

Services to companies: Laboratory trials – insects & mites

## Honey bee (*Apis mellifera*) Toxicity of plant protection products

## **Technical question? Aims of the trial**

Determination of the topical and/or oral toxicity of plant protection products against Apis mellifera:

- Determination of adult mortality (adulticide action)
- Determination of the speed of adult mortality
- Determination of difference in sensibility between honey bees of different age

## **Trial summary**

- Possibility to synchronize the age of honey bees
- Topical treatment
  - · Application of a fixed volume of a solution of a plant protection product by hand after anesthesia
  - Different test products at different concentrations
  - · Positive and negative reference (check)
  - Transfer of the treated honey bees in to clean monitoring cages
  - Possibility to feed on sugar water at libitum in plant growth chambers under controlled conditions
- Oral treatment
  - Different test products at different concentrations
  - Positive and negative reference (check)
  - Transfer of the honey bees in to clean monitoring cages

 Possibility to feed on a solution of a plant protection product in sugar water at libitum in plant growth chambers under controlled conditions

- Assessments
  - Number of living/dead/affected honey bees
  - · Timing dependent on adulticide action
- Statistical analysis of outcomes

## **Trial output**

- Data in xls/ARM + Report (M&M, graphs, summary, conclusions)
- Adulticide action: mortality rates in function of time
- Screening of compounds
- Certified and (inter)nationally recognized centre of excellence in fruit research
- 75 years of experience and expertise
- GEP accredited
- Highly valued contractor for numerous product developments the past 75 years

**Interested?** Please do not hesitate to contact us:

pcfruit vzw, Zoology Department (services to companies):

Tim Belien <u>tim.belien@pcfruit.be</u> Tel. +32 (0)11/69.71.30 Eva Bangels <u>eva.bangels@pcfruit.be</u> Tel. +32 (0)11/69.71.31

