

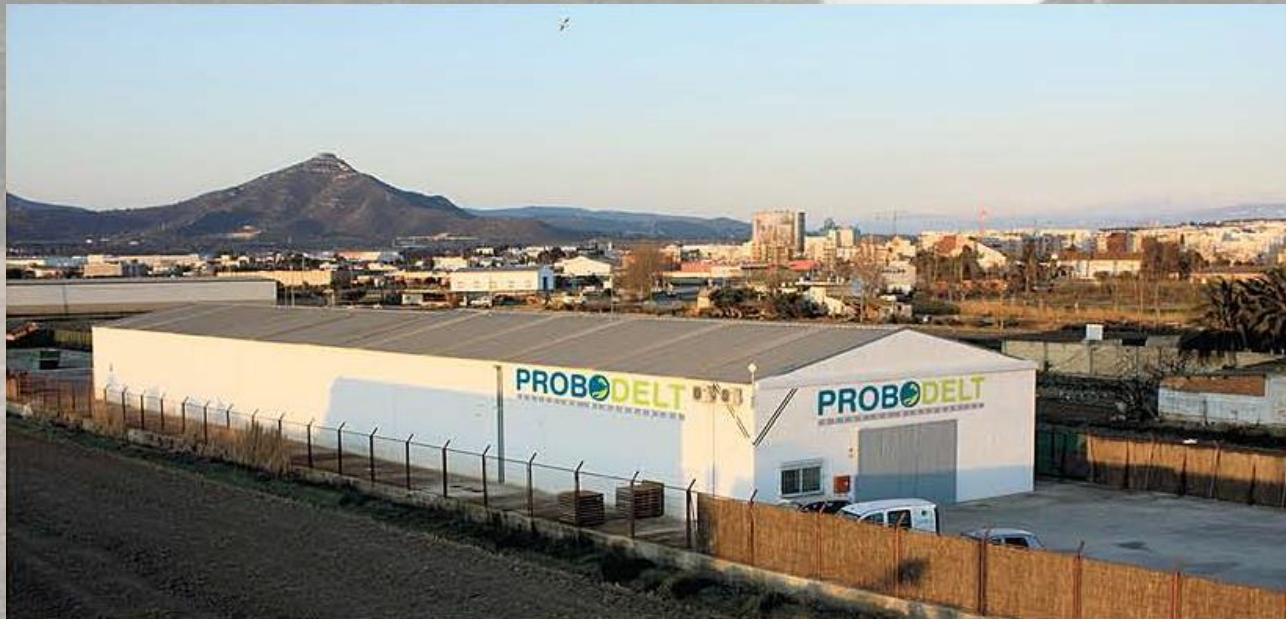
Use of mass trapping to control *Bactrocera oleae* in Spain

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PROBODELT SL

PROBODELT S.L. - INTRODUCTION

PROBODELT S.L. was created in 1995 with the objective to develop and apply rational strategies to pest control, mainly using mass trapping system.

- Start business activity: year 1996



“Pest control is compatible with being environmentally friendly”

Introduction

- Olive fruit fly (*Bactrocera oleae*: Tephritidae)
 - Key pest in olive crop



Location



Olive history in Baix Ebre and Montsià region

– 70' decade:

- The farmers start a collective aerial spraying against olive fruit fly by plane.



– 1986: creation of “ADV Per al control de la mosca de l’oliva”

- Problems with aerial spraying: non target crops, houses, people, etc..

Olive history in Baix Ebre and Montsià region

– 1999: Start of trials with alternative products

- Requirements for a product to be a real alternative to aerial sprayings:

- Long persistence (>120 days)
- Easy to apply (weight, size, nº of devices/ha, etc..)
- Effective reducing population and olive damages
- Price - competitive



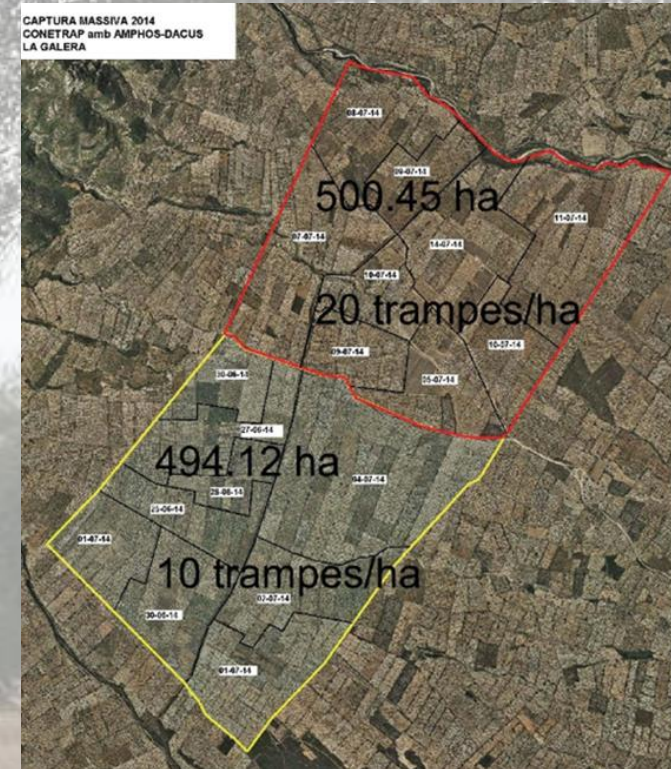
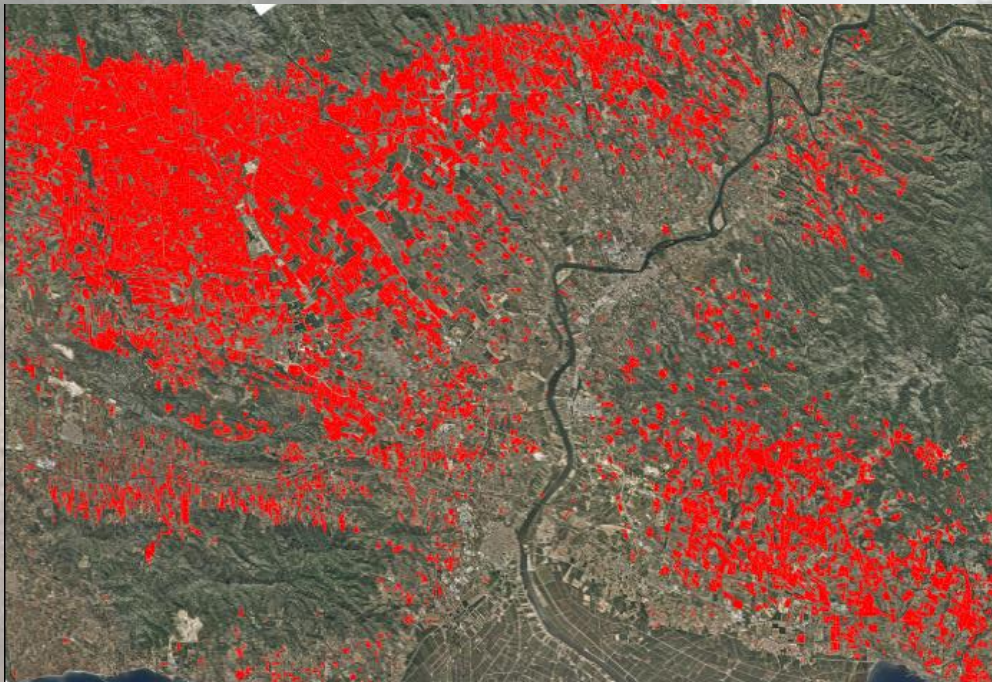
Olive history in Baix Ebre and Montsià region

- 2009: Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009
 - *“1. Member States shall ensure that aerial spraying is prohibited.”*
 - *“2. By way of derogation from paragraph 1 aerial spraying may only be allowed in special cases provided the following conditions are met: (a) there must be no viable alternatives, or there must be clear advantages in terms of reduced impacts on human health and the environment as compared with land-based application of pesticides”*

- 2013: Development of AmphosDacus attractant by Probodelt and AoMidori Biocontrol
 - Good results in the trials during summer and autumn:
 - High level of captures
 - Long persistence

Olive history in Baix Ebre and Montsià region

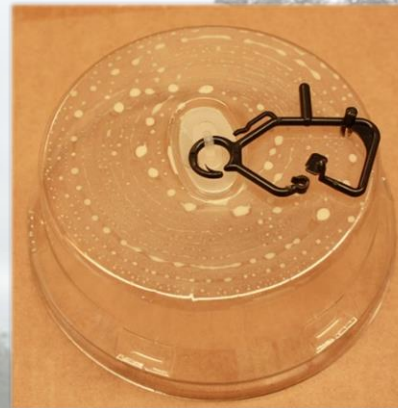
- 2014: 1.000 ha mass trapping trial with Conetrap AmphosDacus



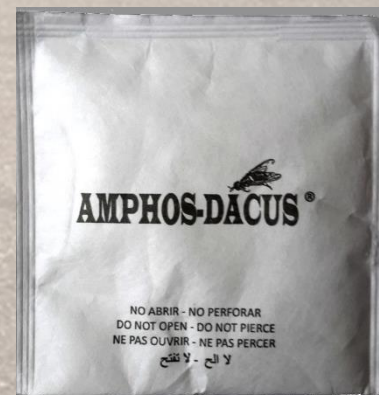
- 2015: application of mass trapping with Conetrap AmphosDacus in 20.000 ha

Conetrap AmphosDacus®

- Conetrap with 7,5mg of Lambda-cyhalotrin



- AmphosDacus attractant
 - Persistence of >180 days (after 1 year is still catching about 50%)



Conetrap AmphosDacus®

- Application: in this area we are applying 20 traps/ha in May-June and keep it on the tree a complete year.

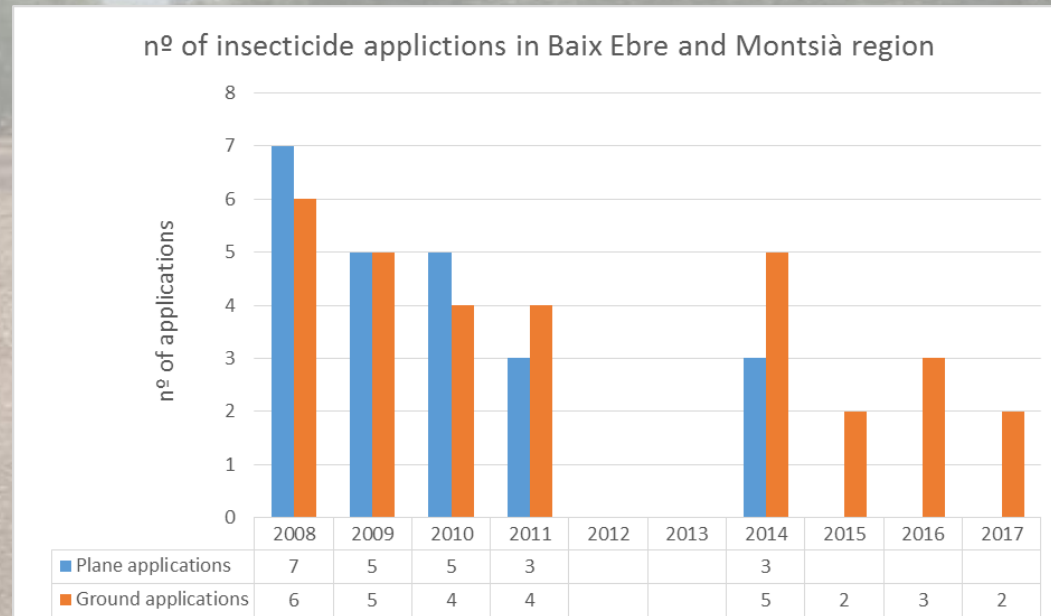


Conclusions

- Mass trapping with Conetrap AmphosDacus in wide areas shows to be more effective than aerial spraying to control *Bactrocera oleae*.
- The application of mass trapping reduce the use of insecticides, the risk for human health and the environment and *B. oleae* damages in olive.



Olive fruit fly captured during 2017 season



Thanks for your attention

