ISBN 978-85-66836-17-2

EFFICACY EVALUATION OF FUNGICIDES ON WHITE MOLD OF SOYBEANS. A.L. PEZZINI[1]; P.O.L. AMORIM[1]; L.B. MEINKE[1]; R.C.S. GOUSSAIN[1]; C.T. GATTI[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

Sclerotinia stem rot of soybean, caused by the fungal pathogen *Sclerotinia sclerotiorum* (Lib.) de Bary, is an economically important disease in all the productive areas of Mato Grosso. It is not effectively controlled by host resistance and requires the application of fungicides, besides other management options. The objective of this work was to determine the effectiveness of biological, chemical and resistance inducer products in the control of that disease on soybean. Treatments consisted in T1) Nontreated control; T2) *Bacillus subtilis*; T3) Procimidone; T4) Potassium phosphite; T5) Potassium phosphate; T6) Potassium silicate; and were arranged in a completely randomized design with nine replicates (plants). The products were applied at growth stages V5, V8 and R1, totalizing three applications. Fifteen seeds of SYN 1080 cultivar were planted in pots and thinned to 9 seedlings per treatment after emergence. The pots were watered and rotated daily within the greenhouse to avoid possible differences in light and temperature among the treatments. 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 on the base of the sixth branch of each plant (at growth stage V2), attaching it with transparent plastic. After inoculation, transparent plastic bags were placed over the pots to create a wet chamber and they were positioned under the greenhouse benches in order to avoid direct exposure to the sun. After 12 days, the severity of white mold on plants was estimated based on a diagrammatic scale proposed by JULIATTI, F. C. et al. (Bioscience Journal, 29(3):676-680, 2013). One week later, it was also evaluated the percentage of pods affected by the disease per plant. Results show that those plants treated with *Bacillus subtilis* and Potassium phosphite had significant differences from the others, including the nontreated control, with lower severity levels and percentage of pods affected (Tukey's test, $p<0.05$), indicating those products as the most efficient on reducing the white mold progress on soybean in this study. There was no sclerotial development in any of the plants, probably because conditions were not favourable enough.

Key words: *Glycine max* L.; *Sclerotinia sclerotiorum*; control.