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) September 20, 2018

YIELD10 BIOSCIENCE, INC.

(Exact Name of Registrant as Specified in Its Charter)

DELAWARE

(State or Other Jurisdiction of Incorporation)

001-33133 04-3158289

(Commission File Number)

19 Presidential Way, Woburn, Massachusetts

01801 (Zip Code)

(IRS Employer Identification No.)

(Address of Principal Executive Offices)

(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):

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

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. o

Item 8.01. Other Events

On September 21, 2018, Yield10 Bioscience, Inc., a Delaware corporation (the "Company"), issued a press release announcing that the Company granted a non-exclusive research license to Forage Genetics International, LLC, a subsidiary of Land O'Lakes, Inc. ("Forage"), to evaluate five novel yield traits (C3003, C4001, C4002, C4003 and C4029) in forage sorghum. Under the license, Forage plans to conduct research with the novel traits within its sorghum development program as a strategy to improve biomass yields. A copy of the press release is attached hereto as Exhibit 99.1.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No. Description

99.1 Press Release of Yield10 Bioscience, Inc. dated September 21, 2018.

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: September 24, 2018 By: /s/ Oliver Peoples

Oliver Peoples

President and Chief Executive Officer



Yield10 Bioscience Grants Research License to Forage Genetics to Evaluate Novel Yield Traits in Sorghum

WOBURN, Mass. – September 21, 2018 – 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 that it has granted a non-exclusive research license to Forage Genetics International, LLC, a subsidiary of Land O'Lakes, Inc., to evaluate five novel yield traits in forage sorghum. Under the license, Forage Genetics plans to conduct research with the novel traits within its sorghum development program as a strategy to improve biomass yields.

The novel yield traits included in the research license agreement include C3003, a trait derived from algae, as well as four traits from Yield10's "GRAIN" platform, C4001, C4002, C4003 and C4029. The C4000 series traits included in the research license have been shown to significantly increase photosynthesis and biomass in research conducted by Yield10. One of the traits, C4029, may increase yield as well as confer drought tolerance to crops. The key objective of the licensing agreement is to provide Forage Genetics with novel traits to test alone and/or in any combination in sorghum that may identify new yield traits for potential future licensing from Yield10 for development and commercial deployment.

"Yield10 has benefited from its novel transcriptome network/metabolic engineering-based approach to gene discovery with a focus on photosynthesis and has defined a set of transgenes that have large potential for the enhancement of crop yield," said Roger Pennell, Ph.D., Director of Innovation for Forage Genetics. "We at Forage Genetics believe these genes to be among the best in class for this trait. We are very excited to evaluate them in our state-of-the art field evaluation platform."

"Research with our traits has suggested they may be uniquely suited for deployment in forage crops," said Oliver Peoples, Ph.D., President and Chief Executive Officer of Yield10. "Forage Genetics is a leader in the development of forage crops, and we are pleased that they have chosen Yield10 and our novel traits for integration into their sorghum program. The Yield10 team looks forward to supporting Forage Genetics with further insights from our research to contribute to their R&D success with the technology."

Yield10 has established an open innovation model for the evaluation of its novel yield traits by agricultural companies. The intended benefit of the model is to allow agricultural companies to deploy traits in their proprietary, elite germplasm and test the performance of these traits in greenhouse and field studies they design and control. The research licenses granted under this model are non-exclusive but allow the licensees to initiate negotiations for exclusive licenses for traits they may seek to license from Yield10. Yield10's innovation platform and pipeline of yield traits are applicable to commercial row crops in North America, and therefore may represent significant opportunity for commercialization of Yield10 discovered traits through licensing agreements.

According to the USDA, sorghum was grown on 5.6 million acres in the U.S. in 2018. Forage Genetics views forage sorghum as a key crop to deliver sustainable and profitable options to feed producers and consumers. Forage Genetics develops and markets forage sorghum products throughout the United States.

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 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, statements regarding the potential of Yield10's transgenes to enhance crop yield and confer drought tolerance to crops; the potential for work conducted under the research license to produce higher biomass yielding varieties of sorghum and the potential to sign a commercial license in the future, 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.

Contacts

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