Yield10 Bioscience Announces an Update on the Camelina Line E3902 Development Program for Producing Low-carbon Feedstock Oil for Renewable Diesel

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Company is Scaling up Camelina Line E3902 Seed Production and Developing Herbicide Tolerant Lines

Renewable Diesel for Transportation is Driving Demand for Vegetable Oil in the U.S. and Canada

WOBURN, Mass., March 03, 2022 (GLOBE NEWSWIRE) -- Yield10 Bioscience, Inc. (Nasdaq:YTEN) ("Yield10" or the "Company"), an agricultural bioscience company, today announced an update on its Camelina line E3902 development program for the purpose of producing low-carbon feedstock oil for the renewable diesel market in the U.S. and Canada.

In 2022, the Company plans to continue expanding Camelina line E3092 seed scale up activities, and to advance the field testing of multiple candidate herbicide tolerant Camelina E3902 lines progressing in the pipeline. The Company is also pursuing value chain collaborations to support the commercial launch of Camelina to supply oil for the renewable diesel market.

The Camelina line E3902 has shown a consistent 5% increase in seed oil content as a percentage of seed weight over control plants. In conjunction with developing yield and oil content traits for Camelina, Yield10 is also deploying herbicide tolerance gene traits with a long history of safe use in North America to protect Camelina from weeds and build grower confidence in the crop. In 2021 Yield10 began a program to introduce herbicide tolerance traits into Camelina, with initial herbicide tolerant Camelina line E3902 plants now having been produced for field testing.

"We are focused on leveraging the very promising attributes of our Camelina line E3902 to produce low-carbon feedstock oil for the renewable diesel market," said Kristi Snell, Ph.D., Chief Science Officer of Yield10 Bioscience. "Camelina is an ideal crop for the large-scale production of feedstocks for renewable biodiesel. We are developing Camelina line E3902 as a spring variety as well as developing two winter varieties to enable production of low-carbon feedstock oil year-round in the U.S. and Canada."

"We are establishing a seed scale up program in 2022 that is intended to utilize experienced growers in the U.S. and Canada," said Darren Greenfield, Senior Director, Seed Operations of Yield10 Bioscience. "Growers are interested in Camelina and determining how this crop could fit into their rotations. We look forward to working with growers to produce seed and oil from Camelina line E3902, as well as our winter Camelina lines. Building on this experience, we will be positioned to introduce herbicide tolerant Camelina to a broad range of growers to enable access to acres on a large scale."

About Camelina Line E3902

Yield10 researchers produced line E3902 using CRISPR genome editing to modify three genes involved in oil biosynthesis and oil turnover in Camelina. USDA-APHIS's Biotechnology Regulatory Services (BRS) has confirmed that E3902 does not meet the definition of a regulated article under 7 CFR Part 340 regulations. In addition, the Argentine Biosafety Commission ("CONABIA") has determined that E3902 is similar to conventionally bred Camelina varieties, and thus is not regulated under the biotechnology resolution No. 763/11 of the Ministry of Agriculture, Livestock and Fisheries in Argentina. Pending the issuance of new regulatory guidance concerning CRIPSR genome-edited crops, Yield10 will seek similar nonregulated status confirmation for E3902 from Canadian regulators in 2022. In 2021 Yield10 conducted field tests in the U.S. to evaluate the performance and agronomics of Camelina line E3902. The Camelina line E3902 has shown a consistent 5% increase in seed oil content as a percentage of seed weight over control plants. Furthermore, field tests conducted in diverse geographies in 2021 also show that the background Camelina germplasm for the E3902 trait is among the top performers of those tested by Yield10. Contra-season, or off season, E3902 seed scale up is currently underway. Seed from Yield10's scale up activity is intended to enable planting at larger scale with growers, as well as to provide oil for sampling, a key step for market development.

About Renewable Diesel

As part of the energy transition, a substantial increase in renewable diesel capacity in the United States and Canada is currently underway, with proposed and funded renewable diesel facilities having a total capacity of more than 5 billion gallons of biofuels per year. Renewable diesel expansion has surged due to its low carbon footprint, federal and local subsidies, and its ability to be used as a drop-in replacement for petroleum diesel. Renewable diesel feedstock is supplied mainly from used cooking oil, animal fats (e.g., tallow), and vegetable oil, with the former two feedstock sources in short supply due to limited production capacity. Yield10 therefore expects the increase in renewable diesel feedstock demand over the next few years to be filled by vegetable oils, which itself have a global production of only 50 billion gallons per year. Moreover, a third of vegetable oils produced globally are palm oils, which do not qualify for many biofuels subsidies because of its high carbon footprint. In contrast, Camelina's low carbon footprint, and ability to be grown as a cover crop on otherwise fallow land, make it an attractive choice to fill the renewable diesel feedstock supply gap.

About *Camelina sativa*

Camelina sativa, commonly known as Camelina or false flax, is an annual oilseed plant in the mustard family that is native to Europe. Camelina has the potential to replicate the development of modern canola from rapeseed on an accelerated timeline based on modern technologies, including genomics and genome editing. Additionally, Camelina grows on marginal lands, displays early maturation, has enhanced drought and cold tolerance,

and requires fewer inputs than other oilseed crops. With social conscience and sustainability in mind, Yield10 is leveraging its innovations in Camelina to use it as a platform crop for producing low-carbon feedstock oil for renewable fuel; omega-3 nutritional oils; high-protein meal; and PHA bioplastic.

About Yield10 Bioscience

Yield10 Bioscience, Inc. is an agricultural bioscience company that is using its differentiated trait gene discovery platform, the “Trait Factory”, to develop improved Camelina varieties for the production of proprietary seed products, and to discover high value genetic traits for the agriculture and food industries. Our goals are to efficiently establish a high value seed products business based on developing superior varieties of Camelina to produce feedstock oils, PHA bioplastics, and omega-3 (DHA+EPA) oil and to license our yield and seed oil traits to major seed companies for commercialization in major row crops, including corn, soybean and canola. 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, 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 intentions with regard to plans to continue expanding Camelina line E3092 seed scale up activities, and to advance the field testing of multiple candidate herbicide tolerant Camelina E3902 lines, the signing of collaborations, including whether the objectives of those collaborations will be met and whether the Company will be able to generate positive field tests to support a commercial launch of Camelina, whether the seed scale up program will generate seed and oil from Camelina line E3902, our expectations with regard to the timing of the development of the spring and winter varieties of Camelina line E3902 and the introduction of the herbicide tolerant Camelina to a broad range of growers, and our expectations related to the economic value of oilseed crops and the market for renewable diesel feedstock, 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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