

A Note on Fungistatic Effect of *Chlorpyrifos* on the Growth of *Trichoderma viride* Pers. - A Biocontrol Agent*

Various insecticides have shown antifungal properties. Martinez Toledo *et al.* (1992) reported strong inhibition of *Trichoderma harzianum* by chlorpyrifos in addition to other methyl pyrimifos. Tu (1972) reported that, *Trichoderma* became dominant in soil treated with carbofuran due to mycotonic effect. Jayaraj and Ramabadrnan (1996) reported that phorate and carbofuran caused maximum inhibition of mycelial growth of *Trichoderma harzianum* Hyphal growth reduced with increase in concentration. Anahosur (1998) mentioned that, seed treatment with talc formulation of *Trichoderma* species @ 4 g/kg seeds was useful in controlling different diseases caused by various soil borne pathogens. In view of the increasing importance of *Trichoderma* as biocontrol agent, an attempt was made during 2000 to evaluate the effect of acephate and chlorpyrifos on the growth and sporulation of native isolate of *T. viride*. The results obtained are presented here.

The test antagonist was as isolated from medium deep black of Dharwad soils using serial dilution technique on *Trichoderma* specific medium (Elad and Chet, 1983). Required quantity of chemical was incorporated into the potato

dextrose agar medium (PDA). Actively growing culture of *T. viride* was cut into 8 mm discs by cork borer and used for inoculation purpose. Replicated plants were incubated at $28 \pm 1^\circ \text{C}$ for 96h. PDA plates without chemical served as control. Radial growth of hyphal and sporulation zone was measured and per cent inhibition of growth and sporulation over control was worked out. Treatments showing cent per cent inhibition were further considered to transfer these culture discs onto fresh PDA plates without chemicals for confirming the regrowth studies. The analysed results are presented in table 1.

The results revealed that, chlorpyrifos recorded cent per cent inhibition of both hypha and sporulation. However, further studies on regrowth indicated fungistatic nature of inhibition. Chlorpyrifos was found to be lethal to *T. viride* as also confirmed by Martinez Toledo *et al.* (1992) for *T. harzianum*.

Acephate recorded 10.26 per cent and 17.72 per cent inhibition of hypha and sporulation, respectively. Inhibition increased significantly with increase in concentration (Table 1). It can be concluded that chlorpyrifos was found to be lethal to *T. viride* with fungistatic nature of inhibition.

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