



International conference
**Development of
Environmentally Friendly
Plant Protection**

Pühajärve, Estonia, 5.-7.09.2006

PROGRAMME & ABSTRACTS



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Occurrence of pests and stem rot on different oil crops

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Purpose of this study was to find an oil crop which have no serious problems with pests and diseases, and which is therefore suitable for organic farms.

The spring oilseed rape is the most important oil crop in Estonia. Winter turnip rape and winter oilseed rape are alternatives to spring rape.

In the present exploration the following were investigated: incidence of flea beetles, pollen beetles and cabbage seed weevils incidence, the number of blind stalks and infection of stem rot on spring oilseed rape, winter oilseed rape and winter turnip rape.

In winter oilseed rape and winter turnip rape trials no pesticides and fungicides were used during growing period, but there was variant of seed treatment by 'Rapcol' (phurathiocarb + matalaxil + fludioxonil) in comparison with non-treated variant. Spring oilseed rape trials were treated by 'Rapcol' before sowing and sprayed by Tastac' (alpha-cypermethrin) at the beginning of flowering (stage of development - 61).

The following results were obtained: flea beetles appeared more on winter oilseed rape, least on winter turnip rape. Pollen beetles appeared more on spring oilseed rape, least on winter turnip rape. Pods damaged by pollen beetles larvae were found more on winter oilseed rape, least on winter turnip rape. Damage by cabbage seed weevil was minimal in all the oil crop trials. Stem rot infection was high on spring oilseed rape, least on winter turnip rape.

By the results of exploration can be concluded that in winter turnip rape had the lowest infection by pests and disease and therefore have good potential for sustainable agriculture.

First outbreak of serpentine leaf-miner *Liriomyza huidobrensis* (Blanchard, 1926) in Lithuanian glasshouses

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The State Plant Protection Service performed the search for quarantine *Liriomyza* species using yellow sticky traps in Lithuanian glasshouses as every year (Taluntytė, 2001, 2002; Nečajeva et al., 2003, 2004) in 2005. It was discovered a big quantity (tens) of *Liriomyza* specimens in a few traps placed during June. Only a piece individuals of *Liriomyza bryoniae* (Kaltenbach) are common in such kind of trap in Lithuania. In July a special research was made in the particular glasshouse. The results were as following: *Petunia*, *Gypsophila* and *Gerbera* leaves were heavily attacked by *Liriomyza* sp. Also mines were discovered on *Gerbera* blossoms. This behaviour is intrinsic for quarantine species, such as serpentine (*Liriomyza huidobrensis* (Blanchard)), chrysanthemum (*Liriomyza trifolii* (Burgess)) and vegetable (*Liriomyza sativae* Blanchard) leaf-miners. The collected material was studied morphologically in the laboratory, but the results, including male genitalia slides, were not sufficient to determine the serpentine species, which is morphologically similar to *L. bryoniae*. The PCR-RFLP assay (Kox et al, 2005) was used to confirm the first outbreak of *Liriomyza huidobrensis* in Lithuanian glasshouses.

Effect of CO₂ and temperature combinations on *Chenopodium album* early growth adaptivity

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Vegetative pots experiments were carried out at the Phytotron of Lithuanian Institute of Horticulture during January-September of 2005. Four levels of CO₂ concentration: 350 ppm (control treatment), 700 ppm, 1500 ppm, 3000 ppm and two levels of temperature regimes: 21°C/17°C (control treatment) and 25°C/21°C,