

**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) October 23, 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)

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))

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

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 October 23, 2019, Yield10 Bioscience, Inc., a Delaware corporation (the “Company”), issued a press release announcing that the Company granted a non-exclusive three-year research license to J. R. Simplot Company ("Simplot") to evaluate three novel yield traits (C3003, C3004 and C4001) in potato. Under the license, Simplot plans to conduct research with the novel traits within its potato development program to improve crop performance and sustainability. 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 October 23, 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: October 23, 2019

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



**Yield10 Bioscience Signs Research Agreement with J. R. Simplot
to Evaluate New Traits to Produce High Yielding, Sustainable Potato Crop**

WOBURN, MA - Oct. 23, 2019 - Yield10 Bioscience, Inc. (Nasdaq:YTEN) today announced that it has signed a research agreement with Boise, Idaho-based J. R. Simplot Company, to evaluate three novel yield traits in potato. Under the agreement with Yield10, Simplot plans to conduct research with these yield traits within its research and development program as a strategy to improve crop performance and sustainability. In addition to the three-year, non-exclusive research agreement, Simplot was granted an option to negotiate an exclusive commercial license agreement.

The novel crop yield traits included in the research agreement are C3003, C3004 and C4001. In studies performed by Yield10 in greenhouse or field tests, these traits have shown a range of promising activities such as good agronomic performance, increased photosynthesis, increased seed yield, and/or increased biomass production. In 2019, Yield10 was granted a U.S. patent on C3003.

“Traits like improved crop yield and performance that Yield10 has discovered are also a key objective for Simplot as we pursue our goals of producing more sustainable crops,” said Susan Collinge, Ph.D., Vice President of Simplot Plant Sciences. “It is technology-driven innovations like the traits developed by Yield10 that may contribute to new solutions to meet growing global food demand by boosting crop performance of our products aimed at the consumer market.”

“We look forward to supporting the research team at Simplot as we enable a new approach for improving yield performance in potato,” said Kristi Snell, Chief Science Officer of Yield10 Bioscience. “Based on the activity we have reported in other crops, we believe our traits have significant potential for producing yield benefits in potato. Furthermore, the data generated in the program will help us continue to characterize the activity of our traits across a range of crop plants.”

“Working with major agriculture companies to test new traits identified using our GRAIN platform in crops of commercial significance is fundamental to our strategy of building paths to market for our traits,” said Oliver Peoples, Ph.D., President and Chief Executive Officer of Yield10 Bioscience. “While we are focusing our internal resources primarily on developing performance traits in canola and Camelina, we have successfully secured research agreements to evaluate traits with industry leaders in other crops, and we are very pleased to add Simplot, a world leader in potato development.”

Simplot processes potatoes and a variety of fruits and vegetables around the world. The company pursues a variety of solutions to try and improve crop yields and identify more sustainable agriculture methods.

Learn more about Innate Potatoes at www.innatepotatoes.com.

About Simplot

The J.R. Simplot Company, a privately held agribusiness firm headquartered in Boise, Idaho, has an integrated portfolio that includes phosphate mining, fertilizer manufacturing, farming, ranching and cattle production, food processing, food brands, and other enterprises related to agriculture. Simplot's major operations are located in the U.S., Canada, Mexico, Australia, South America and China, with products marketed in more than 60 countries worldwide.

Learn more about Simplot at www.Simplot.com.

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.

(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, including, without limitation, that C3003, C3004 and C4001 may produce good agronomic performance, increased photosynthesis, increased seed yield and increased biomass production, that the traits developed by Yield10 may contribute to new solutions to meet growing global food demand by boosting crop performance, that Yield10 traits have significant potential for producing yield benefits in potato, and that the data generated in the Simplot program will help Yield10 continue to characterize the activity of its traits across a range of crop 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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