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MEET THE NEW-LOOK GROWINBAG™



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AGRIBITS SUMMIT 2024 (SEPTEMBER 5 & 6 2024, THE NETHERLANDS): THE NEW STAGE FOR TRANSFORMATION IN AGRI-FOOD SOLUTIONS

AgriBITS Summit 2024, is being introduced by the organizers of VIV Worldwide, as the new event, embracing innovation and spreading the knowledge on all things Artificial Intelligence (AI), Internet of Things (IoT) and Digitalization for sustainable food production. The summit will delve into crucial topics shaping the future of the agri-food industry, covering solutions from

arable farming, indoor agriculture to animal farming.

Attendees, mainly comprising of leadership teams, R&D professionals, Product Managers and Engineers from agrifood machinery and equipment manufacturers, can expect an insightful exploration of Digitalization & AI, covering relevant tools, enabling technologies, big data

availability, policy implementation and the transformative power of computing data. The audience at AgriBITS Summit 2024, will have the chance to advance on perspectives on reducing emissions, optimizing water and energy usage, and improving animal welfare. The goal is to outline a roadmap for the industry's future that aligns with global sustainability goals.

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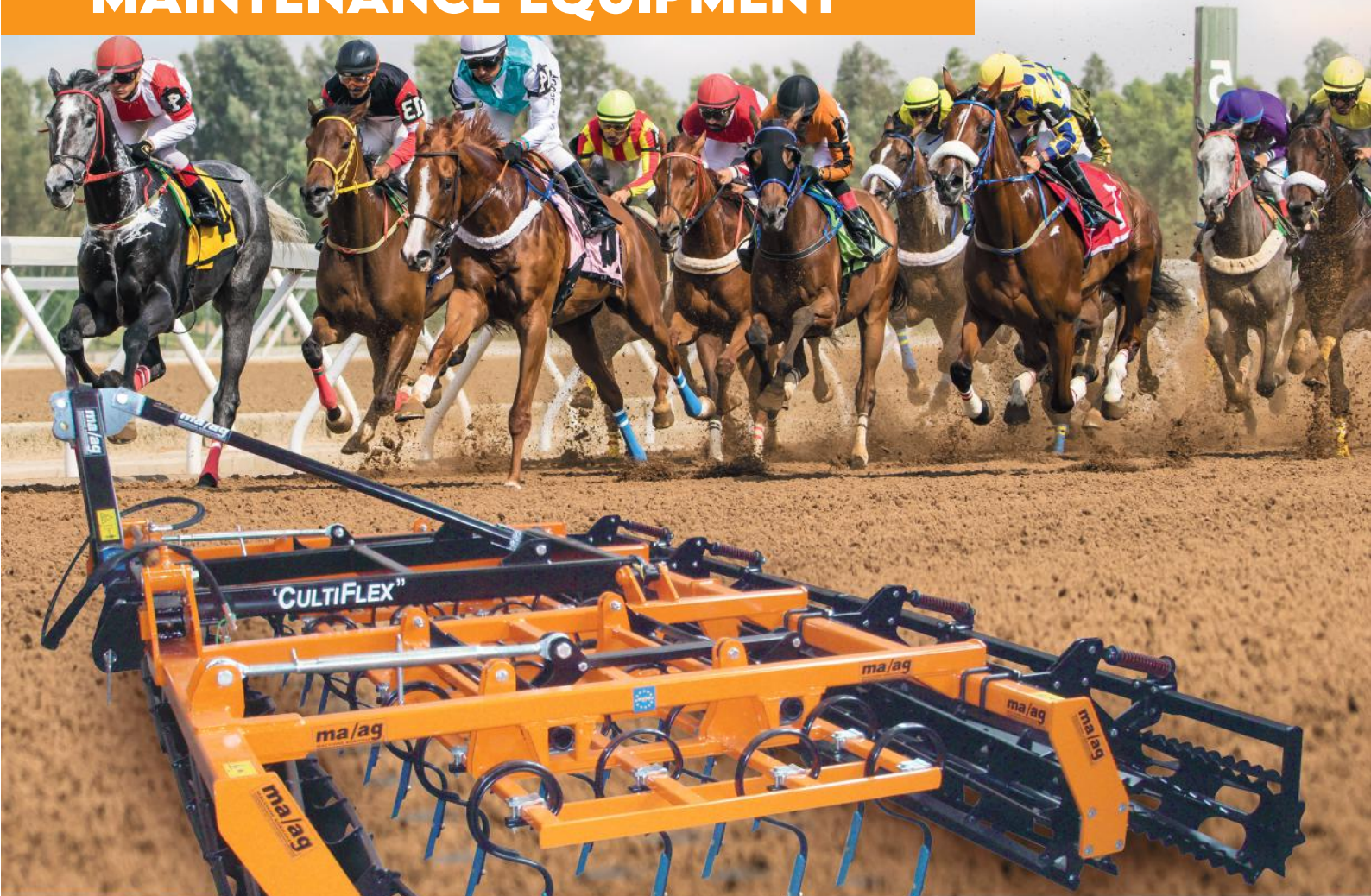
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EMEAA BROILER SCHOOL ENHANCES BROILER MANAGEMENT FOCUS

Aviagen® was excited to welcome 33 students representing 18 countries to Edinburgh for the 2023 Aviagen Europe, Middle East, Africa, and Asia (EMEAA) Production Management School Broiler Module, which took place Nov. 26-Dec 2. The students hailed from diverse backgrounds across EMEAA, united by their shared passion for poultry and a strong desire to exchange experiences and knowledge. Discussions centered on finding effective and innovative methods to maximize broiler health and efficiencies, ultimately driving economic benefits for their businesses and contributing to environmental sustainability.

Tutors, consisting of Aviagen experts and guests from the wider poultry industry, shared their insight into crucial broiler topics such as male management and physiology, disease control, and water quality. An interactive biosecurity exercise allowed students to gain practical expertise in an essential aspect of food safety and security.

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ABU DHABI AGRICULTURE AND FOOD SAFETY AUTHORITY TO SUPPLY RECYCLED WATER TO 1,600+ FARMS IN THE EMIRATE

Abu Dhabi Agriculture and Food Safety Authority (ADAFSA) has launched a delivery plan to distribute recycled water to more than 1,600 farms in the emirate.

The plan will be in collaboration with its strategic partners, the Department of Energy - Abu Dhabi, the

Environment Agency - Abu Dhabi (EAD), in addition to TAQA, Abu Dhabi and Al Ain Distribution Company, and Abu Dhabi Sustainable Water Solutions Company.

Abu Dhabi's plan to expand the use of recycled water in agriculture is in line with its overall sustainability goals, as

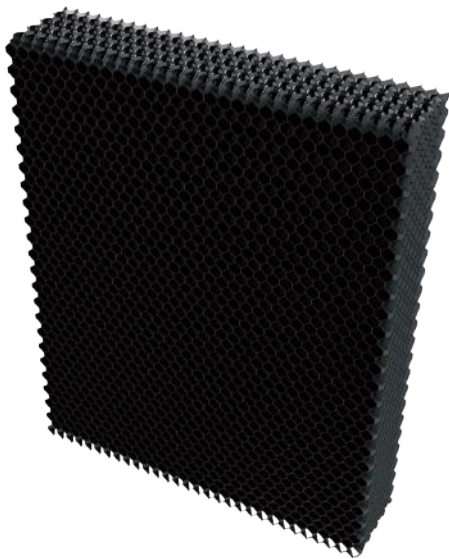
recycled water is one of the important and necessary options to reduce pressure on groundwater resources and can be used in various development sectors, including agriculture. This will ensure the sustainability of agricultural production and reduce the depletion of natural water resources.

TAQA and its subsidiaries have constructed the pipelines, which will distribute approximately 150,000 cubic metres per day to farms in Al Khatam, Khazna and Nahda areas to meet their recycled water needs at a rate of 73 cubic metres per day for each farm, equivalent to 16,500 gallons of water. The plan to use recycled water in agriculture will save large amounts of groundwater by eliminating the pumping of groundwater from approximately 4,850 wells in the Khatam and Khazna areas, helping to conserve non-renewable water resources and achieve optimal use of water resources and sustainability of the agricultural sector in Abu Dhabi.

The project is in line with the objectives of the UAE Water Security Strategy 2036, which aims to reduce water consumption by 21%, reduce the water scarcity index by three degrees, and increase the reuse of treated water to 95%, to ensure the sustainability and continuity of securing water supplies for all residential, commercial, government, industrial and agricultural uses. It is also consistent with Abu Dhabi's recycled water policy, which aims to maximise the use of recycled water, in addition to contributing to the rationalisation of groundwater use in agriculture and achieving integrated management and sustainable development of available water resources.

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EVONIK IS DEVELOPING A NOVEL MICROBIAL CONSORTIUM TO REDUCE ANTIBIOTICS IN POULTRY FARMING

Evonik's Biotech Hub is partnering with the Technical University of Munich (TUM) and RWTH Aachen to develop a novel bacterial consortium to strengthen the immune system of chickens and to prevent the colonization by pathogens of their intestinal tract. The aim is to enhance health and help reduce the use of antibiotics. Evonik is both a partner in the three-year joint Chicken Synthetic Microbiota (ChiSYN) project and the project coordinator. The total project volume is over €2 million and is funded by the project partners on a pro rata basis and by the Federal Ministry of Food and Agriculture (BMEL).

"For our health, we need healthy food and for that we need healthy animals," says Christoph Kobler, who heads the Biotech Hub. "Our innovative microbial consortium contributes to both animal health and sustainable human nutrition."

The aim of the project partners is to develop a prototype feed additive that makes sure that "beneficial microorganisms" colonize the gut of chicks. To achieve this, bacteria that strengthen the immune system and make colonization by pathogens more difficult are selected from a broad population of chickens. The project partners then

combine these microorganisms to create a novel consortium.

"In the development of this bacterial consortium, we benefit from our experience of gut simulation and the successful development of probiotics for livestock farming," says Stefan Pelzer, who heads the In Silico & Target Systems research unit at the Biotech Hub. Pelzer and his team have been working with the dynamic chicken gut simulation model "DAISy" since 2018. They use the findings to develop new gut health products and disruptive, high-precision nutritional concepts that take account of gut bacteria for the first time.



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MENA START-UP DOODA SOLUTIONS RECEIVES \$100,000 GRANT FROM PEPSICO TO SCALE SUSTAINABLE AGRICULTURAL SOLUTION

PepsiCo has announced Lebanon-based start-up Dooda Solutions as the winner of the second iteration of its Greenhouse Accelerator Program: MENA Sustainability Edition, in partnership with the UAE Ministry of Climate Change and Environment (MOCCAE) and FoodTech Valley (FTV). Dooda Solutions was selected from over 180 applicants, following a rigorous multi-stage selection process and six-months of mentorship, and will receive a \$100,000 grant, along with a host of other benefits, to scale their sustainable agricultural solution and grow their business.

Dooda Solutions, a woman-led earthworm farm, specializes in producing premium-grade vermicompost (organic fertilizers) at commercial scale. Its nutrient-rich vermicompost restores soil health by improving its

structure, increasing nutrient availability, and enhancing microbial activity. In the program's final stages, the team demonstrated a truly innovative and scalable solution with a commitment to pushing the boundaries of sustainable agriculture innovations.

The winner was announced at the closing ceremony held at Museum of the Future, following pitches and a product showcase by each start-up. The event drew participation from His Excellency Eng. Mohammed Mousa Alameeri, Assistant Undersecretary for the Food Diversity Sector at the Ministry of Climate Change and Environment, and Lāth Carlson, Executive Director of Museum of the Future. The expert judging panel comprised His Royal Highness Prince Khaled bin Alwaleed bin Talal Al Saud, Founder and

CEO of KBW Ventures; Sheikh Dr. Majid Al Qassimi, Founder & Partner of Soma Mater Management Consultancies; Wael Ismail, Vice President for Corporate Affairs at PepsiCo Africa, Middle East and South Asia; Alanoud Al Hashmi, CEO of SDG GLOBAL & Futurist; and George Shenouda, Africa Lead, Development and Investment at Masdar.

The program this year focused on sustainable agriculture in line with PepsiCo's sustainability strategy, pep+ (PepsiCo Positive). The AgriTech industry in MENA has attracted around \$250 million in funding in 2022, instilling confidence in regional start-ups and their innovation potential for sustainable agriculture. The Greenhouse Accelerator Program has created new growth opportunities in this space, helping the startup ecosystem flourish.

INTERNATIONAL CROP-SCIENCE EXHIBITION TO BE ORGANIZED ON 8TH & 9TH FEBRUARY 2024 AT JW MARIOTT, MARQUIS, DUBAI, UAE

After the immense success of the 17th Edition of International Crop-Science Conference & Exhibition (ICSCE) held in February 2023, the 19th Edition of ICSCE is being organized in Dubai, UAE for third consecutive year. ICSCE is India's biggest agri inputs Trade show with concurrent Exhibition driving Business Opportunities for agribusinesses for knowledge sharing and B2B.

The ICSCE provides great opportunity to stand distinguished amongst more than 1000 delegates to

promote the business, network, gain ample knowledge of Industry. You can choose from various types of Sponsorship's and exhibiting opportunities/meeting rooms for one-one meetings. Position yourself and stand out from others. The 17th Edition of ICSCE 2023, saw 1500 footfalls to the exhibition from Asia, South America, North America, Oceania, Africa, GCC & MENA Region and Europe.

ICSCE is a biggest and only Agri Input event for Agrochemicals (includes Fungicides, Herbicides,

Insecticides), Bioproducts (includes Bio pesticides, Bio Fertilizers, Bio stimulants and all biological products), AI and intermediate (solvents, Surfactants, intermediates etc.), Fertilizer, Packaging, Seeds, Storage & Logistics and Research Laboratories.

The event would also host PMFAI- SML Annual Agchem Awards ceremony at the gala night to award the contribution by the Industry in various category, witness the ceremony to know emerging global leaders from India.

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Our company was born about 40 years ago from dedication to plants and their well-being. Our location, Italy, especially Sicily, is a strong point that allows to try and grow in excellent weather conditions. It all starts with the cultivation in greenhouses.

Later, the nursery was inaugurated; it currently produces about 12 million plants annually: standard, grafted and organic ones.

Over time, the need for high quality seeds has arisen to the creation of Southern Seed S.r.l., which deals with the development and genetic improvement of new varieties through traditional selection and Marker Assisted Selection (MAS), production, processing and sale of seeds.

Our laboratories are equipped with the most modern equipment and formed by a young and professional team characterized by technology, innovation, respect for the ecosystem and always attentive to sustainability, like energy production mostly through solar panels and zero waste of water, one of the primary and essential sources.

Beyond laboratories, our research stations are another strength: there, new varieties are selected, our customers are welcomed to view products and the relationships with them are improved.

Our modern technologies gave birth to varieties that have made Southern Seed S.r.l. an important company within the international landscape.

Southern Seed deals specifically with: *Solanaceae*: tomato, eggplant, pepper, tomato rootstock, *Cucurbitaceae*: melon, watermelon, zucchini and *Brassicaceae*.

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Southern Seed aims to the success of growers and to the satisfaction of consumers, who are always looking for healthy and tasty products that can be enjoyed by everyone in the supply chain.

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SILAL AND BAYER FORGE PIONEERING PARTNERSHIP TO DRIVE OPEN INNOVATION IN AGRICULTURE

Silal and Bayer, a global leader in life sciences with a strong focus on healthcare and nutrition, have joined forces in a pioneering collaboration set to strengthen the agricultural landscape in the United Arab Emirates (UAE), addressing climate change as a pivotal concern.

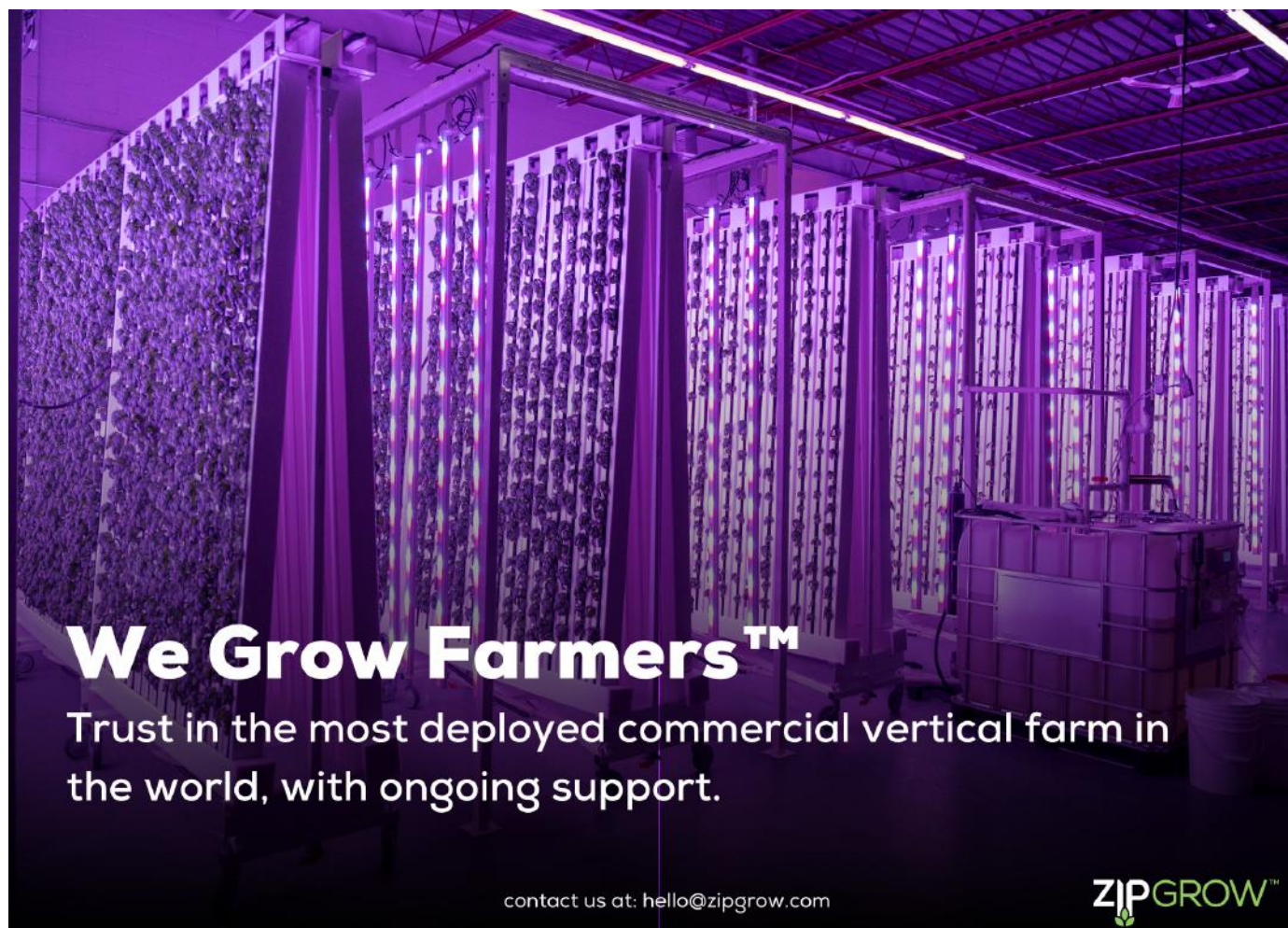
The partnership was announced during a signage ceremony of a Collaboration Agreement during the World Agri-Tech Innovation Summit in Dubai on December 4th, 2023, in attendance of key private and public sector stakeholders.

This strategic partnership represents a significant

milestone in the journey towards advancing best-in-class agricultural practices, especially under the challenging climatic conditions of the UAE, which are only expected to intensify due to the ongoing threat of climate change. Recognizing the vital role of agriculture in mitigating climate change and enhancing resilience, Silal and Bayer are steadfast in their commitment to bolster the agricultural sector in the battle against global warming. Together, Silal and Bayer will partner to enhance the capabilities of local agronomists, fostering an environment conducive to agricultural innovation and

excellence, leveraging Bayer's BayG.A.P. capacity building program.

The program encompasses modules on essential topics such as Integrated Pest Management, Safe Use, Crop Protection Products, Application Technology, and Irrigation. The implementation of the program foresees to follow a train-the-trainer approach. In the first step, agricultural engineers and farm managers will be trained. In the second stage, these trainers will then extend the capacity building efforts to potentially reach over 300 growers in the UAE, who are part of Silal's network.



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PURE HARVEST TO ACQUIRE REDSEA'S SAUDI ARABIAN FARMING OPERATIONS

Pure Harvest Smart Farms (Pure Harvest), a leading technology-enabled agribusiness, and RedSea (RedSea), a pioneer in climate smart technology solutions, announces the signing of a Letter of Intent (LOI) for Pure Harvest to take over RedSea's existing six-hectare controlled-environment agriculture (CEA) production facility near Riyadh, Saudi Arabia.

This strategic sale of its fresh produce business, which operates under the Red Sea Farms™ brand, is part of RedSea's strategic transition into a pure-play technology company, focusing on the development and commercialization of

AgriClimate technology solutions. It also aligns with Pure Harvest's expansion ambitions in the Kingdom of Saudi Arabia, and its continued business model innovations, now deploying an asset-light, technology-enabled service model termed "franchise farming," wherein Pure Harvest partners with incumbent farmers in any market to scale sustainable farming solutions worldwide.

The parties share an unwavering commitment to advancing climate-smart controlled-environment agriculture and enabling technologies to support the regions goals in food security, water conservation, economic

diversification, and sustainability.

Pure Harvest will assume operations of the farm in January 2024, and will immediately invest capital to enhance production and climate control capacities. The investment includes a large-scale integration of RedSea's cutting-edge iyris SecondSky™ technology, a revolutionary transparent, heat-blocking roofing solution enhancing energy efficiency inside greenhouses while reducing water consumption and improving crop health. iyris SecondSky™ received the prestigious AE50 and Davidson prizes for innovation in 2023.

AGRITECHNICA 2023: A POWERHOUSE OF INSPIRING INNOVATIONS

The world's leading trade fair for agricultural machinery, Agritechnica - held at the exhibition grounds in Hanover, Germany, from 12 to 18 November 2023 - has come to a close, boasting a record number of 470,000 visitors from 149 countries. 2812 exhibitors from 52 countries presented their innovations, products and services across 24 halls at the fully booked exhibition grounds.

Of the international visitors, 84 percent hailed from Europe, and 16 percent from outside Europe with a

particular increase from Central and South America. The trend of increasing international participation has been confirmed among both exhibitors and visitors. For farmers from France and Poland, the highlight was the International Farmers' Day on the Tuesday of the trade fair. Visitors from these countries benefitted from free admission and a tailored specialist program - held in their native languages - which attracted significant number of French and Polish professional attendees.

The organizer of Agritechnica, the DLG (German Agricultural Society), had chosen the guiding theme of "Green Productivity" for the global showcase of the international agricultural

machinery industry. As part of Agritechnica's technical program, some 400 experts taking part in more than 300 professional events provided answers to many questions of the future, placing the topics of productivity and resource conservation at a large international stage.

"As the world's leading trade fair for agricultural machinery, Agritechnica 2023 has demonstrated how highly innovative the industry is. After four years, exhibitors were finally able to present their wealth of innovations to the world here in Hanover once again," says Timo Zipf, Agritechnica Project Manager. "Everyone appreciated the opportunity for face-to-face discussions, exchanges and networking opportunities, also to make new business contacts," adds Zipf.

The next Agritechnica will take place from 9 to 15 November 2025.



NANOBOX TECHNOLOGY SET TO INCREASE CROP YIELDS WITH REVOLUTIONARY NANOUBBLES

Irish start-up NanobOx has secured first-round funding of €900,000 from a consortium of venture capital investors led by the international agrifood technology investor The Yield Lab, along with DeepE Ventures and Growing Capital. This funding will see the company complete field trials in agriculture, with the aim of going to market in 2024.

A spin-out from University College Dublin (UCD), NanobOx has developed novel, patented nanobubble generation technology that requires only a few watts of DC power and can be installed directly into water handling, storage and irrigation systems. Nanobubbles are the smallest possible size of bubble, having the highest rate of oxygen transfer.

“Our technology uniquely

generates nanobubbles in situ rather than injecting them into the water – using less power than a lightbulb,” explained Dr John Favier, CEO and co-founder of NanobOx with Trinity College Dublin engineering professor, Dr Mohammad Reza Ghaani, who developed the technology while at UCD.

“Nanobubble generation is therefore unaffected by the solids loading and is resistant to fouling.”

“Our technology continuously generates billions of nanobubbles per millilitre, regardless of the flow rate,” he added. “The unique method of generation, using an electric field, acts as a molecular filter so, when the source gas is air, the nanobubbles are enriched with oxygen.”

Maintaining dissolved oxygen concentration in water is critical to

almost all controlled biological processes, but the technologies employed in the \$50 billion-plus water aeration market are highly inefficient.

“We offer a nanobubble aeration solution for irrigated agriculture that does not require use of pure oxygen, has a small footprint and can be operated both in-line or sub-surface - enabling flexibility in deployment,” stated Dr Favier, “Our nanobubble aerators can be readily integrated into existing irrigation systems, indoor and outdoor, to increase crop yield and reduce input costs, and can be deployed in tanks, ponds and streams to oxygenate water to suppress algal growth, and enhance biological wastewater treatment.”

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HANNOVER FAIRS AUSTRALIA AND THE DLG ANNOUNCE STRATEGIC PARTNERSHIP TO HOST FUTUREAG EXPO 2024

Hannover Fairs Australia (HFA), the Australian subsidiary of Deutsche Messe AG, and the DLG (German Agricultural Society), a non-profit society that organizes agricultural exhibitions for knowledge-sharing, including Agritechnica, the world's leading trade fair for agricultural machinery, announced that they have entered a strategic partnership to jointly organise a new Australia-based event, "FutureAg Expo 2024 – Powered by Agritechnica", an agricultural machinery

exhibition reaching farm professionals in Australia, New Zealand and Asia Pacific.

Launching 17-19 April 2024 at Melbourne's showgrounds, the premiering "FutureAg Expo – Powered by Agritechnica" will be presenting numerous region-specific machinery and process solutions from agriculture, covering horticulture, livestock and aquaculture, that will offer visitors, including farmers and food processors, improved productivity and efficiency. Benefitting from DLG's successful farmer focused

approach for Agritechnica, the world's leading agricultural machinery exhibition, FutureAg Expo will further equip its visitors with professional knowledge through its extensive conference, interactive workshop, machinery trials and networking program.

FutureAg 2024, which will carry the official endorsement "powered by AGRITECHNICA" aims to become a Pacific hub for trends and solutions in precision farming, agribusiness strategies, and sustainable practices.

ICBA LAUNCHES MILLET DEMO FARM ON COP28 SIDELINES

The International Center for Biosaline Agriculture (ICBA) had recently hosted a ceremony to launch a Millet Demo Farm with the aim of contributing to the objectives of the International Year of Millets and COP28 on climate action, sustainable agriculture, food security and nutrition.

Established in collaboration with SELCO Foundation, the Millet Demo Farm is designed to showcase the whole value chain for millets - from seed production to consumption – and raise awareness about its benefits for climate change adaptation in agriculture.

Dr. Tarifa Alzaabi, Director General of ICBA, said: "As we work towards more sustainable and resilient agrifood systems, we must embrace neglected and underutilized crops such as millets. Not only are they climate-smart but are also nutrient-dense. So, millets can be a powerful tool in our efforts to adapt agrifood systems to climate change and improve food security and

nutrition. But this requires that we conduct applied research studies and scale up innovations to achieve a lasting impact."

Ms. Nirmita Chandrashekar, Senior Program Manager at SELCO

Foundation, said: "It is critical that we look at the entire MENA region adopting decentralized and sustainable clean energy-driven processing at the farm gate for smallholding farmers. Together with ICBA, we are ready to transfer knowledge to all countries where ICBA works."

Attended by over 40 delegates, the event also included statements by H.E. Eng. Mohammed Mousa Alameeri, Assistant Undersecretary for the Food Diversity Sector, Ministry of Climate Change and Environment of the UAE; H.E. Dr.



Abdulahakim Elwaer, FAO Assistant Director-General and Regional Representative for the Near East and North Africa; and H.E. Eng. Mohammad Jamal Alsaati, Special Advisor to the President of the Islamic Development Bank (IsDB). Participants, including CEOs of private companies and senior government officials from different countries, learned about ongoing millet trials at ICBA's research station and post-harvest processing machines, and tasted a variety of millet-based dishes.

FLANDERS WILL BE PRESENT FOR THE 40TH TIME AT THE IPM IN ESSEN

In 2024, Messe Essen will hold the international trade fair for plants for the 40th time. The IPM has long since established itself as the world's leading trade fair for horticulture. In this jubilee year, 32 Flemish horticultural companies will come along to present themselves at three joint stands under the umbrella of Flanders' Agricultural Marketing Board, VLAM.

Since the very first edition of the international horticultural fair in 1983, the Belgian companies have been coming to Essen every year. The course has already been set for this

40th participation: from 23 to 26 January 2024, 32 Flemish horticultural companies will present themselves to the international trade public:

Hall 2 - Stands B 25, D 26 & D 30: Dataflor, De Croock, De Vos-Hertschap, De Wilde John, Denis-Plants, Deroose Plants-Exotic Plants, Floramor, Helleborus, Herplant, Hortinno, Joluplant, Leybaert, Microflor, Pelargonium Decock, Plant Select, Romberama, Rudy Raes Bloemzaden, Bloemen Johan Verbeeck.

Hall 6 - Stand C 26: Block Jules, Bogaert Geert, Calle-Plant, Goossens Raf, Heyeveld, Laurica-Plants,

Rimbaut Peter Boomkwekerij, Van Poecke & zn, Vandamme Sierplanten, Vos Patrick Boomkwekerij.

Hall 8 – Stand C 42 & D 26: ADM Greentraders, Neyt-Van Sante, Sylva, Van Hulle B&C.

The VLAM joint stands look like stacked, brightly coloured cubes with eye-catching pictures of plants, trees and shrubs, standing out from a distance. In addition to the "FLANDERS/BELGIUM" logo, the slogan "WE GROW YOUR WAY" can be seen, conveying the tailored customer service of the Belgian players.



SELECTA ONE WITH PREMIERE AT IPM ESSEN

The well-known breeding and young plant company from Stuttgart is presenting a world premiere at IPM 2024.

The successful Dianthus breeder and marketer will be presenting a unique quality concept to visitors. Under the brand name LUCKY LIPS®, a new complete series of pot Dianthus will be introduced - 5 attractive varieties with the same product characteristics as the successful PINK KISSES®. They are characterised by a variety of slightly fragrant, bright flowers with a high colour brilliance. The interesting colour spectrum includes single- and bicolour varieties and combinations ranging from

white to pink and bright to intense red. The varieties have a compact, uniform, well-branched structure, excellent transport properties and a long shelf life.

New paths are being taken in marketing. As an independent brand, LUCKY LIPS® stands for happiness, urban living, and sociability. In a modern marketing appearance, they put a smile on the lips and create little moments of happiness. The attention-grabbing campaign can be

experienced in all relevant social media and print channels with an affinity for the target group. The campaign will be set-up in line with the communication activities of the participating retailers.



REGENERATIVE AGRICULTURE VENTURE PROGRAMME LAUNCHED TO ENABLE CLIMATE-RESILIENT AGRICULTURE IN MENAT

Goumbook, a leading social enterprise dedicated to accelerating sustainability and climate action, announced the launch of the Regenerative Agriculture Venture Programme.

Launched in partnership with HSBC Bank Middle East Limited and SAB (Saudi Awwal Bank), and supported by the European Institute of Innovation & Technology (EIT) Food, Goumbook's Regenerative Agriculture Venture Programme aims to empower and upskill researchers and students who are actively engaged in addressing the fundamental agricultural challenges facing the Middle East, North Africa and Turkey (MENAT) region.

The primary objective of the

programme is to chart a sustainable path toward a greener future by supporting innovative solutions in process methods and technology, addressing a broad spectrum of challenges including hunger, nutrition, climate change mitigation, and adaptation, among other matters. In doing so, it will position regenerative agriculture as a beacon of hope in the battle against the regional agricultural obstacles, fostering a more resilient and prosperous MENAT region for generations to come.

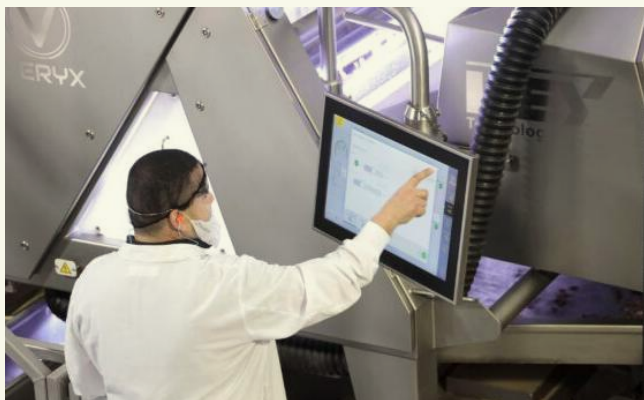
The solutions proposed by the participants must yield net beneficial economic, environmental, and social impacts for farmers and local

communities, tailored to the unique agricultural conditions of the MENAT region to drive sustainable, long-term change.

Recent research reveals that earth has only 60 years of nutritious topsoil left, equating to approximately 60 harvests, as a result of conventional agricultural practices. A thin layer of topsoil is responsible for 95% of all the food produced for human consumption.

The Food and Agriculture Organization (FAO) of the United Nations also reports that globally, conventional agriculture accounts for 72% of all surface and groundwater withdrawals, mainly for irrigation, which is straining and depleting water supplies in many regions.

KEY TECHNOLOGY INTRODUCES REMOTEMD® 2.0 FOR OPTICAL SORTERS



Key Technology ("Key"), a member of Duravant's Food Sorting and Handling Solutions group, introduces RemoteMD® 2.0 remote support service for their optical sorting systems. RemoteMD enables Key service technicians to securely connect to a customer's sorter for real-time remote monitoring as well as technical support. Now with 24/7 call center

support and delivery of quarterly status reports, RemoteMD 2.0 helps optimize equipment performance to protect food safety and ensure product quality while increasing

machine uptime and reducing service costs.

"The worldwide labor shortage has made technology experts difficult for food processors to hire and retain. With fewer skilled employees at our customers' facilities, we've identified ways we can help fill the gaps. Leveraging RemoteMD, we can take many machine maintenance tasks off the

customer's plate and improve their ROI by minimizing repair time and costs and reducing the chance of product recalls," said Jack Lee, Duravant Group President – Food Sorting and Handling Solutions. "When a food processor chooses a Key sorting system, we aren't just providing them with a machine – we're building a partnership that lasts the life of the system."

Establishing a secure two-way remote connection, RemoteMD provides a Key service technician with detailed information about the system's health and operating condition. The technician reviews the status of hardware and software and identifies potential improvements that can help the customer improve their system performance and uptime. When needed, RemoteMD facilitates the delivery and installation of software updates and patches.

ROBOBATCHER ROBOTIC PACKING OF CHICKEN TENDERS

Until now, in those markets where chicken tenders (aka tenderloins or inner fillets) are sold on trays for supermarkets, these packs have been put together by hand. Given the global shortage of labor, automation is the better option. That is exactly what Marel's RoboBatcher Flex for tenders does. Featuring a new gripper, the robot improves on a manual operation by speeding up the process, minimizing giveaway and achieving state-of-the-art styling

results.

Until now, the stream of tenders coming from the breast deboning equipment in a poultry processing plant has been processed manually. Most of the time, this involves operators packing tenders one by one while estimating the weights of tender batches and finally weighing trays manually on an off-line weighing scale. The Marel RoboBatcher is the ideal solution for automating this job.

RoboBatcher Flex for tenders outperforms a manual operation in speed, grading precision, batching accuracy and giveaway reduction. Besides reducing the need for labor, RoboBatcher Flex for tenders improves hygiene and food safety because fewer people are handling and touching the meat.

A processing plant in the above countries will produce plenty of tenders to keep the RoboBatcher Flex running full-time. If needed, the dedicated tender gripper on the robot arm can be changed over in a couple of minutes to batch and pack fillets, legs or drumsticks.

In addition to RoboBatcher's dedicated grippers for fillets, legs and drumsticks, Marel has developed a fourth gripper, especially for tenders. Once again, it features state-of-the-art technology, resulting in the precise, careful handling of tenders. The gripper picks up the tender and descends into the tray, which moves along with the belt to achieve a perfect styling.



Packing tenders in trays is labor-intensive, as quality is very important. In certain parts of the world, tenders have a very high value and must be handled with care. Saving several workers per shift on this monotonous packing job, the

FARMERP ANNOUNCES AN AGGRESSIVE EXPANSION INTO THE SAUDI ARABIAN MARKET

FarmERP, a globally acclaimed Agri-Tech company serving agribusinesses across more than 30+ countries, including successful deployments across the Middle East, Africa, Europe, the USA and Southeast Asia, proudly announces its strategic initiative to expand its footprint into the Saudi Arabian market. The company is committed to establishing its registered regional office, signalling a significant leap in its ambitious growth strategy.

FarmERP is already at the forefront of providing cutting-edge technology solutions to some of the largest agricultural and food supply chain

companies in UAE, Saudi Arabia and Oman. The company is also in talks with a variety of government entities and private stakeholders, exploring future collaborations. FarmERP remains steadfast in reinforcing its research and development initiatives to tailor specialised technical solutions that address the Region's distinctive needs.

Acknowledging the vast potential within the Saudi Arabian market, FarmERP, through its advanced data science and technology (supported by AI and ML), aims to elevate food security, climate change and sustainability alongside optimizing resources,

closely overseeing crop and soil health, and deploying digitalization tools in this region. Additionally, it ambitions to reimagine resource allocation, closely monitor crop and soil conditions, and implement efficient irrigation techniques, catalysing the escalated investments in regional agriculture. By harnessing cutting-edge technology and intelligent climate advisory solutions, the platform is set to drive an unprecedented shift in Saudi Arabia's agricultural sector, paving the way for a transformative landscape.



MESSE ESSEN CELEBRATES: 40TH ANNIVERSARY OF IPM ESSEN

From 23 to 26 January 2024, the world's leading trade fair for horticulture will take place for the 40th time at Messe Essen. More than 1,400 exhibitors from around 50 nations will showcase their innovations in the exhibition areas of plants, technology, floristry and garden features at IPM ESSEN. The special anniversary edition under the motto "Our heart beats green" has numerous programme highlights in store for the international trade visitors. Forums, congresses, competitions, tours, live shows, special shows and other side events will focus on current topics in the green industry, provide new inspiration for the coming business



year and offer numerous networking opportunities.

"The green industry has found its home at Messe Essen over the decades. Here, trade visitors can experience trends, innovations and product solutions up close and personalise their discussions with experts on current issues of the future. We are very much looking forward to the upcoming event," says Oliver P. Kuhrt, CEO of Messe Essen, explaining the success of the trend-setting trade fair.

In 2024, IPM ESSEN will again occupy the entire exhibition centre in Halls 1, 1A, 2, 3, 4, 5, 6, 7, 8 and the Galeria. The nations of Belgium, China, Costa Rica, Denmark, France, India, Israel, Japan, South Korea, the Netherlands, Poland, Portugal, Spain, Turkey, the UK and the USA will participate with at least one joint stand. The BGITrade Centre in Hall 1 with 31 exhibitors will once again be the focal point for the international plant wholesale trade. The joint "Young Innovators" stand in Hall 5, which is sponsored by the German Federal Ministry of Economic Affairs, will be focussing on German start-ups.





SUCCESSFUL CONCLUSION TO VIV AND HAN MEA 2023: SHOWCASING THE FUTURE OF THE SEED TO FOOD INDUSTRY IN ABU DHABI

The 4th edition of VIV MEA, held from November 20th to 22nd in Abu Dhabi, in co-location with Horti Agri Next MEA, delivered a dynamic event, marking a positive continuation in the region for the global animal husbandry and agribusiness industry

VIV and HAN MEA 2023 demonstrated a strong foundation in B2B international business in the Middle East and North Africa region. Over three days, the show encouraged face-to-face meetings, networking, information exchange, and a bustling marketplace in Abu Dhabi, UAE. With 10,080 visitors from 113 countries, the event maintained its consistent attendance and even exceeded the previous edition.

The co-located events featured 500 exhibitors from 50 countries, showcasing the

latest developments of the agrifood industry in the five halls at Abu Dhabi's prestigious venue ADNEC, in a collective of more than 17,500 sqm of gross exhibiting space. One third of the visitors came from the UAE, with countries

like Egypt, Iraq, Iran, Pakistan and Saudi Arabia ranking on top right after. 67% of the total visitors onsite indicated interest in both events.

Inspirational Speaker Line-up

Over 80 renowned industry experts,





VIV & HAN MEA Review



and visionaries took center stage as part of the event's comprehensive speaker line-up. More than 37 sessions, presentations and panel discussions delved into recent industry trends, challenges, and opportunities, providing invaluable insights for all attendees, in both the animal livestock production and the arable and controlled environment agriculture industry.

A series of sessions, including the AgritectureXchange panel discussions led by Agritecture CEO, Henry Gordon-Smith, as well as speed dating with roundtables session on the first day, and a special program organized by the Abu Dhabi Agriculture Food and Safety Authority (ADAFSA) covered a wide spectrum of topics crucial to the future of Agriculture in the region. HubOrange, the Dutch Poultry Center, Dutch Green House Delta, and many other industry partners also contributed with vibrant



sessions throughout the three days.

Aquafeed Extrusion & Nutrition Conference: On the 19th of November, a one-day conference organized by Perendale Publishers, sponsored by aquaculture leaders like Skretting and Blue Aqua, focused on the topics of the production and extrusion of aquatic feed along with the nutrition and farming for fish and shrimps.

Poultry Marketing Round Table (PMRT): For its 3rd edition, MEAP, WATT Global Media and VIV gathered academics, technicians, poultry producers, governors, and end consumers in a Round table to discuss and come up with solutions and clarifications to anticipate to future uncertainties.

A long-awaited co-location during the Abu Dhabi Food and Security Week

The co-location of VIV MEA and HAN MEA 2023 provided an opportunity to explore the entire agribusiness industry, proving the importance of connection among animal production, precision farming, rural cultivation, and innovative horticultural techniques. By holding these two events at the same time, at the same venue, during the Abu Dhabi Food and Security Week, the organizer managed to highlight that integrating the entire industry's value chain is key to resilient and sustainable agricultural eco-systems.

VIV and HAN MEA will return from November 25 to 27, 2025, in Abu Dhabi, to set yet another milestone as the region's top industry platforms.



January/February 2024

ANTALYA EXPO CENTER

ANTALYA FUAR VE KONGRE MERKEZİ

■ Growtech Review



GROWTECH ANTALYA, WHERE THE WORLD OF AGRICULTURE MEETS

In 2023, GROWTECH ANTALYA, the world's biggest greenhouse exhibition brought together 49.409 international agriculture professionals from 125 countries with 572 exhibitors from 26 countries. The GROWTECH ANTALYA exhibition, showcasing the latest technologies and innovations in the agricultural sector, brought together prominent domestic and international companies with industry professionals, 21% of whom were international visitors. Leading companies in the agricultural sector gained access to an international platform to showcase their products, while suppliers and buyers also benefited from exchanging ideas.

Top 10 countries that visit the expo the most; Iran, Jordan, Egypt, Iraq, Russia, Azerbaijan,

Lebanon, Morocco, Algeria, Saudi Arabia.

The total number of exhibitor companies reached 572 from 26 countries; Germany, China, Spain, Netherlands, and South Korea countries hosted their visitors in the pavilions as national exhibitors.

Events:

ATSO Growtech Antalya Agriculture Innovation Awards
ATSO GROWTECH ANTALYA Agricultural Innovation Awards, which was held for the 6th time this year with the cooperation of Antalya Chamber of Commerce within the scope of GROWTECH ANTALYA, were given to the winners among 103 project applications in 7 categories. As a result of the evaluations, projects in the Greenhouse and Technologies, Irrigation and Technologies, Plant Protection, Plant

Nutrition, Smart Agricultural Practices and Technologies, Seed / Seedling, Public-Private Award categories were awarded.

Plant Breeding Project Market

Plant Breeding Project Market, hosted by GROWTECH ANTALYA, and held for the 7th time this year in cooperation with Antalya Teknokent, Antalya Chamber of Commerce (ATSO) and Turkish Seed Association (TÜRKTOB); continues to contribute to the agricultural sector on behalf of the development of innovation culture. Bringing new products to the sector, new service areas, the emergence of new economies, and the agricultural sector's high value-added production based on R&D encourages both the development of human capital and innovation in the sector.

Growtech Antalya Agriculture Talks

Leading experts, producers and agricultural industry professionals of the agricultural sector came together at GROWTECH ANTALYA "Agriculture Talks" to share their knowledge and experiences. This year, Agriculture Talks brought together important speakers with the motto "Partner in the Future". It gained new perspectives on the global agricultural sector and agricultural technologies with interesting topics and eye-opening shares.

International Buyer Delegation Meetings

More than 100 meetings were held between 10 international companies from Bulgaria, Greece, Mauritania, North Macedonia and Morocco and nearly 50 Turkish exporter exhibiting companies, with

the buyer delegation organization held in GROWTECH ANTALYA under the coordination of the Ministry of Commerce and the organization of the Western Mediterranean Exporters Association.

More than 50 meetings were held between 8 companies in the Agricultural Technologies Trade Delegation organized by the United Kingdom Department of Business and Trade (DBT) and Turkish exporter GROWTECH ANTALYA

exhibiting companies.

GROWTECH ANTALYA contributes to sustainable development by supporting innovative activities that increase the added value of agricultural production. Adopting the understanding of social responsibility, GROWTECH ANTALYA runs as an environmentally responsible event.

The 2024 edition of Growtech will be held from 20 to 23 November at Antalya, Turkey.



GROWINBAG™ CULTIVATING BLUEBERRIES: A MODERN APPROACH TO BOUNTIFUL HARVESTS

In the ever-evolving world of agriculture, growers are constantly exploring innovative methods to enhance plant growth and maximize yields. One such trend gaining popularity is the cultivation of blueberries in grow bags, a modern and efficient approach that brings a multitude of benefits to both seasoned and novice growers.

Precision in pH Control:

The success of blueberry cultivation hinges on maintaining acidic soil conditions, a requirement often challenging to achieve in traditional garden beds. Grow bags offer the advantage of precise pH control, allowing gardeners to tailor the soil composition to the exact needs of blueberries. This fine-

tuned environment promotes robust growth and optimal nutrient absorption.

Enhanced Drainage for Healthy Roots:

Healthy roots are the foundation of a thriving blueberry plant. GrowinBag™, with their excellent drainage properties, prevent waterlogging and subsequent root rot—a common concern in less aerated containers. This feature ensures a well-ventilated root system, contributing to the overall vitality of the plant.

Air Pruning for Robust Root Systems:

Our GrowinBags are made from top quality prime virgin materials that promotes air pruning, a natural process that stimulates the

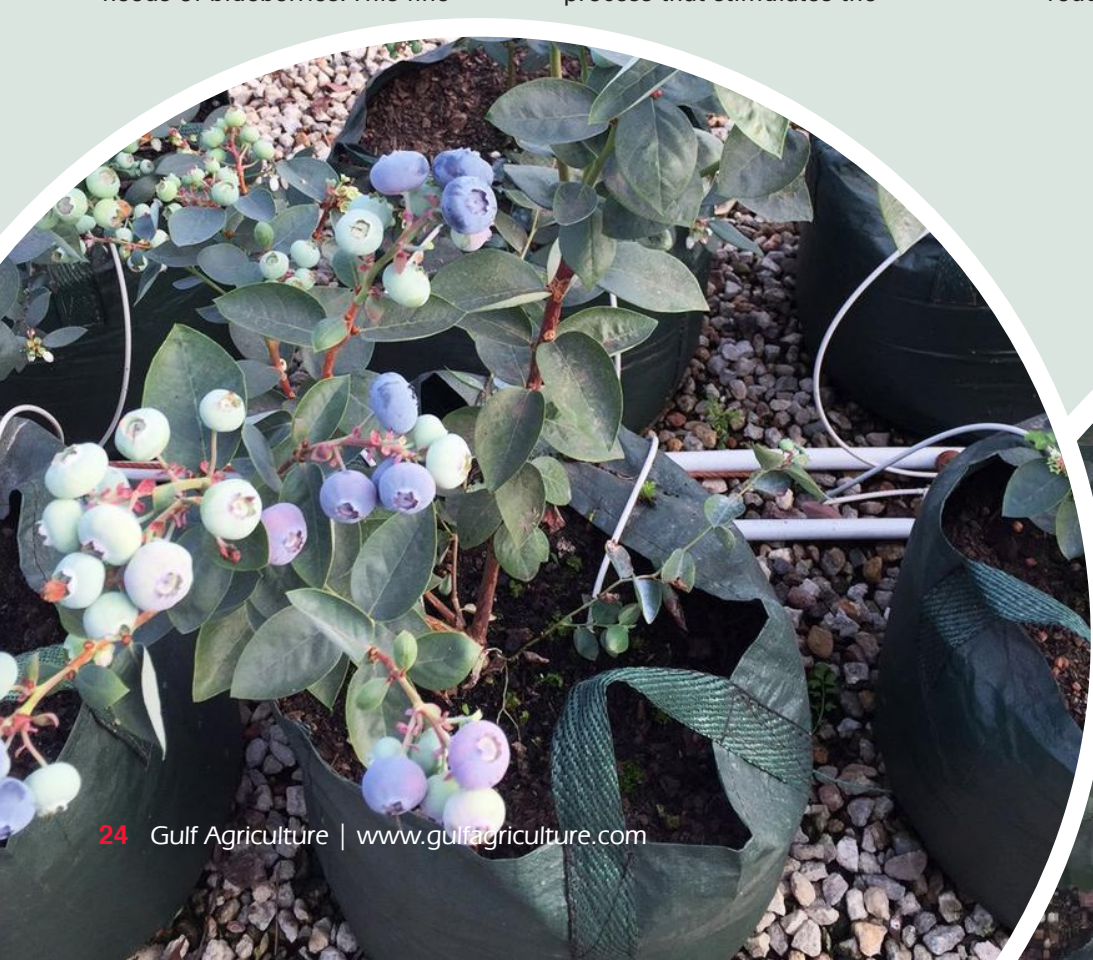
development of a dense and fibrous root system. This not only enhances nutrient absorption but also encourages the production of more fruits, resulting in a more prolific blueberry harvest.

Portability and Flexibility:

GrowinBag™ offer the flexibility of cultivating blueberries in various locations. Their lightweight and portable nature enables growers to optimize sunlight exposure by easily moving the plants to different spots. This adaptability is especially valuable for those looking to make the most of available sunlight.

Disease Prevention and Low Maintenance:

The elevated position of grow bags reduces the risk of soil-borne



diseases, providing a cleaner and healthier environment for blueberry plants. Additionally, the low-maintenance nature of grow bags simplifies the cultivation process, saving time and effort for the growers.

Growing blueberries in our grow bags is a contemporary and efficient method that aligns with the evolving needs of modern growers. From precise pH control to enhanced root development, the benefits of this approach contribute to a more successful and rewarding blueberry cultivation experience. Embrace the future of cultivating with GrowinBag™ and savor the sweet fruits of your labor.

Join the growing number of blueberry plantations using GrowinBags, contact us for more information
liliana@growinnovate.com,
+34 682 391 431



LEADERS IN AGRICULTURE RETAIL AND LANDSCAPING



Shaheen M. AlRubaie
General Manager



Established in 1985, AlShaheen Nurseries has been ever since developing itself as one of the leaders in the field of agriculture retail and landscaping. AlShaheen Nurseries provides a complete set of agriculture and gardening services. The team is run by well qualified engineers and experienced supervisors, with a long and successful track record in agriculture projects execution. The company is located in Shuwaikh, 4th Ring Road, Nurseries Area. It's our pleasure to introduce our wide range of services we offer the following:

- Landscaping and planting

division for indoor and outdoor gardens. Wholesale division (For Agricultural Companies only).

- Maintenance team for agricultural projects and house gardens.
- Designing and implementing irrigation systems.
- Wide range of indoor and outdoor plants.
- Wide range of flower and vegetable seeds.
- Different sizes and colors of plastic net shades.
- All kinds of natural and chemical fertilizers.
- Peat Moss, potting soil, hydroton.
- Agent and distributor of indoor and outdoor pots of different shapes and sizes.



AlShaheen Nurseries showroom is considered as a garden center for selling indoor and outdoor plants – Grass – Peat Moss – Potting Soil – Plastic Net Shades – Pots – Rocks – Seeds – Natural and Chemical Fertilizers – Agrilite – Irrigation Sys. – Water pumps – Insect



killer – Hydroton – Palm bags.
The Company aims to provide many items to serve different customer's tastes, in addition to provide the best quality and less prices under one roof.

AlShaheen Nurseries owns a farm in Wafra area specialized in growing plants, flowers, and paspalum grass, runs by well qualified engineers to provide the market and the agricultural companies with the best varieties and quality. The farm is considered one of leading farms in Wafra in growing plants, flowers, and paspalum grass.

The Project Division is run by well qualified team of engineers

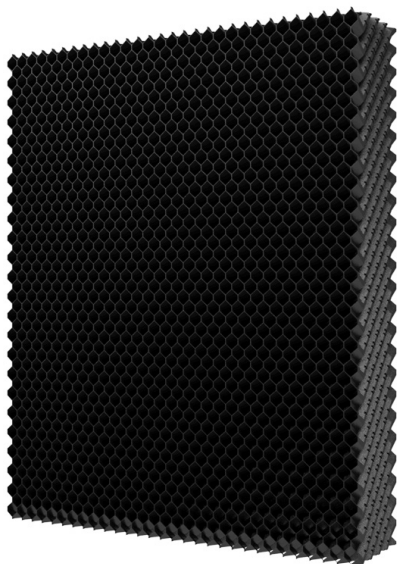
and supervisors to design landscape and maintain gardens. There is a team for designing & implementing irrigation systems.

The wholesale division was established in 2000 to provide

the Ministries and the agricultural companies with plants, garden tools and irrigation systems. Since then, the division has been supplying some of the leading government and private projects.



NEWS FROM PERICOLI: IT'S TIME FOR THE PLASTIC EVAPORATIVE PAD PLASCOOL



The introduction on the market of plastic products signed by Termotecnica Pericoli continues at full speed. After the success achieved with the ACF21p air circulation fan, our new challenge is to launch an evaporative pad made of self-extinguishing PVC.

As we already know, evaporative cooling is a simple and economical way to cool down a large environment, significantly reducing energy costs thanks to the benefits obtained by the adiabatic process.

With PLAScool the Pericoli Group offers its customers a durable product, whose particular design and shape of its geometries also make it UV-resistant and light-proof.

In particular the Plascool HE dark has been designed by our experts for all those agricultural, livestock and industrial installations which

require a lowering temperature as well as a light filter effect.

This model is able to guarantee excellent cooling performance with a low pressure drop.

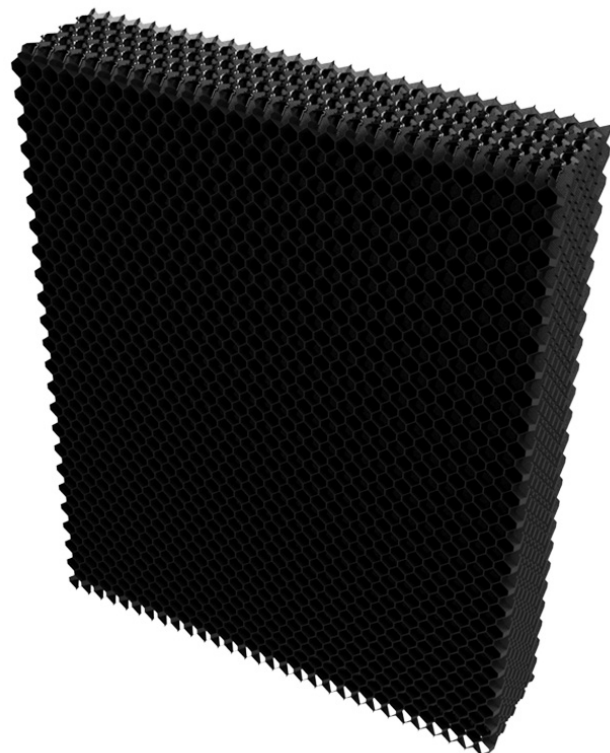
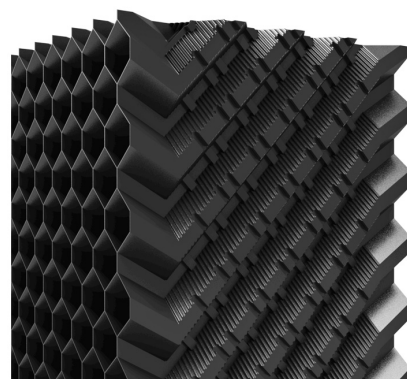
Above all, the great advantage of this product compared to other similar products on the market is that it requires the same quantity of water as paper cooling pads do, thus making it perfectly interchangeable in old installations.

The material in which PLAScool is produced makes it robust and easy to clean, it does not require to be frequently replaced and this represents an important advantage in comparison to similar solutions.

The PVC adiabatic panel is

available in the height range 1200, 1500, 1800, 2000 and thickness 150, and it is also possible to order it in KD kits (unassembled) in order to optimize logistics costs.

Our sales team remains at your disposal for further information. You can contact us by sending an email to pit@pericoli.com





BIODYNAMIC FARMING CREATES HEALTHY AGRICULTURAL AND SOCIAL ENVIRONMENTS

Biodynamic agriculture was initiated a hundred years ago, in 1924, pioneering the eco-movement. Its dedication to healthy soil and food also provides impulses for a healthy social life. The method is implemented by both smallholders and large biodynamic enterprises.

In 1924, Rudolf Steiner was asked by farmers for a contribution to improve farming because it was apparent by then that the widely used synthetic nitrogen-based fertilizers were damaging the soil. This was the moment when biodynamic farming was born, the now oldest organic form of agriculture with Demeter as its registered trademark. Today, 230 000 hectares

in 64 countries are farmed according to Demeter standards.

Trials have shown that biodynamic farming enhances the resilience of agricultural ecosystems. The continuous building up of healthy and fertile soils, for example, encourages diversity on the land and makes plants more resilient to pathogens, while the cow-calf-contact approach increases animal welfare. Scientific trials like the one carried out by the Research Institute for Organic Farming in Switzerland prove that biodynamic farming helps to mitigate climate change by reducing greenhouse gas emissions and by means of carbon sequestration (DOK trial).

Small farmers in Egypt use this fact to gain an additional income

by selling carbon credit certificates (Economy of Love Certification). Since 2020, Binita Shah's compost project in India has opened up new perspectives for around 50 000 small farmers. Biodynamic urban gardens in Rosario, Argentina, and biodynamic school gardens as the one in Mbagathi, Kenya, also give people from poor backgrounds independent access to healthy food. In the Philippines the Koberwitz 1924 Project provides a basis for self-sufficiency. In the centennial year 2024 biodynamic farming will assess its future potential and the Section for Agriculture will hold its annual conference in Dornach, Switzerland, from 7 to 10 February.

“GIGAFARM” CAPABLE OF REPLACING 1% OF UAE FOOD IMPORTS SET FOR CONSTRUCTION IN DUBAI FOOD TECH VALLEY

Six complementary technologies planned for waste-to-value site in global first designed to decarbonise food production and maximise resource efficiency

FoodTech Valley has signed an agreement at COP28 with ReFarm™ to start construction on a 900,000 sq. ft. game-changing “GigaFarm.” The innovative waste-to-value farm will be capable of recycling more than 50,000 tonnes of food waste and growing two billion plants each year.

ReFarm™ was established in the UAE by SSK Enterprise and Christof Global Impact (CGI) as a group of companies with focus on projects with circularity and clean technologies. The brand chose vertical farming technology developed by infrastructure supplier Intelligent Growth Solutions (IGS) and is set to start construction in mid-2024 at Dubai’s Food Tech Valley, a master development launched by His Highness Sheikh

Mohammed bin Rashid Al Maktoum and being led by major Dubai property developer, Wasl. ReFarm™ has engaged its lead bank to arrange support from UK Export Finance within the UK Government’s Department for Business & Trade.

In a global first, six complementary technologies will be collocated on the Dubai Food Tech Valley site as part of a closed-loop circular waste-to-value system, establishing a self-contained ecosystem designed to maximise resource efficiency and prevent any waste going to landfill.

Capable of growing more than 3 million kilos of produce annually, the site will support the UAE’s move towards decarbonising food production, replacing 1% of the country’s fresh produce imports.

Construction is due to begin in mid-2024, with the site expected to be fully operational by 2026.

Food waste will be recycled on-site by black soldier fly larvae, with by-products including organic compost used in traditional agricultural practices, animal feed for replacing unsustainable fish meal and soy oil, and water for use in the vertical farming towers. The technologies on site will also recover up to 90% of ammonia sulphate from wastewater for use in plant fertilisers, and produce organic biodegradable polymers designed to gradually release water and nutrients to crops in arid regions.

HE Dr Thani bin Ahmed Al Zeyoudi was appointed the UAE Minister of State for Foreign Trade, said: “The United Arab Emirates’ economic growth strategy has placed a strong emphasis on diversification and sustainability, which includes developing new knowledge and capabilities in high-impact industries.

“Rethinking our food production systems is a clear priority, and the decision of ReFarm to launch a facility in Dubai’s Food Tech Valley is a significant step forwards for the development of a technologically advanced, low-carbon agricultural sector. ReFarm’s mission to make farming autonomous, self-sufficient and sustainable is very much in line with our goal to use innovative techniques to meet our food needs.”

HE Hesham Abdulla Al Qassim, Group CEO, Wasl said: “The UAE has the ambition and vision to lead the conversation on food security and take the actions necessary to achieve resilient communities. This



project reflects our proactive action-oriented approach to the monumental challenge of food insecurity facing the world. This is one of many transformative projects which is set to be part of FoodTech Valley which will have a significant impact on the UAE's food security, maximising the use of precious resources and decarbonising the food supply chain. We look forward to working with our partners to make it a success."



seedlings including native species such as Ghaf, Moringa and even Mangroves. Additionally, no mains or groundwater connection will be required to grow fresh produce since water will be recovered as a by-product from the organic-waste-to-value technology and fed into the vertical farm which is up to 98% more water efficient than growing in a field."

Oliver Christof, CEO at Christof Global Impact (CGI), commented: "What has been achieved over the past 36 months on the ground in the UAE is a

gamechanger for the sustainable food industry. A key factor for success has been the open mindset by the UAE leadership in relation to future technologies and a strong focus on circularity, which allowed us to bring together various groups, including local stakeholders, alongside our technologies, making the project appealing to local as well as

institutional investors, while saving massive amounts of CO₂."

David Farquhar, CEO of IGS, said: "This is so much more than just another announcement about plans to build a large-scale vertical farm - albeit that with a growing area of more than 87,000 square metres it will be very large! This site takes the concept of vertical farming as just one building block in a system that brings together technologies to solve multiple challenges simultaneously, all in one of the most extreme environments on the planet.

"We are delighted to have been selected by ReFarm™ as their vertical farm technology partner for this venture as they work to restore the balance and ensure that the UAE is driving an innovative approach to combatting food insecurity. This project is a very exciting step forward for IGS, and we are confident this innovative model has applications in many geographies across the globe."

Saeed Al Marri, Chairman at SSK Enterprises, commented: "Our circular approach contributes to wider ambitions of food security and landscape regeneration, with the vertical farming towers capable of growing more than 250 varieties of plants, seedlings and saplings, from salads, herbs and leafy greens, through to fruiting crops and tree

Australian-owned, Indian cocopeat manufacturer Ecomix Australia is expanding globally to capitalise on unprecedented demand, particularly from a booming soft fruit industry.

Ecomix Australia – one of the supply partners under the umbrella of ProdOz International – has more than 60 per cent share of the Australian market, supplying premium growing media, crop solutions and technologies to the soft fruit, vegetable, medicinal cannabis, and propagation nursery sectors nationally.

Ecomix Australia managing director Martin Vadakekuttu said Ecomix Australia would leverage off its unique manufacturing processes and control of its supply chain to ensure a stable supply and price for growers around the world.

Established in 2011, Ecomix Australia is one of the few cocopeat manufacturers to wholly control its own supply chain, manufacturing the growing media at its own facility in southern India before exporting and supplying to leading producers in Australia, the United Kingdom, the United States of America and New Zealand. It also has a presence in South Korea, China, and parts of Europe.

“As both manufacturer and distributor, we can supply a premium product at very affordable prices as surplus production will increase with demand,” Mr Vadakekuttu said.

“Having a stable supply of cocopeat and a stable price is crucial for farmers as it ensures financial

security, reliability and contributes to the overall sustainability of the agricultural sector.

Supply could range from six to 12 weeks depending on the final destination, he said.

A renewable resource, cocopeat is derived from the extraction of coir fibre from coconut husks and is a natural byproduct of the coconut industry.

“The production process typically involves minimal use of chemicals and pesticides,

making the end-product a more environmentally sustainable option compared with some other growing media.

“This reduces the potential for environmental contamination and pollution. It also has excellent water-retention properties, contributing to water conservation and promoting sustainable irrigation practices and it can help improve soil structure when used as a soil amendment.”

Ecomix Australia supplies a range of high-tech growing media products to Australian growers operating in the hydroponic and greenhouse space, as well as open-field production. New South Wales, Queensland and Tasmania are its primary markets.

For more information, visit
www.ecomix.com.au

AUSTRALIAN-OWNED COCOPEAT MANUFACTURER TARGETS GLOBAL EXPANSION





MARTIN LISHMAN LAUNCHES NEW RANGE OF SOIL TESTING KITS

Martin Lishman, a leading supplier of innovative agricultural solutions, are excited to introduce the latest addition to their line-up: a new range of soil testing equipment designed to provide rapid, accurate, and reliable field analysis.

Identifying the composition of soil is fundamental to achieving optimal crop yields while safeguarding the environment from over-fertilization. In response to industry needs and following the recent discontinuation by Palintest of their soil test range, Martin Lishman are pleased to once again be able to offer a range of soil testing equipment that

promises testing of soil samples comparable to standard laboratory methods.

"Reflecting the growing awareness of soil health, our soil testing range has been a strong performer over the past 17 years," explains Joel Capper, Managing Director of Martin Lishman Ltd. "Reintroducing a comprehensive line of soil test equipment is great news for customers seeking insights into their soil condition."

The range includes pocket-sized digital meters for measuring Temperature, Conductivity (EC), and pH. Complementing these, a professional agriculture test kit utilises specially developed reagents for quick and accurate N,

P, and K tests. Martin Lishman offers various economically-priced package options, ensuring users have everything needed for at least 25 tests, with additional spare reagents and consumables available to expand the capacity.

These new soil testing kits seamlessly integrate with Martin Lishman's extensive range of soil samplers, compaction testers, and temperature monitoring solutions, providing a comprehensive toolkit for analysing soil health across different types and depths.

Explore the new Soil Test Kits and detailed specifications at www.martinlishman.com

“IRRIGATION SOLUTION”: ONE OF THE KEYS TO IMPROVE INVESTMENTS IN IRRIGATION IN THE SAHEL AND WEST AFRICA

“Irrigation Solution” approach promoted by Sahel Irrigation Initiative Regional support Project (SIIP) since 2018 in six Sahelian countries (Burkina Faso, Mali, Mauritania, Niger, Senegal and Chad), is one of the keys to improve investments in irrigation in the Sahel and West Africa

In the Sahel, there is a wide range of irrigation investment opportunities ranging from low-cost individual equipment to large-scale public developments with a variety of medium-sized community irrigation systems or district irrigation systems, private sector between these two extremes. Previous studies have demonstrated the productivity, profitability and livelihood impacts of each of these different types of irrigation systems in the Sahel.

But, these studies also point to challenges that can be addressed using lessons learned from analyzing the successful execution of current and past investments in a holistic approach.

We need a new approach based on key transformative measures to unlock the potential of irrigation. These measures relate to (i) equitable access and governance of land and water resources, (ii) institutional clarity

and appropriate delegation of responsibilities for the planning, development and management of irrigation systems, (iii) rigorous technical design of irrigation systems with appropriate quality control mechanisms, (iv) appropriate financing mechanisms for the construction, management and maintenance of irrigated systems, (v) access to technical and financial services, markets and support for the development of value chains; and (vi) capacity building.

This holistic approach called “irrigation solution” is proven in the field with the realization of sustainable investments models. Documentation of the “irrigation solution” approach is iterative. It capitalizes on existing methods and best practices. It is reviewed and improved during the implementation of investments according to lessons learned and other experiences and reinjects innovations and practical solutions according to



problems identified.

Agricultural water in West Africa

Agricultural water management is increasingly crucial for improved agricultural performance.

Despite erratic rainfalls, Sahel countries enjoy relatively abundant water resources. Current agricultural withdrawals for irrigation represent less than 6% of total renewable water resources, and groundwater withdrawals are estimated to be about 6% of total annual recharge. Further, irrigated lands represent less than 5 percent of agricultural lands in the Sahel. The availability of vast tracks of land suitable for agriculture along the major perennial rivers, in inland valley and oued / wadi areas (bas-fonds) as well as the presence of shallow groundwater in large parts of the Sahel are additional opportunities for the Sahel. Moreover, the Sahel benefits from favorable ecological conditions for the production of high-yielding rice varieties and vegetables. Such agricultural products are in high demand on increasingly interconnected subregional markets and can help sustain the creation of well-paying jobs and livelihoods.

Irrigation infrastructure in West Africa, particularly in the Sahel, is usually very costly and the performance is often low, as demonstrated by the fact that only around 60 percent of the land area equipped for irrigation is actually irrigated. Across the Sahel, crop yields in irrigation schemes remain below potential, a significant number of systems (particularly of type 4) are gradually abandoned due to lack of maintenance by farmers or irrigation agencies. This is explained by both “direct” and “meta” factors. Direct factors include: (a)

insufficient engagement of local populations in decision-making processes; (b) inadequate consideration of commercial viability; (c) errors in technical design; (d) poor construction quality; (e) absence of a transparent irrigated land allocation process; (f) limited access to finance; (g) unclear responsibilities for scheme operation and maintenance (O&M); and (h) poor coordination between stakeholders. Meta-factors refer to the fact that, even when some guidelines or best practices to lead to quality infrastructure exist, they are often known by a limited number of practitioners; and efforts to apply them in practice are not sustained; lessons are rarely drawn from failures and turned into actionable, effective, replicable methodologies and solutions that can be applied at scale. Similarly, capitalization and dissemination of successes



remains the exception.

Addressing these constraints requires, first, political momentum for reform to allow the necessary institutional changes to take place, and second, the capacity for scaling up interventions to improve economic efficiency across the value chains.

The ‘Dakar Declaration’ on irrigation

The ‘Dakar Declaration’ on irrigation, adopted by the six Sahelian countries (Burkina Faso, Mali, Mauritania, Niger, Senegal and Chad) that gathered at the High Level



Forum on Irrigation in the Sahel (October 31, 2013), under the Permanent Interstate Committee for Drought Control in the Sahel (CILSS in french) leadership, recognizes the need to address both of these aspects. The Dakar Declaration calls for a renewed effort to scale up irrigation development and improve irrigation sector performance in the six Sahel countries to contribute to regional food security within natural resource limits. These six Sahel countries jointly engaged in the World Bank financed Regional Sahel Irrigation Initiative Project (SIIP) together with the coordinating regional institution CILSS in order to enhance stakeholders’ capacity to develop and manage irrigation and to increase irrigated area using a regional “irrigation solutions” approach in participating countries in the Sahel.

An irrigation solution is the set of activities which, when carried out, leads to successful irrigated agriculture. Implementing an irrigation solution means establishing the following four conditions of success: (i) a



sound organizational structure with a clear delineation of the roles and responsibilities of the different actors including all aspects; (ii) a robust technical irrigation system with proper O&M; (iii) a well-established and reliable financing system for both investment and O&M; and (iv) farmers with the right practical skills as a result of appropriate training given to them. These four dimensions can be fully functional and maintained only in a transparent, stable, and incentivizing institutional framework for agriculture, water, and land management. Identifying these four dimensions is by itself not new. Solutions are solutions if they can be replicable and adaptable. Hence, in effect, solutions are: (a) a "suite" of rules, tools, methods, institutional arrangements, decision-making processes, technologies, norms that can and need to be adapted to the local context; (b) the actual application in the field of the latter by those involved in irrigation development operations.

Solutions are context-specific and can be informed by good (and bad) practices and successful innovations from other similar areas. They need to be adapted to the constraints and potentialities with regard to water resources availability and variability, land tenure systems, socioeconomic and cultural

context, market demand, and consumer behavior. Careful planning taking into account market and natural resources boundaries at the appropriate scale has to support the development of solutions in any given area. Feedback mechanisms from M&E activities are fundamental for this planning.

Irrigation solutions are at the heart of SIIP's project development objective. SIIP's main outcome is a set of solutions for the irrigation system typologies above, based on emerging best practices identified in the participating countries and on lessons learned from past failures and constraints; expansion of the area under irrigation; and improved performance and sustainability of these investments. To achieve this, SIIP finance efficient and reliable irrigation solutions for the revitalization / modernization and management of existing irrigation schemes and development of new schemes in selected project intervention areas.

Need to consider the diversity of irrigated systems to adapt irrigation solution

There is a wide range of hydro-agricultural developments including lowland development, large-scale public and private schemes, small-scale individual irrigation and village irrigation. This diversity is a regional asset that should be preserved and used to develop Sahelian solutions to agricultural water control. As part of SIIP, five types of irrigation are defined adapted in Sahel context. The objective is to promote successful experiences and take into account all types of irrigated systems in order to

best respond to producers' needs and to the opportunities presented by the regions.

Types of irrigation

These systems, however, are not independent elements; they can be developed jointly in a given territory so as to make the most of the opportunities offered by this territory. For example, developed lowlands help to better secure the main production in the rainy season. They also improve groundwater recharge and thus develop individual small-scale irrigation which is highly profitable in the dry season.

Small-scale irrigation solutions (types 1 to 3) can be scaled up by increasing the number of schemes and generating very significant economic benefits.

There are also small-scale private or collective irrigation solutions (type 2 or 3) that can be developed within large-scale public schemes (type 4). The objective is to improve water resource development through the joint use of surface water brought by channels and groundwater mobilized through shallow boreholes recharged via surplus water from surface irrigation. This beginning of reuse of irrigation water, which is a driver of crop intensification and diversification, can be observed in the dry season in schemes such as Office du Niger in Mali. It may experience difficulties in collective irrigation management and other water management problems such as waterlogging due to lack of drainage. This highlights the importance of finding institutional solutions for joint management of surface water, groundwater and drainage water resources.

AGRO FOOD PARK: PIONEERING A SUSTAINABLE AND GREENER FUTURE FOR AGRICULTURE AND FOOD

Agro Food Park, a dynamic ecosystem for agricultural and food businesses, discussed their role and contributions in transforming the agricultural and food industry towards a sustainable and greener future. Agro Food Park acts as a thriving hub that accommodates startups and established enterprises, facilitating innovation, collaboration, and knowledge sharing.

With projections indicating that 68% of the world's population will reside in cities by 2050, the need for accessible and healthy food is pivotal. Agro Food Park is strategically positioned to address these challenges by serving as an international hub for innovation and knowledge exchange within the agricultural, food, and technology sectors.

Anne-Marie Hansen, CEO of Agro Food Park, stated, "Agro Food Park is the place to be if you are part of the agricultural and food industry. We are committed to ensuring Danish agricultural and food companies can compete globally, focusing on technology, knowledge exchange, innovation, and sustainability."

Since its establishment on September 9, 2009, Agro Food Park has been a notable sector for Danish agricultural and food companies, facilitating international competitiveness while advocating for sustainability, cultural values, and social responsibility. It is set to expand in phases, guided by a master plan

designed to foster collaboration between researchers and businesses, ultimately ensuring long-term food security in densely urban environments.

Agro Food Park believes in taking an integrated approach to decarbonization, which includes zero-emission solutions for buildings, energy, and transportation. These solutions have demonstrated significant reductions in CO₂ emissions and operational expenditures. By embracing such integrated strategies, companies can not only reduce their carbon footprint but also enhance their property values.

Decarbonization is a central theme in Agro Food Park's journey towards sustainability. They recognize that buildings, energy, and transportation are pivotal in achieving a carbon-neutral future. Through integrated retrofits, businesses can reduce CO₂ emissions by up to 60%. Companies adopting these solutions also benefit from a 25-30% reduction in operational and capital expenditures, alongside potential income from excess energy generation. Such energy-efficient buildings can command a premium of 10-25% in property value.

To facilitate this transition towards a sustainable future, Agro Food Park emphasizes the importance of collaboration between diverse actors such as building managers, fleet managers, energy procurement, and sustainability executives. Governments can play a pivotal

role in supporting this transition by updating regulations, permitting processes, and providing incentives for integrated approaches.

Agro Food Park's industry specialization ensures a strong network where companies can focus on their growth while contributing to a sustainable future. It is already home to 75 companies and 1,000 employees. Its mission is to connect competencies across the agricultural and food industry. Through collaboration, knowledge sharing, and fostering a sense of community, Agro Food Park aims to tackle the challenges of the future head-on. By uniting companies under a shared goal of carbon neutrality by 2050, Agro Food Park is setting a precedent for sustainable business practices.

In a recent survey, Agro Food Park received positive feedback from managers and representatives of the companies, highlighting the satisfaction and development within the park. The results underscore the importance of Agro Food Park's role in advancing the industry.

Similar to Agro Food Park seeking to be an industry-specific global hub in Europe within food and agriculture, His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President, Prime Minister and Ruler of Dubai, in 2021 announced to triple Dubai's food production supported by the launch of FoodTech Valley in Dubai positioning it as a global destination for the industry, being a home to innovation within food production. Accordingly, good opportunities for cooperation between UAE and Denmark.

REVOLUTIONISING SUSTAINABLE AGRICULTURE BY LEVERAGING DRONES AND MACHINE LEARNING

FEDS Drone-powered Solutions (FEDS) is deploying drones and other advanced technology to revolutionise sustainable agriculture. Regardless of the location and local environment, drones and Machine Learning (ML) are potent difference-makers that can give farmers and agronomists access to rich, up-to-date data and valuable insights into their crops, enable the development of sustainable plans, and maximise resource efficiency.

Agriculture and the food-trade are the two primary engines responsible for feeding the world's nearly 8.1 billion inhabitants. Agriculture is also intrinsically tied to the United Nation's Sustainable Development Goals (SDGs), which were introduced in 2015 as a universal call to action to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity by 2030. SDG 2 'Zero Hunger' calls for an end to hunger, achieving food security and improved nutrition, and the promotion of sustainable agriculture.

While the agriculture industry has been able to meet the growing demand for food, it

has done so at a significant cost to the environment. Reports note that agriculture is the second most polluting sector and accounts for about 11% of total global greenhouse gas emissions.

Fully achieving the requirements of SDG 2 therefore requires that the agriculture industry evolve and move towards sustainable practices. These advanced methods of farming will improve environmental health, minimise environmental impacts, reduce environmental risks, optimise resource usage and conservation, and – crucially – offer improved food production. Precision agriculture has been gaining traction in recent years, and the use of drones and other technology has proven to be of significant value.

"FEDS is committed to driving sustainable agricultural practices that enhance food security, protect natural resources, and support the wellbeing of farming communities across the globe. Drones offer a path to precision farming over large areas of land which allows farmers to deploy resources including fertiliser, water and pesticides exactly when and where they are needed, reducing wastage and minimising environmental impact. Equipped with advanced sensors, drones can also help farmers monitor plant stress and the presence of disease or pest infestations before issues would normally become visible to the human eye. As a result, farmers can respond in good time, prevent further damage and maintain crop yields," said Rabih Bou



Precision Agriculture ■

“Through the use of advanced aerial intelligence and crop analytics, we seek to empower farmers and agronomists with real-time insights on crop health, irrigation needs and pest management, enabling them to make informed decisions and maximise yields, while reducing the use of pesticides and increasing resource efficiency. There’s no question that the future of farming is through precision agriculture and FEDS is excited to play a pivotal role in pioneering sustainable methods,” concluded Bou Rached.

Rached, Founder and CEO of FEDS.

Drones further aid sustainable precision agriculture by capturing data that can be used for soil analysis, which can help farmers better understand the needs of their fields. By making decisions based on the analysis of drone supplied data, farmers can work to boost soil fertility and health, and enjoy sustainable growth over the long term.

In the UAE, FEDS worked with the Ministry of Climate Change and Environment (MoCCaE) whose goal was to take advantage of detailed agricultural drone data to increase resource efficiency, better direct farmers’ efforts and preserve scarce natural resources. The approximate area of 1,100kmsq was spread over six emirates (Dubai,

Sharjah, Ajman, Ras Al Khaimah, Umm Al Quwain and Fujairah) and required accounting for trees, livestock, greenhouses, barns, crops, shrubs, water wells and pipelines.

In this case FEDS used drones that autonomously followed a predetermined flight path whilst capturing picture and video data. The data was then processed using specialised software to create an accurate Orthomosaic map. Using ML, and a rigorous train, test and repeat process, the map was then analysed and produced accurate data on plants, animals, features and structures. To ensure accuracy, the processed data was also quality control checked by FEDS’ experts to ensure outputs were accurate. Without drones, it would have taken years to

source effective data to allow for a large-scale sustainable plan for agriculture, in the face of accelerating global warming and resource depletion.

Further afield in Malaysia, from April 2021 to June 2023 a total of 120 drone pilots from FEDS’ global partner Aerodyne Group covered 269,758 hectares of land. The data that was captured and analysed enabled farm operators to reduce the use of pesticides by 70%, and also enabled an 80% reduction in water usage. Recognising its potential to revolutionise the agriculture industry, FEDS has also actively collaborated with agricultural institutions and communities to foster knowledge sharing and implement more sustainable farming practices across the globe.

TANMIAH FOOD COMPANY LAUNCHES INITIATIVE TO PLANT 100,000 TREES IN BAHRAIN



Tanmiah Food Company has launched a monumental environmental initiative of planting 100,000 trees in Manama, Bahrain. This initiative aligns with the Saudi Green Initiative and the Middle East Green Initiative, through the collaborative environmental efforts of Saudi Arabia and Bahrain to mitigate climate change impacts through afforestation.

Under the slogan "Planted in Saudi Arabia, to be grown in Bahrain", the initiative's inauguration was conducted by Dr. Khaled bin Abdullah Al-Abd Al-Qader, Executive Director of the National Center for Vegetation Development and Desertification Control, representing His Excellency the Minister of Environment, Water, and Agriculture (MEWA), Engineer Abdulrahman bin Abdulmohsen Al-Fadley.

The ceremony witnessed the participation of several high-profile dignitaries, including His Excellency the Minister of Municipalities Affairs and Agriculture of the Kingdom of Bahrain, Engineer Wael bin Nasser Al-Mubarak, His Excellency the Bahraini Special Envoy for Climate

Affairs, Dr. Mohammed bin Mubarak bin Dainah, and Her Excellency Sheikha Maram bint Isa Al Khalifa. The ceremony was also attended by Dr. Ahmed Al-Dalbahi, Deputy Minister, on behalf of His Highness the Ambassador of the Kingdom to Bahrain, and Mr. Ahmed Osilan, Executive Board Member and Managing Director of Tanmiah Food Company.

H.E. Eng. Wael bin Nasser Al-Mubarak remarked, "This initiative, which was launched by our sister nation, the Kingdom of Saudi Arabia, is in line with the national afforestation strategy of the Kingdom of Bahrain. It was directed by His Royal Highness Prince Salman bin Hamad Al Khalifa, Crown Prince and Prime Minister, and is in implementation of the regional initiative led by Saudi Arabia in the field of afforestation for a greener Middle East, reflecting the unlimited potential of countries when they unite for the cause of sustainability. With every tree, we breathe life into this vision, which brings a greener and more sustainable future to our region. This initiative not only emphasizes the importance of advocating for

environmental issues, but also demonstrates the depth of our shared commitment to enhancing a thriving ecosystem for everyone."

Ahmed bin Sharaf Osilan, Executive Board Member and Managing Director of Tanmiah Food Company, said, "Our journey, spanning 700 kilometers from Saudi to Bahrain with 100,000 trees, is a testament to our dedication to environmental preservation. It's part of our broader commitment to sustainable innovation, including the 'One Million Trees Initiative' and the 'One Million Dollar Ompreneurship Awards,' which are focused on sustainable agricultural and waste management solutions."

Afforestation is a vital factor in improving air quality, preventing soil erosion, supporting wildlife, absorbing carbon dioxide, and mitigating the negative effects of climate change. Through this collaborative effort, Tanmiah reiterates its commitment to contributing meaningfully to global sustainability goals, ensuring a cleaner, healthier, and more sustainable future for the region and beyond.

LEADER PF3 NOW WITH 40 MC CAPACITY: FARESIN SELF-PROPELLED MIXER WAGONS ARE GETTING BIGGER AND BIGGER

During the last Eima International, Faresin presented to the world its first self-propelled mixer wagon with 3 vertical augers: Leader PF3. A machine designed for large livestock farms born to be the synthesis of the best Faresin technologies dedicated to animal farming.

The flagship of the range, initially offered in 30 and 36 cubic meters, is now also available with the extraordinary capacity of 40 cubic meters, to meet the needs of increasingly large farms.

Maneuverability. Equipped with three steerable axles, with the front and rear driven by permanent four-wheel drive, Leader PF3 is

extremely maneuverable in any type of stable, despite having an impressive size.

Practicality. The engine located at the rear allows better heat dissipation, panoramic side visibility and improved accessibility during maintenance operations.

Speed. Compared with two-auger versions, Leader PF3 mounts an oversized cutter, an impressive 2200 mm wide for rapid material removal.

Leader PF3 also features the exclusive Ecotronic system, which makes it easy to prepare constant and automated mixtures. This new system interconnects all the machine's devices and allows, starting from the recipe, to program all its activities



according to the raw materials that are gradually, gradually loaded. A process that ensures, thanks to strict parameters, optimal management of all loading, cutting and mixing equipment to prepare a unified feed of the best possible quality.

For more information, visit
www.faresin.com

RUMINIX: THE MOST COMPREHENSIVE RUMINANT BALANCING SOFTWARE ON THE MARKET

The new ration balancing software Ruminix was developed and perfected by A-Systems after many discussions with professional users. This competitive and innovative software benefit from unparalleled ergonomics and ease of use appreciated by all ruminant nutrition professionals.

Intuitive and effective ration work thanks to the Ruminix software

Ruminix offers multiple nutritional requirements models for dairy cow, beef cow, and sheep. Where other ration balancers often require users to rely on a fixed model, this software allows users to use their own knowledge and technicality to adjust the open requirements models. Therefore users can configure the software with the information they think are most relevant to their own technical and economical context. This ration

balancing software combines therefore both efficiency and flexibility in order to cover all needs and knowledge of the professionals.

For field technical or commercial users, using Ruminix is very intuitive: they can calculate the optimal rations for their client in just a few steps. Graphical indicators also allow the relevance of the ration to be validated at a glance. These key indicators can be adapted, and allow each user to shine a light on the most important results, and ease the creation of spot on feeding programs.

From any given ration, it is possible to calculate a rationing plan that will account for changes in animal productions when working with dairy cow.

The customised feed creation module allows the creation of customised complementary feed based on the forages available at the farm.

The highly customisable reporting

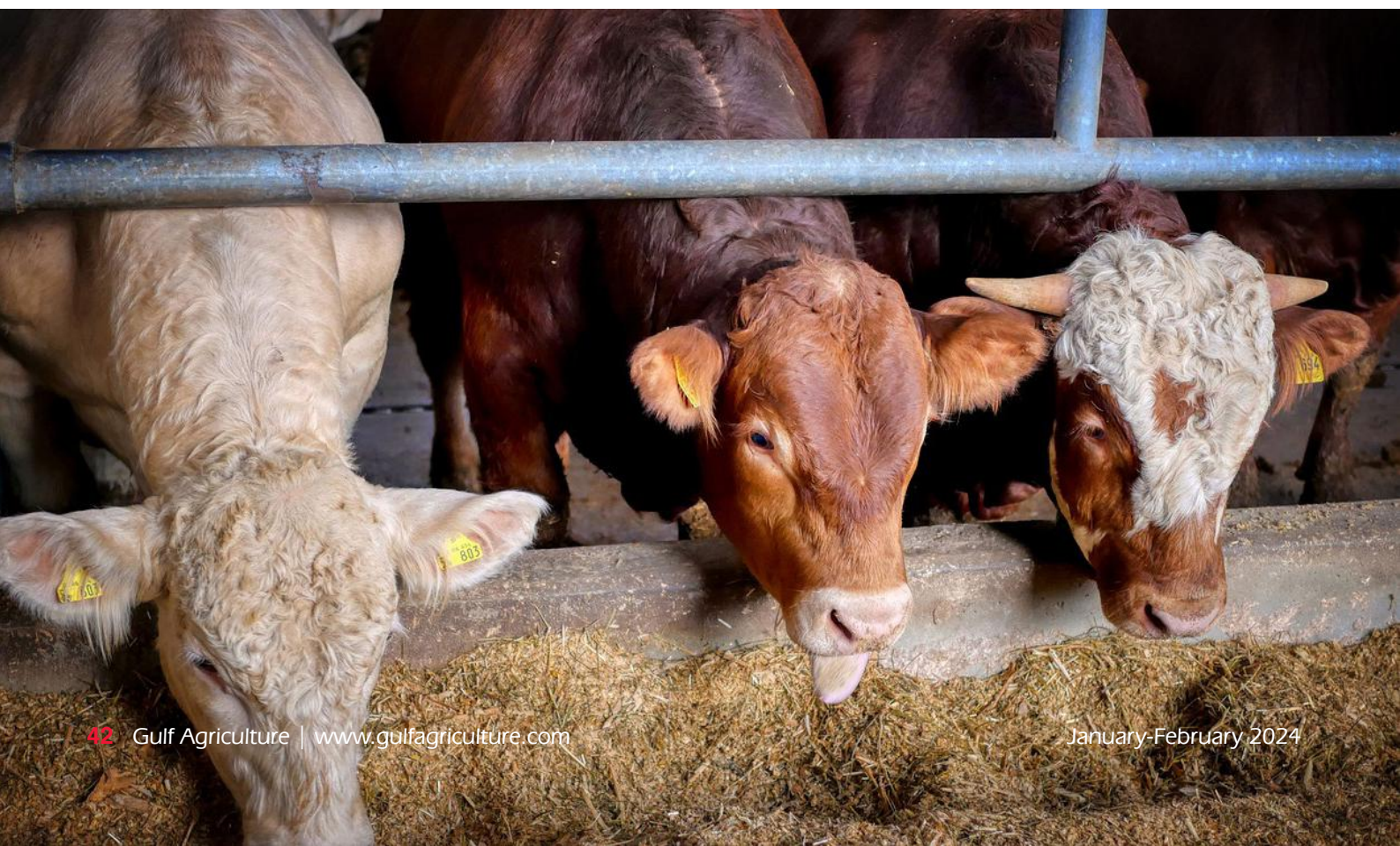
tool allows the advisor to leave their client with a concise, relevant, and aesthetically pleasing document.

The distribution plan is a very convenient document that the farmer can use to know the quantity of ingredients to mix based on the size of their mixer and on the number of meals to prepare for the herd.

A forecast of ingredients consumption allows the user to plan the raw material quantities that will be needed and can help in anticipating shortages.

Ruminix can share data with the formulation software Allix. With the built-in communication tool WebLink, data such as the ranges of feeds, tariffs, or requirements can be shared with Ruminix. Alternatively, customised feed calculated with Ruminix can be shared with Allix to then be transferred to the factory.

For more information, visit
www.a-systems.com



HUVECHECK® HETASCA: A NOVEL TOOL FOR MONITORED DEWORMING PROGRAMS IN CHICKENS

Roundworm infections are an increasing concern for poultry producers, especially in cage-free housing systems. Next to losses in production, worms can act as a vector for other diseases such as *Salmonella* spp. and *Histomonas meleagridis*, the latter being the causative agent of blackhead disease.

Histomonas meleagridis is a protozoal pathogen mainly known to cause high mortality in turkeys, but in recent years more and more diagnosed in chickens (layers and breeders) causing the typical caecal and liver lesions, or as an underlying cause of chronic *E. coli*

mortality.

Prevention of this disease is key to avoid outbreaks for which limited treatment options exist. One aspect of prevention is completely stopping the replication and infection with *Heterakis gallinarum* in an early phase, even before it is or can be detected by EPC or necropsy.

Serology with HuveCheck Hetasca can detect worm infections early in the rearing phase of layers and broiler breeders. Deworming at the end of the rearing period will allow the worm eggs to spread and hatch undetected in such a way to spread *Histomonas meleagridis* in the flock without



any clinical symptoms. Later on, when the birds go into production, outbreaks can occur. This was demonstrated using HuveCheck Hetasca where a correlation was found between positive serologic flocks during rearing and blackhead disease outbreaks during the production phase.

To prevent *Histomonas meleagridis* outbreaks during production, it is critical to implement a monitored deworming program during rearing with HuveCheck Hetasca instead of, as is commonly practiced today, deworming at the end of the rearing period.

For more information, visit www.huvepharma.com



AL DAHRA'S AL TANNAF REVOLUTIONISES ACCESS TO ANIMAL FEED WITH INNOVATIVE APP

The first of its kind e-commerce and retail platform, Al Tannaf, has been redefining the animal feed industry in the UAE. Al Tannaf is an integral division of Al Dahra, one of the leaders in the agribusiness and animal feed industry internationally and is on a mission to provide high-quality animal feed products specifically formulated to cater to the nutritional needs of camels, sheep, goats, poultry, horses, and other large farm animals that are bred. Al Tannaf is not just a brand that blends tradition and innovation, but a testament to Al Dahra's commitment to quality and convenience.

"Sourcing feed has never been simpler," says Fahad Ghanem, a devoted local farmer. "Al Tannaf's app is a gateway to a wide assortment of feeds, each tailored to meet specific animal requirements. It's not just about placing an order; it's about finding the perfect nutritional balance for our animals — the process is swift, seamless, and secure."

Farmers across the UAE are

embracing Al Tannaf's transformative experience, which represents a convenient e-commerce application for customers that prioritises user-friendliness and security. For those who prefer a more traditional approach, Al Tannaf offers expert guidance across 10 strategically located stores in Dubai and Abu Dhabi.

Global partnerships enhance Al Tannaf's offerings, ensuring a consistent supply of high-quality ingredients from around the world. Al Tannaf caters to diverse animals, from camels to goats and poultry, guaranteeing top-notch nutrition year-round. But Al Tannaf's ethos extends beyond commerce: It's a journey from seed to feed, reflected in its slogan 'From the Perfect Seed to the Perfect Feed.' This is a commitment encapsulated across all

touchpoints, from selecting the finest seeds to formulating nutritional feeds.

In the spirit of generosity, Al Tannaf announces a special promotion: with every purchase of Al Tannaf alfalfa, customers will receive complimentary Wafi compound feed pellet bags — a token of appreciation for the farmers' dedication and a delightful treat for their animals. Interested customers can download the Al Tannaf app from the Google Play and App Store or visit www.altannaf.com for more information.

Al Tannaf, a division of Al Dahra, continues to lead the way in global feed and forage supply, demonstrating a dedication to agricultural excellence and innovation.

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