



June 27, 2017

Yield10 Bioscience to Report Results Showing that Trait C4001 Produces Significant Increases in Plant Yield

CSO Dr. Kristi Snell to Present Results Today at the Plant Biology 2017 Conference

WOBURN, Mass., June 27, 2017 (GLOBE NEWSWIRE) -- Yield10 Bioscience, Inc. (NASDAQ:YTEN) announced that the Company's novel C4001 trait, a global regulatory gene or transcription factor, has been shown to significantly increase plant biomass yield in switchgrass. Yield10's Chief Science Officer Kristi Snell, Ph.D., will be presenting data today at the Plant Biology 2017 Conference. The C4001 trait was identified using Yield10's T3 Platform, a novel method for gene discovery.

At the conference, Dr. Snell will describe the performance of the C4001 trait in switchgrass plants, a model plant system that Yield10 has used for gene discovery and evaluation, as well as the effect of expression of C4001 on photosynthesis. Switchgrass plants expressing C4001 had significantly more aboveground biomass (75-100% increase in dry weight) as compared to controls and more root biomass (85-145% increase in dry weight) as compared to controls. The C4001 trait in switchgrass plants increased a key measure of photosynthetic efficiency, the electron transport rate, by approximately 75%. Yield10 researchers challenged the C4001 plants by engineering a novel carbon sink, the production of a biopolymer that typically reduces plant yield when expressed and accumulated at high levels in plants. Expression of C4001 in biopolymer producing plants partially restored biomass production, yielding healthier (size, weight) plants as compared to control plants, while producing the same amount of biopolymer. This novel approach of challenging the plant with a carbon sink that stresses the plant and reduces its biomass allows Yield10 researchers to further evaluate and understand the performance of novel yield traits and their ability to increase carbon fixation rates in plants. Dr. Snell will also discuss the use of the T3 Platform to identify downstream transcription factors and metabolic genes controlled by C4001 that are targets for genome editing to increase crop yield.

"The T3 Platform and switchgrass system developed by our team provides a unique tool for the discovery and characterization of yield trait genes," commented Dr. Snell. "The results in switchgrass reported today underscore the unique insights we've gained as we have engineered improvements to photosynthetic efficiency into plants. Based on this fundamental research tool, we have identified novel yield traits and genome editing targets having the potential to produce step-changes in plant productivity."

"As a next step, we are planning to evaluate C4001-like traits in forage crops and major commercial crops including corn and rice. We are currently evaluating the trait in rice in greenhouse studies, where we are seeing evidence of increased biomass and are awaiting results from ongoing research to determine the impact on seed yield," commented Dr. Snell.

The Plant Biology 2017 Conference is the annual meeting of the American Society of Plant Biologists being held June 24-28 in Honolulu, Hawaii. Dr. Snell will present in a session entitled "Applied Plant Biology" which is scheduled for today at 1:30 pm (HAST local time or 7:30 pm ET).

About Yield10 Bioscience

Yield10 Bioscience, Inc. is focused on developing new technologies to achieve step-change improvements in crop yield to enhance global food security. Yield10 has an extensive track record of innovation based around optimizing the flow of carbon in living systems. Yield10 is leveraging its technology platforms and unique knowledge base to design precise alterations to gene activity and the flow of carbon in plants to produce higher yields with lower inputs of land, water or fertilizer. Yield10 is advancing several yield traits it has developed in crops such as Camelina, canola, soybean and corn. Yield10 is headquartered in Woburn, MA and has an Oilseeds center of excellence in Saskatoon, Canada.

For more information about the Company please visit www.yield10bio.com. A copy of Dr. Snell's presentation will be posted to the website following the presentation later today.

(YTEN-G)

Safe Harbor for Forward-Looking Statements

This press release contains forward-looking statements which are made pursuant to the safe harbor provisions of Section

27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. The forward-looking statements in this release do not constitute guarantees of future performance. Investors are cautioned that statements in this press release which are not strictly historical, including, without limitation, the potential for identifying new yield traits through genome editing, using the T3 platform to discover new yield trait genes, and developing new yield traits that can produce step-changes in crop yield, constitute forward-looking statements. Such forward-looking statements are subject to a number of risks and uncertainties that could cause actual results to differ materially from those anticipated, including the risks and uncertainties detailed in Yield10 Bioscience's filings with the Securities and Exchange Commission. Yield10 assumes no obligation to update any forward-looking information contained in this press release or with respect to the matters described herein.

Contacts:

Yield10 Bioscience:

Lynne H. Brum, (617) 682-4693, LBrum@yield10bio.com

Investor Relations Contact:

Amato and Partners, LLC

90 Park Avenue, 17th Floor

New York, NY 10016

admin@amatoandpartners.com

 Primary Logo

Source: Yield10 Bioscience, Inc.

News Provided by Acquire Media