

Lima-bean pod borer - *Etiella zinckenella* Treitschke.

The body of the moth is 10-12 mm long, the wingspan is 24-28 mm. The background colour of the forewings is glinting greyish brown, with a broad, steep, bald transversal band, which is bordered from the outside with a broad yellowish-red band. Along the upper edge of the wing there is a longitudinal white line, reaching from the base to the apex. The hindwings are translucent, light greyish brown, the fringe is whitish. The host plants of the larva include locust tree (*Robinia*), green peas, soybeans, lupine, beans, and other fabaceaeous plants.

Damage: the seeds are with chewing damage in the pod, the caterpillar fills the inside of the pod with webbing, on which small pieces of faeces can be found. Chewing damage on green peas is at a large surface of the seeds, but it is shallow. Small seeds can be totally devoured by mature larvae.

The CSALOMON[®] pheromone trap should be suspended at a height of 1.0 - 1.2 m or just above the upper level of vegetation in green pea or soybean fields.



Photo: Nagy Z. L.

The larva and its damage, which should be averted

When trapping on locust trees, set the trap at a height of 2.0 - 2.5 m in the tree canopy. Usual beginning of trapping in Hungary is middle of April.

Selectivity of the CSALOMON[®] trap (based on tests performed in Hungary): in some years sizeable numbers of *Pandemis heparana* or *Yponomeuta* spp. can be captured. In lower numbers *Archips* and

Argyrotaenia species can also come to the trap. The limabean pod borer can be told apart from all of these due to its characteristic wing pattern and shape. Occasionally in Europe some noctuids like *Polia nebulosa* (during period of first flight) or *Noctua fimbriata* (during period of second flight) can be attracted. Both of them are much larger than the target species.

Geographical differences: the composition of our pheromone bait is based on pheromone analyses of limabean pod borer populations from Hungary and Egypt.[1]



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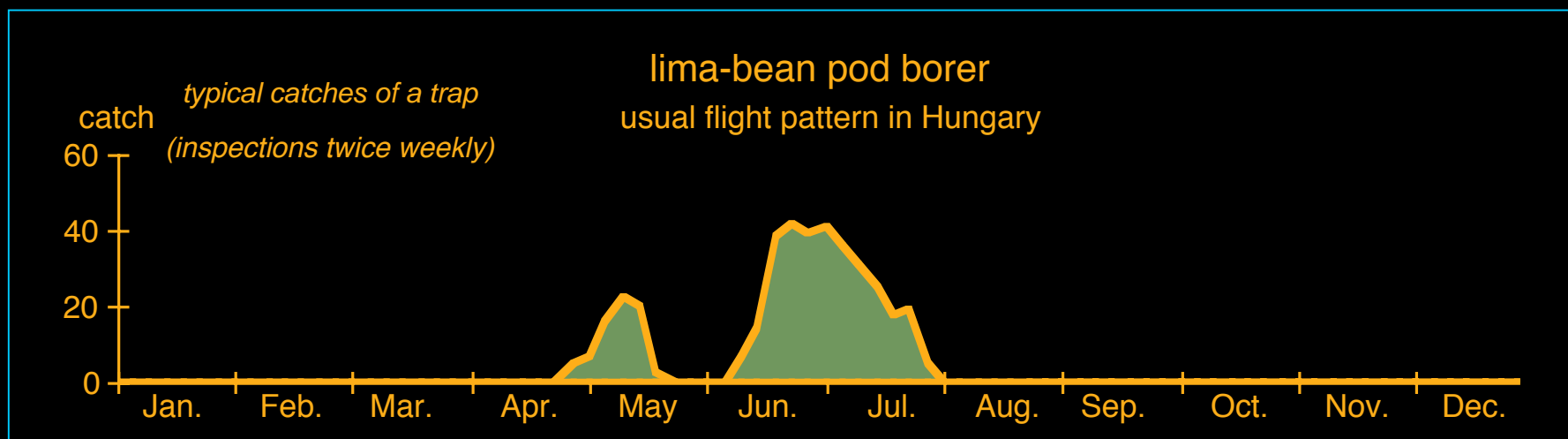
The moth, which is captured in the trap



This bait performed very well with limabean pod borer populations in Europe, North Africa and India. However, it was not attractive for populations in the Far East, Indonesian region, Australia and the Americas, probably due to the occurrence of different pheromonal strains in these regions.[2]

Longevity of the CSALOMON® trap in field conditions: depending on the warmth of the weather at least 4-6 weeks. After this period we suggest to set up a new trap for most effective detection and monitoring. Renewal of sticky inserts in intervals of 7-10 days. In case of high catches this may become necessary more often. Pheromone traps can be used for detecting the occurrence and for monitoring the flight pattern of the pest. In case of favourable weather several flight maxima can develop within the season. Insecticide treatments timed according to catch figures in our traps are most effective if they reach the young larvae after hatching and before boring into the pods. This usually happens after 10-12 days of the peak flight.

[1] Tóth M. et al., *Ent. exp. appl.* 1:107-112, 1989, [2] Tóth M. et al., *Bioorg. Medic. Chem.* 4:495-497, 1996, Tóth M. et al., *Proc. XX. Intl. Cong. Entomol. Firenze, August 25-31, 1996*, pp. 471.



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Photo: Nagy Z. L.

So it looks when caught in the CSALOMON® RAG trap!