



## **Yield10 Bioscience Obtains Positive Response from USDA-APHIS on Regulatory Status of its CRISPR Genome-Edited C3007 Trait in Camelina, Paving the Way for U.S. Field Tests**

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WOBURN, Mass., April 27, 2020 (GLOBE NEWSWIRE) -- Yield10 Bioscience, Inc. (Nasdaq:YTEN), an agricultural bioscience company, today announced that it has obtained a positive response from USDA-APHIS's Biotechnology Regulatory Services (BRS) for its CRISPR genome-edited C3007 trait in *Camelina sativa* plant lines designed to increase oil content. Yield10's submission along with the USDA-APHIS BRS response is posted on the [USDA's website](#).

In January 2020, Yield10 submitted an "Am I Regulated?" letter to the BRS, requesting confirmation of the regulatory status for Camelina plant lines containing the Company's novel, CRISPR genome-edited C3007 trait. The positive USDA-APHIS response came in the form of a published letter indicating that the plant lines do not meet the definition of a regulated article under 7 CFR Part 340.

This clarification of the regulatory status under USDA-APHIS guidelines accelerates the path for Yield10 to conduct field trials of the CRISPR genome-edited C3007 plants in the United States in the 2020 growing season. The plant lines may still be subject to regulation by the U.S. Environmental Protection Agency ("EPA") or the U.S. Food and Drug Administration ("FDA").

"Receiving a positive response from USDA-APHIS for our CRISPR genome-edited C3007 lines is a critical milestone within our development program and facilitates the transition of lines with this trait to field testing this year," said Dr. Kristi Snell, Ph.D., Chief Science Officer of Yield10 Bioscience. "Initial studies with C3007 have demonstrated potential for increased oil content, and the next step of testing this trait under field conditions will help us to characterize its performance and role in boosting oil content in Camelina and other oilseed crops."

The ability to increase oil content in specialty oilseed crops like Camelina has the potential to make a significant impact in the supply of omega fatty acid containing oils, to human nutrition and aquaculture feed markets. Further, the continued analysis of C3007 and its role as a key regulator of oil content in Camelina may also enable this trait to be used to increase production of edible oils in other major oilseed crops such as soybean and canola.

"Once again, we appreciate both the speed and the transparency in which USDA-APHIS reviewed our letter and the data we provided, which has enabled us to plan our first field trials with this trait in 2020," said Dr. Oliver Peoples, Chief Executive Officer of Yield10 Bioscience. "It is this sound, science-based regulatory framework that we believe is so important to the successful development and commercialization of new technologies for agriculture to increase crop performance, as well as other efforts to address sustainable global food security."

Yield10 licensed C3007 from the University of Missouri ("MU") in 2018. The protein encoded by C3007, also known as BADC, is a novel regulator of the enzyme acetyl-CoA carboxylase (ACCase), the key enzyme for producing fatty acids for oil biosynthesis. In pilot studies conducted by MU researchers, reducing activity of the protein encoded by C3007 resulted in significantly increased oil content in seeds. Yield10 researchers have successfully used CRISPR to inactivate a number of the C3007 gene copies in Camelina and have seen clear evidence of increased oil content in some lines in laboratory studies. The use of CRISPR to deploy the trait may enable an expedited timeline for development and commercialization within the U.S. market.

The CRISPR genome-edited C3007 trait could deliver significant economic value by changing the value equation for the commercialization of identity preserved, specialty oilseed crops where the key value-driver is oil content with improved nutritional profiles for human consumption or for aquaculture feed or industrial markets. These traits may also be used to increase production of edible oils in major oilseed crops such as soybean and canola.

### **About Yield10 Bioscience**

Yield10 Bioscience, Inc. is an agricultural bioscience company developing crop innovations to improve crop yields and enhance sustainable global food security. The Company utilizes its proprietary "GRAIN" (Gene Ranking Artificial Intelligence Network) gene discovery platform to identify gene targets to improve yield performance and value in major commercial food and feed crops. Yield10 uses its Camelina oilseed platform to rapidly evaluate and field test new trait leads enabling the translation of promising new traits into the major commercial crops. As a path toward commercialization, Yield10 is pursuing a partnering approach with agricultural companies to drive new traits into development in crops such as canola, soybean and corn. The Company is also developing Camelina as a platform crop for producing nutritional oils and specialty products such as PHA biomaterials for use in water treatment applications. 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](http://www.yield10bio.com), or follow the Company on [Twitter](#), [Facebook](#) and [LinkedIn](#).

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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 ability to conduct field testing of C3007 in Camelina plant lines in 2020, the possibility that

testing this trait under field conditions will help us to characterize the performance of the trait and its role in boosting oil content in Camelina and other oilseed crops, the ability of C3007 to increase oil content in Camelina and other oilseed crops, the potential to make a significant impact in the supply of omega fatty acid containing oils to human nutrition and aquaculture feed markets, the potential for the trait to be used to increase production of edible oils in other major oilseed crops such as soybean and canola, the potential for an expedited timeline for development and commercialization within the U.S. market, the possibility for the trait to deliver economic value in other areas, and the possibility of translating promising new traits into the major commercial crops, 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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