

**A reliable field-test for  
development and registration  
of mating disruption techniques**

**Dr. Eric Doye**

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# Problems

**Still a lot of open questions with the interpretation of results of pheromone trials:**

- **Results frequently non-transferable**
- **Statistically complicated to interpret**
- **Difficulties to find an adequate control**

# Problems

**high costs and  
long periods of time for:**

➤ **development**

➤ **registration**

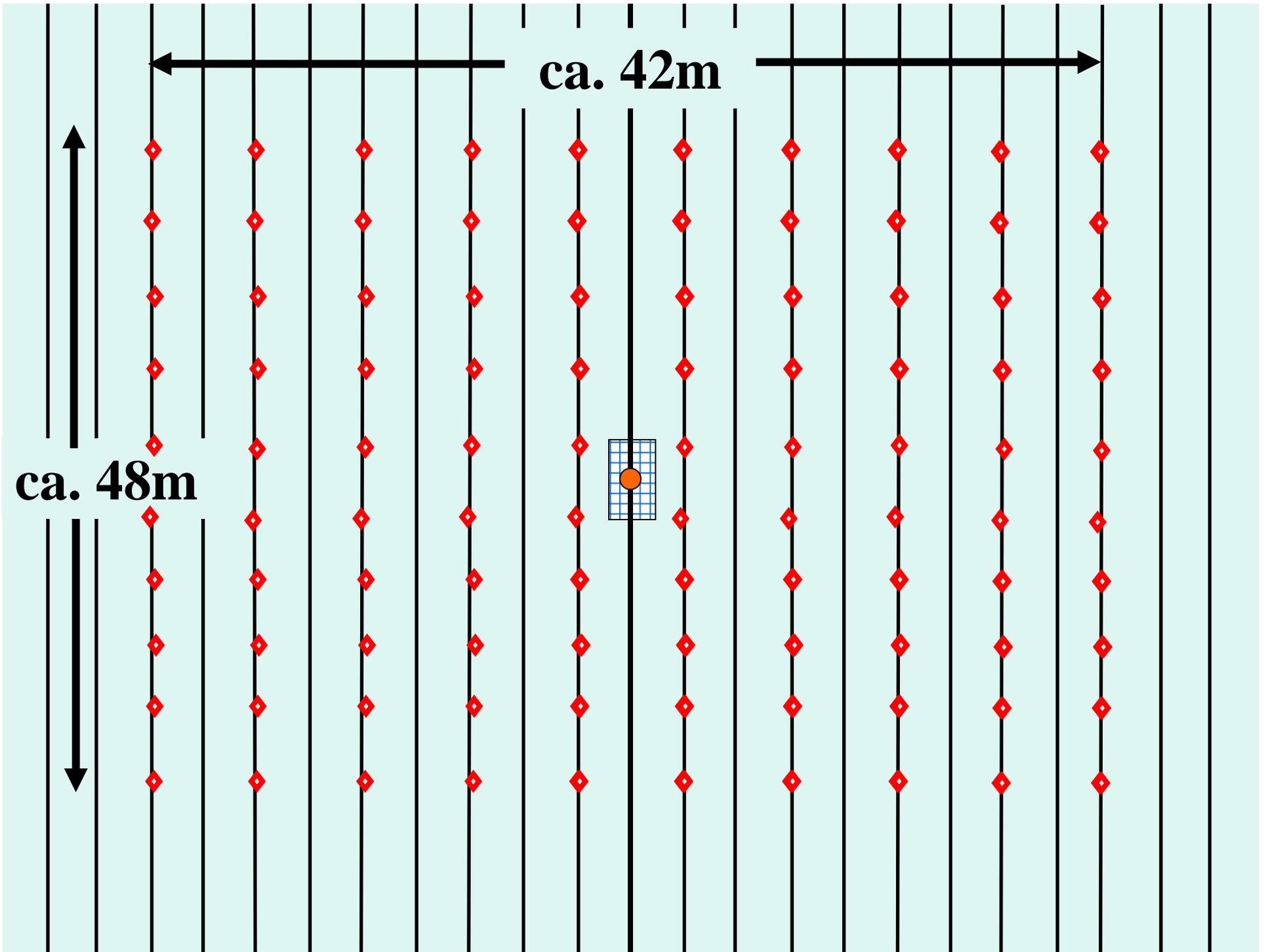
## **Creation of a test-system which is:**

- **Reproducible**
- **Simple and robust**
- **Close to nature**
- **Fast and Effective**

# Field Test

- Developed for *Eupoecila ambiguella* and *Lobesia botrana* in 2002
- Test equipment
  - At least 2 cages
  - Rearing of target pest species
    - female moths as lures for traps
    - male moths to release
  - Orchards or vineyards







# Advantages

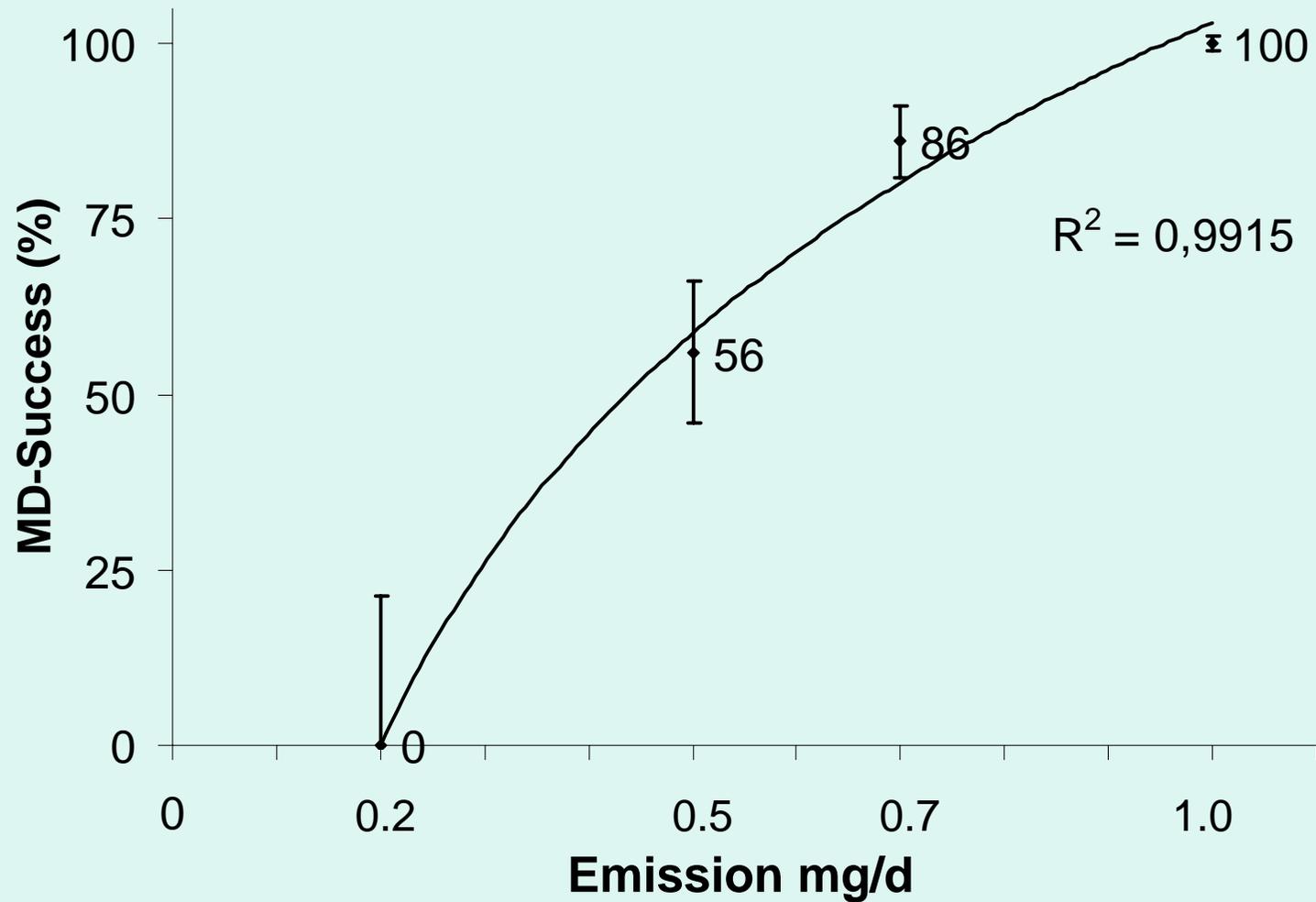
- **“Real” control**
- **System independent on natural flight which means high number of trials per season possible**
- **Possibility to analyse a lot of different aspects of MD**
  - e.g. lures, new components etc.

# Examples

- ***Lobesia botrana*, trials with different types of dispensers**
  - **0.2, 0.5, 0.7 & 1.0 emission in mg/d measured under controlled conditions in the lab (Uwe Koch, Kaiserslautern, Germany)**

# *Lobesia botrana*

## Correlation Emission/MD-Success

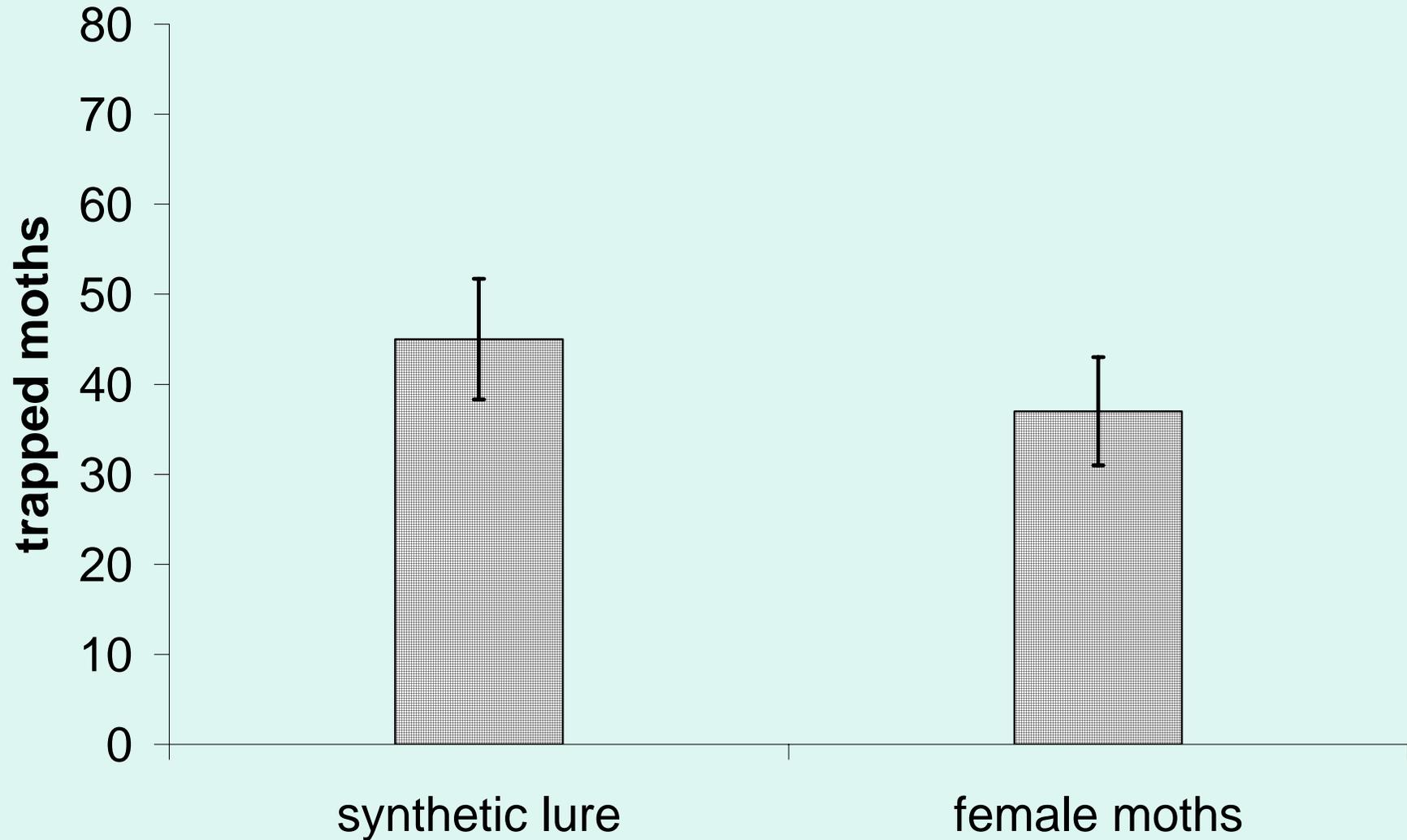


# Examples

- **Attractiveness**
  - synthetic lures contra female moths**
  - *L. botrana*, 2 female moths in a trap contra commercial lure, 2 times 80 male moths, changing position of traps
  - *E. ambiguella*, 2 female moths in a trap contra commercial lure, 2 times 50 male moths, changing position of traps

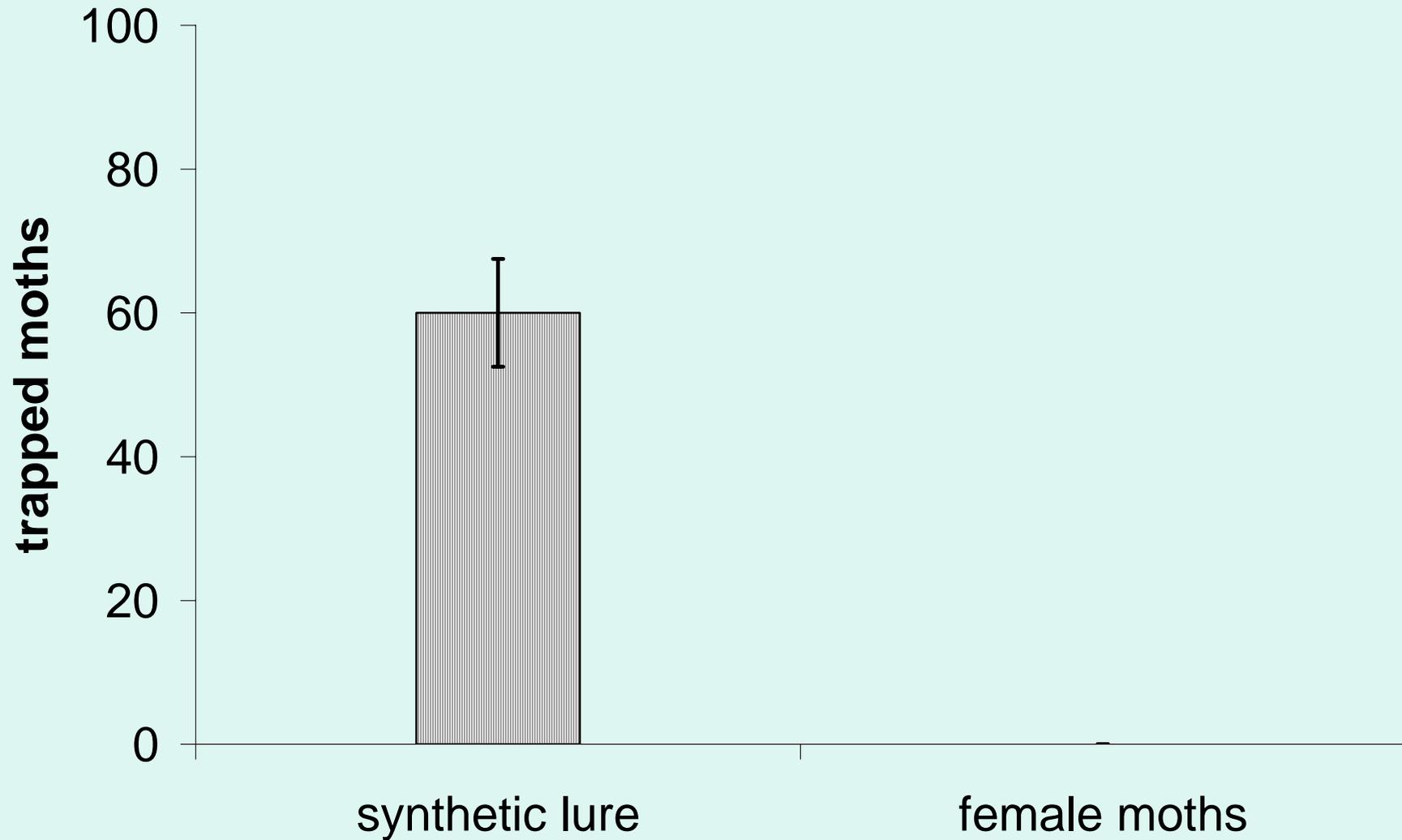
# *Lobesia botrana*

## Comparison synthetic lure and female moths



# *Eupoecila ambiguella*

## Comparison synthetic lure and female moths



# Examples

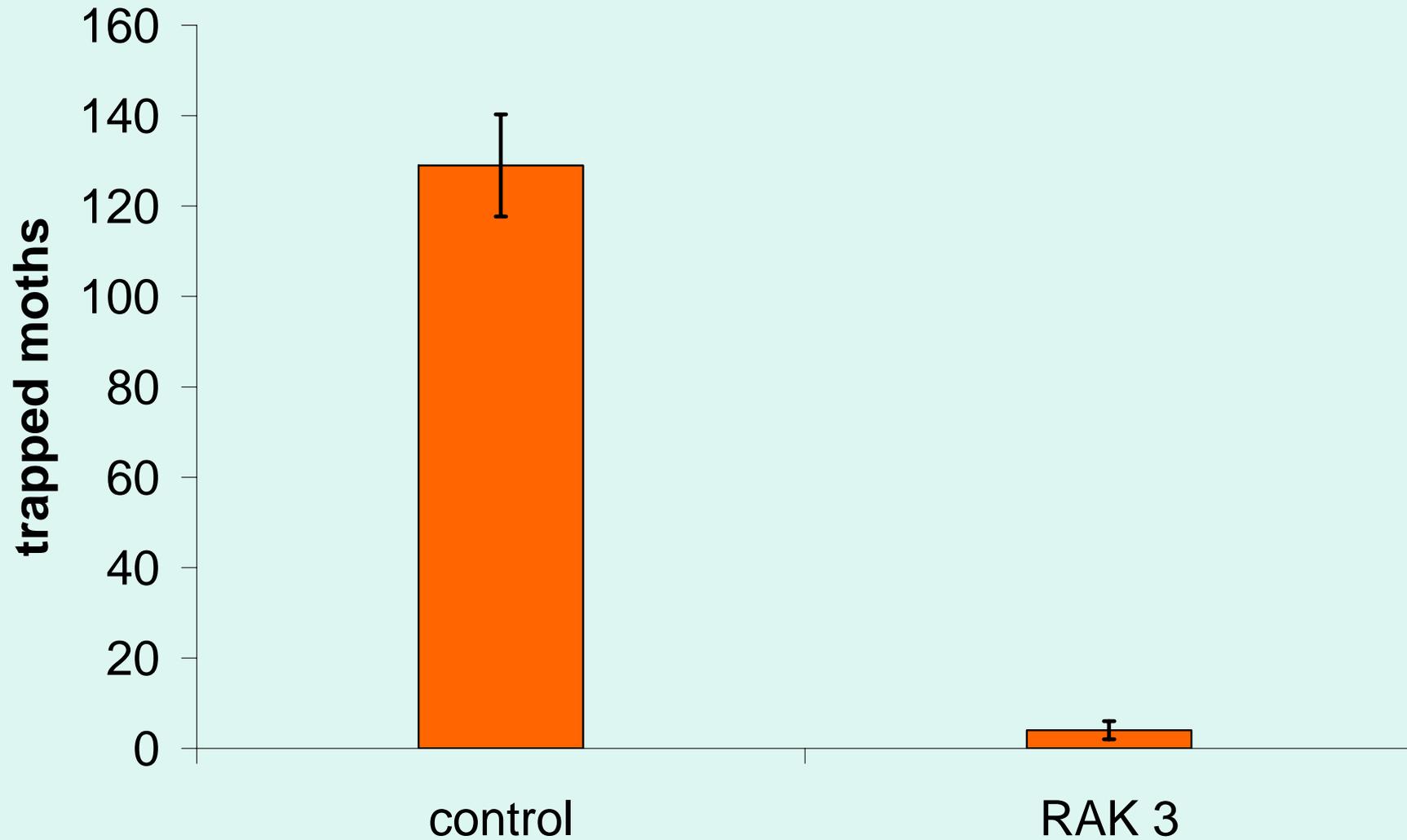
- **Is this method transferable to other pest species?**

***Cydia pomonella***

**Trial summer 2006 with *C. pomonella* using  
RAK 3 by BASF AG**

# Trial *C. pomonella*

## Comparison of RAK 3 BASF and control



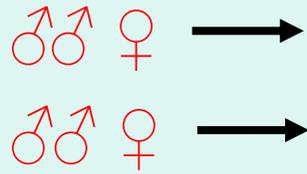
# Conclusions

- **method is quite perfect for the development of MD techniques, many trials in short time with high significance**
- **a tool for the registration, method could not absolute replace classical methods (damage!), but supports classical practice (EPPO-Guideline)**

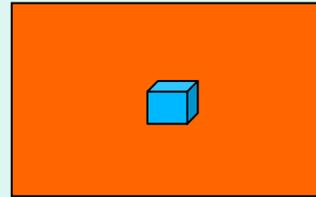
**contact:**

**info@pheromontest.de**

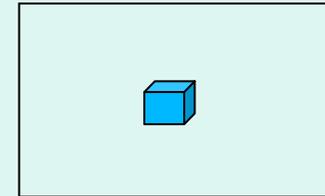
**step 1**



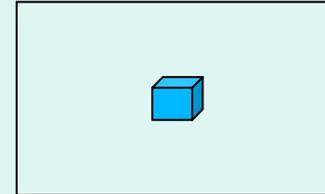
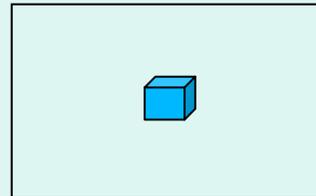
**cage 1**



**cage 2**



**step 2**



**step 3**

