

FUNGUS STOPS SUZUKI FRUIT FLY

- **Researchers find natural enemy**
- **Good news for Dutch fruit-growing**

Wageningen researchers seem to have found a natural enemy of the suzuki fruit fly that has been plaguing Dutch fruit-growing. The fungus *Metarhizium robertsii* blocks the reproduction of the fruit flies almost completely, as cage tests carried out by Wageningen Plant Research have shown. Next year the fungus will be field tested.

The suzuki fruit fly (*Drosophila suzukii*) has established itself in the Netherlands in recent years and is causing increasing damage to soft fruits such as cherries, blueberries, blackberries and raspberries. Unlike other fruit flies, the suzuki lays its eggs in undamaged fruit still hanging on the bushes. It is a significant nuisance for fruit growers, and nor are allotments exempt as the exotic fly survives there equally well.

In het EU project Dropsa researchers are studying ways to limit the damage. Insecticides are not a good option because there can be no residues of these agents on the fruit by the time the crop is harvested. This has prompted the researchers to explore biological control options. Three fungus products are already commercially

available, but they are not effective enough.

This is not the first time the researchers have taken a new insect-killing fungus from nature. One collected earlier was the fungus *Metarhizium robertsii*, which proved to work well with the lure and kill strategy. This involves luring the fruit flies with pieces of blueberry, after which the fungi is supposed to kill the insects.

To test the method, Plant Research carried out a test in cages of this new fungus and two commercially available fungus products. First, the suzuki flies were released in the cages and after four weeks the researchers counted their offspring. In the cages with *Metarhizium robertsii* an average of five offspring were found per cage, while in the control cages 83 offspring hatched in the berries, and in the cages containing commercial fungus products there were 70 and 24 offspring.

This test shows *M. robertsii* to be a promising form of pest control, but the researchers do not yet know whether the lure and kill strategy will also work on farms, where the bait containing the fungus must compete with fruit in the field. If the scent trap containing fungus is used before the fruit is ripe, there is a strong chance this form of pest control will be effective, suspect the researchers. They will be testing this belief in the EU project in 2017. **AS**



PHOTO: MARTIN COOPER

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'Fraud can be motivated by greed or by need'



Lamb dishes without any lamb in them, extra virgin olive oil of lamp oil quality, and oregano padded out with olive leaves. The Consumer Union found a lot of examples of wrongly labelled food in a recent random sampling exercise – something which may suggest fraud. And yet we cannot say for sure that more and more fraud is going on, says Saskia van Ruth, professor of Food Authenticity at Wageningen University & research, and Authenticity and nutrients group leader at Rikilt.

You wrote last year that the number of reports of food fraud had gone up internationally. Does this mean there is more fraud going on?

'You can't jump to that conclusion. There are no official lists that tell you how often fraud and mislabelling occur. What is more, it is coming in for more attention these days and that makes us notice it more. Companies and government bodies became a lot more aware of it because of the horsemeat scandal.'

So it is not clear whether food fraud is increasing?

'There are trends that raise the risks in the long term. Due to globalization we source our food from all over the world. And the economic crisis put companies under pressure. Fraud can be motivated by greed or by need.'

What are the risk factors for tampering with food?

'Some products are more vulnerable to it than others. The worst you can do with an apple is replace it with a different variety, but with liquids or powders fraud is easier. Other products are more vulnerable because they come in large volumes. Long chains play a role too. Goods from certain Asian countries carry different risks than the same products from the United Kingdom.'

What can we do about fraud?

'Companies use 'hard controls'. They can carry out tests, for example, or monitor the mass balance at suppliers: is what comes out the same as what went in or does it multiply miraculously somewhere along the line? Then there are 'soft controls': controls on the ethical aspect of supplier companies and your own organization. Is the focus entirely on monetary targets or also on the way they are met? Is there a code of conduct and is it observed?' **R**

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