

MASS PRODUCTION OF *Lecanicillium lecanii*

Entomopathogenic fungus used for the biological control of Mealy bug, Scale insects, Whitefly etc. *Verticillium lecanii* is an entomopathogenic fungus. The mycelium of this fungus produces a cyclodepsipeptide toxin called bassianolide and other insecticidal toxins such as dipicolinic acid, which infect aphids, whiteflies, rust fungi, scale insects and lead to death the host. The spores of this fungus when come in contact with the cuticle (skin) of target insects, they germinate and grow directly through the cuticle to the inner body of their host. The fungus proliferates throughout the insect's body, draining the insect of nutrients, and eventually killing it in around 48-72 hours.

PREPARATION OF MOTHER CULTURE

- Media – PDA (Potato Dextrose Agar) media
- Media composition- Potato(200g), Dextrose(20g), Agar(20g), Distilled water(1000ml)
- Sterilization of media at 121 degree Celsius for 20 min in autoclave
- Medium cooling
- Test tubes kept in slanting position in LAF
- Inoculation with 22 to 30 days old fungal disc
- Incubation at room temperature for 10 to 15 days.



MASS MULTIPLICATION

- Broth is poured at the rate of 300 ml per bottle
- Sterilized at 121 degree Celsius for 20 min in autoclave
- Cooling
- Incubated with mother culture
- Kept for 10 to 15 days at room temperature
- Fungal growth along with broth collected and homogenized in a blender
- Mixed with particular formulation (talc or oil)
- Packed, sealed and labelled

