



Effect of six fungicides on *Lecanicillium* (*Verticillium*) *lecanii* (Zimm.) Zare & Gams

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ABSTRACT

Objective: The objective of the present work was to evaluate the effect of six fungicides on the entomopathogenic fungus *Lecanicillium* (*Verticillium*) *lecanii* (Zimm.) Zare & Gams, isolate Y-57.

Methodology and results: The assays were carried out *in vitro* with the following concentrations of the fungicides: 10, 100, 200, 500, 1000 and 2000 mg kg⁻¹. The parameters assessed were (i) the inhibition of the growth of the fungus colony, (ii) the effect on spore production capacity and (iii) the conidia germination. Difenconazol and tebuconazol belonging to the triazols group had more severe effect on *L. lecanii*, both on the fungus growth, spore production and their germination. Thus, these fungicides were classified as toxic by the OILB scale and very toxic according to the compatibility scale using the T value. The fungicide cuprous oxide was slightly toxic by the OILB scale and toxic according to the compatibility scale, affecting the spore germination at lower concentrations than



field dose. Metalaxyl of the yeacylalanine group was slightly toxic by the OILB scale and compatible with *L. lecanii*, not affecting spore germination at the studied doses. Mancozeb was inoffensive to *L. lecanii* by the OILB scale and moderately toxic according to the compatibility scale. Nevertheless it affects the spore germination in all the studied concentrations. Zineb was lightly toxic by the OILB scale and moderately toxic according to the compatibility scale, but spore germination was only affected at concentrations equal to or higher than field doses.

Key words: Fungicide, entomopathogenic fungi, toxicity, *Lecanicillium lecanii*.