

# Turnip rape as a trap crop and natural pesticides – solutions for the pest disease in organic rape seed cropping?

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In Germany cultivated area with organic oilseed rape is very small between 2300 ha and 4000 ha (Ami, 2011). Important reasons for the small area are different insect pests which often cause important yield losses up to total loss of yield. A mixed cropping system of rapeseed and 10 % turnip rape as trap crop was compared with oilseed rape in pure stand to demonstrate the reduction of infestation by insect pests. Furthermore the application of bio-pesticides like pyrethrum / rape oil (Spruzit® Neu), spinosad (SpinTor), diatomeen earth (SiO<sub>2</sub>) / sunflower oil and rock powder / water was tested. Oilseed rape showed a higher infestation by stem weevils (*Ceutorhynchus* spp.) in the mixed

cropping system compared to rapeseed in pure stand. The reduction of the pollen beetle (*Meligethes aeneus*) on the rape-seed buds depends on higher attractiveness of turnip rape as a consequence of advanced growth and a sufficient amount of turnip rape plants. The application of pyrethrum and spinosad against stem weevils had no effect. Spinosad was the only agent that caused a satisfying reduction of the pollen beetle. Certainly neither the mixed cropping system nor the bio pesticides causes economically growth of yield.

AMI, 2011. AMI-Marktbilanz Getreide Ölsaaten Futtermittel 2011.