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FuturaGene insect resistant eucalyptus receives approval from Brazilian Biosafety Commission

3 March 2023 – The first-ever insect resistant (IR) genetically modified (GM) eucalyptus was recently approved by the Brazilian National Biosafety Technical Commission (CTNBio).

This new technology has been developed by FuturaGene, a subsidiary of Suzano and a leader in yield and sustainability enhancement of eucalyptus plantations in the global renewable forestry sector. The IR eucalyptus was evaluated and approved by CTNBio after extensive, multi-year testing and robust risk assessment to ensure that this eucalyptus is safe for humans, animals, and the environment.

The IR eucalyptus is resistant against the main defoliating lepidopterans (caterpillars) in Brazilian forests due to (Bt) pesticidal proteins, derived from Bacillus thuringiensis, which are expressed within the plant itself. Bacillus thuringiensis (Bt) is a soil-dwelling bacterium that produces proteins which are natural insecticides. These proteins have been used for over 80 years in various forms to control insect pests in agricultural crops, in organic and conventional farming as well as forests, and are considered to be extremely safe. The proteins expressed in the IR eucalyptus are highly specific for the defoliating caterpillars and have no effect on non-target insects.

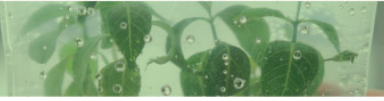
The use of IR eucalyptus will make eucalyptus plantations healthier, optimizing productivity by providing pest control before the pests are able to cause any damage, unlike sprayable forms which can only be applied after actual damage becomes visible. This will enable a reduction in the use of pesticide required to control damage caused by pests to eucalyptus plantations and therefore reduce input costs alongside CO2 emissions as no spraying or remedial operations are required.

FuturaGene's IR eucalyptus has been under development for more than eight years and following this approval, it will now be merged into Suzano's conventional breeding programs to extend field testing over different geographies. All activities with this newly approved variety will be conducted using the highest safety and ethical governance guidelines, as set out in Suzano's GM tree policy and based on Suzano's forest management practices.

Dr. Stanley Hirsch, CEO of FuturaGene said:

"We are proud to have developed a safe solution to control caterpillars in eucalyptus plantations. This technology significantly reduces the need to use pesticides. This will do more than just increase productivity of the crop, it will also benefit the environment and cut the carbon emissions associated with monitoring and spraying plantations. Solutions such as this technology are becoming an imperative as the threat from insect pests evolves ever more rapidly in the face of climate change. We hope that this contribution will help to sustainably meet the growing global demand for wood-based products, as part of our strategy to combine innovation and sustainability."

Suzano is also committed to sharing the benefits and value of this new technology with partners via its outgrowers' program, including small landowners. After larger scale-testing, partners will have royalty-free access to the technology under terms of current contracts, as they do with conventional clones.



This is FuturaGene's seventh variety of GM eucalyptus to receive approval from CTNBio, following its world-first approval for a genetically modified eucalyptus variety with an enhanced yield in 2015. FuturaGene has also received a number of approvals from CTNBio for Herbicide Tolerant (HT) eucalyptus since 2021. These remain the only genetically modified eucalyptus approved anywhere in the world.

NOTES TO EDITOR:

For more information on Suzano's Genetically Modified Tree Policy please see here.

About FuturaGene

FuturaGene is a leader in plant genetic research and development for increasing productivity and resilience in the global renewable forestry sector. With facilities in Brazil and Israel, the company develops sustainable, ecologically sound technology to meet the ever-increasing demands for fiber, alternatives to fossil fuel-based products such as plastics and energy crops in the face of declining land and water resources and climate change. In April 2015, FuturaGene became the first company in the world to obtain regulatory approval to commercially deploy a yield enhanced genetically modified eucalyptus variety. Since July 2010, FuturaGene has been a wholly owned subsidiary of Suzano S.A. For more information, visit www.futuragene.com.