

**Effect of *Paecilomyces lilacinus* (Thom) Samson on biological control of  
*Meloidogyne javanica* (Neal) Chitweed on tomato**

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**ABSTRACT**

The objectives of this study were to determine whether *P. lilacinus* could reduce population of nematode and hence improve tomato growth. Egg masses were placed on water agar infested with fungus and kept at 25°C for 18 days. Specified treatments in pots and microplots were inoculated with 2g wheat seeds infested with  $8.9 \times 10^9$  spores, 2400 nematode eggs and 30g of infested wheat seeds with  $7.8 \times 10^{10}$  spores and 6000 nematode eggs respectively. The effect of temperature on colony diameter on PDA showed that maximum growth occurred between 20-25°C, minimum at 15 and 30°C and least at 30°C. The fungus which originally has been isolated from *Aleurodidiae* larvae infected 100% egg masses on agar and nearly 93% of the eggs. All the infected eggs were immature and *P. lilacinus* did not parasitize mature eggs or juveniles. In pot experiment number of egg masses on the root and eggs and juveniles in the root were not reduced in fungus+nematode treatment. Fungus didn't significantly reduce gall index nor did it improve tomato growth. In microplot, top and fruit fresh weight in nematode+fungus treated plots were not significantly different from those in nematode treated plots. Gall indices were similar in both treated plots but egg masses on roots and eggs+juveniles in roots and soil in the fungus and nematode treatment were less than those in nematode treated plots, although not significant. Benomyl in semi selective medium apparently slowed down *P. lilacinus* growth so the colony number could not be counted due to quick growth of saprophytes.

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