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## FuturaGene receives approval for first-ever genetically modified eucalyptus with triple-stacked traits from the Brazilian National Biosafety Technical Commission

**11 March 2024** – A new approval for genetically modified eucalyptus expressing traits for yield enhancement, herbicide tolerance and insect resistance (triple stack) was granted by the Brazilian National Biosafety Technical Commission (CTNBio) after extensive technical evaluation confirming that it is safe for humans, animals, and the environment. This is the first triple-stacked trait eucalyptus ever approved worldwide.

This innovation has been developed by FuturaGene, a subsidiary of Suzano, a leader in yield and sustainability enhancement of eucalyptus in the global renewable tree farming sector.

This triple-stacking enables sustainable intensification of eucalyptus farm productivity through enhancing yield, promoting more efficient use of herbicide, and implementing preemptive pest control. Its use allows for more resource-efficient production, reducing operational costs and pesticide use while simultaneously improving worker safety and providing more productive and healthier eucalyptus farms.

The yield-enhanced trait incorporated in the genetically modified eucalyptus has been tested extensively in multiple regions in Brazil since 2007 and was approved for commercial use in 2015; the other two traits have been in wide global use in a number of agricultural crops with an excellent safety record: the herbicide-tolerant trait has a history of more than 25 years of safe use in multiple crops over widespread geographies, whilst the insect-resistant trait is the result of the expression of insecticidal proteins that have been used for over 80 years to control insect pests in crops, including in organic agriculture. The insecticidal proteins expressed in the triple-stack are specific to eucalyptus defoliating caterpillars, with no effect on non-target insects. To obtain the genetically modified eucalyptus with triple-stacked traits, different eucalyptus varieties, each carrying one or two traits were crossed with each other using conventional breeding methods.

Following this approval, we will continue field testing with the new eucalyptus varieties, which will be planted on research scale in different geographies in Brazil, in compliance with the highest safety and ethical governance guidelines as set out in Suzano's Genetically Modified Tree Policy, and based on Suzano's silvicultural management practices.

Dr. Stanley Hirsch, CEO of FuturaGene said:

“We are proud to have developed this first triple-stacked genetically modified eucalyptus incorporating multiple traits with both the potential for enhanced yield and improved yield protection, through herbicide tolerance and insect resistance. We have overcome significant technical challenges in developing this first triple-stacked trait eucalyptus. We continue to pursue our efforts to sustainably intensify productivity in renewable tree farms, to meet the growing demand for wood with a lower impact on natural forests. We believe that biotechnology is a key tool to improve and maintain eucalyptus productivity and enhance climate resilience.”

Suzano is 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 ninth approval for genetically modified eucalyptus granted by CTNBio, since its world-first approval for its yield-enhanced, genetically modified eucalyptus in 2015. FuturaGene has also received five approvals from CTNBio for herbicide-tolerant eucalyptus since 2021, approval for insect-resistant eucalyptus in March 2023 and approval for the first genetically modified eucalyptus with double-stacked traits, for yield enhancement and herbicide tolerance, received in November 2023. 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 tree farming sector. With facilities in Brazil and Israel, the company develops sustainable, ecologically sound technology to meet the ever-increasing demands for fiber and 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](http://www.futuragene.com).