



Yield10 Bioscience Reports Encouraging Results from 2018 Field Tests of C3003 and Announces Advancement of C3003 into Commercial Development for Canola

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WOBURN, Mass., Jan. 15, 2019 (GLOBE NEWSWIRE) -- Yield10 Bioscience, Inc. (Nasdaq:YTEN), a Company developing new technologies to create step-change improvements in crop yield that enhance global food security, today announced encouraging results from the Company's 2018 Field Tests of C3003, a novel yield trait, in canola, Camelina and soybean.

Yield10 is targeting step-changes of 10-20% in the evaluation and development of novel traits to increase seed yield in commercially important crops. In summary, the C3003 trait produced seed yield increases of up to 11% in the best lines of canola tested. Based on these results, the Company will progress C3003 in canola into the commercial development phase in 2019. The key activities to be completed during this next phase include development of additional commercial quality events in elite canola germplasm, execution of multi-site, multi-year field studies and development of regulatory data as appropriate.

The 2018 Field Tests of C3003 were conducted at sites in Canada. The main objectives of the studies were to evaluate the performance of the novel lead yield trait gene C3003 in Camelina and canola, and to bulk up seed for soybean studies planned for 2019. Highlights from the studies include:

Canola results: In Yield10's 2018 Field Tests, the C3003 Gen 2.0 yield trait was tested for the first time in canola. The best C3003 Gen 2.0 canola lines showed an increase in seed yield of 11% as compared to control plants, a statistically significant outcome. In C3003 Gen 2.0 canola plants, the weight of an individual seed (measured using 1000 seeds) was similar to control plants, an expected outcome using the Gen 2.0 version of the C3003 trait.

Camelina results: In Yield10's 2018 Field Tests, the C3003 Gen 2.0 yield trait was tested in Camelina. Challenging weather conditions affected the results from the Camelina field trial. However, trends observed with the best Camelina C3003 Gen 2.0 lines support the canola observation that seed yields can be increased with the C3003 Gen 2.0 trait, particularly under drought conditions. The Company plans to further investigate the potential for C3003 to provide drought tolerance in oilseed and other commercial row crops.

Soybean seed production: In the 2018 Field Tests, Yield10 met its objective of producing field grown seed for C3003 Gen 1.0 and Gen. 2.0 soybean plants. This seed will be used to conduct field tests of C3003 in soybean in the 2019 growing season.

Further analysis underway: Yield10 researchers are conducting a comprehensive analysis of the 2018 field tests and will assess a range of additional data including gene expression, oil content and fatty acid composition produced in the C3003 containing plant lines.

"We collected a wide range of data on C3003 in our 2018 field tests, including encouraging seed yield data in canola and Camelina," said Kristi Snell, Ph.D., Chief Science Officer of Yield10. "The results we obtained for the seed-specific, Gen 2.0 version of the trait support initiating commercial development activities with C3003 in canola in 2019. In support of further development of C3003 in soybean, we successfully bulked up C3003 soybean seed in the 2018 growing season and remain on track to conduct broader field tests in the crop during 2019."

"While growing conditions were challenging at our Saskatoon field test site throughout the 2018 growing season, these persistent drought conditions served to provide us with new insights on the activity of C3003 to potentially help preserve crop yield during drought stress. We plan to follow up on this promising new finding in future field work with C3003," said Dr. Snell.

"Our team has successfully demonstrated the ability to plan and manage increasingly complex field studies of novel yield traits deployed in oilseed crops," said Oliver Peoples, Ph.D., President and Chief Executive Officer of Yield10. "We achieved an important milestone for C3003 as it is now progressing into the commercial development phase in canola, an important North American commercial crop. We believe that in having demonstrated seed yield increases in the range of 10% in canola, we are well-positioned to form strategic partnerships for the commercialization of C3003 as a new yield trait."

Canola is an important edible oil crop and the global demand for edible oils continues to outstrip supply¹. According to the USDA, canola was grown on 18.9 million acres in the U.S. and Canada in 2018. A recent 2018 projection for Canadian production of canola is an average yield of 37.5 bushels/acre and 19.2 million metric tons. The Canola Council of Canada has [set yield goals](#) of 52 bushels/acre for 26 million metric tons of production to meet global market demand for canola by 2025.

¹Reference: Parcell, J, Kojima, Y, Roach, A, Cain, W. Global Edible Vegetable Oil Market Trends. Biomed J Sci & Tech Res 2(1)- 2018. BJSTR. MS.ID.000680. DOI : [10.26717/BJSTR.2018.02.000680](https://doi.org/10.26717/BJSTR.2018.02.000680).

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, wheat 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, expectations regarding the reproducibility of data from field tests, the translation of yield improvements from Camelina or canola to other crops, the potential to produce improvements in seed yield while also maintaining typical seed weight and oil composition, the ability to identify collaborators for C3003, 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 assumes no obligation to update any forward-looking information contained in this press release or with respect to the matters described herein.

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