Evaluating *Paspalum* accessions as to resistance to the spittlebug *Mahanarva* sp. (Hemiptera: Cercopidae)

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Spittlebugs are the most important pasture pests in Brazil. Under severe spittlebug attack, the entire above-ground portion of the plant appears dry and dead, with drastic reduction of the stocking rate. For low-value crops, like pastures, chemical control of insect pests is too costly. Effective low-cost control measures, such as pest resistant cultivars, need to be developed. In the present work, conducted at Embrapa Beef Cattle Research Center, two accessions of the genus *Paspalum* (*P. regnellii* code P4 and *P. atratum* code P8), plus *Brachiaria decumbens* cv. Basilisk, as susceptible check, and *B. brizantha* cv. Marandu, as resistant check, were evaluated for resistance to the spittlebug *Mahanarva* sp., based on the parameters nymphal survival and duration of the nymphal period. The assay was conducted in the greenhouse. The accessions and check cultivars were initially established in small plastic cups and, posteriorly transferred to 17 cm diameter plastic pots. Each of these pots was covered with aluminum tops, which have a central opening for the grass stems. This is done in order promote a dark and damp ambience aiming to stimulate abundant superficial rooting at the soil surface and, hence, provide enough feeding sites for the newly hatched nymphs. The plants were infested three months after planting, with five eggs per pot. There were ten replications for each accession and cultivar in a complete randomized assay. Close to adult emergence, the pots were individually caged. The emerging adults were collected daily. As screening criterium, the accessions presenting, simultaneously, percentage of nymphal survival below the average for the group, minus the correspondent standard deviation and, nymphal period above the average for the group plus the respective standard deviation, are selected as more resistant, through the mechanism of resistance termed antibiosis. The nymphal survival rates and durations of nymphal period for the *Paspalum* accessions were 2% and 58 days, for the accession P4; and 6% and 48 days, for the accession P8. For the susceptible (cv. Basilisk) and resistant (cv. Marandu) checks such values were, respectively, 60% and 44.8 days; and 32% and 51.9 days. The average for the group was 25 ± 26.9% for the nymphal survival and 50.7 ± 5.7 days for the nymphal period. None of the two *Paspalum* accessions met the selection criterium, nevertheless both accessions, specially the accession P4, showed high level of resistance causing lower survival rate if compared to either the resistant check cv. Marandu or the susceptible check cv. Basilisk. Both *Paspalum* accessions should be considered as valuable genotypes, taking into consideration that such high level of resistance was found to a spittlebug (*Mahanarva* sp.) known as a serious threat to forage grasses in Northern Brazil.

Keywords: antibiosis, forage grass, froghopper, host plant resistance, pasture pests

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