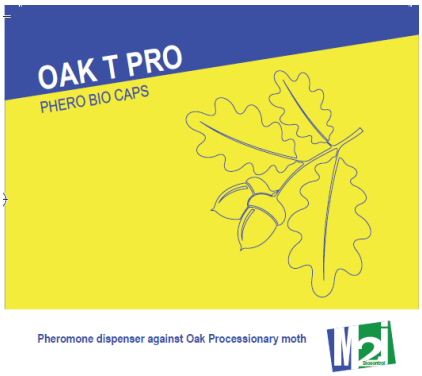
Pheromone Trap : Oak processionary moth



M2i technology

- Unique patented process of pheromone micro-encapsulation
- Constant and extended rate of pheromone release for greater efficiency
- 100% biodegradable
- Easy storage, at room temperature
- Extended shelf life: 2,5 years

User guide

M2i recommends: Oak T Pro Caps® syringe + Funnel trap

Trap setup: place the pheromone holder (cage) in the upper part of the trap. Put a drop of the product into the bottom of the trap. Snap the upper part of the trap into place. Empty the remaining content of the syringe into the pheromone holder. The moths are attracted by the sexual pheromone, enter the trap and are caught.

Characteristics of Oak T Pro Caps®

Type of product	Pheromone dispenser
Use	Monitoring
Active substance	(Z, Z)-11,13-hexadecadienyl acétate
Volume of formulation	0,5 mL
Indicative diffusion*	3 months
Targeted insect life-stage	Adult (moth)
Estimated radius of diffusion	Moths attracted on a radius of 5m

*for an average temperature of 30°C and in the absence of strong winds

Monitoring setup

Detection period: from July to September (adapt and renew the pheromone dispenser according to the recommended diffusion time).

Trap location: hung on the tree's canopy (if possible >10m high). Use a weighted string to set up the trap.

Recommended density: 4-5 traps/forest plot (1 in each side and 1 in the middle); 1 trap/tree for isolated pines.

Pest monitoring and recommendations

Trap follow-up frequency	Weekly
Recommended intervention	If presence of nests/caterpillars in the tree
Pest control methods	According to observations of the pest (nests, caterpillars, moths): it is possible to perform an additional biocontrol treatment according to the insect life stage. Refer to recommendations of registered products for plant protection (ephy.anses.fr) and/or to your technical advisor.
Possible preventive measures	Favor the introduction of predators (birdhouses). Remove and destroy nests.

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Pheromone Trap : Oak Processionary moth


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The Oak processionary moth (*Thaumetopoea processionea*)

Pest life-stage: caterpillar **Order**: Lepidoptera

The oak processionary moth is native to Central and Southern Europe. Adults are greyish with dark transversal stripes on forewings. Their wingspan is 31 to 41 mm. They live around 3-4 days. Females lay eggs during fall, in plates covered by greyish scale on shoots and small branches. The pest overwinter as eggs. They hatch around 6 months later, during the following spring.

Caterpillars are first brown with a black head and become greyish with a black dorsal stripe, orange-red patches, long white hairs and smaller urticating hairs. They measure up to 30 mm and can develop in 9 to 12 weeks. Caterpillars feed on leaves, inducing defoliation and weakening of attacked trees. Oaks become more sensitive to other pests or diseases. Caterpillars live in colonies and spin a nest on the trunk or larger branches, where they stay during the day. At night, they go out of the nest in procession to feed.

At the end of their development, caterpillars pupate in the nest. Adults emerge 30 to 40 days later. The flight period extends from July to September (1 generation per year).

Recommandations / Security

Keep out of reach of children. Keep away from domestic animals.
Store away from food and drink. Do not freeze.
Do not eat, drink or smoke during use.
Wash hands after use.
Store in original packaging. Comply with doses, conditions, instructions and precautions for use mentionned in the user's guide.
Dispose of the empty and clean packaging in the household trash.

First aid

If eye contact occurs, rinse with water for several minutes.
In case of skin contact, wash with plenty of water.
If swallowed, do not induce vomiting, rinse mouth and see a doctor.
In case of faintness, see a doctor and show him the product label.

Product approved for organic agriculture.

Host plants

This Lepidoptera is one of the main pests of oak trees (*Quercus* spp.). It can also attack other species such as walnut tree, acacia, hawthorn, birch, beech or rowan…

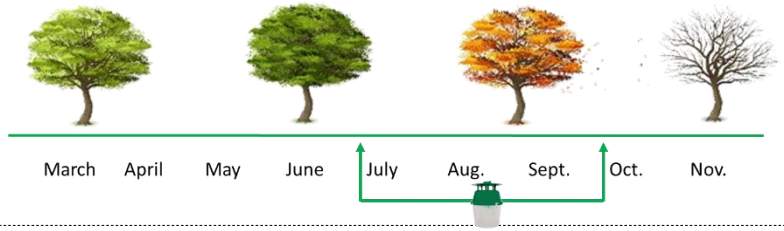
Detection strategy: pheromone monitoring

Pheromones are substances produced by insects which operate as a signal between individuals of a same species. There are different types of pheromones: alarm, aggregation, sexual… Monitoring with sexual pheromones is based on a lure placed inside a trap which mimics the substance produced by the female. Lure attracts males which are captured. This enables the detection of the pest's onset and the follow-up of its infestation level. Monitoring also helps decision-making (to launch a curative intervention) and/or measuring the efficiency of a treatment.

Benefits

This method is efficient, selective and harmless for fauna, flora, operators and local residents. It does not generate residues, inputs or resistance mechanisms.

Detection period for *T. processionea*



Indicative period for Europe

Icons made by Vecteezy

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