

INITIAL SCREENING OF *Brachiaria* spp. GENOTYPES FOR RESISTANCE TO PASTURE SPITTLEBUGS

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Pasture spittlebugs have been controlled by using spittlebug resistant cultivars. The Embrapa Beef Cattle has a selection procedure comprising several steps prior to the release of a new cultivar. A screening for mass selection of hybrids aiming spittlebug resistance is highly desirable, particularly, in the initial phase of the selection process, when thousands of hybrids are produced. Ninety hundred and sixty, six month old *Brachiaria* spp. hybrid plants, established in plastic tubes, were distributed in an increased blocks design inside a screenhouse (30 m²). Four control plants (*Brachiaria brizantha* cv. Marandu, cv. BRS Paiaguás, cv. BRS Ipirorã and *Brachiaria* spp. cv. Mulato II), with ten replications, were also included in this trial. Five thousands field collected spittlebug adults (chiefly *Notozulia entreriana* and *Deois flavopicta*) were released inside the screenhouse (approximately five adults per tube). The screenhouse remained closed for 10 days, when then, the plants were scored as to the damage caused by the spittlebug adults. Scoring was made based on the damage level varying from 1 to 5 (1- no damage and 5- dead plant). After 20 days, additional evaluation was performed, now comparing the production of froth by the nymphs at the base of the plants, also utilizing scores from 1 to 5 (1- absence of froth and 5- large quantity of froth present around the base of the plant). The data were analyzed using mixed model methodology in the software Selegen-REML/BLUP. Based on genotypic values (BLUP) a ranking of genotypes prioritizing the damage score was done, since according to the time of evaluation, the possibility of diapausing eggs laid by adults was high. Genotypes with damage less than 2.90, excluding those with froth or foam score greater than 3.40 were selected, which resulted in 450 out of 960 evaluated hybrids. These selected genotypes will then be planted in the field for further evaluations, either as to agronomic traits or complementary assessment as to spittlebug resistance, through more detailed assays in greenhouse conditions. This initial mass screening procedure proved to be encouraging.

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