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# PROGRAMME & ABSTRACTS



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quality of cereals. Application of pesticides was economically more effective in spring wheat. Therefore multiple application programs with more expensive pesticides can be recommended. The dense crop stand and environment that was favorable for distribution of diseases increased the efficacy of fungicides on barley.

## Laboratory reproduction of tomato leaf-miner *Liriomyza bryoniae* (Kaltenbach, 1958) on wild and cultivated plants

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*Liriomyza bryoniae* is known as oligophagous species (Spencer, 1973, 1976, 1990; Jonaitis et al., 2000). The specimens of this species living outside use glasshouses as a refuge, or that construction could work as a trap (Ostrauskas et al., 2005). This present study is a continuation of work (Ostrauskas et al., 2002, 2005) investigation the importance and viability (Pakalniškis, 2005) of tomato leaf-miner in Lithuanian glasshouses. Laboratory reproduction (r) of *L. bryoniae* was studied on 16 plant species in the quarantine glasshouse of Lithuanian State Plant Protection Service and in the Entomological laboratory of Ecological Institute of Vilnius University during 2005. *Solanum dulcamarum* (quantity of experiments - n=47) was the most favourite host (reproduction - r=3.74) among the wild species investigated. The other wild plants used were *Stellaria media* (n=6, r=0), *Lamium album* (n=2, r=0), *Hylotelephium telephium* (n=8, r=0). Cultivated species as hosts for tomato leaf-mine were such: *Callistephus chinensis* (n=28, r=3.16), *Capsicum annuum* (n=33, r=0.12), *Solanum melongena* (n=9, r=1.00), *Amaranthus caudatus* (n=18, r=0.66), *Amaranthus paniculatus* (n=5, r=0), *Lycopersicon esculentum* (n=27, r=1.50), *Passiflora edulis* (n=4, r=0), *Petunia integrifolia* (n=2, r=0), *Spinacia oleraceum* (n=14, r=5.52), *Nicotiana tabacum* (n=3, r=0), *Nicotiana affinis* (n=5, r=0), *Vicia faba* (n=23, r=6.34).

## Integrated control of black scurf in potatoes

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Field trials (2003-2005), carried out in different soil and climate conditions in Estonia, showed a great infection degree (up to 33.4%) of potato tubers with black scurf (*Rhizoctonia solani*). Black scurf of potato caused by *Rhizoctonia solani* Kühn might cause yield loss and affect tuber quality. Three potato cultivars were tested on their resistance to *Rhizoctonia solani* under field growth conditions. In this study was tested Monceren FS 250 and Maxim 025 FS in control of black scurf in potatoes in two types of treatment: as a seedtuber treatment with the dipping and treatment of the dusting. The occurrence of the disease was determined five times altogether. On assessing after emergence 30.2% of infected tubers occurred in the untreated variant and in the treated variants 3.0%. The treatment of seed potato tubers by fungicide improved the tubers quality since there were no contaminated tubers.

The results showed, that in the same growing and harvesting conditions were more infected with black scurf early varieties. There was no infection or it was low degree in the case of harvesting from dry soils. The extra yield was 10.9-17.9% regarding the untreated variant.

Grass sward rich in legumes as a previous crop favoured the low degree of infection in comparison with fodder pea or rape.

In Estonian conditions it is necessary to dress the seed potato, it is one most needed agrotechnical methods to decrease general infection background on seed potato and to increase commercial use of potato for consumption.