#### ORGANIC AGRICULTURE Industry Trade Ltd. Company

#### KAPAR®MFF Mediterranean Fruit Fly Traps KAPAR®SC Scarab Beetle Pheromone Traps

KAPAR® Pheromone Traps against Warehouse Pest Moths

KAPAR®OFM Pheromone Traps in Oriental Fruit Moth Control



KAPAR®TL Pheromone Traps in Tomato Leafminer Control

KAPAR<sup>®</sup>CM Codling Moth Traps KAPAR<sup>®</sup> The Plum Fruit Moth

Acorn moth KAPAR®CFF Pheromone Traps in European Cherry Fruit Fly Control

KAPAR®WST White Sticky Trap in Fruit Sawflies

Forest Pests KAPAR\*RPW Red Palm Weevil Pheromone Traps KAPAR\*EGM European Grapevine Moth Traps KAPAR\*YST Yellow Sticky Trap Fighting flies in the greenhouse without pesticides KAPAR\*BST Blue Sticky Trap in Thrips Control Sticky UV-Light Traps KAPAR\*BB Bark Beetles Pheromone Traps KAPAR\*BB Pheromone Traps in Bark Beetle Control KAPAR\*CB Cotton Bollworm Pheromone Traps KAPAR\*OLM Olive Leaf Moth Pheromone Traps KAPAR\*OM Olive Moth Pheromone Traps

KAPAR<sup>®</sup>OFF Olive Fruit Fly Trap

KAPAR®PTM Potato Tuber Moth Pheromone Traps



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# BIOTECHNICAL CONTROL

## WITH PEST INSECTS

Pheromone traps are used in mass catch and diversion techniques to determine the time of control.

## CODLING MOTH CYDIA POMONELLA



Keresteciler Sanayii Sitesi Saray Mah. 2. Cad. No.29 06980 KAZAN / ANKARA/ TURKEY



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## CODLING MOTH (CYDIA POMONELLE)

Host Plants: Apple, pear, quince, walnut, plum, apricot, peach

Insects mostly spend the winter in their hiding places during the adult, larval and pupal stages. As the weather starts to warm up in spring, they gradually emerged, mate and lay eggs. They can give many offspring until autumn.

#### **Type of Damage**

The larvae, which damage the fruit directly, pierce the fruit, open galleries in them, eat the fleshy parts and seeds and leave feces.

#### Monitoring

For monitoring purposes, traps should be set at 3 traps/ha by flower fall. Traps are counted 2 times a week. The control should be started, if the insects in the traps began to increase and if chemical control is preferred.



Date	Number of Codling moth adults caught in the trap
20.05.2002	0
27.05.2002	1
04.06.2002	3
11.06.2002	17
18.06.2002	10
25.06.2002	5
02.07.2002	1
09.07.2002	4
16.07.2002	6
23.07.2002	13
30.07.2002	8
07.08.2002	3
14.08.2002	1
21.08.2002	0

When we examine the sample chart, the traps were hung on May 20, and the outflow of overwintering progeny reached its highest level on June 11 with 17 insects. Producers who want to carry out timely control should spray 7 days after (the time required for mating, egg laying and egg opening, in short, the time when the insect eggs open) the detection of insect emergence. By using pheromone traps, an effective control is carried out at the right time by using a small number of chemical methods. Environmental damage is reduced by using fewer pesticides, less labor and less expense. Product quality increases and pesticide residue in products decreases.

#### Mass Catch

The purpose is to catch as many butterflies as possible and prevent pests from reproducing. For this purpose, 3 traps/decares are used. The number of traps can be increased if the population is large. With this type of control without using pesticides, the environment is not harmed and the products obtained are protected from plant pests.

#### Delta Trap

Delta traps are used to detect the first flight of the pest by placing a sticky card and pheromone inside. Insects that come to the smell emitted by the pheromone stick to the sticky card. When these cards are filled with insects, they should be replaced with a new one. The pheromones should be changed every 4-6 weeks. Traps should be hung on the side branches of the tree in the direction of the prevailing wind and at a height of 1-1.5 m from the ground.

### Usage and Storage Conditions of Pheromones:

• The duration of action of pheromones is 4-6 weeks. During these periods, the pheromone must be renewed.

• Species-specific pheromones should not have a negative effect on other insects found in nature.

• Pheromones can be stored in their original pack at -18 degrees Celsius until the expiration date.



