



Integration of novel techniques in Medfly AW-IPM

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Israeli climatic conditions and diverse local variety of agricultural crops and natural vegetation constitute an optimal year-round habitat for Medfly (*Ceratitis capitata*). The only way to avoid damage to farmers' produce, without the use of toxic pesticides for the environment, is to use environmentally friendly - Area Wide- Integrated Pest Management (AWM-IPM), which consists of a year-round "pest control network" of mass trapping in the orchard and targeting spraying reinforcement only at critical times and in hot spots.

Field experiments and accumulated experience through integration of novel techniques include:

Trapping devices

Activity duration was tested in Pear grove

Conclusions:

- Traps activity changes over time.
- Proper application of the trap could reduce Medfly population.
- Due to traps' attraction, different fruits crops require different traps.

Whitening tree canopies

based on an organic sun blocking spray to repel Medfly infestation and reduce insecticide applications

Apples trees treated with Deccoshield (organic product Ltd. Yehud-Monsson)

Treatment	No. apples	No. oviposition marks	No. pupae
Untreated	24	35	136
Deccoshield	24	4	1

Apples with and without Deccoshield in cages exposed to Medflies infestation

Precision agriculture

Using drone for spot applications of bait spray (GF-120)

Precise application of GF-120 using drone (Agribotix Solutions)

Date	Treated Area (Ha)	% of total area
1.9.20	18.3	41.5
6.9.20	28.9	65.6
13.9.20	28.9	65.6

Arial photo of Manara orchards with the flight track of the drone.

Thanks to the precision agriculture strategy, 50% of insecticides were saved without fruit infestation.

Conclusions: The three techniques led to significant reductions in the use of toxic pesticides in fruit protection