

## SELECTION OF SUPERIOR *Brachiaria decumbens* HYBRIDS FOR THE DEVELOPMENT OF NEW IMPROVED CULTIVARS

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This paper reports partial results of the evaluation of 34 intraspecific hybrids of *B. decumbens* for agronomic traits in order to identify candidates for new improved cultivars. These hybrids were pre-selected in the breeding program of *B. decumbens* at Embrapa Beef Cattle, Campo Grande/MS, Brazil, based on agronomic performance and spittlebugs resistance. The hybrids were vegetatively propagated and transplanted to a field trial in Campo Grande, in a randomized complete block design, with four replications and five plants per plot spaced 1.0 x 0.5 m. The commercial cultivars *B. Decumbens*, cv. Basilisk and *B. brizantha* cv. Marandu were used as check. Field green weight (FGW) and regrowth ability (REG) were evaluated in three clippings; total dry matter (TDM) in two clippings and leaf dry matter (LDM), leaf dry matter percentage (L%) and Leaf blade: stem ratio (LSR) in only one clipping. The clippings were carried out during the rainy season of 2015. Data were analyzed using the restricted maximum likelihood/best linear unbiased prediction procedure (REML/BLUP). The accuracy estimates ranged from 0.65 (FGW) to 0.90 (REG), which are considered moderate to high values. Genetic variability was detected ( $p < 0.05$ ) for all traits and hybrid x clipping interaction differences were detected ( $p < 0.05$ ) for FGW and REG, indicating the performance of hybrids were not the same across harvests for these traits. Hybrids with superior performance than cv. Basilisk were identified for all traits. Basilisk was ranked in the 33<sup>rd</sup> position for FGW, 32<sup>nd</sup> for TDM, 33<sup>rd</sup> for REG and 36<sup>th</sup> for LDM, L% and LSR. Considering a selection intensity of 10 and 20% the selection response relative to cultivar Basilisk was 32.2 and 29.0% for FGW, respectively; 26.5 and 22.9% for TDM; 44.4 and 40.8 for REG; 43.4 and 40.0 for LDM; 26.6 and 25.2 for L% and 93.0 and 81.4% for LSR. Further evaluations for nutritive value and the re-evaluation for resistance to spittlebugs are currently been done and will be considered together with agronomic traits to select superior apomictic hybrids to proceed to the next phase for cultivar development.

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