



Cibus Achieves Critical Milestones for Three Non-GMO Traits to Increase Canola Yield

November 6, 2019

Traits added in leading crop with precision gene editing and without integration of foreign genetic material to reduce costs, improve yield, and increase environmental health

SAN DIEGO--([BUSINESS WIRE](#))--Cibus, a pioneer of precision gene editing for agriculture, has reached significant milestones in developing three new traits for canola, which can increase crop yields for farmers and reduce harmful environmental impacts.

The three new canola traits showcase Cibus' unique and patented approach to addressing challenges that reduce yield and increase efficiency for farmers. The new traits precisely edit the canola genome to reduce pod shatter, the tendency of canola seed pods to open pre-harvest that can reduce yields by as much as 40 percent, build resistance to *Sclerotinia*, a disease called white mold, that can reduce yields by as much as 50 percent, and introduce an improved weed control system, as competition with weeds for nutrients and sunlight can reduce yield of canola. The pod shatter trait has successfully completed field trials this fall, while the white mold and weed control traits have been successful in greenhouse testing and are expected to undergo further field trials in spring and summer 2020.

"Introducing these traits to a major, global crop like canola will benefit farmers, consumers and the environment," said Peter Beetham, Ph.D., chief executive officer of Cibus. "The ability to selectively add these traits without using a transgenic approach is an advancement we see leading a fourth green revolution in agriculture since the 19th century – enabling nature-equivalent crops to improve farming practices while considering environmental impact to meet food needs of a growing population. Cibus' precision gene editing technology is the only solution that can add and stack these traits as non-transgenic crops, which is more than ten times faster than traditional transgenic processes used with GMOs. Farmers and consumers can be reassured that Cibus introduces new traits the same way nature does, just faster and more efficiently."

Canola, called rapeseed in Europe, is the world's second largest source of protein meal, third largest source of vegetable oil and is one of the most valuable crops globally, with approximately 46 million acres grown in North America and Europe alone. These annual sales are the major sector of a multibillion-dollar annual seed market. Cibus develops traits in canola to meet the increasing demand for this healthy oil, driven by increasing population and more constraints than ever on arable land.

"Beyond canola, we currently are working on important traits to improve farming of rice, corn, wheat, soybean and potato to address major inefficiencies in crops due to disease, insects and weeds," said Greg Gocal, Ph.D., chief scientific officer and executive vice president of Cibus. "These traits can have significant environmental and health benefits. Producing fungus resistant plants, for instance, will reduce the need for fungicides and reduce the potential development of antibiotic resistant fungi, the rise of which is becoming a significant human health challenge."

Products derived using Cibus' patented technology have been certified as non-GMO in countries including the United States, Canada, Argentina and Chile, and the process for review is underway in the European Union and Japan. The new canola traits were developed with Cibus' proprietary plant gene-editing technologies, which permits Cibus to efficiently stack traits and truly edit genes.

About Cibus

Cibus is a biotechnology company using advanced gene editing to lead the development of new traits for the global agricultural seed industry. Its family of technologies, known as the Rapid Trait Development System, **RTDS**[™], is broadly applicable to all organisms, including plants, yeast, bacteria, and algae. **RTDS** edits genes without integrating foreign genetic material to speed development of products genetically indistinguishable from those found in nature. New traits are designed to help agriculture provide more sustainable food sources and reduce agriculture's impact on the environment, reducing the impact of climate change. Cibus has established crop platforms in canola, rice, flax, potato, and is developing platforms in wheat, corn, soybean, and peanut. New traits provide access to multiple royalties through a well-established business model in the multi-billion-dollar global seed market. The company has subsidiaries in Europe and North America and a state-of-the-art research and development center in San Diego, California.



Contacts

Karen Troeber

ktroeber@cibus.com

858-450-2636

Media contact:

Cassidy McClain

cassidy@canalecomm.com

619-849-6009