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AGRICULTURE

TRADE MAGAZINE

YOUR GATEWAY TO THE MIDDLE EAST AGRIBUSINESS

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11 - 21 cm

GrowStream

THE WORLD'S FIRST PLANT-RESPONSIVE WATER & NUTRIENT DELIVERY SYSTEM

GrowStream™ is a globally patented technology based on organic chemistry that interacts with plant root signals to deliver water and fertilizer through a subsurface irrigation system.

THE MOST WATER EFFICIENT IRRIGATION SYSTEM EVER MADE

- increases crop yield and grade
- precision irrigation for every plant
- no complex flow / ET calculations
- ultra-low pressure system
- no electricity required
- works with poor quality water and soil
- promotes soil regeneration and crop diversity

ORGANIC WATERMELONS: PORTUGAL

*Grower produced a **SECOND** commercial-grade harvest*



VERTICAL FARM: ABUJA, NIGERIA

*Increased Yield: **35%**
Reduced Energy Use: **95%***



BITTER GOURD: PAKISTAN

*Increased Yield: **50%**
Harvest: **1-week earlier***



TDI OPENS NEW FACILITY IN ABU DHABI

*Production & Distribution for MENA Region
See page #20 for more info*



RDI  RESPONSIVE
DRIP
IRRIGATION

Visit www.responsivedrip.com/gulfag and learn more about our technology, distributor opportunities, and our global efforts to create a more sustainable future.

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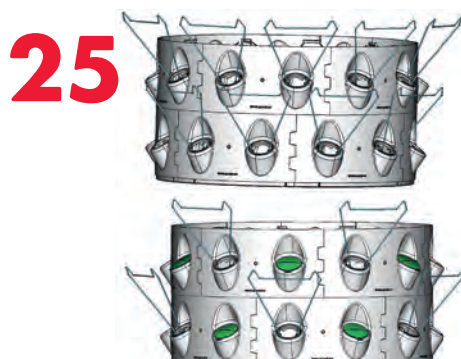
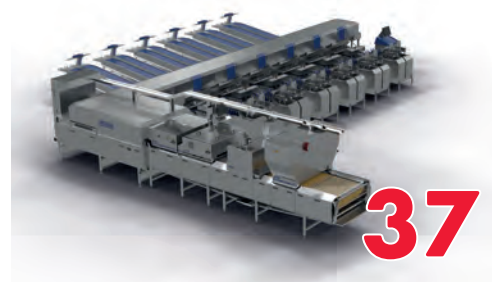
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RDI ESTABLISHES ITS NEW REGIONAL HUB FOR R&D AND PRODUCTION IN ABU DHABI

Author: Tam Le

Much has happened, since Responsive Drip Irrigation (RDI) won the "Best Innovation by a Startup" Award at the 2019 Global Forum for Innovation. A global pandemic has been reshaping our world. This crisis has touched lives in every nation, indiscriminately destroying families, businesses and economies in countries around the world. The disruption in supply chains revealed the fragile nature of our current

systems and practices. A focus on internal food security and addressing future global threats, like water scarcity, climate change, and increasing food shortages suddenly became more real.

In the past 18 months, RDI was adopted and is now being used in projects in 14 countries. The question is "Why would RDI, a small company that's a new player amongst the giants that have dominated the irrigation market, be catapulted

to the forefront during 2020?" The answer is simple: RDI GrowStream™ is a disruptive technology that diverges from the standard systems that have failed to keep up with growing population demands and that have continued with practices that are depleting and degrading the planet's natural resources. RDI GrowStream™ provides solutions for food security, water scarcity, soil health, and climate change around

the world.

In Africa, the conversion to RDI GrowStream™ from hydroponic systems used in vertical farming in greenhouses has resulted in reductions in water use, lower labor and energy costs; while producing earlier harvest and higher yields. (see Abuja, Nigeria vertical trays picture). GrowStream™ is enabling smallholder farmers and refugees in camps to obtain high yields for diverse crops on 1-2 hectare farms using RDI's plant-responsive irrigation system that is operated from a raised water tank.

RDI is the solution to increase food production and local food security. In late 2019 and early 2020, comparative vegetable trials in Pakistan, revealed yield increases of more than 300% obtained using GrowStream™ versus standard drip irrigation. Since then, Pakistan's National Agricultural Research Center and Pakistan's Agricultural Research Council have begun new field trials using GrowStream™. (see photo of field vegetables in Pakistan). Regional projects will be started September through

October 2020: Quetta (tunnel vegetables), Mustung (pistachio orchard), Karachi for Peri Urban agriculture, and vegetables in Chulistan desert, Lasbela, and Sindh Province (saline water use).

Responsive Drip Irrigation has established its new regional hub for R&D and production in Abu Dhabi. With the support of the Abu Dhabi Investment Office (ADIO), the R&D center is a monumental step for RDI and its plant-responsive water and nutrient delivery system. Leveraging this incredible technology, RDI's mission is to "facilitate changes to conserve water, eliminate world hunger, and ensure a sustainable future." And with Abu Dhabi's continued leadership in innovation and vision for global sustainability, the investment and partnership will boldly tackle some of the largest global issues.

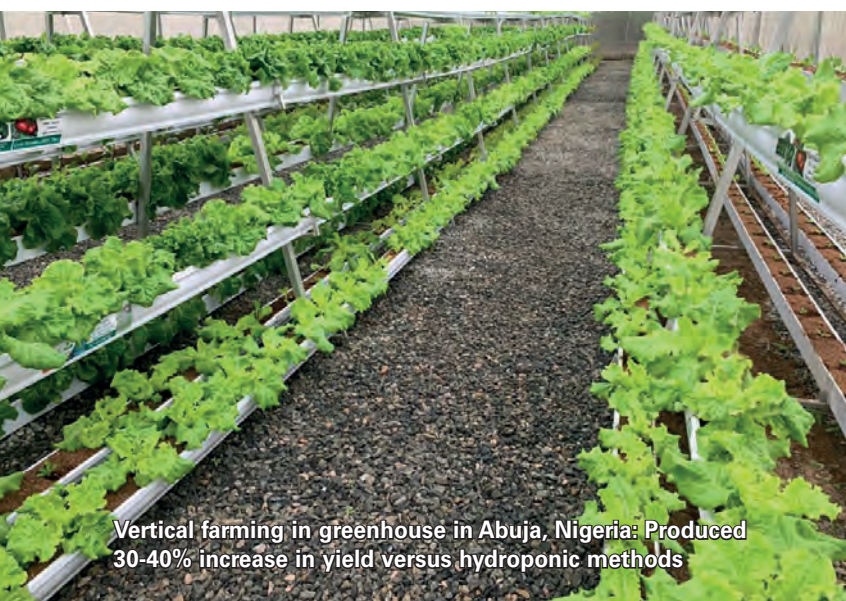
The World Resources Institute (WRI) lists 17 countries as experiencing "extremely high" levels of baseline water stress... 12 are located in the MENA region. RDI GrowStream™ responds to plant root signals, delivering water and nutrients on-demand to each and every

plant. This incredible new system has even more benefits for hyper-arid climates like Abu Dhabi (sandy soil + extreme heat = some the toughest environments to efficiently grow crops). Water is easily and quickly lost either to percolation (through the sandy soil) or evaporation (from the high temps). By delivering water only when the plant calls for it and directly to the roots, RDI GrowStream™ provides water-efficiency that no other technology can match.

The pandemic has revealed the challenges of a globalized food system and highlighted the need for sustainable, healthy, and locally produced food. RDI has launched projects throughout the USA, Europe, Africa, and western Asia, and recently begun work with a major supplier to NGO's. Australia is launching the RDI system this Fall, as they start their growing season.

Globally, RDI is demonstrating another major benefit: crop diversity. Any farmer can now easily grow a variety of diverse crops because of GrowStream's™ nature-driven water delivery

RESPONSIVE DRIP IRRIGATION IS COMMITTED TO BUILDING A GREENER TOMORROW FOR GENERATIONS TO COME. IF WE ALL WORK TOGETHER, THERE IS HOPE FOR RECOVERY FROM THIS GLOBAL CRISIS. WE JUST NEED TO PLANT THE SEED.



Vertical farming in greenhouse in Abuja, Nigeria: Produced 30-40% increase in yield versus hydroponic methods



Capsicum in Kenya

system. Expert knowledge of flow rates and crop water requirements are no longer needed to grow high-quality, commercial-grade produce. This crop diversity builds resilience for growers and gives the ability to meet shifting market demands. RDI's new R&D center will focus on studying regional crop varieties, as well as, new crops not typically grown locally, establishing best practices for RDI GrowStream™ in hyper-arid climates.

In just the last 40 years, one-third of the planet's arable land has been lost due to erosion or pollution. RDI's technology promotes regenerative agriculture - a holistic approach to farming that seeks to build healthy soil, increase biodiversity, and ensure the land can be farmed by future generations. RDI GrowStream™ works in the rhizosphere and can uniquely deliver a new breed of organic, natural soil amendments and enhancements. With many regional initiatives

to convert desert landscapes into green cities, RDI will help drive the sustainable development of these cities and their green living spaces, in addition to improving soil health to develop new areas suitable for crop production.

To help achieve Abu Dhabi's vision for 2030, Responsive Drip Irrigation also plans to build the RDI Abu Dhabi Center for Global Sustainability. Set to launch in 2021, this new state-of-the-art center will not only showcase RDI's plant-responsive system, but will serve as an exhibition center for AgTech innovations and will provide educational programs and seminars on the latest methods and best practices for implementing plant-responsive technology, regenerative farming, utilization of reclaimed water, sustainable building materials, energy conservation, carbon sequestering, and factors to address climate change. Ongoing plant and crop studies and research programs

will be performed, which will be open to the general public for touring and presentations. The RDI Abu Dhabi Center for Global Sustainability will provide information and demonstrate the broad impact on water conservation, soil regeneration, and climate change that RDI's plant-responsive technology will have across various sectors from crop production to landscape management, and even to eco-friendly buildings... all contributing to the global effort to create a future that is livable for generations to come.

Responsive Drip Irrigation is committed to building a greener tomorrow for generations to come.

Jan Gould, RDI's owner, believes "If we all work together, there is hope for recovery from this global crisis. We just need to plant the seed."

To learn more about RDI's efforts in Abu Dhabi and how we can work together for a sustainable future, visit www.responsivedrip.com



Pakistan bitter gourd field trial: 1-week earlier harvest & 50% higher yield with less water – Trial ongoing into Fall



Portugal: RDI produced a second commercial-grade watermelon harvest