

**BRAZILIAN MAHOGANY GROWTH AND RESISTENCE OF *HYPSSIPYLA*
GRANDELLA UNDER CALCIUM AND BORUM¹**

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ABSTRACT – The Brazilian mahogany has high timber value but its commercial cultivation is rendered impossible by the attack of *Hypsipyla grandella* drill. The aim of this study was to evaluate the effect of doses of calcium and boron on mahogany growth variables and predation of its drill. The design was a 4² factorial randomized blocks with four doses of calcium (0, 100, 200 and 400 mg L⁻¹), four doses of boron (0, 0.5, 2 and 4 mg L⁻¹) and three replications with three plants per replication. Evaluated: height; diameter; air mass and root dry; relation air mass root⁻¹; infestation rate and length of the gallery promoted by drill. The results were analyzed by Tukey test at 5% and subjected to correlation analysis and regression. There was no statistical interaction between the treatments and no significance for height and stem diameter. The mass of roots and aerial parts showed the highest results in the deletion of elements and checking the relationship of these parts in the lower dose of 100 mg L⁻¹ as a function of calcium and 0.5 mg L⁻¹ as a function of boron. The 100 mg Ca L⁻¹ dose yielded the lowest rate of infestation of *H. grandella*. Resistance to the development of the mahogany gallery, so as calcium boron were significant smaller lengths observed at doses of 100 and 0.5 mg L⁻¹, respectively. These nutrients influence the strength of mahogany drill and show the need for studies under field conditions.

Keywords: *Swietenia macrophylla*, mahogany shoot-borer, mineral nutrition of mahogany.

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