



Arcadia Biosciences' Traits Increase Rice Yields By Double Digits

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-- Triple stack innovation demonstrates value across multiple growing conditions, enhancing crop productivity, climate stability and stewardship --

DAVIS, Calif.--(BUSINESS WIRE)--May 8, 2018-- [Arcadia Biosciences](#) (Nasdaq: RKDA), an agricultural food ingredient company, today announced field trials results from the past two crop seasons showing significant yield gains in rice with three of Arcadia's proprietary input traits stacked together. In the trials, conducted at the [International Center for Tropical Agriculture](#) (CIAT) in Colombia, multiple rice lines carrying the nitrogen use efficiency (NUE), water use efficiency (WUE) and salinity tolerance (ST) traits outperformed appropriate control lines by an average of 25 percent under limiting nitrogen applications, when measured for yield, with the lead line yielding up to 33 percent more. The same lines yielded an average of 40 percent more than controls under combined limiting nitrogen and drought conditions in the field, with the lead line showing 50 percent higher yield under multiple abiotic stresses.

Previous field trials in California by Arcadia had shown the potential for stacking these traits in rice as a tool to safeguard food security, and the recent data from CIAT confirms that there may be synergistic effects between traits that protect crops against various abiotic stresses. These results indicate Arcadia's rice crop can offer a new strategy to preserve yield from potential loss due to climate change. In addition, Arcadia's rice varieties offer more efficient nitrogen use, effective nutrient management, optimizing uptake and reducing nutrient loss and leaching, a global environmental concern.

"Arcadia is a recognized leader in the area of abiotic stress mitigation traits targeting meaningful yield gains in the most important crops in the world," said Raj Ketkar, president and CEO. "These results show that our agricultural productivity traits hold significant promise to help farmers globally as they deal with the effects of a variety of challenging growing conditions, such as nutrient-deficient soil, drought and salinity, enabling them to increase yields and improve farm revenue."

Rice is the world's most valuable crop, with an annual harvest value of around \$340 billion. Americans eat an average of 26 pounds of rice annually, while Asians consume 300 pounds per year per capita. Global rice production in 2017 was 837.3 million tons, grown on 399 million acres worldwide, roughly equivalent to the surface area of Iran, the 17th largest country in the world.

The triple-stack trait trials in rice are part of the NEWEST project, coordinated by the [African Agricultural Technology Foundation](#) (AATF), and sponsored by the [Feed the Future](#) initiative of USAID. AATF recently secured continued funding for performing regulatory field trials with NUE rice in Africa.

About Arcadia Biosciences, Inc.

Arcadia Biosciences (Nasdaq: RKDA) develops and markets high-value food ingredients and nutritional oils that help meet consumer demand for a healthier diet. Arcadia's GoodWheat™ branded ingredients deliver health benefits to consumers and enable consumer packaged goods companies to differentiate their brands in the marketplace. The company's portfolio of agricultural traits are being developed to enable farmers around the world to be more productive and minimize the impact of agriculture on the environment. For more information visit www.arcadiabio.com.

About the International Center for Tropical Agriculture (CIAT)

The International Center for Tropical Agriculture (CIAT) – a CGIAR Research Center – develops technologies, innovative methods, and new knowledge that better enable farmers, especially smallholders, to make agriculture eco-efficient – that is, competitive and profitable as well as sustainable and resilient. Eco-efficient agriculture reduces hunger and poverty, improves human nutrition, and offers solutions to environmental degradation and climate change in the tropics. With headquarters near Cali, Colombia, CIAT conducts research for development in tropical regions of Africa, Asia, and Latin America. www.ciat.cgiar.org.

About The African Agricultural Technology Foundation (AATF)

The African Agricultural Technology Foundation (AATF) is a not-for-profit organization that facilitates and promotes public/private partnerships to access, develop, adapt and deliver appropriate agricultural technologies for sustainable use by smallholder farmers in Sub-Saharan Africa through innovative partnerships and effective stewardship along the entire value chain. It is headquartered in Nairobi, and its mandate covers sub-Saharan Africa. For more information, visit www.aatf-africa.org.

Note Regarding Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including statements relating to the company's expectations regarding its NUE, WUE and ST trait stacks and their impact on yields. Forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially, and reported results should not be considered as an indication

of future performance. These risks and uncertainties include, but are not limited to: the company's and its partners' and affiliates' ability to identify and isolate desired traits; the company's and its partners' ability to develop commercial products incorporating its traits and complete the regulatory review process for such products; the company's compliance with laws and regulations that impact the company's business, and changes to such laws and regulations; the company's future capital requirements and ability to satisfy its capital needs; and the other risks set forth in the company's filings with the Securities and Exchange Commission from time to time, including the risks set forth in the company's Annual Report on Form 10-K for the year ended December 31, 2017. These forward-looking statements speak only as of the date hereof, and Arcadia Biosciences, Inc. disclaims any obligation to update these forward-looking statements.

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