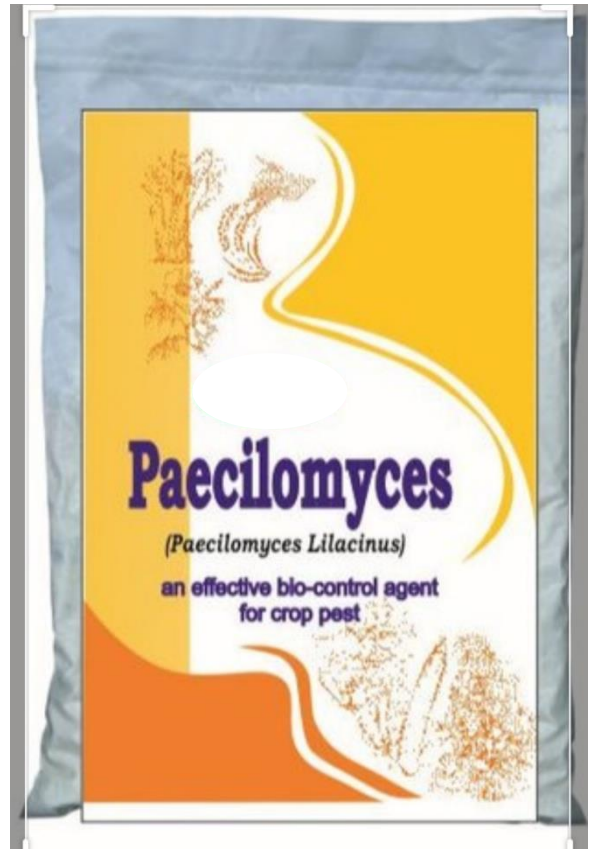


## Mass Production of *Paecilomyces lilacinus*

*Paecilomyces lilacinus* is a naturally occurring fungus found in many kinds of soils throughout the world. As a pesticide active ingredient, *Paecilomyces lilacinus* is applied to soil to control nematodes that attack plant roots. In laboratory studies, it grows optimally at 21-32 degrees C, and does not grow or survive above 36 degrees C. It acts against plant root nematodes by infecting eggs, juveniles, and adult females.

The egg pathogenic fungus *Paecilomyces lilacinus* (strain 251), is a unique strain with a wide range of activity against the most important plant parasitic nematodes. Due to increased production capacity by solid state fermentation and a new water dispersible granule (WDG) formulation, this biological nematicide may be used in an integrated approach to control plant parasitic nematodes.



### MASS MULTIPLICATION

100 ml of the different liquid media like PDB, 10% Molasses, Richard's medium and Semi selective medium were taken in a 250 ml conical flask. They were autoclaved at 15 psi for 20 minutes. Each flask was inoculated aseptically with 8mm disc of the *Paecilomyces lilacinus*, maintained on Potato dextrose agar (PDA) as a pureculture. The flasks were



incubated at room temperature for 30 days. The fungus inoculated in semi selective medium served as control. All the treatments were replicated five times. Fungal biomass was recorded in each treatment. Spore load was enumerated by serial dilution and plating method on Rose Bengal Agar.

## FORMULATION

The culture flasks in the above treatments were used for formulation with different carrier materials viz., talc, fly ash, rice hull ash and vermiculite. The mycelial mat along with the broth was homogenized and mixed with carrier material in the ratios 1:2. Carboxyl methyl cellulose was added @5g/kg of the product. The acidity of the medium was neutralized by adding 20g of chalk /kg of product. Then the product was shade dried to reduce the moisture content to 12% and packed in opaque polythene bags and stored at room temperature for further studies. The spore load at the time of packing was  $20 \times 10^8$  cfu/g in the product. The formulated product was tested for the viability by serial dilution and plating at 15 days interval for 120 days.

