ucf Undercover farming

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GROW GROUP PARTNERS WITH BOLAND MARKET AGENTS IN CAPE TOWN

Grow Fresh Produce Agents announced its partnership with Boland Market Agents, a fresh produce agency on the Cape Town Market with roots dating back to 1926 and a legacy built over generations in the industry.

This strategic move marks Grow's expansion into the Western Cape and the addition of its sixth trading company to an established national network, which includes Botha Roodt, Marco, and Green Network in Johannesburg, Port Natal in Durban, and Noordvaal in Pretoria.

The partnership brings together Grow's approach with Boland's industry heritage, culture and relationships in the Cape Town market. Together, the businesses will continue to operate within the fresh produce agency model, serving both farmers and buyers with consistency and reliability.

"Expanding to Cape Town through our partnership with Boland is a milestone for Grow. This move strengthens our network and allows us to better serve farmers and buyers in the Western Cape while building on Boland's legacy," said Deon van Zyl, Chief Commercial Officer at Grow Fresh Produce Agents.

As part of the agreement, Grow will acquire a 50% shareholding in Boland. The existing Boland management team will continue to lead day-to-day operations, while Grow's leadership will focus on long-term strategy, growth and value creation.

"This partnership marks a new chapter for Boland, allowing us to build on our legacy while unlocking opportunities for growth," said Herco Kriel, Financial Manager at Boland Market Agents. *"With Grow's national footprint and approach, we are positioned to enhance the value we deliver to our farmers, buyers and partners."*

With an established footprint in the Western Cape, this partnership will enhance market access for producers, improve price discovery through a broader national network and create opportunities for efficiency and information sharing across regions.

The team is bringing two brands into this partnership, guided by integrity, accountability, competence and a people-centric approach, while continuing to connect produce with the markets.

grow
FRESH PRODUCE AGENTS

PROPRIETOR I ADVERTISING

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SCRIPTURE:

Galatians 6:9: "Let us not become weary in doing good, for at the proper time we will reap a harvest if we do not give up."

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EDITORS NOTE:

The energy from our recent Undercover Farming Expo in Gauteng is still very much alive. To every exhibitor, speaker, and grower who showed up, shared knowledge, and pushed the conversation forward - thank you. It's clear that this industry is not just evolving, it's accelerating. This issue reflects exactly that momentum. As blueberries compete in an increasingly crowded arena, and certification standards like G.A.P., environmental compliance, and food safety become non-negotiable, the question is no longer if you adapt - but how fast.

Are we fully leveraging innovations like biostimulants and biocontrols, or are we still debating whether they're "new" technology? And when it comes to fundamentals - like mulch choices or building a healthy rootzone - are we getting the basics right? We also explore what smarter growing really looks like, from advanced hydroponic systems to reimagined silicon solutions, and the strategic decisions needed to future-proof your income in a changing market landscape. With new export opportunities opening, particularly into China, the potential for African growers is real - but only if we are prepared. **Now, the focus shifts forward.**
Join us on 20 & 21 October at Allee Bleue Estate, Cape Town, for the Undercover Farming Western Cape Conference. **SO.**

BLUEBERRIES IN A CROWDED ARENA

A GLOBAL MARKET IN HYPERDRIVE — AND WHAT IT MEANS FOR SOUTH AFRICAN GROWERS

Global blueberry production has crossed a milestone that would have seemed improbable a decade ago. According to the International Blueberry Organization (IBO), world output exceeded 2.0 million metric tons for the first time in 2024 — more than double the volume recorded ten years prior. Planted area now exceeds 267 000 hectares globally, growing at a rate of at least 10% per year. Yet despite this extraordinary expansion, industry analysts maintain that demand potential remains far from exhausted, with consumption in many markets still on the rise. For South African producers operating under shade nets and tunnel systems, this global surge is a double-edged reality.

A Commodity Transformed

The blueberry's ascent from niche health food to mainstream global commodity has been driven by a convergence of nutritional awareness, year-round availability, and varietal innovation. Rabobank's 2025 Blueberry Update reports that Americans now consume approximately three pounds of blueberries per person annually — a figure still growing — while EU markets show even stronger demand growth potential.

Unlike apples, blueberries can be commercially cultivated across a remarkably wide range of climates, from the highlands of Peru to the warm lowveld of Limpopo, which has enabled a geographic diversification of supply unprecedented in the fruit industry. Latin America now commands 42% of global blueberry acreage, with Peru, Chile, and Mexico leading the charge. China has overtaken the United States as the world's largest single producer by volume, accounting for approximately 32% of global output in 2023. Peru, meanwhile, has consolidated its position as the world's leading exporter, projecting a campaign volume of over 323 000 tons for 2024–2025 with an estimated export value exceeding USD 2.27 billion. These are not peripheral developments - they structurally reshape the international competitive environment that South African exporters navigate every season.

South Africa: Strengths, Pressure Points, and Promise

South Africa exports blueberries from just over 2 600 hectares, with BerriesZA - the industry body established in 2011 - targeting 25 000 tons of exports per season, up from just over 22 000 tons the previous year. Total domestic production is estimated at around 36 000 tons.

The Western Cape remains the dominant producing region, accounting for at least 60% of output, supplemented by Limpopo, Mpumalanga, and North West. Peak export windows run from October through December, a counter-seasonal position that theoretically grants South African fruit access to lucrative Northern Hemisphere markets during their supply gap. The country's core challenge is timing. When South African volumes peak in October and November, Peruvian exports are simultaneously flooding the same European and UK shelf space. Peru has market access to far more countries than South Africa currently does, allowing Peruvian exporters to redistribute surplus volumes and protect pricing in key markets. BerriesZA Operations Manager Elzette Schutte has been direct about the implication: developing early-season genetics that reach markets before Peru arrives is now a strategic priority, not a wish list item.

Varietal development is responding. The MegaEarly variety, trialled

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across multiple sites in South Africa during 2024 and 2025, demonstrated a first pick as early as late April in the Western Cape - well ahead of traditional harvest windows. In the warmer Brits region of North West, peak production runs from May to September.

With average fruit firmness recorded at a durofel score of 86, an average diameter of 19–20mm, and a sugar Brix of 13, the agronomic case for early-window varieties is compelling for growers seeking to de-risk exposure to Peruvian volume competition.

Market Access and the Water Constraint

South African blueberries are exported to 25–29 countries, with the EU now overtaking the UK as the primary destination. Middle Eastern markets are growing significantly, with year-on-year import increases of around 50% reported from countries such as Saudi Arabia and the UAE.

Malaysia, Singapore, and other Far East markets are also increasing their share. India remains a near-term target, with the pest risk assessment process still underway, while China represents a longer-term strategic goal. The global blueberry market was valued at USD 3.08 billion in 2025 and is projected to reach USD 6.04 billion by 2034 at a compound annual growth rate of 7.77%, according to Market Data Forecast. The trajectory is clear; market access is what determines which producers participate.

But access to markets is only one half of the growth equation. Water remains the most fundamental limiting factor for South African blueberry expansion. Unlike land availability, which is not a primary constraint, clean and reliable water supply is under sustained pressure across all producing regions.

Blueberries require consistent, high-quality irrigation - typically via drip systems under shade netting - and any deterioration in water access directly caps the industry's growth ceiling. This is not a distant risk; it is a present-day constraint that growers, packers, and industry bodies must plan around explicitly if South Africa's 25 000-ton export target is to be sustained, let alone grown.

The Road Ahead

The IBO's 2025 Global Outlook concluded that the blueberry market's potential is far from exhausted, but that macroeconomic headwinds - inflation, logistics costs, and labour shortages - are creating new pressure on the supply-demand balance.

For South Africa, the message from 2025, including the IBO Summit held on home soil in September 2025, was emphatic: scale, genetics, and logistics will determine future competitiveness.

As the global blueberry industry bets on quality and growth toward 2027, South African producers operating under shade nets have both the infrastructure and the agronomic platform to compete - provided water security is secured and market access continues to expand.

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G.A.P., ENVIRONMENT, FOOD SAFETY & SOCIAL CERTIFICATIONS FOR UNDERCOVER FARMING – WHY AND HOW TO GET CERTIFIED

Undercover farming is transforming agriculture in South Africa. As protected cropping systems expand across the country, market demand for safe, ethical and sustainable produce continues to rise. Certification has become the essential bridge that creates trust across the entire supply chain. For South African undercover farmers, achieving G.A.P., environmental, food safety and social certifications is no longer optional — it is the proven route to market access, operational excellence and long-term resilience.

Why Certification Matters
Certification delivers three clear, interlocking advantages:
Market Access: It is required by major retailers and exporters and opens doors to premium markets that demand documented proof of compliance.

Compliance & Trust: It demonstrates full legal adherence and protects farm reputation in an environment where scrutiny is constant.

Operations: It improves traceability, drives efficiency and instils management discipline that reduces waste and risk.

These are not abstract benefits. In undercover farming, where precision systems, controlled environments and high hygiene expectations are the norm, certification translates directly into competitive advantage.

GLOBALG.A.P. – The Foundation for Undercover Farming
GLOBALG.A.P. is the world's leading Good Agricultural Practices standard. It is a voluntary yet widely recognised certification for safe, sustainable and responsible farming. It covers food safety, sustainability, traceability and worker welfare, and is accepted globally by retailers. For undercover produce suppliers it is effectively mandatory.

Its scope is comprehensive and directly relevant to protected cropping:
- Full traceability from farm to fork
- Water usage, testing, fertigation and nutrient management
- Plant protection products and residue control
- Hygiene and worker safety standards
- Record keeping and environmental controls

Precision systems in undercover farming attract high scrutiny. Higher expectations on hygiene, consistent residue control, documented monitoring of controlled water systems and support for biological and Integrated Pest Management (IPM) programmes make GLOBALG.A.P. not just relevant but essential. The rewards are immediate: 100 % access to top retailers and export readiness, reduced production risks and lower waste, plus data-driven decision making that strengthens farm credibility.

Environmental Certification – Meeting Rising Expectations
Retailers now demand Environmental, Social and Governance (ESG) performance. Conservation expectations are rising, water scarcity is a daily pressure in South Africa, carbon accountability is non-negotiable and resource efficiency directly lowers costs. Environmental certification addresses these realities.

Key standards include:
SPRING – the GLOBALG.A.P. add-on focused on water sustainability, covering legal abstraction, water risk assessment and testing, efficient irrigation, source monitoring and proactive stewardship.
Detailed Carbon Footprint Assessments.

Biodiversity modules for natural resource protection.

Organic certification where it aligns with the farming model.

For undercover operations the gains are tangible: less water wastage, reduced nutrient leaching, better chemical containment, a lower carbon footprint, fewer ecosystem impacts and full alignment with retailer sustainability goals.

Food Safety – Non-Negotiable for Sales and Consumer Protection
Food safety certification protects consumers, reduces recalls and claims, ensures hygiene compliance and supports safe handling, packing and storage. In undercover farming the advantages are built-in: cleaner production systems, lower contamination risk, controlled water quality, reduced animal intrusion, easier hygiene management and better compliance consistency. On-farm,

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GLOBALG.A.P. covers primary production. For packhouses, standards such as FSSC 22000, BRCGS Food, IFS Food and PrimusGFS set the benchmark. The focus areas — facility hygiene and pathogen control, allergen control, packaging material safety, water quality, worker hygiene, traceability and recall systems — turn the natural strengths of undercover systems into documented, auditable proof.

Social Certification – Ethical Practices That Build Trust

Labour practices are under intense scrutiny. Retailers require credible social standards, and certification reduces HR and legal risks while ensuring worker safety, building community trust and preventing ethical issues in supply chains.

The main programmes are:

- GLOBALG.A.P. GRASP add-on for social practices.
- SIZA (Sustainability Initiative of South Africa).
- SMETA / Sedex for ethical trade audits.
-

Key audit areas include legal employment and fair wages, no discrimination and worker representation, safe working environments, contracts and documentation, occupational health and safety, and housing where applicable. The returns are measurable: market access and preference, better worker relations, reduced absenteeism, improved productivity, a stronger farm culture and clear demonstration of ethical sourcing.

The Certification Roadmap – Practical Steps Forward:

Getting certified follows a straightforward four-step process:

Select & Assess — Choose the right certification(s) and conduct a pre-audit or gap assessment.

Implement — Address gaps, make improvements and deliver internal training.

Audit — Schedule the official audit with an accredited certification body.

Certify — Receive certification and begin annual maintenance.

Common challenges — missing documentation, poor record keeping, inconsistent hygiene, water testing gaps, labour documentation issues and incorrect chemical storage — are well known and entirely manageable with the right support.

How Control Union Helps

Control Union has been operating since 1920. From its roots in agricultural inspections, the company has delivered solutions in inspections, logistics, quality, certifications and risk management for more than 100 years. It remains family-owned, employs more than 6 000 people, maintains a presence in over 80 countries and runs projects in more than 120. Its expertise spans the entire supply chain in agriculture and sustainability. Control Union supports undercover farmers through independent audits and reviews, building capacity via training and guidance, and delivering specialist expertise tailored to South African conditions.

The Full Value of Certification

Farmers who certify gain:

Market Benefits: Access to premium buyers, export readiness, stronger negotiation power, greater buyer trust and full compliance with retailer requirements. Operational Benefits: Reduced waste and cleaner production, better risk management, improved farm efficiency, strong record systems and a healthier workforce.

Long-term Advantages: Greater resilience and environmental stewardship, stronger brand reputation in global markets, and enhanced investor confidence through ESG readiness. Certification is therefore far more than a compliance exercise. It is a strategic investment that secures market access, protects reputation, drives operational improvement and positions undercover farms for sustainable success in a demanding global marketplace.

South African undercover farmers who act now — selecting the right standards, closing gaps and partnering with an experienced certification body — will not only meet today's requirements but will lead tomorrow's market. The facts are clear: certification delivers the trust, efficiency and credibility that define competitive advantage in modern agriculture.

The roadmap exists. The choice is yours.

Source: Ruan Brand Peterson Control Union

NOT ALL MULCH IS CREATED EQUAL

Think back to the last time you put in an order for mulch. You probably saw two quotes and went with whichever one had the lowest price tag.

If so, you're not alone. Most growers do that.

Plastic is plastic, right?

Although the real cost of cheap mulch doesn't appear on the purchase order.

It shows up mid-season, when the film has stretched from the heat or when wind gets underneath loose edges and tears the bed open. You might only see the cost when you're sending a crew out to re-lay plastic that should have lasted the full growing cycle.

Mulch film is vital for your crop health. It locks in moisture around the root zone, buffers soil temperature against day-night swings, and blocks light so weeds can't compete.

But when the film fails, every one of those functions disappears. And your crop feels it before you see it.

How your mulch is made matters

Most budget mulch film has a smooth surface on both sides.

It's a typical blown plastic film, straightforward to produce, low cost to buy. And, in mild conditions, it does the job well enough.

The problems start when temperatures climb. Smooth plastic heats up, expands, and stretches. And when it cools down at night, it doesn't bounce back. Now your loose filmlifts off the bed and starts flapping. Wind gets under it. It tears, and the exposed soil dries out. You end up spending time and money re-laying film instead of managing your crop.

On the other hand, embossed mulch (also known as cast mulch) is manufactured with a textured surface imprint using specialised machinery. That texture acts like a spring: when the plastic heats and expands during the day, the embossed pattern allows it to contract back to its original shape as it cools.

Day after day, it keeps returning to a tight fit.

What's more is that embossed film conforms to the soil bed during application. It goes on like a glove, which means faster machine lay and a more consistent fit from the start.

The textured surface also disrupts wind. Where smooth film catches air like a sail, embossed texture breaks up airflow across the surface. Less lift, less tearing, fewer mid-season failures.

In the hot and dry climate of Southern Africa, where daytime temperatures regularly push plastic to its limits, that springy recovery behaviour is what separates a bed that holds all season from one that doesn't.

How mulch colour works for your crop

Most growers default to black mulch. It makes sense because black absorbs radiation and blocks the light that weeds need to germinate. Black, however, absorbs everything, heat included. In summer, or in hot-climate regions,

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this can push soil temperatures too high, causing seedlings to stress, shallow roots to overheat, and the mulch itself to become the problem. A silver or white upper surface changes the equation. It reflects radiation, preventing overheating, while the dark underside still suppresses weeds. The reflected light then bounces up into the crop canopy, boosting photosynthesis, so you're managing temperature and helping your plants access more light.

Brown films work differently. Brown transmits near-infrared radiation (the wavelengths that warm soil) while blocking visible light, which is what weeds need to grow. This means you get soil warming and weed suppression from the same film. Particularly useful for crops planted in cooler months when you want warmer roots but can't afford weed competition.

Bi-colour films stack these benefits. One colour does the work on top, another does different work underneath. Brown/silver, black/white, black/silver. They all have their uses. The right combination depends on your crop, your planting season, and your local climate. And this is where ordering the cheapest black plastic and hoping for the best falls apart.

The mulch your strawberries want

Strawberry farming is one of the clearest examples of why mulch selection matters. Strawberries sit close to the ground and have shallow root zones, making them vulnerable to soil contact, fruit rot, temperature swings and moisture-related diseases.

To help prevent all this and protect this fragile crop, choosing the

right mulch is key. Brown/silver bi-colour on an embossed base will likely give the highest chances of a successful yield. Silver on top reflects heat away from the fruit and repels certain pests. Brown underneath moderates soil temperature and suppresses weeds without overheating the root zone. And the embossed texture keeps the film tight against raised beds all season. So there is no lifting, no gaps, no exposed fruit touching wet soil where disease can easily take hold.

This bi-colour mulch is a specific answer to a specific crop's needs.

Think total cost, not roll cost

When it comes to your crops, every decision you make matters. The answer is not "always buy the most expensive mulch", but rather, "know what mulch will give your specific crop the highest chance of success." Mulch selection deserves the same thought you'd give to the more "expensive" choices on your farm, like your irrigation setup or your fertiliser programme. Think about the total cost over time, not just the cost per roll, and ask your supplier about colour options and whether their film is embossed or smooth. This could be what protects you from re-application, exposed beds, and crop stress when your film gives up mid-season.

If you're not sure which mulch specification suits your operation, that's exactly the kind of conversation we're here for.

Reach out on +27 21 987 6980 or info@vegtech.co.za.

We'll help you match the right product to your crop, your climate, and your conditions.

Source: Vegtech/Netafim

BIOSTIMULANTS, BIOFERTILISERS AND BIOCONTROLS:

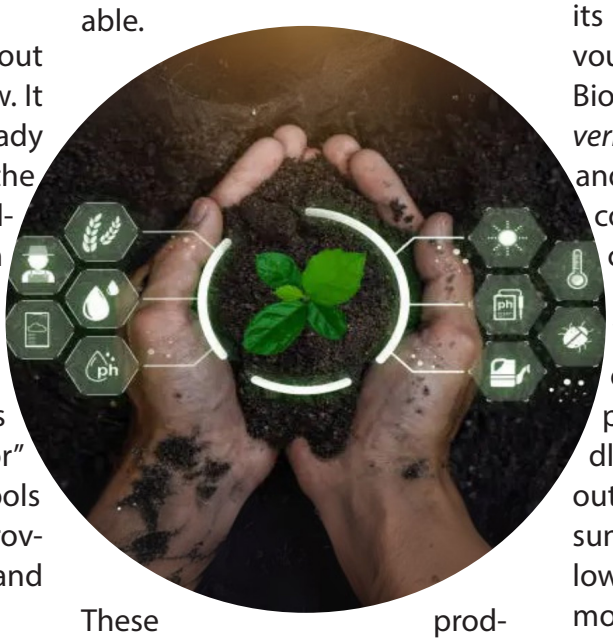
OLD OR NEW TECHNOLOGY IN UNDERCOVER FARMING

At the recent Undercover Farming Conference & Expo, Nico Uys of Ezolimo Organics delivered a powerful message drawn from Socrates: "The secret of change is to focus all of your energy not on fighting the old, but on building the new."

Undercover farming is not about choosing between old and new. It is about building on what already works. Nico Uys challenged the flawed narrative that agriculture needs a clean break from the past. The most effective innovations, he explained, work with existing systems rather than replacing them. Farmers do not operate in an "either-or" world. They need holistic tools that are reliable, sustainable, proven, innovative, effective today and beneficial tomorrow.

Biopesticides, biofertilisers and biostimulants are experiencing strong growth. Driven by sustainability goals, eco-friendly farming practices, regulatory support and consumer demand, the sector is expanding at more than 10% CAGR (Compound Annual Growth Rate) and is projected to exceed $20 billion by 2030. Major companies including Bayer, Syngenta and Corteva are active, alongside a rise in agri-biotech startups. Brazil remains the largest adopter of biologicals in agriculture.

The benefits are clear and measurable.



These products reduce chemical use, improve soil health and lower the carbon footprint. They complement rather than displace conventional inputs, creating a more balanced approach for undercover systems.

Ezolimo Organics highlights several proven biological solutions. Bio-Neem (Azadirachtin from the neem tree, Azadirachta indica) is one of the most successful botanical pesticides worldwide, used for centuries. It acts as an insect growth regulator, affecting molting and weakening the next generation. Xterminator (Pyrethrum) is derived from pulverised flowers; its pyrethrins attack insect nervous systems and inhibit biting. Bio-Insek uses two fungi, *Beauveria bassiana* (discovered 1835) and *Metarhizium anisopliae* (discovered 1879), for natural pest control.

While these fungi can be highly effective tools, they need to be properly understood and handled correctly, as they can dry out, have short activity in direct sunlight (UV), show low survival in low humidity and require careful monitoring.

Soil health is central. In dry-climate South African soils, the organic fraction is often only 1 %. Ideal soils contain 5 % organic matter. Increasing soil carbon by just 0.5 % doubles water-holding capacity: 100 kg of soil at 1 % carbon holds 10 litres of water; at 2 %

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it holds 40 litres; at 5 % it holds 200 litres. Good biology overrides mineral imbalance. Higher Brix levels (plant sugars) indicate healthier plants and better photosynthesis. Ezolimo Organics is currently working on practical bacterial solutions to support nutrient availability, soil biology and crop performance. *Trichoderma spp*. supports disease suppression, induces plant resistance, stimulates growth, though it requires carbon, moisture and protection from sunlight and fungicides.

Bio-Impilo stimulates growth, promotes root development, breaks down lignin and increases Brix in vines. Zytonic M mycorrhizal biofertiliser reduces chemical fertiliser needs by up to 50 % from the first cycle, improves germination, drought resistance, produce quality and soil biological activity.

Local organic fertiliser options Ezolimo supply include Verte Guano products – a registered liquid concentrate and slow-release tablets – backed by 26 years of farmer results.

The message is consistent: biological tools are not disruptive replacements but complementary innovations. They deliver reliable performance in undercover farming while building long-term soil resilience, lower inputs and healthier crops. For South African producers facing water scarcity and sustainability pressures, these solutions offer practical, evidence-based ways to strengthen systems that already exist.

The choice is not old versus new – it is smart integration for better results today and tomorrow.

Nico helps clients with tailor made solutions for their crops.

Biology is not replacement product but integrated solutions for a better result.

For more information on Ezolimo products contact Nico Uys at nico@ezolimoorganics.co.za

SILICON REIMAGINED:

WHAT HaifaStim™ Wall-Up S MEANS FOR UNDERCOVER GROWERS

Based on a presentation by **Werner van der Nest, Haifa Group** | *Undercover Farming Conference, March 2026*

Silicon is the second most abundant element in the Earth's crust, yet its role in plant health and crop production is one of the most underestimated inputs in modern farming practice. For growers operating under shade nets and in protected environments — where crop health, structural integrity, and stress management are daily concerns — choosing the right form of silicon could make a measurable difference to yield quality and season-end results.

At the Undercover Farming Symposium in March 2026, Haifa Group agronomist Werner van der Nest presented the case for HaifaStim™ Wall-Up S, a stabilised orthosilicic acid biostimulant that Haifa Group describes as the most concentrated and efficient source of silicon currently available for plant nutrition.

What Silicon Does for a Plant

According to Haifa Group, the benefits of silicon nutrition fall into three broad categories: physiological, mechanical, and soil-related. On the physiological side, silicon fortifies plant defence systems, making crops more resistant to pathogens and insect pests. It enhances the uptake of key nutrients including potassium, phosphorus, and calcium, helping plants maintain balance under stress. According to Haifa Group, silicon also mitigates drought damage, counteracts phosphorus deficiency, and alleviates toxicity from heavy metals such as cadmium, arsenic, and aluminium.

The mechanical benefits are equally practical. Silicon deposition strengthens plant cell walls and tissues, improving structural integrity and providing greater resistance to wind, heavy rain, and other physical stress.

In cereal crops, this directly reduces lodging — the bending or collapse of stems that can significantly affect yields. In high-density undercover production, stronger cell walls also mean reduced pathogen ingress and better crop presentation.

At the soil level, Haifa Group notes that silicon improves phosphorus availability and supports long-term fertility by optimising the soil-plant interface, contributing to overall crop resilience and yield stability. Recognising these advantages, the Association of American Plant Food Control Officials (AAPFCO) has classified silicon as a beneficial substance for plants.

Why Form Matters: Orthosilicic Acid vs. Conventional Silicates

Not all silicon products deliver these benefits equally. Haifa Group's core argument is that the form in which silicon is supplied determines whether the plant can actually use it. Orthosilicic acid is the only form of silicon that is directly plant-available.

Conventional silicate products must first undergo conversion before plant uptake can occur, a process that is inefficient and unreliable under many growing conditions.There are also significant practical problems with conventional silicates. They typically carry a pH above 11, making them difficult to mix in fertigation systems, requiring pH correction before application, and posing a real risk of blocking drippers and irrigation nozzles. They are generally incompatible with plant protection products, which limits their integration into nutrition and crop management programmes.

HaifaStim™ Wall-Up S is formulated to address all of these constraints. It is a highly concentrated dry formulation based on Haifa Group's innovative orthosilicic acid technology, with a near-neutral pH of 7.7 in solution and a silicon oxide (SiO_2) content of 42.8%.

The product is fully mixable in hydroponic systems, requires no pH adjustment, carries no risk of nozzle or dripper blockage, and is compatible with most plant protection products and foliar fertilisers. The one exception is sulphur preparations, for which Haifa Group recommends a small-scale compatibility test before tank mixing.

The Role of Iron in the Formulation
Wall-Up S also provides iron (Fe) as a fully water-soluble EDTA chelate, chosen by Haifa Group for maximum stability and efficiency. The iron content supports greening and stress tolerance, and works in combination with the orthosilicic acid to help the plant manage oxidative damage during periods of heat or cold stress when free radical activity increases. Together, the two elements support cellular

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energy processes, photosynthesis, and the plant's overall capacity to maintain productivity under adverse conditions.

Application Guidance

Haifa Group recommends supplementing plant nutrition with HaifaStim™ Wall-Up S during periods of maximum production and peak nutrient absorption. In hydroponic systems it is recommended throughout the growth cycle.

The product is suited to both foliar application and Nutrigation™ (fertigation), and it is approved for use in organic farming under EU Regulations 2018/848 and 2021/116.

Haifa Group also advises applying Wall-Up S specifically when growing plants need mechanical reinforcement - during rapid tissue expansion, intensive vegetative growth, and fruit development. These are the growth stages when the structural and physiological benefits of silicon are most in demand. Packaging is available in 1 kg bags (12 kg boxes) and 25 kg bags. Based on Haifa Group's product data and field experience worldwide, the benefits of regular Wall-Up S use include:

- Enhanced mechanical strength of plant cell walls and tissues
- Improved water use efficiency
- Increased productivity and improved yield quality
- Extended post-harvest life
- Greater tolerance to abiotic stresses including drought, heat, cold, and salinity
- Improved resistance to pathogens and insect pests
- Better uptake of potassium, phosphorus, and calcium
- Reduced toxicity effects from heavy metals in the growing environment

HaifaStim™ Wall-Up S — Composition & Properties

Component	Value
Silicon Oxide (SiO_2) total	42.8%
Silicon (Si)	20%
Water soluble Iron (Fe)	5.0%
Iron (Fe) chelated	4.0%
pH (1% solution)	7.7
Electrical conductivity (1% solution, 20°C)	2.0 mS/cm
Solubility	1 000 g/l

A trial conducted by Haifa Iberia on Iceberg lettuce in Murcia, Spain, illustrates the kind of results that are achievable. Over six weeks of weekly foliar applications at 0.5 litre per hectare, treated lettuce heads averaged 480 g compared to 420 g in the untreated control. The treated crop also showed reduced tip-burn, greener leaves, and extended shelf life - outcomes that directly affect packout quality and marketable yield.

Silicon as a Strategic Input

Haifa Group's position is that silicon is far more than a beneficial element - it is a strategic input for modern, sustainable farming. By improving nutrient uptake, enhancing resistance to both biotic and abiotic stresses, and contributing to soil health, silicon plays a role in maximising productivity that extends well beyond what most growers currently expect from a biostimulant.

For undercover growers managing high-value crops in systems built around reliable fertigation, consistent quality, and tight integration of nutrition and protection programmes, HaifaStim™ Wall-Up S offers a silicon option designed around how these systems actually work. The combination of high bioavailability, system compatibility, organic approval, and a clear body of field evidence makes it a product worth evaluating as part of any intensive undercover production programme.

Source: Haifa Group - haifa-group.com

VERTIPOTS GROWING SYSTEM

A HYDROPONIC SOLUTION FOR FARMING EFFICIENCY

Vertical farming offers a modern, highly efficient approach to food production, and my vertical farming system has been specifically designed to maximise output while minimising space, labour, and resource use. Built around a compact, upward-growing structure, the system makes it possible to produce high-quality crops in areas where traditional farming would not be practical.

A key advantage of the system is its space-saving design. By growing plants vertically in stacked layers, production is intensified within a small footprint. This allows farming to take place in unconventional locations such as rooftops, the tops of buildings, or even upper levels of parking garages—bringing food production closer to end users in urban environments. This proximity reduces transport requirements and ensures fresher produce.

Water efficiency is another major benefit. The system is designed to use significantly less water than traditional field farming, delivering moisture directly to the plant roots with minimal waste. Because plants are grown in controlled containers, water runoff is reduced and usage is carefully managed, resulting in substantial savings over time.

Labour efficiency is also dramatically improved. There is no need for soil preparation, ploughing, or field maintenance. Tasks such as weeding—often a high-cost activity with no direct return—are completely eliminated. Additionally, the system avoids soil-borne diseases and pests, reducing the need for interventions and ongoing labour.

The structured layout makes planting, monitoring, and harvesting faster and more streamlined. The crops are grown under cover, which provides multiple advantages. Produce remains clean, free from rain splash, and protected from external contaminants.

Workers can harvest comfortably even in rainy conditions, ensuring continuity of operations regardless of weather. The vertical arrangement also makes crops highly visible and easy to access, simplifying the picking process and reducing time

spent searching for ready produce. An innovative pot exchange system further enhances efficiency. Each plant grows in a 700 ml pot, which restricts root expansion just enough to keep the plant canopy compact and manageable.

This helps maintain proper airflow and reduces the risk of fungal diseases caused by overcrowding and poor ventilation. As one crop reaches the end of its cycle, it can be quickly removed and replaced with another that is ready to grow, ensuring continuous production with minimal downtime.

The use of individual pots also allows for better crop monitoring. Plants can be easily removed from their containers to inspect root health and assess water sufficiency, enabling early detection of potential issues. This level of control improves overall crop

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quality and reduces losses. Because the system does not rely on soil, it eliminates many traditional farming challenges. There are no soil-borne pathogens, no need for heavy fertiliser applications, and no degradation of growing media over time. Fertiliser use is minimal and more targeted, reducing costs while maintaining optimal plant nutrition.

Overall, this vertical farming system represents a shift toward smarter, cleaner, and more efficient agriculture. By combining space-saving design with water and labour efficiency, continuous production, and improved crop management, it offers a practical solution for sustainable food production - especially in urban environments where space and resources are limited.

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WHY EVERY FARMER SHOULD ATTEND THE UNDERCOVER FARMING WESTERN CAPE CONFERENCE

STRATEGIC BUSINESS DECISSION 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 agri-cultural event. It is a practical business opportunity for farmers who want to protect production, im-prove 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 sys-tems, 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.

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 envi-ronment.

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. Undercover farming can help farmers produce more consistently, improve crop quality and reduce avoidable losses. It also allows better management of irrigation, fertigation, pest control and har-vesting 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 expec-tations 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

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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 irriga-tion, crop protection, technology, seed choices, climate control and practical ways to improve profit-ability. These topics matter because they all connect to one thing: keeping farms productive de-spite rising pressure. The value of attending is not only in listening to speakers. It is in asking questions, comparing sys-tems, meeting suppliers and seeing where the industry is moving before being forced to adapt too late. Every generation of farmers has had to adapt. Today, adaptation means more than working harder. It means farming smarter, protecting production and investing in systems that can withstand uncer-tainty. For farmers who want to stay competitive, reduce risk and protect the future of their farms, the Un-dercover Farming Western Cape Conference is not optional. It is a strategic step toward a more se-cure farming future.

Staff Writer

ZERO TARIFFS, REAL OPPORTUNITY –
AFRICA'S ACCESS TO CHINA ENTERS A NEW PHASE

From 1 May 2026, a significant shift in global trade relations came into effect: China implemented a zero-tariff policy covering imports from 53 African countries with which it maintains diplomatic ties. For South Africa, this marks a concrete step forward in deepening bilateral economic cooperation and expanding market access for local producers.

The policy, confirmed through engagements between the two governments and supported by South Africa's Department of Trade, Industry and Competition, removes customs duties on qualifying exports entering China. This preferential access is scheduled to run until April 2028 and forms part of a broader China–Africa Economic Partnership framework.

At its core, the zero-tariff arrangement creates direct access to one of the world's largest consumer markets. For South African exporters—particularly in agriculture, mining, and manufacturing—the removal of tariffs lowers the cost of entry and improves competitiveness. Products such as citrus, wine, nuts, and processed goods stand to benefit immediately, as duties that previously ranged into double digits are eliminated.

Government statements and economic forums between South Africa and China have consistently highlighted the importance of trade, rather than aid, as a driver of sustainable growth. Bilateral trade between the two countries has already shown steady expansion, reaching over USD 36 billion in 2025, reinforcing South Africa's position as China's largest trading partner on the continent.

The zero-tariff framework is also aligned with South Africa's broader industrialisation objectives. By improving access to external markets, it creates incentives for local producers to move beyond raw material exports toward higher-value, processed goods. This shift is essential for job creation, skills development, and long-term economic resilience. Importantly, the policy is not limited to a narrow basket of goods.

It is designed to provide comprehensive, near-universal tariff-free treatment across product categories. This opens the door for both established exporters and new entrants, including small and medium-sized enterprises, to participate in international trade on more favourable terms.

The timing of the policy is also notable. In an environment where global trade is increasingly shaped by protectionist measures and shifting alliances, the expansion of tariff-free access signals a commitment to multilateral trade and South–South cooperation.

For South Africa, this presents an opportunity to diversify export destinations and reduce reliance on traditional markets. However, the success of this initiative will depend on how effectively local industries respond. Market access alone does not guarantee increased exports. Producers must meet quality standards, scale production, and navigate logistics and compliance requirements associated with entering the Chinese market. Infrastructure, export readiness, and private sector support will therefore play a critical role.

There is also a broader strategic dimension. The zero-tariff policy reflects a transition in China–Africa relations from a model heavily centred on lending and infrastructure development toward one that emphasises trade, investment, and industrial integration. For South Africa, this aligns with national priorities of economic recovery and inclusive growth. Ultimately, the removal of tariffs is not an endpoint but a platform. It provides the conditions for expanded trade, but the outcomes will be shaped by policy coordination, business readiness, and the ability of South African industries to compete at scale.

As government has emphasised, the opportunity is clear: to leverage improved market access into tangible economic gains. Whether through increased agricultural exports, expanded manufacturing output, or new value-added industries, the zero-tariff agreement offers a pathway to growth—if fully utilised. **SO**

GROWING SMARTER:
WHY GROLITE® IS THE GROWER'S GROWING MEDIUM OF CHOICE

In an industry where water efficiency, disease management, and consistent crop performance are non-negotiable, the growing medium you choose can make or break a season. For South African horticulture and shade-net producers, Pratley Minerals' Grolite® Expanded Perlite has become a trusted name in the substrate conversation — and for good reason.

Grolite® is not a synthetic product engineered in a laboratory. It is a naturally occurring volcanic mineral that has been thermally expanded to produce a lightweight, porous growing medium with properties that few alternatives can match. It is eco-friendly, carries no harmful environmental footprint, and is increasingly relevant to producers operating under sustainability mandates and export market standards.

What makes Grolite® stand out?

At its core, Grolite® solves one of horticulture's oldest balancing acts: keeping roots adequately moist without drowning them. The expanded perlite structure promotes excellent water drainage while simultaneously retaining the ideal moisture content for healthy root development. This means producers can maintain more consistent irrigation schedules and reduce the risk of waterlogging - a particular concern in high-density tunnel and shade-net environments.

Equally important is aeration. Grolite® maintains optimal air porosity within the root zone, ensuring that oxygen exchange is never compromised. Healthy aeration supports vigorous root systems, nutrient uptake, and ultimately, yield. Fertiliser efficiency is another measurable benefit. By improving nutrient interaction within the root zone, Grolite® increases fertiliser uptake - meaning stronger plant health without necessarily increasing input costs. In a sector where margins are under constant pressure, this is a practical commercial advantage.

For growers concerned about biosecurity, Grolite® is free of weeds and pathogenic microbes. This reduces the risk of introducing soil-borne diseases into a production system, simplifying management and lowering the need for corrective chemical intervention.

Built for professional application

Grolite® is available in multiple grades - Fine (0–1mm), Medium (0–2mm), Coarse (1–3mm), and Unscreened (0–8mm) - to suit a wide range of horticultural applications. Pratley Minerals is ISO certified, a Perlite Institute member, and supplies both local and international markets from its base in Krugersdorp, Gauteng. For producers looking to optimise their growing systems with a natural, proven product, Grolite® deserves a place in the conversation.

Visit www.pratleyminerals.com.

HOW DO YOU CREATE A HEALTHY ROOTZONE IN GREENHOUSE CROPS?

In horticulture, root diseases such as Pythium and Fusarium are often seen as sudden problems. However, in practice, these pathogens are almost always present in the system, in the water, substrate or irrigation lines. The real difference between a healthy crop and a crop under pressure is not the absence of pathogens, but the stability and resilience of the rootzone. A healthy rootzone creates conditions where plants can cope with stress and where pathogens are less likely to become dominant.

Root health is more than what you see

Healthy roots are often described as "bright white". While this can be an indicator, it does not tell the full story. The real functionality of the root system lies in the fine hair roots. These small structures are responsible for the uptake of water and nutrients. When these hair roots are damaged or absent, plant performance declines. Even if the main roots still look visually healthy. Maintaining these hair roots requires a careful balance between moisture and oxygen in the substrate.

The first weeks determine the season

Rootzone stability is not created later in the crop. It is built from the start. During the first weeks, roots need to explore the entire substrate. This requires a controlled irrigation strategy, often referred to as a gradual dry-back. By allowing the substrate to dry back slightly (for example around 1.5% per day), roots are stimulated to grow deeper and more evenly. When the substrate remains too wet, roots stay shallow, making the plant more vulnerable when demand increases later in the season. In practice, this early phase determines how resilient the crop will be under stress.

Oxygen: the underestimated factor

Many root problems are often attributed to overwatering, but in reality, the underlying issue is often a lack of oxygen. Frequent irrigation can reduce oxygen levels in the substrate to very low levels, especially during the day. Without sufficient oxygen, root activity declines and the plant becomes more sensitive to stress and disease.

A more effective approach is to create a dynamic balance with larger irrigation volumes, followed by a controlled dry-back. This allows oxygen to re-enter the substrate and supports root activity. In addition, maintaining a high level of dissolved oxygen in the irrigation water can further support root health.

Prevention instead of correction

Biostimulants and beneficial mi-

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croorganisms are often used in greenhouse production. However, their effectiveness depends strongly on timing.

Rather than acting as a cure, they should be seen as a preventative strategy. Products such as Trichoderma or Mycorrhizae work by establishing a microbial community around the roots. This creates competition, making it more difficult for pathogens like Pythium to infect the plant. For best results, these products should be applied early in the crop and maintained consistently to support a stable microbiome.

Water quality and system hygiene

Water is one of the main carriers of pathogens in greenhouse systems. With the increasing use of surface water, the risk of introducing pathogens becomes higher. Disinfection techniques such as UV, ozone or filtration are therefore essential to reduce pathogen pressure.

At the same time, maintaining stable conditions in the rootzone is just as important. Fluctuations in EC, pH or temperature can weaken the plant and create opportunities for pathogens to develop.

Stability is the key

Rootzone health is not determined by one single factor. It is the result of a stable interaction between water, oxygen, nutrients and microbiology. Plants that grow in a stable root environment are more resilient and less sensitive to disease pressure. In contrast, large fluctuations in moisture, EC or oxygen levels create stress, and increase vulnerability. For growers, this means that rootzone management is not about reacting to problems, but about creating stable conditions from the start. Root diseases are rarely the starting point of a problem. They are often the result of imbalance in the system. By focusing on rootzone stability, growers can reduce disease pressure and improve plant resilience. Because ultimately, a healthy crop starts below ground.

For more information: www.plantempowerment.academy

Plant Empowerment ACADEMY

Undercover Farming Expo & Conference: Western Cape 2026

21 & 22 October 2026

Allee Bleue Estate,
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