

# Cabbage seed weevil, cabbage stem weevil, rape stem weevil (*Ceutorhynchus assimilis* Paykull, *C. quadridens* Panzer, *C. napi* Gyllenhal)

The adult beetles are 2.2-4.0 mm long, eggshaped, with damp greyish white or grey colouring. The proboscis is long, thin, and more or less rectangular with the body. To tell apart the single species advanced taxonomic knowledge is necessary. The eggs are white, and can be found in holes bored into the stem or pod (*C. assimilis*). The larvae are milky white or yellowish, the head is darker. The light coloured pupae (2.5 – 4.5 mm) can be found in the soil.

Host plants of the larvae include cruciferous plants, rape, cabbage and relatives (i.e. cauliflower, kohlrabi, etc.), white mustard, turnips, radishes.

*The damage of the larva (C. quadridens-above, C. napi-below), which should be averted*



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*One of the beetles, (C. quadridens) which is captured in the trap*

Damage: the main damage

is that the larvae develop in the pods (*C. assimilis*), or in the stems (*C. quadridens, napi*), but the adults can also cause some damage by feeding on the flowers. The damaged pods ripe earlier, the seeds fall out. The inside of the damaged stem gets sponge-like, the stem can rip up, the plant does not develop normally.

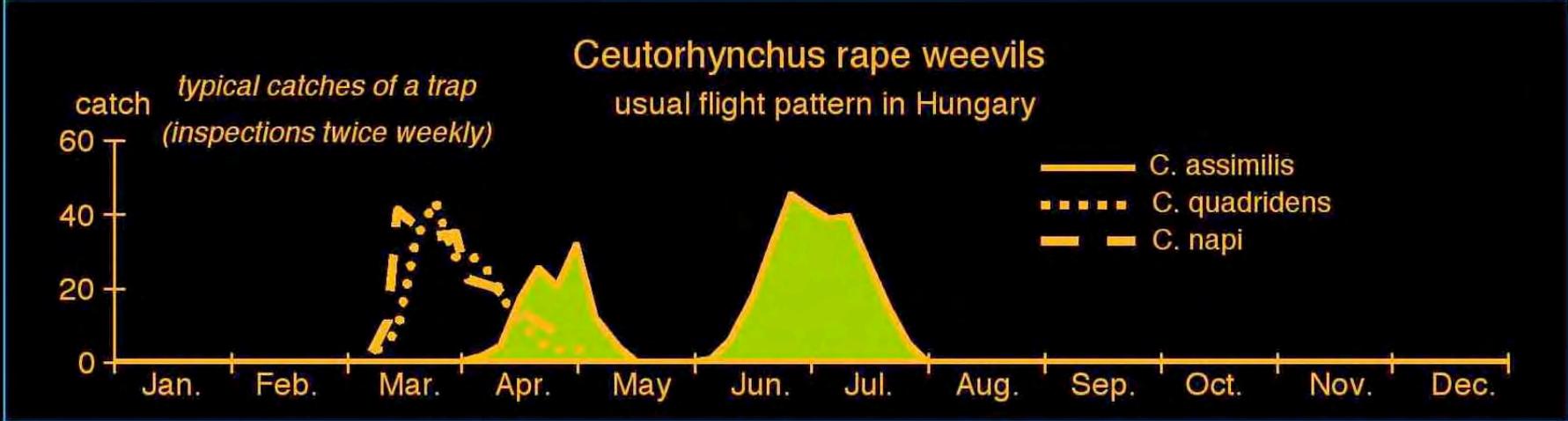
The attractant trap should be placed at the overwintering site (that is in the vicinity of LAST YEARS rape field) by hanging it from a pole, so that the lower corner of the yellow crawl-up panel of the trap touches the soil. In early spring it is advisable to fasten the yellow panel to the soil with a piece of wire (not provided with the trap). Usual beginning of trapping in Hungary is beginning of March.

Selectivity of the CSALOMON® trap (based on tests performed in Hungary): the synthetic bait of the trap attracts all three weevil spp. (*C. assimilis, C. quadridens, C. napi*) equally well. Apart from these, some cabbage flea beetles (*Phyllotreta* spp.) and some specimens of the cabbage root fly (*Delia radicum*) can be attracted.

(Please note that a trap and bait especially optimized for the capture of cabbage flea beetles is on our list of products!) Other beetles or flies can come into the trap as chance captures only.

Longevity of the CSALOMON® trap in field conditions: Depending on the warmth of the weather at least 3-4 weeks. After this period we suggest to exchange the bait to a new one for most effective detection and monitoring. The KLP+ ("hat") trap is suitable for sensitive detection, and for following the population density changes during the season. The trap can capture very high numbers of beetles. For satisfactory performance a killing agent (not provided with the trap) should be placed into the catch container.

The synthetic bait attracts both male and female weevils into the trap. The KLP+ trap is best applied for early detection of the first occurrence of overwintering beetles in the spring. The trap is most efficient at the overwintering sites, where large numbers of beetles stay for the winter (that is in vicinity of LAST YEARS' rape or cabbage field). When the traps detect the occurrence of the first specimens, we can be sure that their immigration into this years' rape fields will follow within 1-2 days. In case of *C. assimilis*, flight pattern of the second generation appearing in the summer can also be performed with the traps.



overwintering population: where rape was previous year    new populations: where rape is this year



is a registered trademark of the Plant Protection Institute, ATK, Budapest, Pf 102, H-1525, Hungary; phone. +(36-1)-391-8637, +(36-30)-9824999; fax +(36-1)-3918655; e-mail: <csalomon.orders@atk.hu>; internet: <www.csalomontraps.com>.

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.

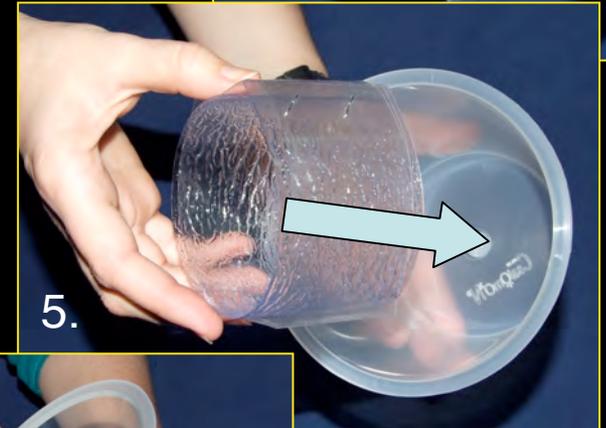
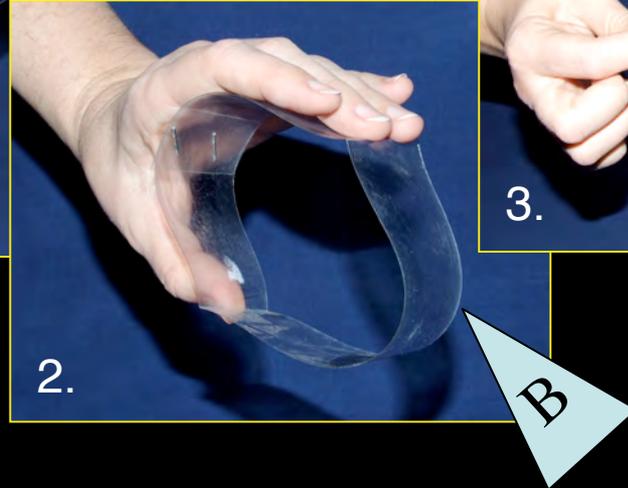
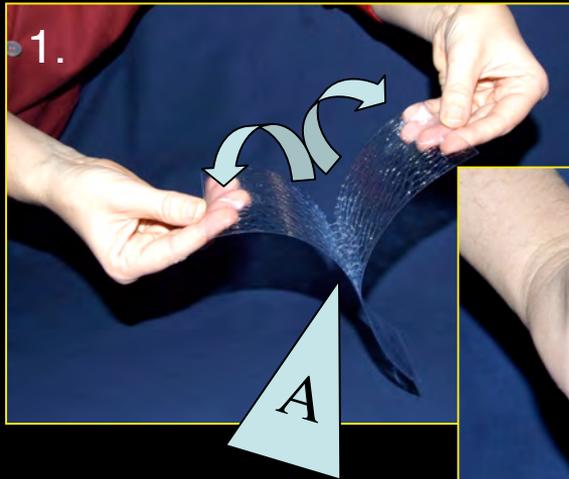
Another successful solution was to use pieces of dog collars (anti mite collars for pets) with diazinone (15%).

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 the catch container of the KLP trap!
6. Place on it the plastic cone and assemble the trap as usual!



*Phyllotreta* sp.

Photo: M. Tóth



So the insect looks, which is caught in the CSALOMON® KLP+ trap!

Photo: M. Tóth

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