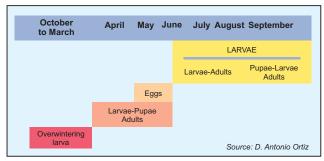
Euzophera pinguis (Haworth) is a Lepidoptera that causes the young olive trees to die and reduces the production of mature crops. It is considered the third most serious pest for Spanish olive groves.

#### **MORPHOLOGY AND BIOLOGY**

In its larval stage, the insect is found inside the trunk of the olive tree at a depth of 4 to 5 mm, making it almost impossible to reach with chemical treatments.

It is only vulnerable when its biological cycle is known and the moment of egg laying, which takes place outside the gallery, is determined.

The eggs are oval, flat and have a reticulated structure. They are a pinkish-white colour, turning a darker colour as the incubation process advances. The female lays the eggs individually or in small groups of 4 to 5 eggs in the crossings and fissures of the branches.



Seasonal cycle of Euzophera pinguis in Jaen

The larva is a light green colour and reaches 25 mm in length. Its head and thorax are black. The pupa, which is a brown colour, grows inside a fairly dense silk structure of about 10 to 15 mm long.

The adult is a cream-coloured moth with a wingspan of 20 to 25 mm. The forewings have two pale stripes in a zigzag pattern.

The hindwings are essentially white with a thin brown border.



Euzophera pinguis larva

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## **ECONEX EUZOPHERA PINGUIS 2 MG 40 DAYS**



#### **SOLUTIONS OVERVIEW**

| CODE  | TRADE NAME   | IMAGE |
|-------|--|-------|
| VA207 | ECONEX EUZOPHERA PINGUIS 2 MG 40 DAYS Pheromone diffuser with a duration of 40 days. |       |
| TA001 | ECONEX POLILLERO   |       |
| TA027 | ECONEX GREEN POLILLERO   |       |





### SANIDAD AGRÍCOLA ECONEX, S.L.

C/ Mayor, No 15 Bis · Edificio ECONEX 30149 SISCAR-Santomera (Murcia) - Spain, EU Tel. +34 968 86 03 82 / +34 968 86 40 88 · Fax: +34 968 86 23 42 Customer Service: +34 900 502 401

Web: www.e-econex.eu · E-mail: econex@e-econex.com









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# **ECONEX EUZOPHERA PINGUIS 2 MG 40 DAYS**

www.euzopherapinguis.eu

## Olive pyralid moth

### BIOCONTROL









#### **DESCRIPTION**

CODE TRADE NAME
VA207 ECONEX EUZO

**ECONEX EUZOPHERA PINGUIS 2 MG 40 DAYS** 

Pheromone diffuser with a duration of 40 days.

OMDF register number: 058/2014

Natural rubber diffuser with capsule shape, individually packaged in an aluminium sachet with labelled specifications. Once removed from the packaging, **the diffuser needs no activation or opening**, just placed correctly in the trap

#### **DETECTION AND MONITORING**

 $1\ \mbox{to}\ 2\ \mbox{traps}$  per hectare should be placed at the same height as the crops or on a specific support. The traps should be placed in spring.

#### **MASS TRAPPING**

For mass trapping, the amount of traps per surface area must be increased, depending on the location and homogeneity of the plots. One trap controls a surface area of  $1.000 \, \text{m}^2$ . This means a density of  $10 \, \text{traps}$  per hectare.

#### **NECESSARY MATERIAL**

The ECONEX POLILLERO (Code: TA001) or ECONEX GREEN POLILLERO (Code: TA027). It is recommended to place any substance capable of retaining or killing the captured insects inside the trap, such as olive oil. The ECONEX EUZOPHERA PINGUIS 2 MG 40 DAYS diffuser should be placed in a small cage that is in the centre of the trap lid.





**ECONEX POLILLERO** 

ECONEX GREEN POLILLERO

#### **PERIOD OF USE**

To obtain a good level of control of *Euzophera pinguis* it is advisable to combine two methods: detection and monitoring; and mass trapping.



ECONEX EUZOPHERA PINGUIS 2 MG 40 DAYS.

Packgaging and pheromone diffuser.

In spring, 1 trap per hectare can be placed for the detection of the pest and the observation of its population levels. With tolerance thresholds established in each area, the moment to adopt control measures, in this case mass trapping, can later be defined.

The tolerance threshold for *Euzophera pinguis* is very low and depends on the area. In general, it is approximately 3 captures per trap and per week. For mass trapping, traps should be placed throughout the plots.

#### **SYMPTOMS AND DAMAGES**

- Presence of fissures and bulges on the bark as a result of galleries that have been perforated by the larva, which block the bleeding of the sap.
- The existence of accumulations of excrement and silk threads that are external and a brown colour. They are removed by the larva and accumulated at the entry hole of the gallery. These prevent both the sunlight and natural enemies of *Euzophera pinguis* larvae from entering. To recognise them, just raise the bark on the areas with presence of excrements and sawdust. Continue excavating along the gallery until the larva or pupa is found.
- Discolouration of the leaves in branches attacked by the insect. This symptom is especially severe at the tip of the highest branches. However, as the attack develops, this discolouration appears on the rest of the tree
- Strong defoliation of the branches that are already infested, which usually means that the branch has dried up. In the case of young olive trees, this can be mortal. The mortality rate is very high in young olive trees that are between 4 and 10 years old.



*Euzophera pinguis* attacks mainly healthy trees. The first visible signs in a tree that has been attacked are not very obvious, so they are not noticeable at first.

In general, the only sign that the farmer notices before the first dry branches appear, is the larvae that are in the cuts of the branches, which are exposed after pruning or in the fissures caused by removing the suckers.





With the exception of the winter months, this pest can be found at any time throughout the year and in all and every one of its developmental stages: larva, butterfly, eggs and adults. This makes it very difficult to establish a plan of action against this moth.

In addition, it grows depending on the temperature. That is why the olive areas of Cordoba and Malaga are infested with this Lepidoptera all year round, resulting from the extinction of its natural enemies by uncontrolled and mass use of pesticides.



# FACTORS THAT INFLUENCE THE NUMBER OF TRAPS NEEDED

Pest population, bordering crops, level of control required, etc.

An important factor is crop size. In small and irregular sized crops a greater number of traps will be needed.

Another important factor is the distance between plots that have the same pest. In such cases the crop boundaries should be reinforced, so a trap density of about 20 traps per hectare may be needed. More traps may be needed in the case of mass trapping.

#### STORING THE DIFFUSERS

The diffusers must be stored in its original packaging without opening it in a refrigerator at  $4\,^{\circ}\text{C}$ ; or in a freezer at  $-18\,^{\circ}\text{C}$ , in which case they remain effective for 2 and 4 years respectively.