

## *Norbarag Vilnius 2025*

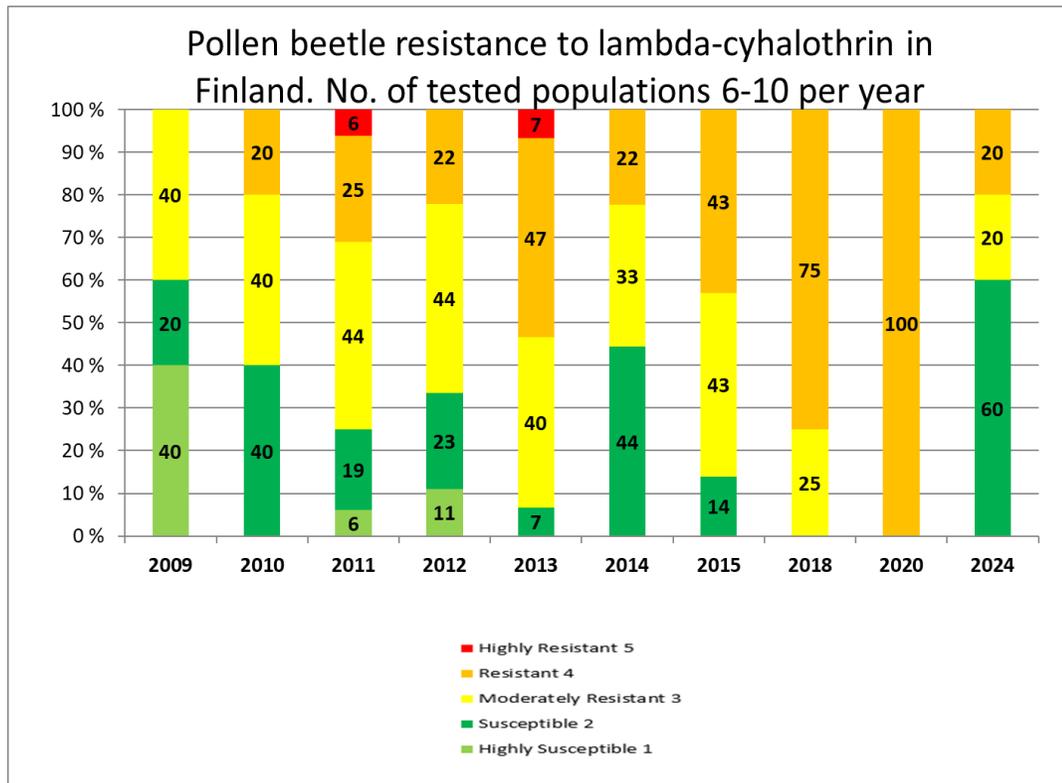
## *Status of insect pests in Finland*

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Picture: Ketola, J.

# Resistance situation of Pollen beetle (*Brassicogethes aenus*) in Finland



Effect of control of pyrethroids has become weaker since end of 1990's

- Populations of pollen beetle are very local and their wintering has been successful (no fungi etc.) => resistance situation is varying
- Both winter and spring varieties of osr are cultivated at same areas => may increase resistant populations between osr-fields

Thiacloprid in 2025 (acetamiprid in use)

- In 50 % of tested samples (24h) of pollen beetles it worked well

# Resistance situation of Pollen beetle (*Brassicogethes aenus*) in Finland

## What to do?

- Longer crop rotation
- New cultivation areas for osr
- Need of insecticides
- Assist to survive the natural enemies as the parasitic wasps of pollen beetle in osr fields
  - 1)using lighter cultivation methods / direct drilling after the harvesting of osr fields
  - 2) locating new osr fields closer to the previous year osr
  - 3) reducing chemical control of pollen beetles
  - 4) avoiding the use of insecticides in cereals next spring (after the previous year osr)

# Flea beetle (*Phyllotreta undulata*) in spring oilseeds

- Adult insect damages the plant (not the larvae)
- Used insecticide coated seeds in the drilling and control sprayings with pyrethroids
- Flupyradifurone (Buteo FS 480) has been in use in seed coating (accepted until the June 19th)



# Strawberry blossom weevil (*Anthonomus rubi*)



# Carrot psyllid (*Trioza apicalis*)



Pictures: Holopainen, J. and Kerola, J.

# Carrot psyllid (*Trioza apicalis*) on carrot

Development of pyrethroid resistance:

A limited selection of substances available in terms of mode of action (MoA). Now pyrethroids since 1990's and previously malathion and dimethoate in 1980's became resistant for them

Cultivation concentrated in certain areas

*C. psyllid* hibernates in a forest near the plantation on spruce branches

In intensive carrot cultivation, it is necessary to spray with pyrethroids several times during June-July in temperate areas,

=> if the control efforts were not successful => quantity and quality of yield will collapse dramatically

Broadbean beetle/broadbean weevil/broadbean seed beetle (*Bruchus rufimanus*) in Faba bean (*Vicia faba* L.)



Pictures: Vigelius. L. and Ketola. J.

Turnip sawfly/ cabbage leaf sawfly/ beet sawfly (*Athalia rosae*) in osr



Pictures: Sari Himanen

# Greenhouses

- Vegetable not checked for years
- Mainly biocontrol products are in use
- In flower production there are still some more chemicals in use, however resistance risk is possible, because of short list of products in use