



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®CM Codling Moth Traps

KAPAR® 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®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.

# KAPAR®CB COTTON BOLLWORM

## PHEROMONE TRAPS



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



www.kapar.com.tr  
www.kaparorganik.com.tr  
kapar\_kapar@hotmail.com



Telephone : + 90 (312) 395 22 79  
GSM : + 90 (532) 393 83 64  
Fax : + 90 (850) 622 90 27



# KAPAR<sup>®</sup> CB

## COTTON BOLLWORM PHEROMONE TRAPS



(Corn Earworm, Cotton Bollworm, American Boll Worm, Old World Bollworm, Scarce Bordered Straw) (*Heliothis Armigera*, *Chloridea Obsoleta*)

**Host Plants:** Cotton Bollworm is a polyphagous pest. Generally in Vegetables Tomatoes, Peppers, Eggplants, Okra and also Legumes, Ornamental Plants, Cotton, Corn and Tobacco

Cotton Bollworm adults are beige-brown butterflies with a wingspan of 35-40 cm. Females lay their eggs one by one on the leaves, fruits and fresh sprouts of host plants. A female can lay 700 to 1500 eggs. The incubation period of the eggs is 2-10 days. The larvae complete their development in 11-31 days depending on the temperature and become pupae in the soil chambers they have prepared at a depth of 3-8 cm in the soil. The pupal period is 20 days. Cotton Bollworm gives 3-5 offspring per year.

### Type of Damage

The larvae do the damage. The larvae, which feed on leaves in the 1st and 2nd stages, then penetrate into the fruits of vegetables such as tomatoes, peppers, eggplant, okra, chickpeas and lentil beans and feed there. They cause many fruits to be damaged and rotten by passing from one fruit to another.

### Monitoring

After the cotton bollworm larvae enter the fruit, the control will be unsuccessful. Therefore, it is important to determine the adult emergence in a timely manner. Beginning from mid-May, the first flight of the pest should be detected by hanging traps (3 traps/hectares).

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/decare 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.

