

Yield10 Bioscience Reports Preliminary 2016 Camelina Field Test Results Showing that the C3003 Trait Produces Significant Improvements in Seed Yield

WOBURN, Mass., Jan. 26, 2017 (GLOBE NEWSWIRE) -- Yield10 Bioscience, Inc. (NASDAQ:YTEN) today announced preliminary field test results in its model Camelina system showing that the novel yield trait gene C3003 produces significant improvements in seed yield. Specifically, C3003 produced an increase in seed yield in Camelina of up to 23% in the best line as measured by average seed weight (kg/hectare), which was statistically significant as compared to control plants. The field trials, which were started in May 2016, were primarily designed to establish Yield10's Fast Field Testing platform and accelerate the generation of field data for crop trait discovery and improvement in addition to evaluating changes in seed yield and composition generated by specific trait leads in Camelina. The Company has substantially completed the analysis of data from this field test relating to C3003; however, gene expression analysis of the plants is ongoing.

"The oilseed yield results for C3003 from this field test represent an important milestone for Yield10 and indicate that this trait may provide a novel way to produce, not incremental improvements, but step-change improvements in yield in oilseeds and other crops," said Oliver Peoples, Ph.D., President and Chief Executive Officer of Yield10. "These results also illustrate that our 'Fast Field Testing' system in Camelina may be a valuable tool for novel yield trait discovery facilitating improvements for translation into commercially important crops such as canola, soybean and rice."

Results

Stable Camelina seed lines expressing the yield trait gene C3003 were studied in this field trial. The highest yielding line expressing the C3003 gene matured an average of six days earlier than controls. While expression of C3003 enabled some lines to produce higher seed yields per acre, up to a 23% increase in the best line, the individual seed size in these lines was decreased compared to controls, likely due to a change in carbon partitioning in the plant. This reduction in seed size was expected based on data from prior greenhouse trials and Yield10 is currently addressing this with its second generation C3003 trait. Expression of C3003 did not change the total amount of oil in the seed.

"The key findings for C3003 in our 2016 field trial in Camelina are very encouraging and consistent with prior greenhouse and small field tests conducted by Yield10 and our academic collaborator," said Kristi Snell, Ph.D., Chief Science Officer of Yield10. "Evaluation of the C3003 trait is progressing in parallel in canola, soybean and rice, key crops where step-change increases in seed yield would improve the prospects for global food security and create considerable economic value."

Background on the Novel Yield Trait Gene C3003

Yield10's "Smart Carbon Grid for Plants" technology platform focuses on identifying gene targets that enhance carbon capture from photosynthesis and regulate the flow of carbon to seed. C3003 represents the lead trait in this platform. C3003 appears to be a very unique gene that impacts photorespiration, a biochemical pathway in C3 plants which is responsible for significant losses in yield. Yield10 is progressing the introduction of the C3003 gene trait and improvements to the C3003 trait in Camelina, canola, soybean and rice, and expects to disclose additional results from a number of these activities throughout 2017.

Conference Call Information

Management will host an investor presentation conference call on Thursday, January 26th, 2017 at 4:30 p.m. (ET). A live webcast of the call, including a slide deck, can be accessed on the Company website at http://www.yield10bio.com in the investor relations section. To participate in the call, dial toll-free 877-709-8150 or 201-689-8354 (international).

To listen to a telephonic replay of the conference call, dial toll-free 877-660-6853 or 201-612-7415 (international) and enter pass code 13653574. The replay will be available for 14 days. In addition, the webcast will be archived on the Company's website in the investor relations section.

About Yield10 Bioscience

Yield10 Bioscience, Inc. is focused on developing disruptive technologies for producing step-change improvements in crop yield to enhance global food security. Yield10 is leveraging an extensive track record of innovation based around

optimizing the flow of carbon intermediates in living systems. By working on new approaches to improve fundamental elements of plant photosynthetic efficiency and optimizing carbon metabolism to direct more carbon to seed production, Yield10 is advancing several yield traits it has developed in crops such as Camelina, canola, soybean and corn. Yield10 is based in Woburn, MA.

For more information visit www.Yield10bio.com (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 statements, including, without limitation, expectations regarding the reproducibility of data from field tests, the translation of yield improvements from Camelina to other crops, the potential to produce improvements in seed yield while also maintaining typical seed size and oil composition, the timing of completion of additional greenhouse and field test studies, and progress of Yield10 Bioscience, Inc., 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 Bioscience assumes no obligation to update any forward-looking information contained in this press release or with respect to the announcements described herein.

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