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RESISTANCE OF BRAZILIAN COTTON GENOTYPES TO *Sclerotinia sclerotiorum*. J.R. PESTANA¹; A.P.O NOGUEIRA²; T.P. MORAIS^{1,3}; H.S. RAMOS¹; F.C. JULIATTI¹. ¹Institute of Agricultural Sciences, Federal University of Uberlândia (UFU), 38408-100, Uberlândia, Brazil; ²Institute of Genetics and Biochemistry, UFU, Uberlândia, Brazil; ³PNPD/CAPES. E-mail: jeferson_pestana@yahoo.com.br

The expansion of cotton cultivation into Cerrado areas of Brazil, despite the possibility of increasing production, led to an increase in the incidence of pests and diseases in this crop. The White mold is a worrisome disease in cotton plants, mainly in irrigated and high lands. Symptoms are characterized by wilting, necrosis, and rotting of stem, petioles, and cotton bolls. Despite the importance of genetic resistance in the management of this disease, only a few studies have been reported. Therefore, we aimed to evaluate the behavior of Brazilian cotton genotypes to *Sclerotinia sclerotiorum* inoculation. The experiment was conducted in the Laboratory of Mycology and Plant Protection at the Federal University of Uberlândia (UFU), Uberlândia-MG, Brazil. Cotton plants were cultivated in 0.5L plastic containers, filled with commercial substrate, in a greenhouse. Thirty-three genotypes were tested in a completely randomized block design with three replicates. Each experimental plot consisted of three plants. Artificial inoculation with the fungus was done when cotton plants reached the V2 phenological stage. The apex of the plants was removed by a bias cut and, on the spot, the bottom of a 200 μ L-tip was inserted. The tip contained a disc of PDA medium fully covered with the mycelium of the fungus (straw test methodology). Later, inoculated plants were kept for seven days in a growth chamber with a 12-hour photoperiod and temperature of 22 \pm 3 $^{\circ}$ C. The length of the lesion was measured using a scale and the disease severity obtained by the ratio of the lesion's length by the total length of the stem. Averages were submitted to the ANOVA and grouped according to the Scott-Knott test ($p < 0.05$). The results demonstrated different genotypes' responses to White mold disease. The most susceptible genotype, considering lesion size and disease severity, was cultivar FM 975 WS, whereas the most resistant ones were FM 944 GL, MAC-2, and IMA 2106 GL.

Keywords: *Gossypium hirsutum*; Straw test; White mold.