

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549**

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 OR 15(d) of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported) August 16, 2019

YIELD10 BIOSCIENCE, INC.

(Exact Name of Registrant as Specified in Its Charter)

DELAWARE

(State or Other Jurisdiction of Incorporation)

001-33133

(Commission File Number)

04-3158289

(IRS Employer Identification No.)

19 Presidential Way, Woburn, Massachusetts

(Address of Principal Executive Offices)

01801

(Zip Code)

(617) 583-1700

(Registrant's Telephone Number, Including Area Code)

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (*see* General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c)).

Securities registered pursuant to Section 12(b) of the Act:

Title of each class

Common Stock

Trading Symbol(s)

YTEN

Name of each exchange on which registered

The Nasdaq Capital Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (17 CFR §230.405) or Rule 12b-2 of the Securities Exchange Act of 1934 (17 CFR §240.12b-2).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 8.01. Other Events

On August 19, 2019, Yield10 Bioscience, Inc., a Delaware corporation (the "Company"), issued a press release announcing that the Company had expanded its non-exclusive research license with Bayer for soybean crop research to include a new discovery related to its C3004 yield trait gene. Under the amended research license, Bayer will have access to these new developments from Yield10's C3004 program and new advanced technology related to the C3004 trait and its potential to increase seed yield. A copy of the press release is attached hereto as Exhibit 99.1.

Item 9.01 Financial Statements and Exhibits.

(d) **Exhibits.**

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press Release of Yield10 Bioscience, Inc. dated August 19, 2019.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

YIELD10 BIOSCIENCE, INC.

Date: August 19, 2019

By: /s/ Oliver Peoples
Oliver Peoples
President and Chief Executive Officer



Yield10 Bioscience Expands Research License with Bayer for Evaluation of a Novel C3004 Yield Trait Gene in Soybean

WOBURN, Mass. - August 19, 2019 - Yield10 Bioscience, Inc. (Nasdaq:YTEN), an agricultural bioscience company that uses its "Trait Factory" to develop high value seed traits for the agriculture and food industries, today announced that it has expanded its non-exclusive research license with Bayer for soybean crop research to include a new discovery related to its C3004 yield trait gene.

Yield10 is developing C3003 and C3004 as novel yield trait genes to increase seed yield in commercially important crops. Under the amended research license, Bayer will have access to these new developments from Yield10's C3004 program and new advanced technology related to the C3004 trait and its potential to increase seed yield.

"The early development work reported by Yield10 last year utilizing advanced technology for C3004 is promising, so we look forward to seeing if the results translate well in soybean crops," said Scott Knight, Ph.D., Director of Genome Editing and Yield, Disease and Quality Research at Crop Science, a division of Bayer. "We continue to be impressed by Yield10's capabilities and approach to identifying novel yield traits for oilseed crops. Bayer is committed to developing tailored solutions that meet the needs of farmers, while reducing modern agriculture's environmental impact."

"We are very pleased with the progress made by the Bayer team in the evaluation of C3003 in their soybean program and appreciate the expansion of our relationship to bring Yield10's C3004 technology into their testing program in 2019," said Oliver Peoples, Ph.D., Chief Executive Officer of Yield10 Bioscience. "Our team looks forward to supporting Bayer with further insights from our ongoing evaluation of C3003 and C3004 in key crops, and we remain committed to contributing to their success with the technology."

Soybean is an oilseed crop used for animal feed, food, and food additives. It is the second highest value agricultural crop in the United States with the 2018 harvest estimated by USDA at over 4.5 billion bushels and a value of approximately \$39 billion. Soybeans are widely cultivated in North and South America where a majority of the seed is genetically modified for crop enhancements, such as increased yield or pest resistance. Demands for agriculture are growing and evolving along with the global population, including increasing numbers who qualify as middle class, and shifting diets. As a result, increases in commodity crop yields are needed to keep pace with increased global demand for food security as well as to positively impact crop yield by reducing agriculture's existing carbon footprint.

Yield10 has previously shown that targeting C3003, a gene trait derived from algae, can produce increases in seed yield in oilseed crops, including canola. C3004, a Camelina plant gene, may increase activity in the C3003 plants. In 2018, Yield10 reported that Camelina plants

engineered only with increased activity of a novel C3004 gene produced significant increases in seed yield as well as increased vigor and branching in many of the plant lines tested in growth chamber studies. The exact role of C3004 is still being evaluated by Yield10.

About Yield10 Bioscience

Yield10 Bioscience, Inc. is an agricultural bioscience company which uses its “Trait Factory” to develop high value seed traits for the agriculture and food industries to achieve step-change improvements in crop yield to enhance global food security and develop specialty crop products. Yield10 has an extensive track record of innovation based around optimizing the flow of carbon in living systems. The “Trait Factory” has two components: the “GRAIN” computational modeling platform, which is used to identify specific gene changes designed to improve crop performance, and the deployment of those changes into crops using genome-editing or traditional agricultural biotechnology approaches. The purpose of the “Trait Factory” is to engineer 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 canola, soybean, rice, wheat 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 the website](#) and follow the Company on [Twitter](#) 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, that C3003 and C3004 may increase seed yield in commercially important crops, that the early development work reported by Yield10 last year utilizing advanced technology for C3004 may translate to soybean crops, and that C3004 may increase activity in the C3003 plants, 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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