

Bio control agent to control tree infestations

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Different microorganisms including fungal pathogens that live in the soil can cause diseases in plants. It is necessary to control harmful soil pathogens to avoid economic loss from affected crops. However, using chemical fungicides to control these prove costly and will create environmental problems.

Feasibility

To control the fungal pathogens bio control methods are always advisable and are economically feasible. One such is *Trichoderma viride* (Tv), a soil fungus and found useful as bio control agent for plant diseases. This fungus controls diseases in plants particularly in trees caused by the other soil fungal pathogens. Though Tv is also available in the market as a commercial product it can be produced by the farmers using agricultural wastes to reduce cost and is a good alternative for chemical based fungicides.

The following methods can be adopted to produce Tv for application:

Innoculate about one gm or five ml of Tv in the plastic trays (30 x 40 cm) filled with either dried rice straw, or saw dust or sugarcane bagasse. After inoculation necessary watering must be done to maintain wet condition. The substrates must be tightly closed with a thin muslin or cotton cloth and maintained at room temperature for better growth.

Green moulds

The culture appears as green moulds on the substrates after 10 days of inoculation. These green moulds can be further allowed to grow for another 2-3 weeks. After a month the Tv is noticed as a green powder in the substrates. This can be directly used for controlling the tree saplings in the nursery. It has been found effective in the control of root rot, damping off and leaf blight/wilt diseases that are common infestations.

To obtain the mother culture of Tv, interested farmers can contact

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