

Summary

This study was carried out to select accessions of *Stylosanthes capitata* with high degree of resistance to anthracnose (*Colletotrichum gloeosporioides*), under field conditions in Mato

Grosso do Sul (Brazil). Seventeen accessions were planted in small plots, in a complete randomized block design with three replications. The plots were spaced 1 m apart of each other with seven plants per plot spaced 0.5 m between plants. Surrounding the experiment, border lines of susceptible plants of *Stylosanthes* constituted the inoculum source of *C. gloeosporioides* for the experimental plots. Anthracnose appeared after a period of heavy rains, high relative humidity and average minimum and maximum temperatures between 21 °C and 31 °C, respectively. The evolution of the disease was monitored for 11 consecutive weeks, measuring percentage of leaves and stems displaying lesions. In spite of none of the genotypes of *S. capitata* had presented vertical or total resistance to *C. gloeosporioides* under natural infection, in Campo Grande, MS; there is good potential in the accessions from Venezuela, which displayed maximum damage by anthracnose around 6% of leaf and stem area.