written by (M.O)

Nufarmer Africa Magazine:

Trusted voice. Proven impact. Grow your brand. Grow the future.



30 Years of Publishing Authority. One Powerful Marketing Ecosystem.

Keeping your brand visible, searchable and in front of buyers and decision-makers—wherever they are, whenever they are ready to act.

***Talk to us:
PUT YOUR BRAND IN THE
ROOM WHERE DECISIONS
ARE MADE.***

***Through trusted publishing,
digital visibility and multi-
platform marketing,
Nufarmer Africa keeps your
business in front of the
people with the power to buy,
recommend and approve.***



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Published for more than 30 years!

ADVERTISING RATES 2026-8

NOVEMBER 2026 TO JANUARY 2028



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IMPACT

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Marion Oosthuizen

Cell: 071 6399 300

Email: marion@nufarmer africa.com



www.nufarmer africa.com

Social Media Impact:

Nufarmer Africa Magazine reports more than 185,000-measured reader interventions over 28 days, with a maximum of more than 1.2 million Meta-measured interventions over longer periods.

Publication Frequency:

Jan/Feb, Mar/Apr, May/Jun,
Jul/Aug, Sep/Oct, Nov/Dec



TRUSTED VOICE. PROVEN IMPACT.

For more than 30 years Nufarmer Africa Magazine has connected brands with progressive farmers, agribusinesses and key decision-makers across Sub-Saharan Africa.

185,000+

measured reader interventions
over 28 days

1.2 MILLION+

maximum Meta-measured
interventions over longer
periods

ADVERTISING RATES

AD SIZE	DIMENSIONS	RATE EX VAT.	EDITORIAL
 Full Page	Full page 210 x 297 mm	R20 763,00	Free*
 1/2 Page	1/2 Page (Horizontal or Vertical)	R13 200,00	Free*
 1/3 Page	1/3 Page (Horizontal)	R7 800,00	—
 1/4 Page	1/4 Page (Horizontal)	R6 000,00	—
 1/8 Page	1/8 Page (Horizontal)	R5 000,00	—

★ Rates are VAT Excluded | *1 Page FREE editorial with paid Full Page or Half Page bookings | Full Page bookings featured on Nufarmer Africa Social Media



TECHNICAL SPECIFICATIONS

- ✓ Full Page: 297 x 210 mm
- ✓ 1/2 Page Vertical: 297 x 105 mm
- ✓ 1/2 Page Horizontal: 150 x 210 mm
- ✓ Third Page: 99 x 210 mm
- ✓ Quarter Page: 150 x 105 mm
- ✓ Bleed: 10 mm all around
- ✓ File Format: PDF or JPG, Full Colour



ADDITIONAL INFORMATION

Agency Commission: 16.5% (Prices do NOT include agency commission. Agents: Add commission to rates.)

Contract Discounts:

- 3 Consecutive bookings less 5%
- 6 Consecutive bookings less 10%

Example: Booking 6 Full pages = save R12 300.00
All editorials have back-links to the clients website which means readers will click



CLOSING DATES FOR 2026-8

EDITION	CLOSING DATE FOR BOOKINGS	CLOSING DATE FOR MATERIAL / EDITORIAL
Nov/Dec 2026	16 October 2026	23 October 2026
Jan/Feb 2027	08 December 2026	15 December 2026
Mar/Apr 2027	15 February 2027	22 February 2027
May/Jun 2027	19 April 2027	26 April 2027
Jul/Aug 2027	17 June 2027	24 June 2027
Sep/Oct 2027	16 August 2027	25 August 2027
Nov/Dec 2027	18 October 2027	25 October 2027
Jan/Feb 2028	08 December 2027	15 December 2027



TARGET MARKET & FOOTPRINT

Nufarmer Africa Magazine connects agricultural brands with a focused, high-value audience across South Africa and the wider Sub-Saharan African region.

Our readers include emerging and commercial farmers, growers, livestock and crop producers, agribusiness owners, input suppliers, consultants, researchers, service providers, industry bodies, policymakers and key decision-makers throughout the agricultural value chain.

Through our multi-channel footprint—magazine, website, social media, newsletter and WhatsApp—we deliver targeted access to an engaged audience actively seeking solutions that drive productivity, profitability and sustainable growth.

Your message. Our platform. Real impact.

**GROW YOUR BRAND.
GROW THE FUTURE.**



Nufarmer Africa



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with Fully Integrated Social Media Platforms



www.nufarmer africa.com



Why Advertising in Nufarmer Africa Magazine Is No Longer Optional

A Strategic Business Imperative for Agricultural Brands

Agriculture is changing fast. Farmers are under pressure to produce more, reduce risk, protect margins and adopt better technology. At the same time, agribusinesses are fighting harder than ever to stay visible in a crowded market.

"Visibility is no longer a marketing extra. In modern agriculture, it is a business advantage."

This is where advertising changes from a "nice-to-have" into a serious business decision.

For companies that supply farmers, producers, growers, input buyers, exporters and agricultural decision-makers, visibility is not decoration. It is market position. It is trust. It is the difference between being remembered when buying decisions are made, or being forgotten completely.

Nufarmer Africa Magazine has spent more than 30 years earning that trust. It is not a new platform chasing attention. It is an established agricultural voice with a proven record, a loyal readership and a strong digital presence across the African agricultural sector.

TRUST CANNOT BE BOUGHT OVERNIGHT

Thirty Years of Agricultural Credibility

In agriculture, trust matters. Farmers do not easily change suppliers. Producers do not gamble with inputs, equipment, nutrition, genetics, machinery, biosecurity or technology. They look for companies that appear stable, knowledgeable and committed to the industry.

Nufarmer Africa Magazine gives advertisers that environment.

For more than three decades,

the magazine has served the agricultural community with reliable information, technical insight and industry news. That consistency creates credibility. When a brand advertises in a trusted publication, it benefits from the trust already built with readers.

That is powerful.

A once-off social media post may disappear in a day. A random digital advert may be ignored in seconds. But a brand placed inside a respected agricultural publication enters a space where readers are already paying attention.

REACH THAT MATTERS

Targeting the Right Agricultural Audience

Mass exposure is not always valuable. The real question is not "How many people saw the

Continue on Page No. 97

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advert?" The better question is: "Did the right people see it?"

Nufarmer Africa Magazine connects advertisers with progressive farmers, agribusinesses, input suppliers, industry bodies and decision-makers across Sub-Saharan Africa. Its audience is invested in productivity, sustainability, innovation and practical agricultural development.

The publication's 2026 rate card also reports strong social media impact, with more than 185,000 readers measured over 28 days and 1.2 million over the 60-day period through Meta data.

"The value of advertising lies not only in being seen, but in being seen by the right agricultural audience."

That means advertisers are not only appearing in a magazine. They are entering a wider media ecosystem that includes digital visibility, social reach and website traffic.

ADVERTISING IS NO LONGER JUST ABOUT SELLING

It Is About Owning Mindshare

Many agricultural businesses make the mistake of advertising only when they want immediate sales. But strong brands do not wait until the market is ready to buy. They



stay visible long before that moment.

Visibility creates familiarity.

Familiarity creates confidence.

Confidence creates enquiries, conversations and commercial opportunity.

When farmers repeatedly see a company in a credible industry publication, that company begins to feel established. It becomes part of the agricultural conversation. It becomes easier to trust.

This is especially important in sectors such as animal health, seed, feed, mechanisation, irrigation, crop protection, genetics, technology, finance, insurance, training and infrastructure. These are not impulse purchases. They are decisions based on confidence.

EDITORIAL VALUE ADDS MORE WEIGHT

More Than an Advert on a Page

One of the strongest advantages in the 2026 advertising offer is the editorial value attached to selected bookings. Full-page and half-page advertisers receive one page of free editorial with paid bookings, while full-page bookings are also featured on Nufarmer Africa's social media platforms.

"An advert creates awareness. A strong editorial builds authority."

That matters because readers often engage more deeply with editorial content than with straight advertising.

A well-written editorial can explain a company's value, educate the



Why Nufarmer Africa Works for Advertisers

- **Established Authority**
- **Published for more than 30 years, Nufarmer Africa has long-standing credibility in the agricultural sector.**
- **Targeted Agricultural Reach**
- **The magazine reaches farmers, agribusinesses, suppliers, industry bodies and decision-makers across Sub-Saharan Africa.**
- **Strong Digital Impact**
- **More than 185,000 readers measured over 28 days and 1.2 million over the 60-day period through Meta data.**
- **Editorial Support**
- **Paid full-page and half-page bookings include one page of free editorial.**
- **Website Traffic Opportunity**
- **Editorials include backlinks to the advertiser's website, helping readers click through directly.**
- **Campaign Flexibility**
- **Advertisers can choose from full-page, half-page, third-page, quarter-page and eighth-page placements.**
- **Long-Term Brand Building**
- **Six editions per year allow advertisers to build consistent visibility across the agricultural calendar**

market, introduce products, unpack technical benefits and build authority around a brand. It gives advertisers space to tell the real story behind their offering.

Even better, all editorials include backlinks to the client's website,
Continue on Page No. 98

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helping readers click through directly to the advertiser.

That turns awareness into action.

CONSISTENCY WINS

One Advert Is Visibility. Repeated Presence Is Strategy.

Nufarmer Africa publishes six editions per year: Jan/Feb, Mar/Apr, May/Jun, Jul/Aug, Sep/Oct and Nov/Dec.

This gives advertisers the opportunity to build a consistent presence throughout the year. And consistency is where real brand equity is built.

A single advert can create awareness. But repeated placement builds recognition. It tells the market that your business is serious, stable and invested in agriculture for the long term.

Contract discounts also support ongoing campaigns, with 5% off for three consecutive bookings and 10% off for six consecutive

bookings.

For brands planning growth, this is not simply media spend. It is strategic positioning.

THE COST OF SILENCE

If You Are Not Visible, Someone Else Is

In a competitive agricultural market, silence is risky.

If your competitors are appearing in trusted agricultural media and you are not, they are shaping the conversation. They are becoming familiar. They are earning recognition before the sales conversation even begins.

That is why advertising in Nufarmer Africa Magazine is no longer optional for serious agricultural brands.

It places your business where farmers, suppliers, innovators and decision-makers are already looking. It gives your brand

credibility, reach, repetition and a direct pathway to engagement."

Final Word

Be Seen Where Agriculture Pays Attention

Agriculture rewards trust. It rewards consistency. It rewards brands that show up, add value and stay present in the market.

"In agriculture, the brands that stay visible are the brands that stay trusted."

Nufarmer Africa Magazine offers advertisers more than space. It offers authority, targeted reach, editorial support, digital visibility and access to an engaged agricultural audience.

For companies that want to grow in the agricultural sector, the message is clear:

Do not wait for the market to find you. Be visible where the market already is.

Staff Writer



THE NORTHERN REGION | Mooketsi, Limpopo | Tel: +27 (0) 15 395 4034/43 | Cell: +27 (0) 78 801 2746 |
SOUTHERN REGION | Riebeeck West, Western Cape | Tel: +27 (0) 22 461 2508 |

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become more attractive. The value of locally produced grain is increasingly influenced by export parity, international commodity prices and the rand/dollar exchange rate.

That creates a potentially uncomfortable paradox:

 **South Africa could have enough grain, yet South Africans could still face sharply higher food and animal-feed costs.**

When the Dollar Reaches the Silo

This is where the exchange rate becomes part of the food-security discussion.

With the rand trading at roughly R16.50 to the US dollar at the time of writing, South African millers, feed manufacturers, poultry and livestock producers — and ultimately consumers — operate within a market where international buyers may carry considerably greater purchasing power.

If global grain prices rise sharply, traders have a legitimate commercial incentive to pursue the strongest available market.

This does not make agricultural exports undesirable. Quite the opposite. Exports generate valuable foreign earnings and stronger commodity prices support farmers who themselves face rising expenditure on fertiliser, fuel, machinery, electricity, labour and finance.

But it does expose an important distinction.

Food security cannot be measured only by the number of tonnes sitting in South African silos. It must also be measured by whether South Africans can afford what is inside them.

The Lessons of 2015/16

The regional consequences could extend much further.

Sihlobo reminds us that during the severe 2015/16 El Niño, Southern Africa eventually required maize from as far away as Mexico. He also raises a concern that deserves attention: whether international humanitarian organisations would have the same financial capacity to intervene should another widespread regional food

shortage develop.

That makes the coming season not merely a South African production story, but a Southern African food-security story.

From Record Harvest to Regional Responsibility

South Africa enters the coming El Niño with advantages many countries would envy:

grain in its silos, substantial productive capacity, better soil-moisture reserves and relatively healthy water storage.

We should take confidence from that — but not complacency.

Because if Southern Africa suffers a poor summer while global grain production is simultaneously disrupted, South Africa's record harvest may assume an importance far beyond our borders.

The defining question of the coming season may therefore not be whether South Africa has enough maize.

It may be whether a region under pressure can afford the price the world is willing to pay for it.

Written by (M.O)

EDITOR'S NOTE

Food security is about more than tonnes.

South Africa's record harvest gives us something extraordinarily valuable ahead of an uncertain season: a buffer. But we should not confuse physical availability with affordability.

If El Niño severely damages production across Southern Africa while extreme weather simultaneously reduces harvests elsewhere in the world, our surplus will not be isolated from that global market. It will acquire the value the world is prepared to pay for it.

That is why the months ahead demand more than watching rainfall forecasts and dam levels. We should also be watching export volumes, international maize prices and the rand.

The real measure of food security is not simply whether there is grain in the silo — but whether the people who depend on it can still afford to put food on the table.



Why Every Farmer Should Attend the Undercover Farming Western Cape Conference Strategic Business Decision to Future Proof Your Income

South African farming is changing fast. Heat, wind, water pressure, input costs and unpredictable seasons are no longer occasional challenges. They are now part of everyday production planning. For many farmers, the real question is no longer whether conditions will change, but whether their farming system is strong enough to survive the change.

That is why the Undercover Farming Western Cape Conference, taking place on 21 and 22 October 2026 at Allee Bleue in Groot Drakenstein, Franschhoek, should be seen as more than another agricultural event. It is a practical business opportunity for farmers who want to protect production, improve income and keep their farming legacy alive.

Undercover farming is often misunderstood as something only linked to expensive greenhouse production. That is no longer

true. Protected farming includes greenhouses, tunnels, shade-net systems, controlled irrigation, climate-smart structures, improved crop monitoring and more resilient production methods. It is just as relevant to vegetable growers, fruit producers, emerging farmers and commercial operations that want better control over risk.

“Undercover farming is not only about growing under plastic. It is about farming with more control, less risk and greater confidence.”

The official Undercover Farming conference platform has already positioned these events around urgent themes such as profitability, climate resilience, smart irrigation, seed innovation, integrated pest management and practical technology adoption. These are not abstract talking points. They are the pressure points that determine whether farms remain profitable in a

difficult production environment.

Climate Change Has Made Protection a Business Decision

Farmers cannot control the weather, but they can control how exposed their crops are to it. Shade-net farming, tunnels and greenhouse systems help reduce the direct impact of harsh sun, wind, hail, pests and water loss. In the Western Cape, where water efficiency and crop quality are central to long-term farming success, this kind of thinking is becoming essential.

“The farmers who protect production today are the farmers who will still be producing tomorrow.”

Undercover farming can help farmers produce more consistently, improve crop quality and reduce avoidable losses. It also allows better management of

Continue on Page No. 101

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irrigation, fertiligation, pest control and harvesting cycles. That means fewer surprises and stronger planning.

It Is About Income, Not Just Infrastructure

The biggest mistake is seeing undercover farming only as a capital expense. It should be viewed as a production strategy. When correctly planned, protected farming can support higher yields, better market timing, improved quality, reduced waste and stronger margins.

For farmers supplying retailers, packhouses, fresh markets or export channels, consistency matters. Buyers want reliable volume and quality. Undercover systems can help farmers meet those expectations more often, **especially when open-field conditions become unstable.**

The conference gives farmers access to practical insights, suppliers, technology providers and other producers who are already working with these systems. That kind of knowledge can prevent costly mistakes and help farmers make better investment decisions.

Not Only for Large Commercial Farmers

This conference is also important for small-scale and emerging

farmers. Shade-net systems and smaller tunnel structures can offer a more accessible entry point into protected production. For farmers working with limited land, these systems can help maximise output from smaller spaces.

The Undercover Farming platform highlights that protected production is relevant across the farming spectrum, from commercial growers to small-scale and urban farmers. This makes the Western Cape Conference especially valuable for anyone looking to expand, diversify or stabilise income.

What Farmers Can Expect to Learn

Delegates can expect discussions around more resilient production systems, water-saving irrigation, crop protection, technology, seed choices, climate control and practical ways to improve profitability. These topics matter because they all connect to one thing: **keeping farms productive despite rising pressure.**

The value of attending is not only in listening to speakers. It is in asking questions, comparing systems, meeting suppliers and seeing where the industry is moving before being forced to adapt too late.

Final Word

Every generation of farmers has had to adapt. Today, adaptation

Why Attend?

Event: Undercover Farming Western Cape Conference

Date: 21–22 October 2026

Venue: Allee Bleue, Groot Drakenstein, Franschhoek

Who should attend:

- Greenhouse growers,
- shade-net farmers,
- fruit and vegetable producers,
- emerging farmers,
- commercial farmers,
- suppliers and
- agribusiness decision-makers.

Main reason to attend:

To learn how protected farming systems can reduce climate risk, improve consistency and support long-term farm income.

means more than working harder. It means farming smarter, protecting production and investing in systems that can withstand uncertainty.

For farmers who want to stay competitive, reduce risk and protect the future of their farms, the Undercover Farming Western Cape Conference is not optional. It is a strategic step toward a more secure farming future.

Staff Writer



ucf Undercover farming

SEPTEMBER/OCTOBER 2026

I Volume 23 No 5

I R45.00 per issue



Red Gold Under the Net
- Raspberry Farming
in South Africa

P6

Intelligent Machines
for a More Profitable
Greenhouse

P10

The Dilution Effect:
What's Happening to the
Nutrient Density of Our
Produce

P24

Growing Better,
Not Just Bigger:
Why Plant Physiology Is
the Competitive Edge

P28

is where innovation meets practicality—where farmers can learn what is working on the ground, not just in theory.

From **greenhouse and shade-net** production systems to water-use efficiency, pest management, climate-smart solutions, and profitability strategies, the platform delivers information that can be directly applied to improve farm performance. It also keeps farmers informed about upcoming conferences, technical sessions, and supplier innovations that are driving the industry forward.

Importantly, Undercover Farming is not limited to large-scale greenhouse operations. It speaks to a wide audience, including commercial producers, emerging farmers, and those looking to transition into more controlled and resilient farming systems.

Farmers can also access the full publication **free of charge** by visiting:

<https://undercoverfarmingexpo.com/publications/>

Undercover Farming is more than a magazine

In a time where climate pressure, input costs, and market demands are constantly shifting, staying connected to a credible, industry-led platform is a **strategic advantage**.

Undercover Farming is more than a magazine—it is a vital knowledge hub helping farmers protect production, improve income, and secure the future of their operations.

Staff Writer

Every Farmer Should Follow Undercover Farming Magazine

The recognised mouthpiece for Farming under Protection in Southern Africa

In today's fast-moving agricultural environment, access to reliable, practical information is no longer optional—it is essential.

As the **official, elected** mouthpiece of the farming-under-protection industry in South Africa, **Undercover Farming Magazine** has been at the forefront of greenhouse and shade-net agriculture since its inception (**over 23 years ago**). It is a trusted platform that reflects

the realities, challenges, and opportunities within this highly specialised sector.

By clicking, liking, and following **Undercover Farming Magazine** on: <https://www.facebook.com/UndercoverFarming> farmers gain immediate access to credible insights, expert-driven content, and the latest developments shaping protected agriculture across Southern Africa. This

Continue From Page 70

A production failure in one country can often be compensated for through regional or international trade. The danger grows when several producing regions experience difficulties simultaneously.

DID YOU KNOW?

A shortage of 5.4 million 90 kg bags represents approximately 486,000 tonnes of maize — illustrating how quickly a national production shortfall can translate into substantial demand on regional and international grain markets.

Countries that enter such a period with grain surpluses, adequate reserves and reliable production

become increasingly important to regional food security.

For farmers and agribusiness, this is also a reminder that the value of a crop is determined not only by what happens within national borders. Weather events thousands of kilometres away can change import demand, trade flows and commodity markets.

Kenya's maize shortage is not evidence of a continent-wide grain crisis. **But it is a timely warning of how quickly adverse weather can turn domestic crop losses into an import requirement — and how important reliable African agricultural production may become if weather disruptions intensify.**

when one country's harvest fails, another country's surplus can

become part of the continent's food-security buffer.

EDITOR'S NOTE

Africa does not necessarily have a shortage of agricultural potential. Its vulnerability lies in how unevenly production, infrastructure, reserves and climate risk are distributed.

Kenya's experience reinforces the importance of viewing food security as a regional issue: when one country's harvest fails, another country's surplus can become part of the continent's food-security buffer.

Sources: Bloomberg, 10 August 2026; Reuters, 27 July and 5 August 2026.

Written by: (M.O)

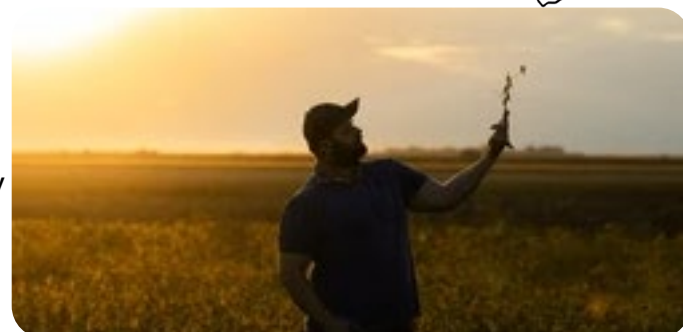
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21 & 22 October 2026

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