

# PHEROMONES IN PEST CONTROL ON CURRANTS

## PHEROMONES

- ✦ intra-specific communication chemicals released by an organism
  - ✦ disperse in environment via air, water or contact
- ✦ pheromones of numerous pests have been synthesized for control purposes
- ✦ most widely used in plant protection: sex pheromones produced by female moths
  - ✦ monitoring and detecting
  - ✦ mating disruption
  - ✦ mass trapping

## Current practice for monitoring of moths in Finland

- ✦ delta-type sticky trap, recommended use 2 traps/ha, inspection 3 times/week for decision of spraying



**Currant clearwing moth**  
(*Synanthedon tipuliformis*)  
• twig injuries during the season



**Currant bud moth**  
(*Euhyponomeutoides albithoracellus*)  
• bud injuries in autumn  
• bud and shoot injuries in spring



**Currant shoot borer**  
(*Lampronia capitella*)  
• berry injuries in summer  
• bud and shoot injuries in spring

## Control experiments in Finland

### Mating disruption

- ✦ different types of dispensers used:
  - rubber and silicon dispenser (EAU, Estonia), ca. 400/ha
  - PVC strip dispenser (Oecos, UK), ca. 400/ha
  - ceramic dispenser (N.P.P., France), ca. 25/ha
- ✦ results and conclusions
  - ceramic dispenser was most effective, also highest dose
  - currant bud moth: satisfactory (in moderate populations)
  - currant clearwing moth: unsatisfactory (in high population)



### Mass trapping

- ✦ different models of glue and water traps were tested
- ✦ best trap: plastic cylinder with glue paper
  - length 20 cm or 40 cm, diameter 10 cm
  - silicon Miniket dispenser hanging inside the trap
  - 25-30 traps/ha
- ✦ preliminary results
  - currant shoot borer: local high catches, but so far no satisfactory control effect observed
  - so far too little experiences for conclusions



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