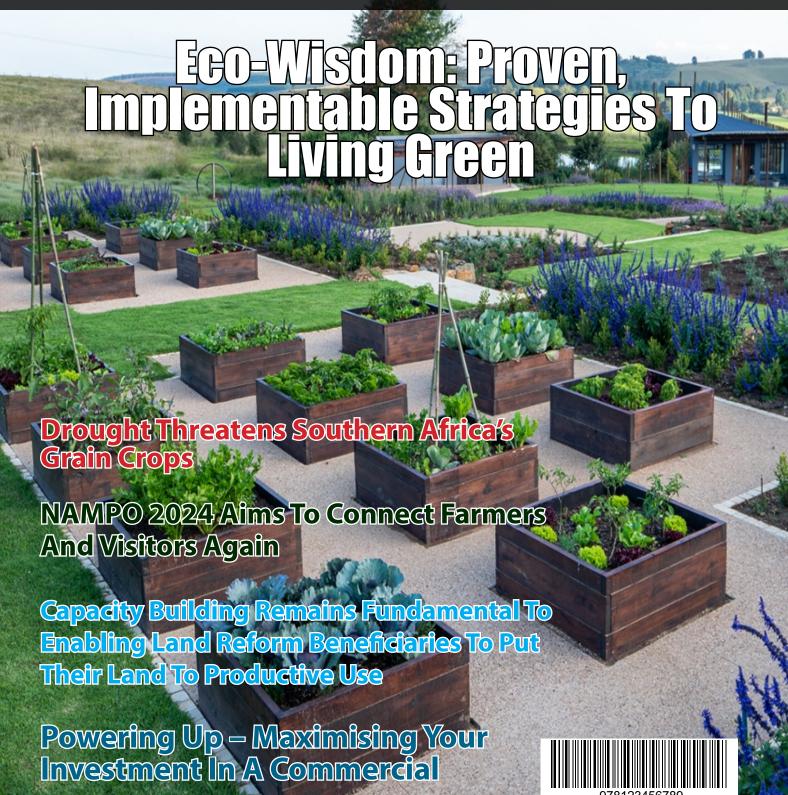


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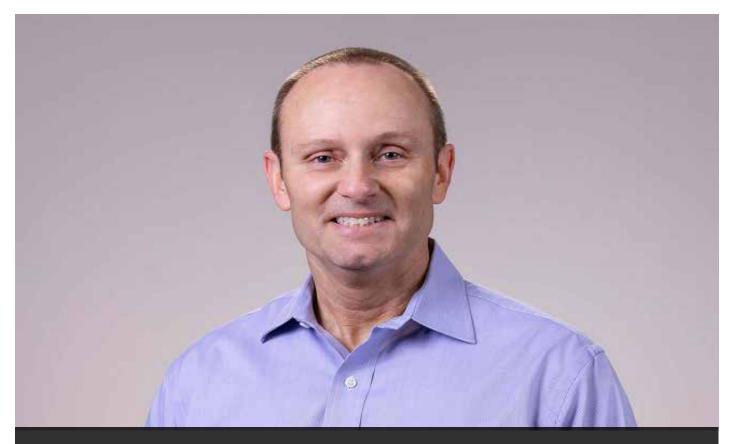




Market Access Africa (MAA) is the global meeting place for buyers and sellers across the entire agrifood business value chain







Since the last update of February 1, the agriculture and export price indices closed 3% and 10% higher, respectively, while the cereal price index closed 2% lower. Acting Editor-Gregory Van Wyk

Africa's economies continue to grow faster than the global average of 3% demonstrating resilience against several challenges including climate change, geopolitical tensions, rising inflation, food insecurity and rising debt.

It is forecasted that Africa will account for 11 out of the 20 fastest-growing economies in the world in 2024," adding, "15 African countries have posted output expansions of more than 5%.

In the face of rising hunger, economic volatility, growing

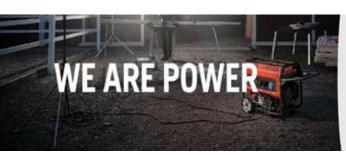
inequality and the ravages of climate change, a quiet revolution is underway fueled by innovation and determination. For small-scale farmers in some of the most remote corners of the world, innovation isn't just a buzzword it's a lifeline with the potential to reshape the future of agriculture by generating and scaling up new ideas, new approaches and new opportunities to sustainably overcome the challenges they face on a daily basis.

We must never stop making an impact for those who need it most, and it's for that reason that

we are constantly innovating.

Many innovations are developed in collaboration with the people we work with on the ground. Agri-entrepreneurs in developing countries are some of the most innovative and dynamic entrepreneurs in the world. We don't bring innovations to them – they bring innovations to us.

When one thinks about investment, the amount of investment is relatively low but the return is enormous and the actions that need to be taken are straightforward.



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NAMPO 2024 Aims To Connect Farmers And Visitors Again

With technology already playing an important role in the South African agriculture sector, the theme for NAMPO 2024, 'Agriculture in a Digital Age', is fitting to support the sector as it continues to transform in order to meet ever-changing challenges.

The 56th NAMPO Harvest Day will be held from 14 to 17 May 2024, and according to Grain SA, is geared to offer visitors the opportunity to learn more about the latest trends and developments in digital applications.

"South African farmers are increasingly recognising the significance that modern technologies and digital platforms are contributing toward efficiency, productivity, sustainability and prosperity," said Dr Dirk Strydom, Grain SA's Head of NAMPO, Marketing and Research Development.

Strydom added that over the years NAMPO had played an important role in connecting the various role players in the agriculture sector with each other.

"NAMPO offers producers a platform to interact with service providers and input suppliers regarding the latest products and services on offer. Our aim is to connect the farmer with the rest of the value chain, including inputs, machinery, food processing, precision agriculture,

marketing, and financing solutions."

To facilitate the digital demonstrations as well as the increase in exhibitors, the organisers installed three additional 500kVA generators to add to the existing 300kVA capacity. The newly added Midas Hall on the south-eastern side of the park brings an additional 60 indoor exhibitors to NAMPO.

The popular discussion forum, Nation in Conversation, will once again bring role players in the broader agriculture sector around the discussion table to reflect on topical subjects such as strategies for resilience and adaptation, optimising farmer support services, and collaborating solutions in times of adversity.

On 15 May, one of the panels will also discuss the possible impact that the elections might have on the sector. The conversations will be filmed during NAMPO and livestreamed on various platforms.

With the increase in visitor numbers, NAMPO is increasing its food offering. Visitors can look forward to a brand-new food experience offered by the Syngenta Boerekos Plaaskombuis.

The regular NAMPO food stalls will continue to operate to the benefit of schools, churches and non-profit community organisations in the area. The exclusive restaurant, which opened in 2023 to offer exhibitors the opportunity to reserve tables for client discussions, will be operational again in the Fanie Ferreira Hall.

The Farmer's Weekly team will also be present in NAMPO Hall, stands 84 and 67. Visit the stand for exclusive merchandise and subscriptions.

Get your tickets online

Tickets are available from ticketpros.co.za with discounted entry fees when purchasing online.

Gates will open at 7am and close at 5pm. Route directions as well as details on the private air strip are available from the website and the NAMPO app.







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2.Africa Agri Tech https://africa-agri.co.za

3. Africa's Big Seven Visit www.africabig7.com

4. African Investment Indaba, www.agricouncil.org

5. Agri Gauteng Expo https://www.agrigauteng.co.za.

6. Agri 5 Expo and Summit www.agri5expo.co.za

7. The annual Bathurst Agricultural Show www.bathurstshow.co.za.

8. BKB Agri Livestock Expo (ALE) www.facebook.com/bkblivestockexpo/

9. Bloemfontein Show www.bloemskou.co.za

10. George Agricultural Show http://georgelandbouskou.co.za

11. KragDag www.kragdag. co.za Previously an energy and renewables show in Pretoria, from 2019 it includes agriculture.

12. Made in Africa https://madeinafricaevent.co.za

13. The Mpumalanga Show www.mpumalangashow.co.za.

14. The NAMPO Harvest Day www.nampo.co.za.

15. Nampo Cape www.grainsa.co.za.

16. National Agricultural Youth Show www.nays.co.za

17. The Nedbank Eston Show www.theestonshow.co.za

18. Organic and Natural Products Expo Africa

www.organicandnaturalportal.com/expo

19. Reitz Bieliemieliefees www.bieliemielie.co.za.

20. Royal Show (PMB) – find the Royal Agricultural Society of Natal details under previous heading.

21. South African Cheese Festival – www.cheesefestival.co.za

22. Large Herds Conference www.largeherds.co.za.

23. Sunday Tribune Garden Show – find "Royal Agricultural Society of Natal" under previous heading.

24. The Swartland Show http://swartlandskou.co.za

25. The Vryburg Show http://vryburgshow.co.za

INTERNATIONAL

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3. Africa's Big Seven www.africabig7.com

4. African Investment Indaba: www.agricouncil.org

5. Agri Gauteng Expo https://www.agrigauteng.co.za

6. Agri 5 Expo and Summit: www.agri5expo.co.za

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Capacity Building Remains Fundamental To Enabling Land Reform Beneficiaries To Put Their Land To Productive Use

Land Reform - In the pursuit of sustainable land reform, capacity building and good governance practices for Communal Property Associations (CPAs) cannot be overstated. As communities continue to grapple with the complexities of land ownership and utilisation, training and empowering CPA members are key to promoting sustainable use of restored land as well as stability within such communities.

Land reform can play a significant role in addressing social inequality, fostering economic development, and ensuring the productive use of land. However, the success of land reform heavily relies on the capacity of beneficiaries to put their land to productive use. An added challenge is that the government also faces

obstacles around its limited financial and institutional capacity to implement the interventions needed to support land reform beneficiaries.

According to the 2022/2023 Annual Report of the Department of Agriculture Land Reform and Rural Development (DALRRD), capacity and governance challenges within Communal **Property Associations (CPAs)** persist as a pressing concern in many parts of the country. The department acknowledges that while there are flourishing CPAs, the majority of CPAs are not compliant with the Communal Property Associations Act of 1998.

CPAs continue to grapple with several challenges, including non-compliance

with their constitutions, a lack of operational policies, and procedures to guide the administration and day to day running of the affairs of the CPA, failure to hold essential annual general meetings and report back meetings to their members, and failure to prepare and produce annual financial statements, among others.

Rectifying necessitates a concerted effort towards enhancing the governance capabilities of CPA executives. However, such efforts are impeded by challenges such as limited resources, logistical constraints, and varying levels of readiness among CPA members. Moreover, the diverse social and economic contexts in which CPAs function further complicate capacity-building efforts.



"Sustained support and tailored interventions are essential to effectively address the capacity challenges facing CPAs," says Peter Setou, Chief Executive of the Vumelana Advisory Fund, a non-profit organisation that helps beneficiaries of the land reform programme to use restored land productively to create much-needed jobs, income and skills.

Setou shares that Vumelana has developed a CPA Support Programme designed to strengthen governance among land reform beneficiaries and within land-holding entities.

"Vumelana's CPA Support programme recognises the pivotal role of well-governed institutions in land reform, in attracting investments, creating employment, enabling

communities to generate an income and contribute to the broader social and economic contexts," says Setou.

The programme provides comprehensive interventions designed to meet the unique needs of each beneficiary community.

Setou says, "We have seen that when governance structures are strengthened within landholding entities, CPAs can effectively manage their assets and effectively advance the objectives of land reform."

To guide the assessment and support for CPAs, Vumelana has also developed a Capacity Needs Assessment Tool. The Tool covers five main dimensions of governance and management to assist in identifying areas for

improvement for land reform beneficiaries to enable the effectiveness and sustainability of land reform beneficiaries. These dimensions are governance, membership services, financial management, administration and social cohesion.

In the last decade, it has become evident that private investors are hesitant to partner with poorly governed CPAs. However, effective interventions aimed at improving governance and better management of CPAs increase chances for land reform beneficiaries to appeal to private investors who can partner with them to ensure productive use of land and in turn, job creation.

Through partnerships with private investors,



Pioneering Greenhouse Gas Research In South African Rainfed Agriculture

Dr Jerry Dlamini, lecturer and researcher specialising in agronomy within the Department of Soil, Crop, and Climate Sciences at the University of the Free State (UFS), is at the forefront of pioneering research in this field.

Greenhouse gas emissions represent a significant global concern, driving climate change on a massive scale. This concern is particularly pronounced in rainfed agriculture, where understanding and addressing these emissions are crucial for ensuring sustainable agricultural practices.

In South Africa, rainfed agriculture is vital in food production, contributing substantially to the nation's agricultural output. However, this sector also stands as a notable contributor to greenhouse gas emissions, primarily through activities such as livestock farming, fertiliser use, and changes in land use.

Dr Jerry Dlamini, a distinguished lecturer and researcher specialising in agronomy within the Department of Soil, Crop, and Climate Sciences at the University of the Free State (UFS), is leading pioneering research in this field. His current project, @CROPGas on X, funded by the European

Joint Programme (EPJ), with a budget of R22 million, focuses on investigating the impact of various conservation agriculture interventions on greenhouse gas emissions, primarily targeting nitrous oxide (N2O), methane (CH4), and carbon dioxide (CO2).

This two-year project, which commenced in December 2022 and concludes in December 2024, is a collaborative effort between European and African universities and institutions, including Rothamsted Research (UK), University College Dublin (Ireland), University of Nottingham (UK), University of Poznan (Poland), British Geological Surveys (BGS), University of Zambia (Zambia), University of Zimbabwe, and Lilongwe University of Agriculture and Natural Resources (Malawi). Dr Dlamini's preliminary findings from the UFS Kenilworth **Experimental Farm indicate** that climate-smart agriculture interventions, such as legume rotation and no-till practices,

have the potential to reduce the intensity of greenhouse gas emissions, particularly highly radiative gases like N2O.

"This is a significant finding," Dr Dlamini noted, "as N2O has a global warming potential 100 times greater than CO2 over a 100-year horizon, meaning its impact on ozone depletion persists far longer despite being emitted in smaller quantities." Looking ahead, Dr Dlamini advocates for increased research efforts to quantify greenhouse gas emissions from South African croplands.

He emphasises the importance of field-based measurements, akin to methodologies employed by other nations, to enhance the accuracy and effectiveness of South Africa's greenhouse gas inventories submitted annually to the United Nations Framework Convention on Climate Change (UNFCCC) and to devise effective mitigation strategies.

Powering Up – Maximising Your Investment In A Commercial Generator

In the face of persistent loadshedding challenges, an uninterrupted power supply is imperative for sustaining critical operations in businesses and industries. As a result, many South African companies have found that they have no choice but to invest in alternative power solutions such as solar, inverters or generators to ensure business continuity.

Solar power can be an expensive exercise and is weather-dependent, inverters may lack the necessary power output, which is why generators often emerge as a viable alternative, especially for SMEs. However, to maximise your investment in a generator, various measures need to be taken to ensure its availability when you need it most. This is according to Wynand Lombaard,

Product & Pricing Specialist at Husqvarna South Africa, who says, "These measures are crucial to avoid breakdowns and costly replacements down the line."

Lombaard shares these practical tips to help you keep your generator running smoothly:

- Choose the correct model to suit your business requirements.
- Stick to your generator's wattage limit. Don't overload it.
- Remember to cover your generator when it's not in use to ensure it stays clean and is instantly ready to work during power outages.
- Power it up regularly to prevent component and fuel degradation.
- Do not allow your generator to run on low fuel levels. Keep that tank topped up.

- Give it some TLC by cleaning and checking the filter regularly.
- Don't forget to change the oil
 it's like giving your generator a spa day.
- Stick to the maintenance schedule outlined in the Husqvarna Manual for Maintenance and Service Guide.
- Consider insuring your generator, just like you would your car or other valuable assets. And when it comes to the placement of the generator:
- Find an elevated, secure spot outside with good airflow.
- Keep it undercover or in an enclosure to shield it from the elements.
- It must be easily accessible for maintenance purposes.
- Take proximity to buildings into account to minimise noise levels.
- Ensure compliance with all building codes and safety.

Regular testing and maintenance are imperative for ensuring generator reliability. "A regularly tested unit will perform more reliably," Lombaard adds, emphasising the importance of proactive maintenance practices.

Furthermore, he recommends partnering with certified dealers. "An experienced maintenance partner is instrumental in ensuring optimal generator performance," he says.

By following these steps, you can maximise the lifespan, efficiency, and reliability of your generator, ultimately getting the most value out of your investment.





Deep-rooted Partner To South Africa's Agricultural Industry

The agricultural industry is pivotal to combatting food shortages and hunger around the world. Farmers are subsequently under increasing pressure to increase yields year on year while ensuring business profitability by keeping input and operational costs to a minimum. Exponential rises in costs, especially where diesel prices are concerned, present tremendous challenges, driving farmers to harness more from their machines and equipment.

Combine harvesters, tractors, balers, disc harrows, planters, etc., are subjected to punishing conditions where the ingress of contaminants such as dirt, dust, mud, water and crop residue cause component wear and damage. This can result in premature equipment failure. With limited window periods for every crop cycle, equipment breakdowns and subsequent unproductive downtime, repair costs and even with potential negative effects on yields carve into profits.

Thanks to advancements in technology, which have transformed the agricultural sector, farm equipment is delivering increased performance, reliability and lifecycle, while being more efficient and producing fewer emissions. Farmers are placing their trust in OEMs like SKF to provide components and equipment that deliver on all fronts. SKF plough the latest innovations and technologies into the design and engineering of its integrated and comprehensive range of agri-specific solutions. Products include radial and axial bearings, hub bearing units, bushings,

seals, lubrication systems as well as power transmission solutions - chains and belts. These products undergo rigorous testing to ensure optimum performance and reliability in every stage of the crop cycle – from tillage, seeding, fertilizing, and irrigation to harvesting, mowing and baling.

"Our bearings and seals are developed to provide reliable rotation by withstanding contaminant ingress, temperature extremes and corrosive chemicals that are present in the gruelling agricultural environment. The results are high machine and equipment availability, minimum maintenance and low operating costs for farmers," states Charl Engelbrecht, SKF Key Accounts Manager - Agriculture.

SKF bearings are suitable for tractors and combine harvester applications as well as for various agricultural attachments including opener and closing discs, gauge, press and implement wheels, seed-meter drive shafts and row markers.

The SKF Explorer range, recommended for tractors, offer optimised internal geometry for reduced friction, wear and heat generation. These tapered roller bearings accommodate higher load levels (up to 23% increased dynamic load ratings).

SKF's range of radial ball and roller bearings as well as agricultural insert bearing units incorporate a relubrication-free design and a high performance sealing solution and are ideal for combine harvester applications, such as baling and mowing.



Engelbrecht stresses that, with 56% of bearing failures caused by inadequate lubrication and subsequent contamination, a proactive lubrication programme is essential. "Add to this the fact that lubricants amount to only 2 to 3% of running costs in agricultural machines, but poor lubrication accounts for 40 to 60% of maintenance costs." A wellexecuted maintenance strategy that involves the systematic application and control of lubricants will reduce friction, heat and wear between moving parts, preventing breakdowns, maximising performance, reliability and efficiencies, extending equipment lifecycle, lowering maintenance costs, enhancing safety and meeting environmental compliance.



SKF's holistic lubrication solutions for tractors, implements, trailers, combine harvesters, special harvesting machines, balers, sprayers, slurry tankers, etc. include manual, semi- and fully automated lubrication delivery systems, compact electric cartridge pumps, grease nipples, grease guns, lubricant hoses, and progressive metering devices as well as a selection of high quality lubricants. "The correct choice of lubricant carries as much importance as applying the correct lubrication methods," notes Engelbrecht. "With years of experience with bearings, lubricants and applications as well as through continuous research, field-testing and validation, we have developed the right lubricants specifically suited for agri equipment."

Moving on to SKF's Power Transmission solutions, Engelbrecht says that agricultural roller chains as well as special combine, baler and drive chains are used extensively on a range of machines and equipment. "We develop and design our agricultural chains in close collaboration with equipment manufacturers, distributors and end-users, ensuring that our solutions meet stringent demands and address farmer's real-life needs. A customerfocussed approach means that SKF agricultural chain works when and how it is supposed to and is interchangeable with industry standard OEM chains." Engelbrecht recommends the use of SKF's quality lubrication solutions for optimum chain performance.

SKF, in collaboration with its brands PEER, Chicago Rawhide and Lincoln, provides robust, world-class quality agri product solutions that add end-to-end value to equipment throughout the crop cycle, enabling farmers to sustainably achieve profitable yields and successful business outcomes. Moreover, our products are specially designed to have a positive impact on the environment," concludes Engelbrecht.

SKF will showcase its comprehensive range of premium brand agri-specific products at Nampo 2024 (Nampo hall: stand #121), which is one of the largest agricultural exhibitions under private ownership in the southern hemisphere. held annually in Free State town of Bothaville.



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Drought Threatens Southern Africa's Grain Crops

Lack of rain due to the El Niño weather phenomenon is damaging southern Africa's cereal grains production outlook and threatening already fragile food security in the region, according to the Food and Agriculture Organization of the United Nations (FAO).

The foreseen shortfall in production, especially for maize (corn), is expected to intensify households' food insecurity, push up domestic prices and spur a surge in import needs across the subregion, according to an April 24 assessment from FAO's Global Information and Early Warning System. White maize accounts for almost 20% of calories consumed in the subregion.

Acute food insecurity in southern Africa, estimated at 16 million people in the first three months of 2024, could deteriorate in late 2024, the FAO said. Food prices, already rising at annual rates above 10%, are likely to rise further and, based on current projections, South Africa and Zambia, typically maize exporters, will not be able to cover the supply shortfall, and Zambia has started importing maize to meet the shortfall.

This combination of reduced harvests and rising food prices is particularly harmful for agricultural households and restoring production levels, as farm incomes are set to be squeezed while more resources will be needed to purchase food, said Jonathan Pound, economist at FAO's Global Information and Early Warning System.

The governments of Malawi, Zambia and Zimbabwe have declared drought emergencies. Teaming up with the NASA Harvest program, FAO geospatial observations suggest that key cereal crops will suffer adverse impacts in parts of Angola, Malawi, Mozambique, Namibia, South Africa and Zimbabwe, with Zimbabwe, Malawi and Mozambique expected to see a

notable jump in import needs.

The disappointing forecast comes after "widespread and substantial rainfall deficits in February, exacerbated by record high temperatures, a particularly damaging combination for crops," the report said, noting that there are scant hopes of a recovery before harvest starts in May.

This observed dry weather pattern is typical of the El Niño weather phenomenon in the region, the FAO said. Current forecasts do, however, point to a strong likelihood of a transition to a La Niña weather pattern later this year, with more beneficial precipitation patterns.

That makes it "imperative" to scale up resilience-bolstering measures enabling farmers to prepare adequately for the next agricultural season starting in September 2024, the FAO said





TOMRA Food has inaugurated a new center dedicated to fresh fruit and processed food projects. The location, in Valencia, is well connected and in the heart of a major horticultural and nut growing region.

The center's proximity to its customers and partners will enable the company to show the performance and benefits of its optical sorters with on-site demonstrations.

The center will also act as the main HUB for Southern Europe and North Africa, and serve as a training, service and spare parts

center, extending TOMRA Food's presence in the EMEA market. The move is part of the company's regional restructuring in the EMEA region.

Leuven, Belgium, 9 April 2024 – TOMRA Food is a world leader in optical sorting, grading and peeling solutions. Its main markets are the United States, Mexico, Peru, Chile, Argentina, Brazil, Spain, Italy, South Africa, Australia and China. As a global company, it required a more focused approach which the company's new EVP and Head of TOMRA Food Harald Henriksen, addressed with the

creation of a regional structure for the organization.

Karel Strubbe, the new SVP and Head of TOMRA Food for Europe, Africa and the Middle East explains:

"We want to work directly with the customer in as few time zones as possible. This enables us to be more agile, to establish an even closer relationship with our customers and ultimately to work better locally. It is vital to improve the speed and quality of communications to always offer the best service."





TOMRA Food sees its relationship with its customers as a collaborative process where both look for the best solution for each project and work together on the design of new solutions. The Spanish fruit and vegetable and nut sector - which is key for the company - is highly concentrated in the eastern Levante region and surrounding area. That's why the new center in Valencia, which is now fully operational, is an important step in strengthening this personal approach and fostering a close relationship and communication with the producers.

TOMRA Food's expert team will manage the company's European projects from their base in the Valencia center. The site will be the hub for demonstrations of large and small fruit applications. It will also conduct occasional demonstrations for processed food, although Belgium will continue to be the center of reference for these products. It will also deliver training for company staff and TOMRA Food customer operators.

The center also serves as an after-sales service hub in the EMEA region and stores spare parts to reduce delivery times. A local technical team of 15 people, headed by Team Leader Jorge García Cascales, provides excellent support to the almost 400 machines in fresh and processed food installations in Spain and Portugal, and also serves other countries in the region.

Alejandro Palacios, TOMRA Food's regional sales manager for Southern Europe, says: "For us, demonstration centers are very important. They enable us to show our customers what our sorting machines can achieve for them. The majority of demonstrations at the Valencia center are for citrus, blueberries, and whole potatoes. Customers can also bring their

product and receive support tailored to their needs. The whole TOMRA team is very excited about the new center."

Jesus Hernandez, sales manager of TOMRA Food Spain, adds: "TOMRA is a European company. In the short term, we have set ourselves the goal of becoming the sales leader in the EMEA Region - a position we already hold in other regions such as the United States, South Africa and Australia. TOMRA's new center in Valencia is the company's response to the specific needs of the market. We are growing at a good pace, and we have plans for expansion. To achieve this goal, we are focusing our efforts on continuous innovation, delivering excellent service and customer-centered advice and expertise. Ultimately, we want to be close to our customers and convey that we continue to offer value-added solutions and services."

TOMRA solutions at the European center in Valencia: technology at the service of the citrus sector

The Valencia center has an ample area for demonstrations with a variety of machines. They include the Demo SLS (Single Lane Sorter) featuring Spectrim C2IR and Inspectra 2 for citrus and large fruit applications (apples, stone fruits, tomatoes, kiwi, avocados, etc.). Also at the center is a KATO + LUCAi 12-line sorter for blueberries, which uses Deep Learning technology with pre-trained models that teach computers how to process data and detect complex patterns in photos. A TOMRA 3A optical sorter for unwashed potatoes featuring the latest mechanical and vision advances is also available for demonstrations.

"The idea is to have machines, such as the KATO and Spectrim for fresh produce, always at the center. These are sorters built on high-performance hardware with improved lighting and image quality, providing complete visibility of every piece of fruit, and infrared channels to detect complex defects such as radial cracks, bruises, rotten fruit, scars, and punctures. We will also have a circulation of fresh food machines according to seasonal fruit and processed food sorters to support the various campaigns," explains Alejandro Palacios.

Jesus Hernandez adds: "Our technology has to be seen first-hand, tested with each customer's fruit. TOMRA's strong commitment to R&D allows us to offer customized solutions and services. Integrated sorting and grading solutions reduce labor requirements while increasing yield, and product consistency and traceability. They also ensure efficiency in all post-harvest stages, so that our customers get the best return on their investment, and faster."

TOMRA's technologies are in constant evolution, with innovations such as the 5.0 more intuitive and predictive software, or the Inspectra2 spectrometry system that reveals the internal condition of the fruit, coming on stream.

TOMRA Food is not short of innovations. It will soon unveil to the European markets the recently launched Spectrim X platform, which reduces sorting errors and increases the yield of each batch of fruit. The Spectrim X series with Deep Learning technology, which has been tested for 18 months in plants in the United States and New Zealand, represents a breakthrough in performance compared to its predecessor. It reduces inspection errors, consequently increasing throughput.

"This is, without doubt, the big novelty, and will be very interesting for the market," concludes Jesus Hernandez.



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- Low maintenance, long-lasting, large diameter discs
- Large clearance between arms and discs for excellent material flow





Eco-Wisdom: Proven, Implementable Strategies To Living Green



The earth's natural resources such as clean water, fossil fuels, and even arable land, are finite. This is why, if we are to preserve them for future generations, we have to use these resources efficiently and responsibly. Orrin Cottle, CEO of Brahman Hills, home to spectacular views and luxurious 4- and 5-star accommodation in the picturesque Midlands, believes that in today's world, sustainability is not just a choice; it's a responsibility we all share.

"Caring for our environment ensures its preservation for generations to come. Interestingly though, once you embark on this journey, you will discover many additional benefits beyond environmenta protection. For example, with ever-increasing loadshedding and water shortages, practices like solar energy and

rainwater harvesting are not just sustainable options but essential solutions. Similarly, nurturing a personal vegetable garden not only contributes to environmental conservation but is also good for your overall health and it will save you money!"

Currently, Brahman Hills operates its entire property with 65% off-the-grid sustainability. From solar and water management to cultivating herbs and vegetables, and farming free-range, hormone-free meat, every aspect reflects a commitment to environmenta conservation and shifting lives for the next 100 years. Having walked the sustainability journey, Cottle believes that every South African has the power to embrace at least one sustainable practice, playing their part in safeguarding the

earth.

He offers the following tips for those eager to begin their sustainability journey: 1. Start a Veggie Garden: Start your journey towards

sustainable living by taking small steps such as planting herbs or vegetables in your garden, balcony, or windowsill Research the best plants for your climate, and invest in quality soil and seeds. We began our journey modestly in 2015, using recycled bricks and circular beds to cultivate our organically grown produce. Since then, our commitment has blossomed into an expansive vegetable and herb garden, ensuring our guests' a steady supply of fresh, seasonal

2. Harvest Rainwater: Install a rainwater harvesting system, like a rain barrel or JoJo tank, to collect runoff from your roof. Use the collected water for plant watering or outdoor cleaning. JoJo tanks can also

organic delights.



be adapted for domestic use. We've been using a rainwater harvesting system to collect and store rainwater for irrigation purposes since 2012, reducing our reliance on municipal water supplies and conserving resources.

3. Practice Sustainable Water Management: To conserve water further, adopt simple practices like repairing leaks, opting for shorter showers, and using water-efficient appliances. Install low-flow taps and showerheads, and consider collecting and reusing greywater where possible. At Brahman Hills, we have a borehole and have also installed an advanced wastewater purification system that allows us to recycle water, minimising waste and supporting our local ecosystem. Following double filtration, the water rejuvenates our lake's ecosystem and is used for fountains and

drinkable post-filtration. 4. Save Energy: To embrace sustainable energy solutions, consider options like rooftop solar panels or solar water heaters for your home or business. If initial budgets are tight, prioritise energy-efficient light bulbs as a starting point. In what has been a five-year project, Brahman Hills now harnesses a remarkable 85% of our energy from solar panels, reducing our carbon footprint and reliance on non-renewable energy sources.

As Brahman Hills continues to lead by example in sustainable hospitality, they invite individuals and businesses alike to join them on this journey towards a greener, more sustainable future. "We can all play a part in protecting the planet for future generations if we just incorporate one or more of these sustainable, eco-friendly

practices into our daily lives. Even the smallest actions can make a big difference," says Executive Director, Onwaba Gonyora.

Experience Brahman Hills' sustainable practices firsthand at The Brahman Hills Experience from 10-12 May 2024. Indulge in delectable organic delights from the garden, expertly crafted by celebrity Chef Pete Goffe-Wood. Taste some of South Africa's finest wines while rubbing shoulders with four of South Africa's rugby icons including Tendai Mtawarira, Stefan Terblanche, Duane Vermeulen, and Hanyani Shimange. Rejuvenate at the award-winning spa, and wander through the internationally-acclaimed gardens; a truly unforgettable experience awaits.



UNECA: Agricultural Innovation Needed To Aid Food Production In Africa

Agriculture innovation and science in Africa are seen as the final frontiers if the continent is to be able to feed itself at a time of the worsening impact of climate change. This emerged from a recent meeting of African finance ministers held in Victoria Falls, Zimbabwe under the auspices of the United Nations Economic Commission for Africa (UNECA) which noted that the continent needs to upscale its green financing mechanisms.

African countries have struggled to attract green financing amid slow inflows of climate finance promised by richer countries. Experts say this, in turn, has exposed poor African countries to a cycle of missed food production targets, with analysts noting that governments must look for innovative ways to attract investment into sectors such as smart agriculture and drought resilient crop varieties.

This is despite years of numerous conferences to address these challenges, with Veronica Jakarasi, the Chief Director in Zimbabwe's Climate and Meteorological Services, noting that: "To attract green financing, Africa needs to have policy and regulatory frameworks with set targets in line with ambitious development."

This highlighted the continent's ongoing difficulty to address what has become one of the most pressing issues of the global food production ecosystem with African countries routinely being fed by richer countries, the major drivers of climate change. Countries such as Zimbabwe have continued to import food despite years of evidence that the country needs to upscale its agricultural

science and research to address what has become cyclical food deficits. According to AGRA, African countries import food commodities such as maize, rice, soya beans and wheat valued at USD4 billion annually.

Experts say this is unacceptable when the continent has the potential to feed itself, if only governments could escalate science and innovation in addressing the effects of climate change on food production. Over the years, countries such as Zimbabwe have continued to lag in both accounts-science and innovation-because of what critics say are policy inconsistencies. For years government has failed to adequately fund the agriculture ministry, with national budget allocation favouring the security sector.

The Ministry of Agriculture announced in March this year that government had given a green light on the importation of genetically modified maize.

However, while advocates have noted that GMO research could help address some of these challenges, Zimbabwe has been inconsistent in the growing and importation of genetically modified maize, the country's staple food. Faced with a debilitating drought, the Ministry of Agriculture announced in March this year that government had given a green light on the importation of genetically modified maize. Local commercial farmers are on record appealing to government to allow them to grow drought-resilient genetically modified maize, but authorities have remained steadfast in refusing to grant that request.

"In the Food Security Outlook April 2024 to March 2025 this is what we deliberated on, and we said that (the) private sector must continue to import and they will continue to import maize for human consumption ... and we also said that if they wished to import genetically modified maize, they can do so," Agriculture Minister Anxious Masuka told state media. The government has previously made the same policy changes after being faced with drought, importing yellow maize from Kenya.

Despite such challenges, there remains no firm policy on where the government stands regarding the science of GMOs. While GMOs remain contested in some African countries, African finance ministers agree that green climate financing will help explore ways to address the continent's food resilience conundrum.

African countries import food commodities such as wheat, maize, rice, and soya beans valued at USD4 billion annually.

"Green climate finance is key for sustainable development by continental and regional organisations in their quest to capacitate and facilitate low-carbon and climate-resilient development in Africa," said Linus Mofor, Senior Environmental Expert from the Economic Commission for Africa (ECA), in a UNECA media brief.

"Greentransitionrequiresfinancing for sustainable investment and access to real-time climate-related data. We need to have national and regional programmes aimed at galvanising green finance for enhanced economic development and regional collaboration," Linus

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One of the most important food security crops in Africa is cassava, a root vegetable eaten by around half a billion people every day. Africa produces nearly 200 million tonnes of cassava every year, around 60 per cent of the world's total production.

However, due to climate change, water scarcity and declining soil fertility, cassava yields are being adversely affected across the continent, causing many people to face food shortages and malnutrition. Experts from the IAEA and the Food and Agriculture Organization of the United Nations (FAO) are working to help African farmers mitigate these effects of climate change by sharing sustainable and efficient nutrient, water and soil management practices.

"Thanks to the knowledge we've gained here about climatesmart agricultural practices, we are now more informed and better equipped about cassava

production and hope to use this knowledge to improve our yields," said Misses Unu, a farmer from Nigeria, as he sat on the field after the harvest, looking at the piles of large cassava roots. He and many other local farmers in over a dozen African countries participated in field demonstration trials run by the joint IAEA/FAO Centre in the IAEA's Department of Nuclear Science and Applications. This was aimed at training them to grow more and better-quality cassava using nuclear and related climatesmart agricultural techniques.

The trials were conducted from 2021 to 2023 and continue to take place in a number of countries.

Cassava is a starchy root vegetable that looks like a sweet potato. It is the third most important source of calories in the tropics after rice and maize. First brought to Africa by Portuguese merchants from Brazil in the 16th century, over the years it has

become the continent's most produced cash crop, deeply embedded in local cuisine.

Literally, every part of this crop can be used. While the leaves are rich in protein, the root can be boiled, steamed, fried, cut into chips or turned into starch, flour or animal feed. Cassava is also relatively easy to grow as it adapts well to harsh environmental conditions, including high temperatures and drought.

Due to its hardiness, farmers often think there is no need to apply nutrient and water to grow cassava, but after a few years, this leads to nutrient-mining and low crop productivity.

To enhance food security and increase the incomes of cassava farmers, the IAEA launched a technical cooperation project in 2020 in collaboration with local research institutes and farmer associations in Africa.



Farmers in several African countries were able to double and even triple their cassava yields by applying nutrient, water and soil management practices, developed by experts from the Joint FAO/IAEA Centre of Nuclear Techniques in Food and Agriculture.

Nuclear science gives clues to best farming practices
As part of the project, researchers and farmers in Africa were trained in the application of nuclear techniques for cassava production. For healthy plant formation, growth, photosynthesis and metabolism, cassava requires 17 essential nutrients, particularly nitrogen, potassium and phosphorus in a specific ratio.

Deficiencies in these nutrients in the soil result in poor yields, while excessive application of fertilizers containing these nutrients can pollute surface and ground water and increase emissions of greenhouse gases. Isotopic techniques can help assess plant uptake of added fertilizers and track their movement in the soil, plant, water and atmosphere.

"Nuclear science helps us better understand the exact amount of nutrients cassava needs and helps farmers apply fertilizers in the most effective way at the right stage of the plant's life cycle," said Mohammad Zaman, a soil scientist at the Joint FAO/IAEA Centre.

The training provided through the IAEA technical cooperation programme also included isotopic techniques using Nitrogen-15 (15N) to measure the efficiency of fertilizer use and cosmic ray neutron sensors, which help determine precisely how much nutrients and water cassava needs to thrive. "The data collected through these methods can guide farmers on how to apply nutrients and water more efficiently to minimize their wastage," added Zaman.

A farmer's guide to climate-smart agriculture

A farmer in Central Africa Republic is transporting cassava tubers after harvest. (Photo: M. Zaman/ IAEA)

By applying climate-smart agricultural practices, cassava yields can be significantly improved. For example, around 13 per cent of improvement in yields comes from planting clean and healthy rooted cuttings, 17 per cent comes from enhancing soil fertility and 16 per cent comes from controlling insect pests and diseases.

To help farmers achieve better results, experts from the Joint FAO/IAEA Centre of Nuclear Techniques in Food and Agriculture prepared step-bystep production guidelines which include information on selecting improved cassava varieties, preparing planting materials, managing soil and water resources, applying fertilizers and nutrients, controlling insects, pests and diseases, as well as harvesting and postharvest processing.

Subsequently, several training sessions on the application of these methods and on-farm trials were organised for farmers in Burundi, the Central African Republic, Ghana, Nigeria and Rwanda.

In Ghana, cassava is the most important staple crop. Its production contributes about 22 per cent of agricultural GDP and employs over 70 per cent of all farmers, making the country one of the top five cassava producers in Africa. The vegetable is traditionally cultivated by smallholder farmers, who use it to prepare a variety of traditional cassava dishes, including fufu, cassava dough, or banku, a mixture of cassava and corn doughs.

The average yield in Ghana is 14 to 21 tonnes per hectare. Through the technical cooperation project, the application of climate-smart agricultural practices recommended by the Joint IAEA and FAO Centre of Nuclear Techniques in Food and Agriculture helped more than triple the yields, depending on the farming site, the variety and the amount of organic and chemical fertilizers applied. Field demonstration trials showed an increase from around 20 tonnes per hectare to over 70 tonnes.

Similar, and even higher results were observed in other countries. In Burundi, where conventional farming yields around 12 tonnes per hectare, nuclear-based methods helped to reap over 37 tonnes. In Rwanda, the use of climate-smart agriculture increased yields from less than 15 tonnes to almost 62 tonnes. In the Central African Republic, the field trials made it possible to harvest around 50 tonnes, compared with an average of 10 tonnes.

Cassava helps generate income, create jobs and guarantee food security for millions of Africans. "The IAEA will continue to help countries in applying nuclear science-enhanced farming techniques for growing cassava to strengthen economies, spur development and reinforce food security on the African continent," Shaukat Abdulrazak, Director of

CREAM OF THE CROP: The African Firms Showing Why Foodtech Is The Future

Food is the future and these proactive startups are focused on shifting agricultural practices to prepare for what is to come.

Agriculture has always been a core component of Africa's economic viability. And where it's estimated that 140 million people in Africa face acute food insecurity, the continent's ability to produce food efficiently is vital. As many individual countries wrestle with inadequate governments, there has been a spate of proactive startups focused on revolutionizing the food system across Africa.

From a continent- spanning online marketplace changing the way African farmers do business to a technology platform focused on producing cultivated meat alternatives and a company using technology to convert arid desertland into agricultural areas, these are the firms showing the way in foodtech in Africa.

'Just like the Nile River was pivotal…' Farming and selling produce can be inefficient and costly for farmers in Africa, despite being one of society's oldest practices. Nile, a B2B marketplace, wants to change this. By connecting farmers directly with commercial produce buyers, Nile is reshaping produce trading while empowering farmers across southern Africa.

Founded in 2020 in South Africa by Louis de Kock, Eugene Roodt, and Rick Kleinhans, whose collective experience spans Amazon, JP Morgan and Luno, Nile came from the idea that tech can modernize agricultural trade.

"In 2020, farmers were still distributing their products in the same way my grandfather did in the 1950s, which was surprising given how much has changed since then, both tech and logistics," De Kock reflects. Seeing these outdated distribution methods encouraged them to explore tech solutions, resulting in an online marketplace.

In a nutshell, Nile facilitates connections between farmers and buyers, minimizing costs

and preserving perishable produce. Through Nile's online marketplace, farmers list their produce for global buyers, securing instant orders and secure payouts, allowing farmers greater control over pricing. "By digitizing transactions, we can improve transparency, while reducing transaction fees," he adds. The logistics network then ensures efficient routes to buyers, either via direct delivery or consolidated loads through Nile's cross-dock hubs.

Further to this, their recentlylaunched inputs marketplace, coupled with financial support for farmers has revolutionized logistics, but perhaps most importantly, it's helping farmers find the best market for their produce.

"We want to become central to a farmer's everyday existence by providing a comprehensive suite of digital services to enhance transacting and trading, with the data and predictive analytics as the golden thread," says De Kock.

Nile operates in 12 African countries, and now calls



itself "the largest fruit and vegetable online marketplace on the continent".

Operating in a region with high food insecurity means sustainability is vital here, and Nile's tech facilitates it. "Food waste is dramatically reduced compared to traditional markets since all produce is pre-sold to buyers in 40+towns and cities and thus does not degrade over time on a market floor," says De Kock.

In addition to this, Nile's logistics maintains multiple temperature zones for cold chain management while minimizing food miles.

"Just like the Nile River was pivotal to the development of agricultural production and trade across African countries, we believe our name is symbolic of our mission," says De Kock.

As buyer demand continues to grow, so does the market for quality, affordable produce and Nile seems to be changing the game for African farmers.

'A model that not only combats desertification...'
Further afield, Sand to Green focuses on agroforestry for arid regions. It converts barren land into fertile agricultural areas using pioneering agroforestry practices and advanced technology.

Founded by Wissal Ben Moussa, Gautier de Carcouët, and Benjamin Rombaut, the company wants to make desert areas agriculturally productive while contributing to CO2 capture and biodiversity enhancement, effectively overhauling these agricultural landscapes.

Sand to Green was formed in response to the challenges of food security and environmental sustainability in dry regions; image supplied Formed in response to the challenges of food security and environmental sustainability in dry regions, particularly in Morocco and broader Africa, the founders saw the need for eco-friendly agricultural practices in these challenging environments.

Traditional farming methods exacerbate issues like soil degradation and water scarcity, affecting vast areas of agricultural land and, in turn, populations in Africa. Sand to Green's model integrates agroforestry with solar-powered desalination, drawing inspiration from ancient oasis ecosystems, a 7,000-year-old agroforestry system.

"Our vision was to develop a model that not only combats desertification... but also enhances local food production," says co-founder Rombaut. Morocco presented the ideal climate, showcasing the need to balance food security with environmental restoration. "Our approach addresses water scarcity by using sustainable desalination, tapping into the region's abundant solar energy," he adds. "This model not only meets the immediate need for more food production but also promotes environmental sustainability, offering a blueprint for similar arid regions globally," adds Moussa. Sustainability is at the core of this operation. The supply chain focuses on local resources and labor,

supporting regional economies and reducing transport-related carbon emissions. In arid regions, their solar-powered desalination technology lowers water usage, while recycled brine from the desalination process is used to cultivate halophyte plants.

Their practices also reduce dependence on chemical fertilizers and pesticides, aligning community well-being with an environmental one. Driven by the belief in locally- adaptable solutions, Sand to Green hopes to influence global agricultural practices.

"We strive for a future where sustainable agriculture is central to solving global food and environmental challenges," Rombaut says. They show how sustainable agriculture can thrive in challenging environments without compromising ecosystem integrity, an idea that will hopefully shift agricultural practices globally.

'...replicate the conditions of an animal, just outside of the animal'

In Cape Town, Newform Foods wants to revolutionize the food industry through cultivated meat production. Promising a more ethical protein alternative using leading bioprocessing technology and proprietary methods, Newform allows food producers to manufacture animal-friendly products. "We are producing the ability to scale cultivated meat intended for other companies within the food and meat industry," says Brett Thompson, who cofounded Newform along with Tasneem Karodia.

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Jiang Song, the general manager of fish equipment manufacturer Wuhan Jianuo, visiting a client in Africa | Photo courtesy of ChinaDaily.com

Later this year, Chinese officials in Beijing are set to welcome ambassadors from several African nations for the ninth edition of the Forum on China-Africa Cooperation (FOCAC), previous editions of which have led to the inking of many Chinese-backed infrastructure projects in Africa.

China has the largest diplomatic presence in Africa of any nation, operating 60 diplomatic posts across the continent. Economic ties between China and Africa have deepened in recent years, with China surpassing the United States to become Africa's largest trading partner in 2009. Several African nations are increasingly looking to China to help them grow their seafood industries, and numerous African seafood industry development projects are expected to get backing at the 9th annual FOCAC this fall in Beijing.

Angola is pushing into aquaculture, seeking Chinese backing to do so. Cheng Feng, charge d'affaires of the Chinese embassy in Angola, met with Angolese Fisheries Minister Cármen do Sacramento Neto in late 2023 to discuss how the southwest African country can hit its target of having 55 percent of its employment stem from the agriculture and fisheries sectors. That goal is gaining steam, with related projects including Beijing-based Haishan Group announcing an aquaculture project near the Angolese capital of Luanda pushing the country toward achieving the objective.

Elsewhere, Chinese companies are participating in wild-catch fishery projects across Africa. Salim Mvurya, Kenya's minister of mining, the blue economy, and maritime affairs, hailed the first shipment of Kenyan anchovies to China from a plant operated by Chinese-owned Jinzai Foods Group recently as a historic moment for the country.

Jiang Song, the general manager of fish equipment manufacturer Wuhan JiaNuo, is described in Chinese state media as "Africa's fishing king," celebrating the businessman's success selling nets and other fishing equipment to African buyers. Jiang has a liaison

office in the Nigerian capital of Lagos, through which it supplies Africa's fishing industry. It also sells via Chinese e-commerce platforms such as Alibaba and Temu. Jian and other equipment vendors have been boosted by Chinese state media, which has promoted Chinese fishery expertise and equipment as boosting economic development in Africa.

Africa's seafood sector has also benefitted from training provided by Chinese experts. He Wang, the deputy director of the Hunan Fisheries and Environment Research Department, has traveled across Africa as a statefunded expert for more than two decades, transferring know-how to fish farmers in Ethiopia and Zimbabwe. Similarly, Jing Xiao Jun, the head of the freshwater division at the China Fisheries Academy, which has campuses that frequently train visiting delegations from developing countries, has trained African aquaculturists on seed, feed, and pond construction technology.





Agricultural Consultancies

- ICS France
- Valtra Inc. Africa

Agricultural Equipment - General

- Alvan Blanch Development Ltd.
- Baldan/Pan Trade Services Ltd.
- Bentall Rowlands Storage Systems Ltd.
- Briggs & Stratton AG
- Case IH
- Deutz-Fahr
- Eurodrip SA
- Fairtrade GmbH & Co. KG
- ICS France
- Micron Group
- New Holland Agriculture
- Nogueira/Pan Trade Services Ltd.
- SAME
- Valtra Inc. Africa

Agricultural Projects

- Bentall Rowlands Storage Systems Ltd.
- Eurodrip SA
- ICS France
- Symaga SA

Animal Health Products

- BioPoint
- Socorex Isba SA

Applicators for Granular Insecticides, Herbicides

Guarany Ind. Com. Ltd.

Automatic Chain Feeders

Big Dutchman International GmbH

Bagging plant

Bentall Rowlands Storage Systems Ltd.

Bale Handling Equipment

Nogueira/Pan Trade Services Ltd.

Biofuel/Biodiesel

Bentall Rowlands Storage Systems Ltd.

Briquetting Plants

Alvan Blanch Development Ltd.

Bulk Storage Equipment

- Alvan Blanch Development Ltd.
- Bentall Rowlands Storage Systems Ltd.
- Chief Industries UK Ltd.

- KEPLER WEBER
- Symaga SA
- The GSI Group South Africa (Pty) Ltd.

Cages & Batteries

Big Dutchman International GmbH

Cassava Processing Equipment

· Alvan Blanch Development Ltd.

Centre Pivot Equipment

Valmont Irrigation

Cocoa Production

• Alvan Blanch Development Ltd.

Coffee Processing, Handling & Storage

Swingtec GmbH

Computers & IT Equipment

• Big Dutchman International GmbH

Conveyors and Elevators

- Awila Anlagenbau GmbH
- Big Dutchman International GmbH
- KEPLER WEBER
- Lubing Maschinenfabrik
- Gmbh & Co. KG

Coolers - Environmental

• Big Dutchman International GmbH

Coolers - Evaporative

- Lubing Maschinenfabrik
- Gmbh & Co. KG

Cotton Handling & Storage

Swingtec GmbH

Crop Drying and Ventilation

- Alvan Blanch Development Ltd.
- The GSI Group South Africa (Pty) Ltd.

Crop Handling & Storage

- Alvan Blanch Development Ltd.
- Bentall Rowlands Storage Systems Ltd.
 Chief Industries UK Ltd.
- Griffith Elder & Co. Ltd.
- Swingtec GmbH

Crop Protection Equipment

- Bentall Rowlands Storage Systems Ltd.
- Jacto/Pan Trade Services Ltd.
- Swingtec GmbH

Cultivators

- Baldan/Pan Trade Services Ltd.
- LEMKEN GmbH & Co. KG
- Poettinger

Cultivators - Tined

- Bomford
- Briggs & Stratton AG
- Maschio Gaspardo S.p.A

Disinfectants

· Intraco Ltd. n.v

Drills

Maschio Gaspardo S.p.A

Drinking Systems

- Big Dutchman International GmbH
- Fairtrade GmbH & Co. KG
- Lubing Maschinenfabrik
- Gmbh & Co. KG

Dryers

Alvan Blanch Development Ltd.

Egg Collection

Big Dutchman International GmbH

Egg Layer Breeding Stocks

Lohmann Tierzucht GmbH

Egg Layer Parent Breeders - Brown

Lohmann Tierzucht GmbH

Egg Layer Parent Breeders - White

Lohmann Tierzucht GmbH

Egg Layers

Lohmann Tierzucht GmbH

Exhibitions and Conferences

• Fairtrade GmbH & Co. KG

Extruders for Food, Feed

Alvan Blanch Development Ltd.

Feed Additives

BioPoint



- Coprex
- **Evonik Industries AG**
- Intraco Ltd. n.v
- Varied Industries Corporation (Vi-COR®)

Feed Concentrates

Intraco Ltd. n.v

Feed Growth Promotant Probes

Varied Industries Corporation (Vi-COR®)

Feed Ingredients

- Coprex
- Intraco Ltd. n.v

Feed Premixes

- Coprex
- Intraco Ltd. n.v

Feed Processing Plants

- Alvan Blanch Development Ltd.
- Bentall Rowlands Storage Systems Ltd.

Feed Supplements

- **RioPoint**
- Varied Industries Corporation (Vi-COR®)

Feeding Systems

Big Dutchman International GmbH

Fertiliser Spreaders

- Baldan/Pan Trade Services Ltd.
- Guarany Ind. Com. Ltd.
- Maschio Gaspardo S.p.A
- **PICHON**

Fertilisers

- Hebei Monband Water Soluble
- Fertilizer Co. Ltd.
- Omex Agrifluids Ltd.

Fish Farming

Socorex Isba SA

Fish Feeds - General

Alvan Blanch Development Ltd.

Fogging Machines

- Big Dutchman International GmbH
- Swingtec GmbH

Foliar Fertilisers

- Hebei Monband Water Soluble
- Fertilizer Co. Ltd.
- Omex Agrifluids Ltd.

Food Processing Equipment

F.H. Schule Muehlenbau GmbH

Forage Harvesters

- Case IH
- New Holland Agriculture
- Nogueira/Pan Trade Services Ltd.
- Poettinger

Forestry Equipment

- Bomford
- Guarany Ind. Com. Ltd.
- Valtra Inc. Africa

Fruit Processing

Alvan Blanch Development Ltd.

Generating Sets

Briggs & Stratton AG

Genetic Research

Lohmann Tierzucht GmbH

Grain - Drying & Ventilation

- Alvan Blanch Development Ltd.
- Bentall Rowlands Storage Systems Ltd.
- Chief Industries UK Ltd.
- KEPLER WEBER

Grain - Handling, Cleaning & Processing

- Alvan Blanch Development Ltd.
- Awila Anlagenbau GmbH
- Bentall Rowlands Storage Systems Ltd.
- Chief Industries UK Ltd.
- F.H. Schule Muehlenbau GmbH
- KEPLER WEBER
- Privé SA

Grains, Grain Projects & Edible Oils

Bentall Rowlands Storage Systems Ltd.

Grasscutting Machines - Forage

- Nogueira/Pan Trade Services Ltd.
- Poettinger

Grasscutting Machines - Lawn

Briggs & Stratton AG

Groundnut Handling Equipment

Alvan Blanch Development Ltd.

Harrows

- Baldan/Pan Trade Services Ltd.
- John Deere (Pty) Ltd.

Harvesting Equipment

- Alvan Blanch Development Ltd.
- Bentall Rowlands Storage Systems Ltd.
- Deutz-Fahr
- John Deere (Pty) Ltd.
- New Holland Agriculture
- Nogueira/Pan Trade Services Ltd.
- **Bomford**

Horticultural Equipment & Machinery

- Guarany Ind. Com. Ltd.
- **ICS France**
- Micron Group Swingtec GmbH

Horticultural Fertilisers

- Hebei Monband Water Soluble
- Fertilizer Co. Ltd.

Integrated Pest Management

- Omex Agrifluids Ltd.
- Swingtec GmbH

Irrigation & Drainage Systems

Valmont Irrigation

Irrigation Equipment

- Furndrin SA
- **ICS France**
- Valmont Irrigation

Maize Shellers

- Alvan Blanch Development Ltd.
- Bomford
- Nogueira/Pan Trade Services Ltd.

Manure Composters & Dryers

PICHON

Material Handling

- Bentall Rowlands Storage Systems Ltd.
- **PICHON**

Material Handling - Bulk

Bentall Rowlands Storage Systems Ltd.

Medicators

Big Dutchman International GmbH

Micronutrients

Omex Agrifluids Ltd.

Milk Replacers

Coprex

Milling & Mixing

- Alvan Blanch Development Ltd.
- Big Dutchman International GmbH

Mills

- Alvan Blanch Development Ltd.
- Big Dutchman International GmbH
- Privé SA

Mills - Grain

- Bentall Rowlands Storage Systems Ltd.
- F.H. Schule Muehlenbau GmbH
- Noqueira/Pan Trade Services Ltd.
- Privé SA
- Silos Cordoba S.L.

Mills - Hammer

- Awila Anlagenbau GmbH Nogueira/Pan Trade Services Ltd.

Monitoring Equipment Valmont Irrigation

Oil Extraction Equipment Alvan Blanch Development Ltd.

Packaging Machinery

Fairtrade GmbH & Co. KG

Palletizers

Big Dutchman International GmbH

Pelleting

Alvan Blanch Development Ltd.

Awila Anlagenbau GmbH

Pig Equipment

- Big Dutchman International GmbH
- Lubing Maschinenfabrik
- Gmbh & Co. KG
- Symaga SA

Pig Feeding/Drinking Equipment

- Big Dutchman International GmbH

The GSI Group South Africa (Pty) Ltd.

Pig Flooring

Big Dutchman International GmbH



Pig Health Products

- **OLMIX**
- Socorex Isba SA

Pig Housing

- Big Dutchman International GmbH
- Silos Cordoba S.L.

Plant Protection Chemicals

Omex Agrifluids Ltd.

Planters

- Baldan/Pan Trade Services Ltd.
- John Deere (Pty) Ltd.
- Poettinger

Plastic Flooring, Poultry

Big Dutchman International GmbH

Ploughs - Disc

- Baldan/Pan Trade Services Ltd.
- Vellag Ltd.

Ploughs - Mouldboard

- John Deere (Pty) Ltd.
- LEMKEN GmbH & Co. KG
- Poettinger

Poultry Consultancy Services

BioPoint

Poultry Equipment - Drinking

- Big Dutchman International GmbH
- Lubing Maschinenfabrik
- Gmbh & Co. KG
- Silos Cordoba S.L.
- The GSI Group South Africa (Pty) Ltd.

Poultry Equipment/Handling

Bentall Rowlands Storage Systems Ltd.

Poultry Feeding

- Bentall Rowlands Storage Systems Ltd.
- Big Dutchman International GmbH

Poultry Health Products

- BioPoint
- OLMIX

Poultry Housing

- Big Dutchman International GmbH
- Silos Cordoba S.L.
- Symaga SA

Public Health

- Guarany Ind. Com. Ltd.
- Swingtec GmbH

Pumps

Briggs & Stratton AG

Rice Parboilers

- F.H. Schule Muehlenbau GmbHSAME
- Rice Processing & Milling Equipment
- Alvan Blanch Development Ltd.
- Bentall Rowlands Storage Systems Ltd.
- F.H. Schule Muehlenbau GmbH

Rice Threshers

Noqueira/Pan Trade Services Ltd.

Roll-out Nests

36

Big Dutchman International GmbH

Seed

ICS France

Seed Cleaning Equipment

Alvan Blanch Development Ltd.

Seed Planting Equipment

- Baldan/Pan Trade Services Ltd.
- LEMKEN GmbH & Co. KG

Silos

- Alvan Blanch Development Ltd.
- Awila Anlagenbau GmbH
- Bentall Rowlands Storage Systems Ltd.
- Big Dutchman International GmbH
- Chief Industries UK Ltd.
- KEPLER WEBER
- Privé SA
- Silos Cordoba S.L.
- Symaga SA
- The GSI Group South Africa (Pty) Ltd.

Slurry Disposal

PICHON

Soluble Fertilisers

- Hebei Monband Water Soluble
- Fertilizer Co. Ltd.
- Omex Agrifluids Ltd.

Spare Parts for Fork Lift Trucks

Vellag Ltd.

Sprayers

- **GOIZPER GROUP**
- Guarany Ind. Com. Ltd.
- Jacto/Pan Trade Services Ltd.
- LEMKEN GmbH & Co. KG
- Maschio Gaspardo S.p.A

Sprayers - Crop

- **GOIZPER GROUP**
- Guarany Ind. Com. Ltd.
- Jacto/Pan Trade Services Ltd.
- Micron Group

Spraying Nozzles & Components

- **GOIZPER GROUP**
- Guarany Ind. Com. Ltd.
- Jacto/Pan Trade Services Ltd.
- Micron Group

Stored Products Protection

Swingtec GmbH

Sugar Cane Equipment

Case IH

Sugar Cubing Machinery

Valtra Inc. - Africa

Threshing Machines

Nogueira/Pan Trade Services Ltd.

Tillage

- LEMKEN GmbH & Co. KG
- Maschio Gaspardo S.p.A

Trace Elements

Hebei Monband Water Soluble

- Fertilizer Co. Ltd.
- **OLMIX**
- Omex Agrifluids Ltd.

Tractors

- Case IH
- Deutz-Fahr
- John Deere (Pty) Ltd.
- New Holland Agriculture
- SAME
- Valtra Inc. Africa
- Vellag Ltd.

Tractors - Spare Parts/Attachments

- Case IH
- Deutz-Fahr
- New Holland Agriculture
- SAME
- Vellag Ltd.

Trade Shows

Fairtrade GmbH & Co. KG

Traders in Agricultural Equipment, General

Vellag Ltd.

Turnkey Operations

Bentall Rowlands Storage Systems Ltd.

Turnkey Operations

- Agricultural/Industrial Schemes
- Bentall Rowlands Storage Systems Ltd.
- Valmont Irrigation

ULV Spraying Equipment

- GOIZPER GROUP Guarany Ind. Com. Ltd.
- Swingtec GmbH

Vacuum Cleaners

PICHON

Ventilating Equipment Big Dutchman International GmbH

Veterinary Products/Equipment -

General Socorex Isba SA

Waste Disposal Equipment Big Dutchman International GmbH

Weed Control

GOIZPER GROUP

Weighers - Animal

- Big Dutchman International GmbH
- Griffith Elder & Co. Ltd.

Weighers - Grain

Griffith Elder & Co. Ltd.

Weighing - Sack Filling

- Alvan Blanch Development Ltd.
- Griffith Elder & Co. Ltd.

Weighing Equipment

- Big Dutchman International GmbH
- Griffith Elder & Co. Ltd

HYDAC

Hydraulic & Fluid Technology for Agricultural Machinery

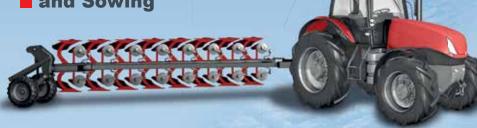
Solutions for Self-Propelled Harvesting Machinery

Working hydraulics for self propelled harvesting machinery such as:

- Load sense pumps
- Load sense valves
- Filters
- · Cooling systems
- · Tank optimization
- Sensors
- Displays







Modular hydraulic manifolds for

- · Headland control
- Electro-hydraulic plough control
- Depth control
- ISOBus control technology with remote monitoring.

Solutions for Fertilisation
Technology and Crop
Protection

Diesel Filtration

HDP 1200

HDP 240

HDP 240

50 100 300 500 700 1500 3000

Engine performance class [kW]

Suction side pre-filter and water trap for diesel engines up to 3,000 kW with fully synthetic filter material to protect all components in the fuel system.

- Excellent water separation
- Long service life
- High contamination retention capacity

- Electro-hydraulic speed control of fertilizer spreader drives
- Boom suspension valving and active control of booms on trailed field sprayers
- Simulation technology
- Hydropneumatic axle suspension
- ISOBus control technology with remote monitoring.

(HYDAC)

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