



Yield10 Bioscience Announces Plans for its 2018 Field Test Program

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WOBURN, Mass., April 24, 2018 (GLOBE NEWSWIRE) -- Yield10 Bioscience, Inc. (NASDAQ:YTEN), a Company developing new technologies to create step-change improvements in crop yield to enhance global food security, today announced plans for its 2018 Field Test Program. The main focus of the 2018 Program will be on the novel yield trait gene C3003 in Camelina, canola and soybean. The Company recently obtained permits allowing these tests to be conducted at sites in Canada. Yield10 plans to conduct an additional study in the U.S. of Camelina lines that have been genome edited to inactivate the C3008 gene as part of a new multi-trait approach to increase seed oil content and to potentially improve oil stability. Yield10 expects to begin planting during the second quarter with timing dependent upon suitable weather and soil conditions, and to report results of the field tests beginning in the fourth quarter of 2018.

A summary of Yield10's 2018 Field Test Program:

- **Camelina/C3003:** Yield10 will test Gen 2.0 and 2.1 versions of C3003 in Camelina from seed produced during its 2017 field tests.
- **Canola/C3003:** Yield10 will test Gen 1.0 C3003 from seed produced in its 2017 field tests, and for the first time will conduct a field test of Gen 2.0 C3003 in canola using recently harvested greenhouse grown seed.
- **Soybean/C3003:** Yield10 will conduct small-scale field work for the first time for Gen 1.0 and Gen 2.0 C3003 in soybean using recently harvested greenhouse grown seed.
- **Camelina/C3008:** Yield10 will conduct field tests with genome-edited C3008 lines for which the Company obtained non-regulated status from USDA-APHIS in 2017.

In the field tests of C3003 in Camelina and canola, Yield10 will monitor key agronomic and growth parameters of the plants throughout the growth period, and will collect seed yield data including seed weight and oil content after harvest. All measurements of C3003 lines will be compared to control plants. The objective of the Camelina and canola tests is to evaluate multiple constructs of C3003 to enable optimization of the trait to increase seed yield in major oilseed crops.

For soybean, the primary objective of the field work is to produce sufficient field grown seed for small-scale field tests of C3003 in a limited number of soybean lines planned for 2019. Yield10 also plans to monitor key agronomic and growth parameters of the soybean plants throughout the season.

For the field test of C3008 Camelina lines, the objective of the field work is to evaluate agronomic and growth parameters of the plants to set a baseline for the future evaluation of the stacking of multiple genome-edited traits designed by Yield10 to increase oil content as well as to improve oil stability in oilseed crops.

"In 2018, we plan to conduct our most comprehensive studies to date of C3003 in oilseed crops, the results of which will be used to help us optimize the C3003 trait to significantly increase yield and to select the most promising events for further development," said Kristi Snell, Ph.D., Chief Science Officer of Yield10 Bioscience. "The development and optimization of C3003 for improving yield in oilseed crops represents a significant potential market opportunity to address the unmet need for global food security."

Dr. Snell continued, "We envision stacking C3008 with additional genome-edited traits in our portfolio as a strategy to significantly increase oil content and improve oil stability. The evaluation of C3008 in the field for the first time this year will mark an important milestone in our research to develop and evaluate genome-edited traits designed to work together as a system in oilseed crops."

Technology Platform

The foundation of Yield10's "GRAIN" trait gene discovery platform is built upon sophisticated metabolic carbon-flux modelling to identify gene targets with the potential to enhance carbon capture from photosynthesis and optimize the flow of carbon to seed. For some traits, Yield10's approach leverages sourcing of new metabolic functionality from non-plant systems to address fundamental limitations or bottlenecks in plant carbon metabolism. For other traits, plant genome editing targets are identified. This informed, science based approach allows Yield10 to address the problem of increasing crop yield from a unique perspective compared to other players in the industry. C3003, which is derived from algae, represents the lead trait in this platform. C3003 appears to be a unique gene that impacts photorespiration, a biochemical pathway in C3 photosynthetic plants which is responsible for significant losses in yield. The purpose of increased seed yield is to enable farmers to increase the productivity of their land. Yield10 is progressing the introduction of the C3003 gene trait as well as improvements to the C3003 trait, such as the second generation trait, in Camelina, canola, soybean and rice, and expects to report additional results from these activities in 2018. Separately, C3008 is one of a number of genes involved in plant seed oil metabolism the Company is developing using a metabolic systems based approach to increase seed oil content and improve oil stability using genome editing.

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 rice. 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.

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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, statements regarding the Company's intentions with regard to plans to conduct field tests with Camelina, canola and soybean in 2018, the results and outcome of those tests, and expectations with regard to the timing of (1) planting for its 2018 Spring field tests, and (2) reporting results of the field tests, 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:

Amato and Partners, LLC

admin@amatoandpartners.com

Media Inquiries:

Eric Fischgrund

Fischtank Marketing and PR

eric@fischtankpr.com

 [Primary Logo](#)

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