

## SELECTIVITY OF HERBICIDE TOLERANT EUCALYPTUS TO SEQUENTIAL APPLICATIONS OF GLIZMAX PRIME (GLYPHOSATE)

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**Destaque:** Two HT GM eucalyptus, from distinct genetic backgrounds, highly tolerated sequential applications of different doses of glyphosate (Glizmax Prime)

**Resumo:** Herbicide tolerance (HT) is a major biotech trait in agriculture crops and since its adoption in the 90's, has revolutionized weed management, with unquestionable benefits for farmers and environment. However, this technology was not available for the planted-forest industry. Suzano/FuturaGene, developed genetically modified (GM) eucalyptus clones highly tolerant to glyphosate-based herbicides. One step towards the adoption of this disruptive technology is labelling extension. Brazilian regulatory agencies must approve the new mode of glyphosate application over the HT GM eucalyptus plants and add this recommendation in the product label. Field trials were planted in collaboration between Suzano and Corteva, aiming to generate all data required for Glizmax Prime<sup>®</sup> (i.a.: glyphosate) labelling extension. Two HT GM eucalyptus events, from two distinct genetic backgrounds, were tested for selectivity to sequential applications of increasing glyphosate doses. Trials were planted in two CQB areas, in a complete random block design with 5 blocks and 6 plants in a row per plot. Six treatments were applied at 15, 30 and 45 days after planting: T1=mechanical weeding; T2=240; T3=480; T4=1200; T5=1680; T6=2160 g of the acid equivalent/ha. Herbicide doses were sprayed over the plants using a CO<sub>2</sub> pressurized backpack sprayer. Five visual evaluations were carried out, and plant height and diameter were measured at 75 days after the 1<sup>st</sup> spray. No visual phytotoxic symptoms related to glyphosate spray was observed on plants of the two HT GM events, after 3 rounds of spray, regardless of the dose. There were no differences on plant height among the treatments, within each HT GM event. Significant increase on plant diameter of both events was observed on T6 compared to T1 (Tukey test,  $P<0.05$ ). Results were consistent among the experimental farms. A technical report is being prepared by Corteva and will be presented to the Brazilian legal agencies aiming for labelling extension.

**Palavras-chave:** eucalyptus; weed control; GM (genetically modified); glyphosate; herbicide tolerance