

Persistence of the entomopathogenic fungus *Lecanicillium muscarium* ZARE & GAMS under ambient conditions in the field

Positive results from laboratory trials, to proof the effectiveness of the entomopathogenic fungus *L. muscarium* against endophytic damaging larvae of the horse chestnut leafminer moth *Cameraria ohridella* DESCHKA & DIMIC, led to following outdoor trials. One aspect of the test was to determine the persistence of the fungus, which was used as commercial product Mycotal® (Koppert, NL) and as strain V24 from the department Phytomedicine. In different variants were tested several spore concentrations and the influence of an oil-containing addit (Koppert, NL). The trial took place on horse chestnut seedlings, 3 years old. The determining of persistence followed 1, 7, 14 days past application of the suspension through the numbers of colony forming units (cfu) after impressing the leaves on agar plates.

Despite most unfavourable weather conditions, like above-average of temperature and hours with sunshine as well as low humidity and heavy rainfall, the fungus could be detected till 14 dpa, with visible differences between the variants. The application of the fungus led to moulding of larvae within the mines.

The sporulation of *L. muscarium* on the cadaver of the host under outdoor conditions proves the ability of the fungus to germinate, infect and kill the larvae followed by growing and sporulation. Furthermore the results show the persistence of *L. muscarium* on the plant-tissue during the time of trial.

Further investigations follow.