

Resistance of *Tectona grandis* genotypes to the attack of the pink mealybug *Maconellicoccus hirsutus* (Green, 1908)

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Abstract: The objective of this study was to test the resistance of different genotypes of *Tectona grandis* to the attack of the pink mealybug *Maconellicoccus hirsutus*. Thirty different clonal teak genotypes and the control (seminal) were evaluated under greenhouse conditions. The seedlings were artificially infested with colonies of the pink mealybug with presence of postures (ovisacs). During a period of 8 weeks weekly observations were made regarding the fixation of the old colonies and the appearance of new colonies on the seedlings. Binomial notation was assigned to each evaluated seedling, zero being the absence and 1 referring to the presence of the insect. The experimental design was a randomized block, consisting of 30 clonal teak genotypes and the control (seminal), with five replicates. With the data of presence and absence of insect infestation, generalized linear models (GLM) were adjusted, using Binomial error distribution. There was a low quantitative variation between teak genotypes and infestation by the insect, it wasn't observed statistical difference in the infestation of the different clonal teak genotypes during the evaluated period, the only interaction observed not indicating any mechanism of tolerance or resistance to the pink mealybug attack of the tested clonal teak genotypes. At the end of the experiment, all the genotypes tested showed infestation, especially the T5, T6, T7, T17, T19, T27 genotypes and the control T31, with observed presence of pink mealybug in all the repetitions. Technically, it is recommended that the clonal teak genotypes be reviewed in the company's genetical enhancement program.

Keywords: Forest entomology; genetical enhancement; teak; insects-pest.

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