

XLI Congresso Paulista de Fitopatologia 20 a 22 de fevereiro de 2018 Marília - SP

ANTIMICROBIAL ACTIVITY OF THE FILTRATES FROM *Bacillus* spp. ON THE MICELIAL GROWTH OF *Colletotrichum truncatum* / Atividade antimicrobiana do filtrado de bactérias do gênero *Bacillus* spp. sobre o crescimento micelial de *Colletotrichum truncatum*. W. L. MARCELINO¹; <u>S. F. PACHOLATI¹</u>. 1University of São Paulo/ USP - Esalq. <u>sfpascho@usp.br</u>

The soybean anthracnose, caused by the fungus *Colletotrichum truncatum*, is a disease that causes severe damage in the soybean crop and its control is carried out mainly by the use of fungicides. To reduce environmental pollution and avoid the selection of fungal resistant isolates, the biological control is an alternative for the management of this disease. Thus, the present work focused on evaluate the antimicrobial potential of filtrates from *Bacillus* spp in inhibiting the mycelial growth of *C. truncatum*. For that, two isolates of *Bacillus* sp. were used. The bacteria were grown in potato dextrose broth medium (PDB) for five days, under constant shaking at 110 rpm, darkness and 25 °C. Then, the medium was centrifuged and the supernatant was collected and filtered through a Millipore membrane. After this step, 4 ml of bacterial filtrate or PDB was added inside Petri plates having 16 ml of potato dextrose agar medium (PDA). The *C. truncatum* fungus was tranferred to the center of the plates and evaluated daily for growth. After ten days, the percentage of mycelial inhibition (PIC) was calculated. The experiment was completely randomized, with three treatments and ten replicates for each. The results showed that the filtrates from both bacterial isolates inhibited the mycelial growth around 71% and 62%, respectively, when compared to the PDB control. It can be concluded that these bacteria have direct deleterious effect on the mycelial growth of this pathogen.

Botucatu V.44 Supplement February 2018 Summa Phytopathologica The Official Journal of São Paulo Plant Pathology Association