



## Yield10 Bioscience Announces Key Advancements in the Development of Herbicide Tolerant Camelina Supporting Large Acreage Production of Low-carbon Intensity Feedstock Oil for the Biofuel Market

February 21, 2023

*-Second field trial confirms Camelina tolerance to over-the-top herbicide application*

*-Greenhouse studies support proof-of-concept for stacked herbicide traits in Camelina*

*-Yield10 filed RSR under USDA-APHIS's SECURE Rule for herbicide tolerant Camelina*

WOBURN, Mass., Feb. 21, 2023 (GLOBE NEWSWIRE) -- Yield10 Bioscience, Inc. (Nasdaq:YTEN) ("Yield10" or the "Company"), an agricultural bioscience company, today announced key advancements for enabling weed control for Camelina cultivation and for supporting grower adoption of this crop for the biofuel feedstock oil market.

Control of broadleaf weeds is essential for the adoption and success of commercial crops in North America. The development of herbicide tolerant (HT) Camelina is a crucial element in achieving large acreage adoption of the crop by farmers. Yield10 is focused on the development of HT Camelina to realize the full potential of the crop.

In the 2022 spring growing season, Yield10 demonstrated for the first time that its HT spring Camelina lines were tolerant to application of a commonly used broadleaf herbicide. In the fall 2022/2023 growing season, Yield10 retested its lead commercial candidate HT spring Camelina lines in field trials in the Southern US and the successful results were replicated. These HT spring Camelina lines were also tolerant to the application of a grassy weed control product.

Further seed scale-up and field testing of the Company's lead commercial HT spring Camelina lines are expected to continue in 2023. A request for Regulatory Status Review (RSR) with USDA-APHIS Biotechnology Regulatory Services (BRS) for herbicide tolerant Camelina under the SECURE Rule was filed by Yield10 in 2022, and a response from the agency is pending.

"Our team has made substantial progress developing elite herbicide tolerant spring and winter Camelina varieties," said Kristi Snell, Ph.D., Chief Science Officer of Yield10 Bioscience. "The results of our Southern U.S. winter field trials with the single HT trait in our spring Camelina lines as well as recent greenhouse studies on our next generation stacked HT trait package, which includes broadleaf weed control and tolerance to group 2 herbicide soil residues, indicate we remain on track to launch herbicide tolerant Camelina varieties. Our goal is robust weed control enabling growers to plant with confidence on a large scale. In 2023, we look forward to conducting further field testing and seed scale-up activities for our commercial quality HT lines, advancing development of our stacked herbicide tolerant lines, and accelerating our regulatory efforts in support of commercial launch of these important Camelina varieties to supply low-carbon intensity feedstock oil to the biofuels market."

A summary of recent advancements in Yield10's development of elite herbicide tolerant spring and winter Camelina varieties:

**Development of commercial quality herbicide tolerant E3902 spring Camelina.** Yield10 confirmed tolerance to over-the-top spray application of a commonly used broad leaf herbicide in a second field trial of E3902 HT spring Camelina conducted at two sites this winter in contra-season. Broad-spectrum herbicides have been used to protect seed yield by controlling broadleaf weeds during commercial crop production for over 30 years. In this field trial, Yield10 also demonstrated that its E3902 HT spring Camelina is tolerant to application of Clethodim, a herbicide used to manage grassy weeds. In 2023, Yield10 plans to conduct further seed scale-up activities and field tests of its lead herbicide tolerant E3902 spring Camelina lines.

**Development of stacked herbicide tolerant E3902 spring Camelina.** Yield10 researchers have developed multiple E3902 spring Camelina lines with "stacked" herbicide tolerance traits. In recently completed greenhouse studies, these E3902 Camelina lines were tolerant to a broad leaf herbicide application as well as to soil residues of group 2 herbicides ("IMI"/imidazolinones and "SU"/sulfonylurea), which are commonly used to manage weeds in cereal and other crop rotations. Based on achieving proof-of-concept for stacked herbicide tolerant Camelina, Yield10 plans to conduct the first field tests of stacked herbicide tolerant E3902 spring Camelina lines in spring 2023.

**Development of stacked herbicide tolerant winter Camelina.** Yield10 researchers have developed candidate broadleaf herbicide tolerant winter Camelina in WDH2 and WDH3 germplasm. In recently completed greenhouse studies these candidate winter Camelina lines demonstrated tolerance to spray application of commercial levels of a commonly used broadleaf herbicide. These events are on-track for field testing in winter 2023/2024. Yield10 is also developing "stacked" herbicide tolerance traits in its winter Camelina lines with the goal of conducting its first field tests in winter 2023/2024.

**Regulatory process for herbicide tolerant Camelina is underway in the U.S.** A request for Regulatory Status Review (RSR) with USDA-APHIS Biotechnology Regulatory Services (BRS) for Yield10's broadleaf herbicide tolerant Camelina under the SECURE Rule was filed by Yield10 in 2022 and a response from the agency is pending. In the future, Yield10 intends to file additional requests for RSR, where applicable, to de-regulate its herbicide tolerance traits and to work with chemical manufacturers to add Camelina to herbicide product labels in instances where Camelina is not currently listed.

**About the SECURE Rule**

The [SECURE](#) Rule was published on May 18, 2020 and represents the first comprehensive revision of APHIS' biotechnology regulations since 1987. The revisions enable APHIS to regulate organisms developed using genetic engineering for plant pest risk with greater precision and reduces regulatory burden for developers of organisms that are unlikely to pose plant pest risks. Once a specific plant developed through genetic engineering is found not to require regulation, new varieties of the plant containing the same genetic modification would similarly not be regulated. Camelina plants containing herbicide resistance traits are subject to labeling under EPA regulations.

#### **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 biofuel feedstock oils, PHA bioplastics and omega-3 (EPA, DHA) oils and to license our yield 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](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, expectations related to research and development activities, the expected regulatory path for its traits, the reproducibility of data from greenhouse and field tests, the start and timing of completion of field tests and seed scale-up activities, commercial launch plans, and the overall progress of Yield10 Bioscience, Inc., 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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