

P14 SELECTION OF *TRICHODERMA* SPP. ISOLATES TO CONTROL THE BEAN WHITE-MOLD FUNGUS *SCLEROTINIA SCLEROTIORUM* IN WINTER CROPS

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Bean white mold is a destructive disease on autumn-winter crops in Brazil, when daylight length is short and the temperatures vary from 15 to 25°C. Chemical control is expensive and can be poorly efficient when applied alone. Several *Trichoderma* species are natural antagonists to *S. sclerotiorum* sclerotia in soil. However, in general the development of the isolates applied as biocontrol agents in Brazil are favoured by temperatures above 25°C. In this case, the use of these isolates on autumn-winter crops can be not efficient. The objective of this work was to select *Trichoderma* spp. isolates able to parasitise the pathogen sclerotia in lower temperatures. Twenty isolates were evaluated. Sclerotia were buried on soil and the following treatments were applied: check; *Trichoderma* spp. isolates (300 L/ha suspension volume at 10⁷ conidia/mL); and, fungicide (Cerconil, recommended dose). After five days at 22±2°C, the sclerotia were removed from soil and transferred to carrot slices over water-agar medium. The number of germinated and parasitized sclerotia was accessed after 10 days. The experiment was conducted twice in a completely randomized design with seven replications.

The isolates ALF111 and ALF409 consistently inhibited the germination and parasitized more than 80% of the sclerotia. Beside these, the isolates ALF02, ALF57, ALF324 and ALF402 were efficient too. The isolate 172H inhibited significantly germination, but it was not capable to parasitize the sclerotia, which suggests that other biocontrol mechanisms, such as antibiosis, are involved. The selected isolates are potential biocontrol agents against the bean white mold and will be tested on autumn-winter crops.

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