

FIELD ACTIVITIES REPORT, 2010

BIOLMED PROJECT

EXPERIMENTAL FIELD OF CAMPO DE MIRRA, ALICANTE, SPAIN

Introduction

One of the aims of Biolmed Project is the experimentation on organic control of the *Bactrocera oleae* (olive fly). The strategy is the application of products that, theoretically, difficult the oviposition, combined this year 2010 with mass trapping.

We have compared three thesis:

- Mass trapping
- Copper (oxychloride 50%) + mass trapping
- Control

For mass trapping we used bottles, in which we added an attractive food (fish-meal). We installed in spring yellow traps to detect the first adults fly and, then, we installed the mass trapping bottles.

The use of copper is due to the good results obtained last year, much better than the ones that had the kaolin and de potassium bicarbonate.

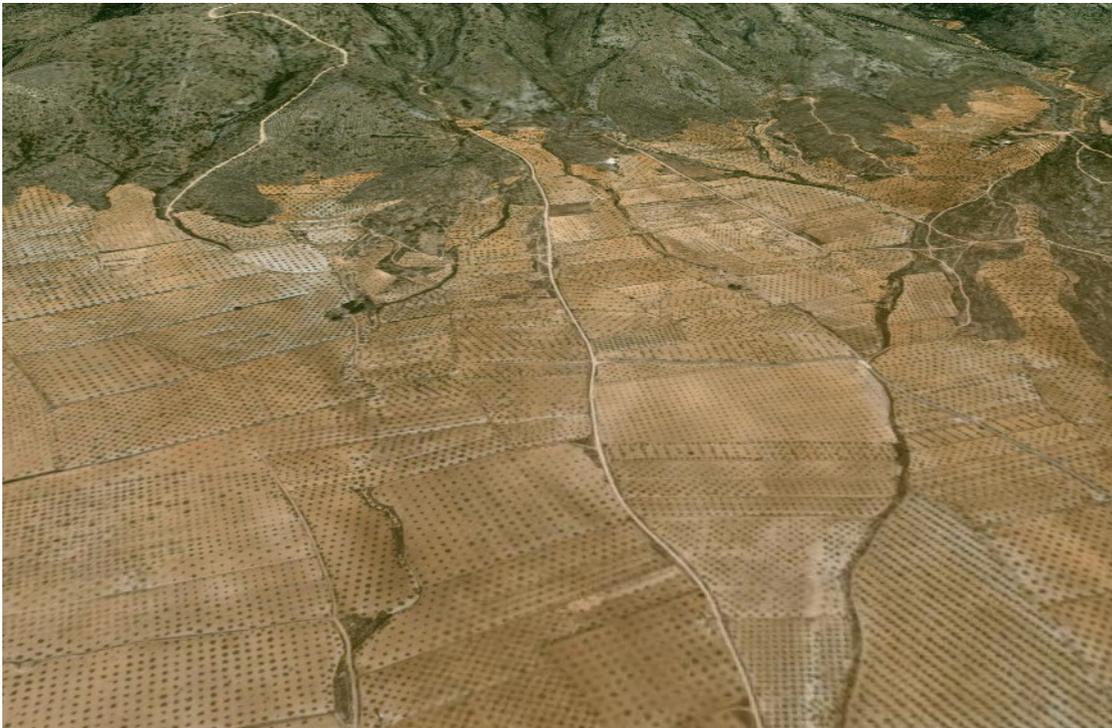


Image 1: Aerial view of the area

Materials and methods.

In the province of Alicante, the demonstration field was located in Campo de Mirra, with the following data:

Farm code: El Camp de Mirra Polígono 2 Parcela 114 (3-51-2-114)

Farm name: Forseguer

State: País Valencià

Province: Alacant

Town: El Camp de Mirra

Location: UTM X 692115,5 Y 4287104,07

Latitude: 38° 42' 39.86"

Longitude: 0° 47' 25.95"

Altitude: 600 meters

Total surface area of the olive grove: 3,60 ha

Total surface area of the farm: 3,60 ha

Number of plants: 268 olive trees

Planting distance: 12 x 12 meters

Cultivar: Alfafarenca

Planting age: Adult trees

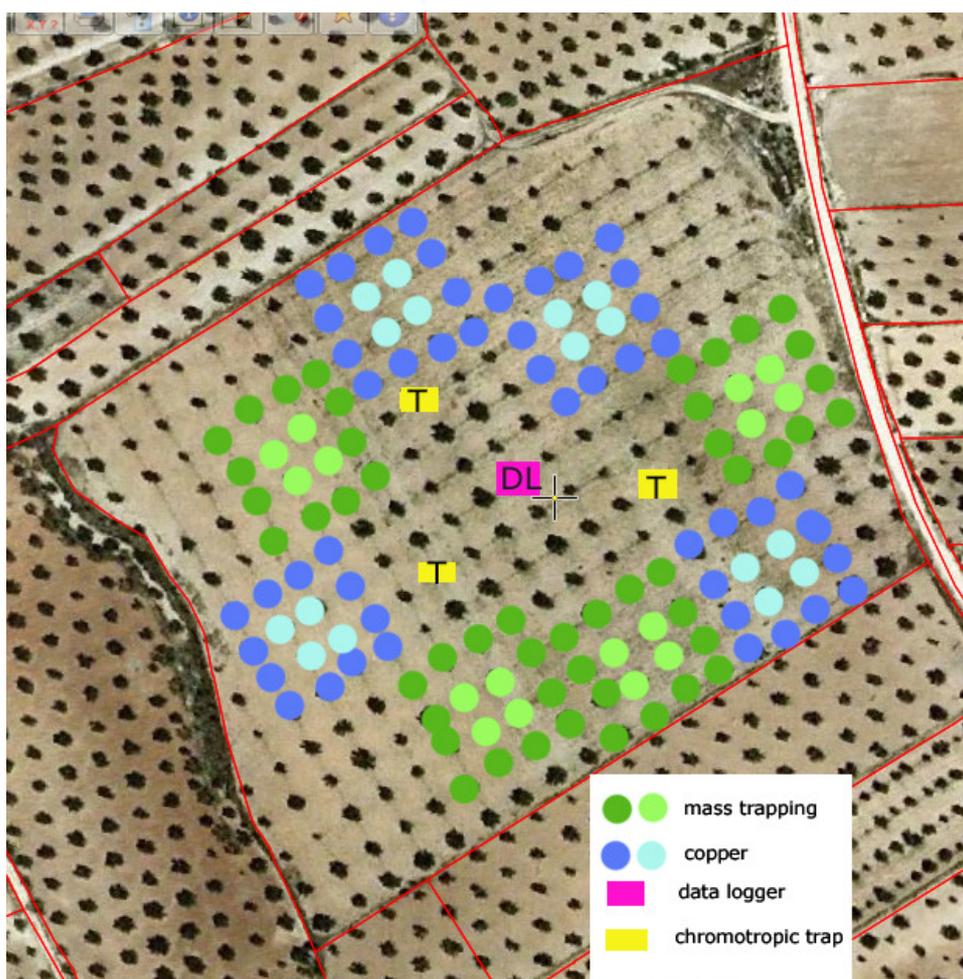


Image 2: Aerial view of the field with the experimental design



Image 3: Detail of the field with the mass trapping bottles

Procedimentals

The first thing we did was to label the trees according to the experimental design, in order to make the planned treatments.

The 17th of June, a big deal before the fly was expected in this part of Spain (here *Bactrocera* uses to appear at the end of August), we installed the data logger and the three chromotropic traps. The climatic data was reported monthly on the website of the project. Unfortunately the data logger broke down because of the heavy rains of the middle of October, and it has not been possible to recover the climatic data. The last data are from 18 of September.

For the mass trapping, we used transparent bottles filled with a dissolution of fish meal. The bottles were prepared and installed following the protocol.

The chromotropic traps were checked weekly, and samples of olives were taken looking for damages. We couldn't find any fly or any damage, because of the dryness of the summer. According to the protocol, and due to the lack of captures and damages in olives, the spraying of the trees was not effectuated.

Nevertheless, the *Pysttalia* were released in the field, the days 6 and 20 of October and 8 of November. During the collecting of the olives, which

started at the end of November, we followed the protocol to detect *Phytophthora* larvae, although we couldn't find anything, due for sure to the lack of fly.



Images 4 and 5: Details of the *Phytophthora* releasing

Results and conclusions

The climatic conditions of the summer of 2010 have prevented the olive fly from appearing at the field of "Campo de Mirra". We have not found any fly neither in the chromotropic traps, neither in the olives.

The temperature and dryness are factors that strongly determine the infestation of *Bactrocera* in this area of the eastern Spain.

This fact makes this area very suitable for the organic oliviculture, despite the treatments that conventional farmers perform every summer.

Beneixama, December of 2010

*The responsible of the field,
María José Payá*