



# Water

is essential for all life. Due to the increasing demand by mankind's

growing population, expanding industry and urban development: water scarcity is a threatening reality. Responsive Drip Irrigation (RDI) is a solution to the world's growing water scarcity.

After more than a decade of research and development, RDI commercially released GrowStream™, the world's first plant-responsive irrigation system in December of 2018. This disruptive irrigation technology uses an understanding of plant physiology and organic chemistry, creating GrowStream's "smart" subsurface tube, which interacts and responds to chemical signals released by plants' roots. This patented, chemically-infused microporous tubing holds water and nutrients until root exudates are emitted that trigger the release of water. GrowStream™ doesn't attempt to control Nature, but rather interacts on an organic cellular level to respond to nature's signals.

This nature-driven system is the most water-efficient irrigation ever invented. GrowStream's plant-responsive system provides a slow-release delivery of water that matches the roots' absorption capacity. Since the plant is self-regulating its water delivery, the plant is less stressed, resulting in higher yields in agriculture. Lawn and landscape require far less water and achieve superior results. This plant-responsive method of irrigation demonstrates superior efficiency over all currently available subsurface drip systems, using 30-50% less water.

GrowStream's tube supplies water-soluble fertilizers directly in the rhizosphere, so plants can be grown in non-arable land and sandy soil. The water source can be a well, a river, brackish water, tap water, reclaimed water, etc. High temperatures do not affect the system's efficiency. GrowStream™ will lead to an unprecedented conversion of previously non-arable land for crop production to increase global food supply, while drastically reducing the use of earth's most valuable resource: water.

GrowStream's tube has millions of microscopic openings along its surface to release water. The system has no emitters to clog or malfunction. RDI's system operates at extremely low pressure (2-4 psi), delivering water in row lengths exceeding 1200 feet. There is no need for electronic components—just a water source. The system is simply a water pressure regulator, fittings and the tube. There are no solenoids, valves, controllers, timers or other electronic devices.

RDI offers irrigation solutions for greenhouses, orchards, rural farms, landscapes, golf courses and commercial farms. RDI was awarded the "Best Innovation by a Startup" at the March 2019 Global Forum for Innovations in Agriculture (GFIA) in Abu Dhabi. RDI is coordinating R&D projects at The Abu Dhabi Agriculture & Food Safety Authority's research facility in the UAE for further development of RDI's latest innovations.



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Following the GFIA show in Abu Dhabi, RDI began product distribution in Africa and Pakistan. Hydroponics Africa Limited, an RDI distributor in Africa, has installed GrowStream™ in greenhouses, farms, and refugee camps. Affectionately called the "magic tube", the system is producing higher yields using 40-50% less water than drip or hydroponic methods. RDI's system has been presented for use in Nairobi's and Somalia's city beautification projects. Eva-Anna Farms, RDI's distributor in Pakistan, has begun agricultural installations at the National Agricultural Resource Center and also began turf and landscape installations for commercial projects and communities in Islamabad.

GrowStream™ is capable of growing plants in the harshest of environments, while using minimal amounts of water. RDI's mission is focused on increasing food

production in arable and non-arable lands to match the needs of the growing global population, while creating liveable cities to ensure a sustainable environment that conserves water; our planet's most precious resource. This plant-responsive technology will forever change the way the world irrigates.

For more information about RDI: visit their website at: [www.responsivedrip.com](http://www.responsivedrip.com), call them in the U.S. at: (+1) 941.792.9788, or email: [info@responsivedrip.com](mailto:info@responsivedrip.com). Responsive Drip Irrigation, LLC, 6404 Manatee Ave. W. Suite N, Bradenton, FL 34209

