

Apple clearwing moth - *Synanthedon myopaeformis*

Borkhausen

The body of the moth is 10-12 mm long, the wingspan is 12-22 mm. Most of its wing surface is transparent, without scales. The edge of wings is with a golden fringe. The body is bluish black with one thick red ring on the abdomen.

The host plants of the caterpillar are: apples, pears, medlars, plums. The species causes significant damages first of all in young orchards. The caterpillars bore in the tissues of the bark.

On the branches and trunks attacked by the larvae there are brownish debris (=faeces) to be seen. As a result of their damage the branches can get weak, break easily, the healing of wounds is prolonged, which is beneficial for the attack by other diseases i.e. the wound parasitic fungus *Nectra galligena*. The pheromone trap should be suspended from branches at a height of 1.5 - 2 m on branches in the tree canopy. Usual beginning of trapping in Hungary is beginning / middle of May.

Selectivity of the CSALOMON® trap (based on tests performed in Hungary): the trap is remarkably selective when operated in an apple orchard. In more variable biotops it can catch some specimens of other sesiids, which do not have one red ring on their abdomens. A CSALOMON® pheromone trap starts slowly to decrease its attractive activity after

4-6 weeks of field exposure (depending on actual weather conditions). After this period it is advisable to set up a new trap for reliable detection and monitoring. Trap design recommended: for detection our sticky trap design (RAG) is most suitable. It proved to be excellent and very sensitive for detection of occurrence and monitoring of flight dynamics of the species.



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The insect, which is captured in the trap



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The larva and its damage, which should be averted

The sticky insert can become saturated with captured specimens within a relatively short period (1-2 days even) at high population densities, so frequent renewal of sticky inserts may become necessary. For catching large numbers of moths and/or for quantitative monitoring the funnel (VARs+) design can be recommended. In case of the funnel design it is necessary to kill insects caught in both the upper AND lower catch containers.

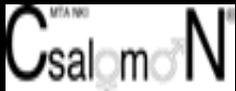
*The damage of the larva,
which should be averted*

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When the traps indicate the presence of many apple clearwings, it is advisable to treat the wounds of the trees with a mixture of the oil AGROL PLUS and 1% Decis 2,5EC[1]. In backyard gardens or bio-production damages can be limited in the long run by applying 4-5 litre buckets filled up with fermenting apple juice[2]. These buckets will capture both males and females of the apple clearwing moth. Instead of fermenting apple juice an alternative is a mixture of 1 kg of molasses + 2.5 l 20% acetic acid + 0.25 l "green apple" shampoo + 96 l tap water. Effectivity of such bucket traps can greatly be increased if a pheromone bait is suspended above the water surface[2]. The time when setting up of the buckets is necessary can be defined by pheromone traps.

[1] Le Duc Khanh et al., *Növényvédelem*, 30:219-224, 1994. [2] Sziráki, Gy.: *Növényvédelem feromonos rovarcsapdákkal*. Biofüzetek 28, Mezőgazd. Kiadó, Planétás Gmk, Budapest, 1989.



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To order / to inquire: MTA ATK Növényvédelmi Intézet (Plant Prot. Inst. MTA ATK) Budapest, Pf 102, H-1525, Hungary; phone. +(36-1)-391-8637, +(36)-30-9824999; fax +(36-1)-3918655; e-mail: <csalomon.orders@julia-nki.hu> or <h2371tot@ella.hu>; internet: <<http://www.julia-nki.hu/traps/>>.

When using our KLP+, VARs+ or VARb3z+ trap designs it is **absolutely necessary** to kill insects getting into the trap. The most widespread insecticide used in pheromone traps worldwide is an anti-moth strip with dichlorvos (DDVP 15-20%) active ingredient. (This from 2010 is not permitted in some countries!)

Colleagues in Italy successfully used an anti-moth strip VAPE bought in Italian supermarkets. This strip is having transfluthrin as active ingredient.

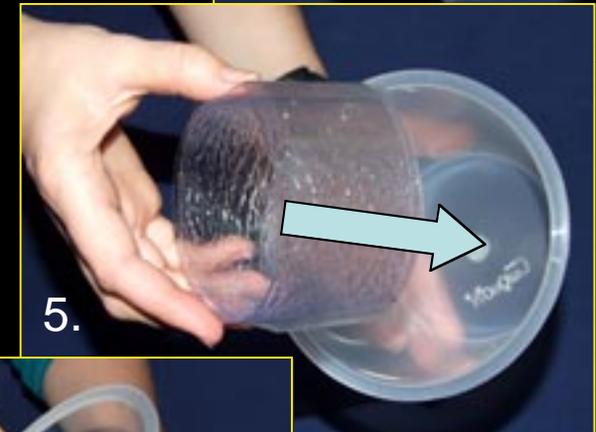
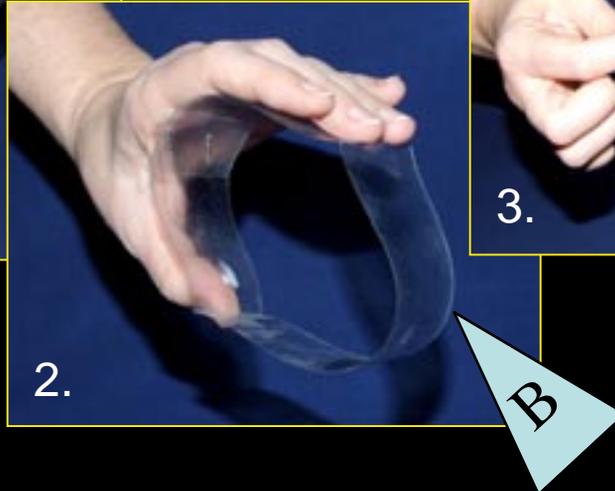
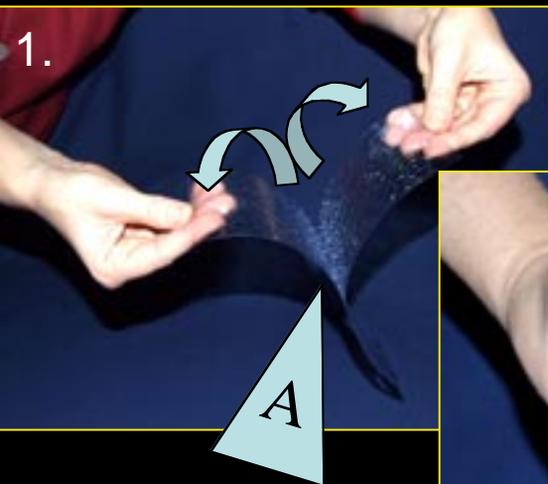
Another successful solution was to use pieces of dog collars (anti mite collars for pets) with diazinone (15%).

One can also spray the inside surface of the traps and catch containers (the largest surface possible) with sprayable household insecticides (permethrin, empethrin or deltamethrin active ingredients all found suitable), however, in this case one has to re-spray at weekly intervals.

For users who find the application of insecticides inconvenient for any reasons, as an alternative we supply our **cylindric sticky insert** (sent as a supplement to KLP+, VARs+ and VARb3z+ trap types).



Assembling instructions for Cylindric sticky insert



1. Separate one sticky insert (A) from the pair of inserts!
- 2-4. Place the sticky insert into the holder ring (B), so that the **STICKY SIDE FACES INSIDE!**
5. Put the assembled cylindrical sticky insert into both of the catch containers of the trap!
6. In case of the upper container place on it the plastic cone and assemble the trap as usual!



The funnel VARs+ traps can capture very large numbers without saturating.



So it looks when caught in the CSALOMON® RAG trap, which, although can be used for detection, can get saturated with the catch relatively fast.