

Poster presentation for session 6

Efficiency of the entomopathogenic fungi against pupae of *Cameraria ohridella*

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Up to date there is no successful method developed to fight the horse-chestnut leaf miner (*C. ohridella*). In this study the main aim was to find out, if an application of soil with entomopathogenic fungi would lead to infections of pupae depend on the abiotic conditions also in their sealed mines.

The conditions of the experiments were following: 30 ml non sterile soil of chestnut location was given in petri dishes (9 cm diameter). Soil humidity was 5%, 10% and 20% and the Temperature 5°C and 12°C respectively. 3ml of the spore suspension ($1,9 \times 10^7$ sp./ml) of strains from *L. muscarium*, *P. fumosoroseus* and *B. bassiana* were sprayed with a potter tower. After 8 to 10 weeks the number of dead and mouldy pupae was counted.

All strains of the tested species of fungus were aggressive and lead to a infection and mortality of naked pupae even under low temperature. *L. muscarium* strain V 24 showed the best pathogenicity to the horse-chestnut leaf miner, followed by *P. fumosoroseus* strain P 6. The effectiveness of *L. muscarium* on the pupae in sealed mines was under comparable abiotic conditions 50% lower than on the naked pupae but significant higher than the control. In comparison to this there was no difference to the control for *P. fumosoroseus* and *B. bassiana*.

The results demonstrate that entomopathogenic fungi are effective for naked pupae of *C. ohridella*. The accessibility of the fungi for the pupae in their sealed mine, is difficult but possible in the case of *L. muscarium*. Further examinations under naturally conditions are recommended to do.