PEST CONTROL SHEET

Euzophera pinguis (Haw)

OLIVE PYRALIDAE MOTH/ ABICHADO DE LA OLIVA

March 2012 Rev01

Order: Lepidoptera
Family: Pyralidae

IN SYNTHESIS…

- It mainly affects the olive tree trunk and can even cause the death of young species.
- The insect colonises the trunk by the pruning wounds, machinery… The preventive actions to avoid damages and wounds in trunks have a great importance in the management of this pest.
- The damage symptoms are the ongoing weakness of a branch or the whole tree and the presence of sawdust in the cracks of the bark.
- Usually two complete generations appear by year, one from the end of March-April and the second one since the beginning of September.
- The difficulty of its chemical management is due to the fact that the pest develops inside the trunk.
- The monitoring of the pest by pheromones is a key in the timing decision of the treatment with authorized products.

Damages in the olive tree trunk caused by E. pinguis

THE PEST

The *Euzophera pinguis* adult is a small nocturnal lepidoptera of about 10 mm of length. It has brown prior wings with two white bands in zigzag and the posterior ones in a light colour.

It lays the eggs, isolated or in groups of up to 4 or 5, over the tree's bark, next to the pruning injuries or old galleries.

When the larva is born enters immediately under a trunk to get fed. The caterpillar is white, with a dark head, and is the responsible of the damages, by digging subcortical galleries in the trunk during its development.

It winters as a larva until the beginning of the spring, when there is the pupation and the beginning of the first flight, which takes place from the end of March until the months of April and May in a stepped way. The first lay is carried out during May, and the resultant larvae give rise to a second generation of adults at the end of summer, that will lay their eggs in September.

Usually, there are two complete generations per year, one from the end of May-April and another one from the early September.

The treatments must be addressed basically to new-born larvae before its penetration in the trunk, so the curves knowledge from the flights and the determination of the appropriate timing for the treatments is essential to guarantee the effectivity of such treatments.

MONITORING

The insects' development depends on the temperature, so the appearance of the different generations is variable in accordance to the different areas and climatic conditions.

There are used sexual pheromones to monitor the flights and precise the appropriate application moment of authorized products. These treatments must be addressed to new-born larvae immediately after the eggs' hatching of the first lay.

- Starting date for monitoring: at the beginning of the spring
- Traps' type: Delta/Funnel traps.
- Trap's placement: at about 2/3 from the crops height, over the tree or by using a support.
- Traps' density: 1-2 traps/hectare. Place at least a trap in the centre of the parcel and another one next to the limit of the parcel, to know if the pest is emigrating from another point or has passed the winter in the crop.
- Pheromone: place a specific pheromone capsule for *Euzophera pinguis* in the chromatic trap, in the delta one, or in the lid of each funnel trap. Make shore to use a new capsule that has been stored in appropriate conditions. Change the capsule every 6 weeks. If temperatures are high, replace the capsule after 4 weeks.
- Insecticide: it is advisable to place an insecticide tablet (DDVP) at the back of each trap (funnel trap).
- Traps' control: check the traps once a week. After each counting, remove the insects from the inside of the trap.
- Tolerance levels/treatments: 3-4 insects/ trap/ week. It is advisable to carry out treatments to the trunk by the second week after the capture of the first adults. Only use authorized products for the crop/pest.

PRODUCTS AND MATERIALS:

- *E. pinguis* pheromone capsules

- Delta traps
- FUNNEL traps

MASS TRAPPINGS

The trapping is a method to reduce the populations and control the pest. Use trappings from the beginning of the pest and with low population levels. Sexual pheromones attract mainly males, so the control by trapping must be supplemented with treatments with *Bacillus thuringensis* or other authorized phytosanitary products.

- Starting date for trappings: from the first captures in monitoring traps.
- Traps to be used: Funnel traps.
- Trap's placement: at about 2/3 from the crops height, over the tree or by using a support.
- Traps' density: 8-10 traps/hectare.
- Pheromone: place a specific pheromone capsule of *Euzophera pinguis* in the lid of each funnel trap. Make shore to use a new capsule that has been stored in appropriate conditions. Change the capsule every 6 weeks. If temperatures are high, replace the capsule after 4 weeks.
- Insecticide: it is advisable to place an insecticide Tablet (DDVP) at the back of each trap.
- Keep the traps during the whole development in the crop, and 2-3 weeks after taking it away and removing the residues.

PRODUCTS AND MATERIALS:

- *E. pinguis* capsule pheromone
- Delta trap
- FUNNEL trap