EVALUATION OF MASS TRAPPING SYSTEMS FOR EARLY SEASON MANAGEMENT OF *CERATITIS CAPITATA* POPULATIONS

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Introduction

Ceratitis capitata, (Diptera: Tephritidae) is one of the most damaging fruit pests worldwide. The control of *C. capitata* relies mainly on cover or bait insecticide applications. Attract and-kill approaches are considered as a valid alternative to insecticide applications in many countries. We assessed the perform to attract *C. capitata* adults of five trapping devices in semi-field conditions during spring and summer.

Materials and Methods

A wildish population (F4) originated from Volos was used.

The following devices were tested:

a) Decis trap,
b) McPhail trap baited with Biolure,
c) McPhail trap baited with Biodelear,
d) Tephri trap baited with Biolure, and
e) Tephri trap baited with Biodelear (Fig. 1).

Figure 1. The attract-and-kill devices tested.

Five cylindrical (2.9m diameter x 2m height) field cages were used, each housing one potted citrus tree. On each test day (replication) 100 adults (50 females and 50 males) were released in each field cage. Then, one trapping device was placed in each cage (fig 2). Captured adults were recorded every hour for each trap (8-9 records/replication). We run 10 replications in spring (Off-Season) and 10 in summer (On-Season). In each replicate, the traps in the field cages were rotated (1 rotation/replication).
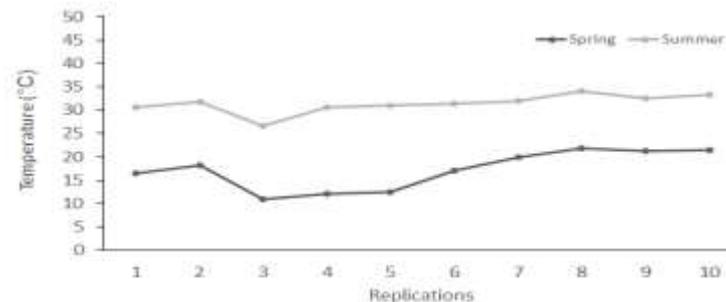
Figure 2. Trap on the tree within field cage.

Results

Figure 3: The mean temperature of each trial day regarding the 2 different periods.
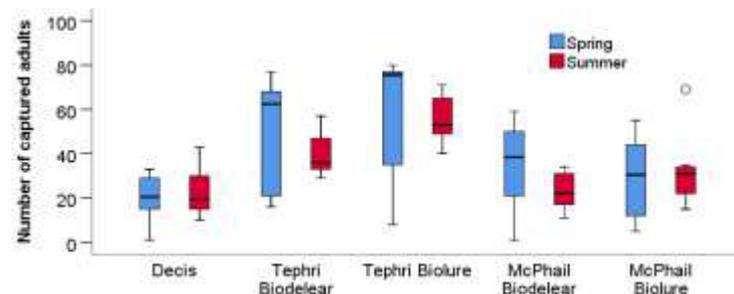

Figure 4: Performance of trapping devices during spring and summer.

Conclusions

- Regardless of the season, the Tephri trap baited with Biolure, outperformed Decis and similarly baited Mc phail trap.
- The new attractant Biodelear was satisfactorily attractive.