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REACTION OF SUNFLOWER GENOTYPES TO *Sclerotinia sclerotiorum* IN LABORATORY CONDITIONS. A.L. PEZZINI[1]; T.P. RIBEIRO[1]; G.R. SILVA[1]; V.A.T. MATOS[1]; R.C.S. GOUSSAIN[1]; A.C. GAIATTO[1]. [1]Instituto Federal de Educação, Ciência e Tecnologia de Mato Grosso, Campus São Vicente, Centro de Referência de Campo Verde – MT, Brazil. E-mail: andre2pezzini@hotmail.com

Sunflower (*Helianthus annuus* L.) production has become a great alternative as a second crop in the state of Mato Grosso, Brazil, meanwhile the presence of the fungal pathogen *Sclerotinia sclerotiorum* (Lib.) de Bary is recently increasing in its production areas, causing significant yield reductions, due to its capacity of infecting multiple organs of the plants. The objective of the present study was to evaluate the impact of that pathogen over sunflower detached leaves, in laboratory conditions, and its susceptibility reaction. The experiment consisted of five genotypes (BRS G40, BRS G49, BRS G50, BRS G51 and SYN 045), arranged in a completely randomized design with five replicates. At 82 days after planting, the third leaf below the head was sampled for each replication and had its area (cm^2) determined using the equation proposed by Aquino et al. (Bragantia, 70(4):832-836, 2011), according to the measurements of its length and width. Then, leaves were placed on plastic braces above moist paper towels, inside plastic boxes. Some sclerotia previously obtained from infected cotton plants, from a field located in Campo Verde-MT, were inoculated on potato-dextrose agar (PDA) medium, inside 9-cm-diameter petri plates and incubated at 22°C in the dark. After 6 days, mycelial plugs were transferred to another PDA and incubated at 22°C for 5 days in the dark. Subsequently, 6-mm-diameter plugs from the actively growing margin of the colony were cut using a cork-borer and placed mycelial side down over the center of the leaves. After 4 days, the length and width of each lesion were measured, determining the lesion area (cm^2) by calculating the area of an oval circle. Finally, it was determined the percentage of foliar injured area and the results were compared using Tukey's test ($p<0.05$). There were not significant differences among genotypes, although the severity levels were higher for BRSG50, BRS G51 and BRS G40, varying from 39,09 to 51,02%, yet the genotypes BRSG49 and SYN045 presented lower percentages, 20,92% and 28,69%, respectively. Fifteen days after inoculation, the weight of total sclerotia formed for each replicate was also determined. There were not significant differences ($p<0.05$) among genotypes, although the lowest sclerotia weights presented were 41,8 mg, 51,8 mg and 63,8 mg, respectively, for BRS G49, BRS G40 and SYN 045, while the highest weights obtained were 97,6 mg and 113,8 mg, respectively, for BRS G50 and BRS G51.

Key words: *Helianthus annuus* L.; white mold; susceptibility.

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