

Economically significant winter oilseed rape pests in Latvian agroclimatic conditions

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Oilseed rape (*Brassica napus*) is one of the crop which may help to replace fossil energy sources. Latvian agroclimatic conditions are suitable for cultivation of oilseed rape and in the last decade it has become one of the most cultivated crop. Total oilseed rape areas in Latvia exceed 100 thousand hectares.

Pest problems have increased with the expansion of oilseed rape areas. Oilseed rape is affected by a large number of pests. Pests can damage the plant throughout the growing season starting with germination of the plant until seed maturity. Most of the crucifer pests belong to *Coleoptera* order, mainly *Curculionidae* family, and *Diptera* order. Significant economical influence on oilseed rape fields in Europe is caused by six pests: Cabbage stem flea beetle (*Psylliodes chrysocephala*, Linneaus), Pollen beetle (*Meligethes* spp.), Brassica pod midge (*Dasineura brassicae*, Winnertz), Cabbage stem weevil (*Ceuthorhynchus pallidactylus*, Marsham), Cabbage seed weevil (*Ceuthorhynchus obstrictus*, Marsham) and Rape stem weevil (*Ceuthorhynchus napi*, Gyllenhal) (Williams, 2004). All pests, except Rape stem weevil, have been observed in Latvia in 2009 and 2010. It has to be noted that with every year increases pest numbers is observed. In the last two years there has been an increase of Grey field slug (*Deroceras reticulatum*, Muller) damage in oilseed rape fields, in some cases causing economical damage. Increase of Grey field slug is connected to use of minimal soil tillage and climate change (Williams, 2004).

Structure of the different pest species mentioned above differs in each particular field community and is related to plant development stage, meteorological conditions and applied agro-technical measures. Monitoring of oilseed rape pests was done in 2009 and 2010 in Zemgale region - the main oilseed rape growing area in Latvia. Oilseed rape fields in four production farms were monitored. Using Moerikes yellow water traps, 3547 crucifer pests were collected in 2009 and 3964 pests in 2010. Majority of the pests were from *Coleoptera* order - *Meligethes* spp. and *Ceuthorhynchus* spp.

After 2 years of monitoring great diversity of economically significant oilseed rape pests has been observed in different fields. The research should continue estimating the impact on quality and quantity of harvest, as well as evaluating possible control needs and measures.

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References

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