

Study Shows Arcadia's Nitrogen Use Efficiency Trait Increases Yield in NERICA Rice

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DAVIS, Calif.--(BUSINESS WIRE)--Feb. 14, 2017-- Arcadia Biosciences, Inc. (Nasdaq: RKDA), an agricultural technology company that creates value for farmers while benefitting the environment and human health, announced the results of a new study conducted by the International Center for Tropical Agriculture (CIAT). The study, "[Development and Field Performance of Nitrogen Use Efficient Rice Lines for Africa](#)," published in the *Plant Biotechnology Journal*, showed significant yield improvements in NERICA rice lines incorporating Arcadia's Nitrogen Use Efficiency (NUE) trait.

In field evaluations over three growing seasons and in both upland and lowland rice production systems, rice lines with Arcadia's NUE trait showed substantial yield increases under different nitrogen application rates. The leading NUE rice line showed a 34 percent increase over controls.

"This study indicates that Arcadia's NUE trait can support enhanced yields for the world's most important food crop," said Raj Ketkar, president and CEO of Arcadia. "While the CIAT study references NERICA rice varieties, we believe our NUE trait can generate significant yield gains, reduce the use of nitrogen fertilizer, and improve on-farm economics for farmers growing rice varieties currently being commercialized in Asia, the world's most important production and consumption rice market."

Rice is the world's most valuable crop, grown on more than 405 million acres globally with a harvest value of \$328 billion in 2013, according to the United Nations Food and Agriculture Organization. The crop plays a critical role in food security for more than half of the world's population.

Arcadia's NUE trait was developed to help farmers increase yields and reduce their use of nitrogen fertilizer, a staple in the agricultural industry for increasing crop yield. Conventional crops only use about half of applied nitrogen fertilizer. Much of the remainder moves through the soil and enters ground and surface water systems, or volatilizes into the air as a greenhouse gas 300 times more potent than carbon dioxide.

Arcadia's NUE trait enables plants to use nitrogen more efficiently, helping farmers improve yields while reducing costly fertilizer inputs and improving the environmental footprint of agriculture. The trait's efficacy has been demonstrated in multiple crops, including rice, wheat, barley and canola.

About Arcadia Biosciences, Inc.

Based in Davis, Calif., Arcadia Biosciences (NASDAQ: RKDA) develops agricultural products that create added value for farmers while benefitting the environment and enhancing human health. Arcadia's agronomic performance traits, including Nitrogen Use Efficiency, Water Use Efficiency, Salinity Tolerance, Heat Tolerance and Herbicide Tolerance, are all aimed at making agricultural production more economically efficient and environmentally sound. Arcadia's nutrition traits and products are aimed at creating healthier ingredients and whole foods with lower production costs. For more information, visit www.arcadiabio.com.

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 NUE trait and the regulatory process for such trait. 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, including NUE, 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 Quarterly Report on Form 10-Q for the quarter ended September 30, 2016 and other filings. 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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