

VL: confirmation for Entomologentagung

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Saapuneet

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Aihe: Registration confirmation for Entomologentagung

Dear colleague,

we are very glad that you participate in our next congress!

You gave us the following data:

Article: oral report

Title: Trap cropping as a delivery platform for RNAi-based targeted control of the pollen beetle *Meligethes aeneus*

Section 1: Entomology of Plant and Stored Product Protection

Abstract: The pollen beetle, *Meligethes aeneus*, is a key pest of oilseed rape throughout Europe. Recently it has shown widespread and high resistance to pyrethroids, the main insecticide class used against it. Novel and integrated strategies are necessary for its improved and continuing control. Molecular biology and genomics research provides a basis for new approaches. Very little, however, is known about the pollen beetle at the molecular/genomic level. Currently work is carried out on transcriptomics and functional genomics of the pollen beetle, including targeting vital genes for RNA interference aiming at disruption of gene expression. Transgenic OSR is one approach in administering the RNAi product to the pollen beetle, but it may be a very lengthy and uncertain strategy in bringing this technology to the market, at least in Europe. An alternative is explored within the ERA-NET project IPM4Meligethes, focusing on feeding the pollen beetles with the appropriate dsRNA in the field. This could be done in an innovative way by using trap crops with exogenous dsRNA either in the spring (before maturity feeding of the female beetles), or in the autumn (before overwintering), depending on which vital gene(s) are targeted. Trap crops could be treated with the dsRNA-product either by spraying, or more elegantly, by using entomovectoring (honey bees or bumble bees). This would not involve using transgenic plants, which should facilitate an easier regulatory approval of the strategy.

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