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# STUDY OF CUT WORM BIOLOGY IN THE VEGETABLE GROWING AREAS AROUND TEHRAN, AND DETERMINATION OF IT›S CONTROL MEASURES

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**Summary**

Studies and investigations indicated that cut worm was the main agent of damage to vegetables and causes a great deal of loss and damage to these crops.

For this reason, study on this pest was deemed essential for finding the best control measures as well as preventing it›s dissemination.

Several specimens of moths were collected from the fields and reared in laboratory conditions to show which species was most dominant in the area of investigation.

Eventually a genus named *Agrotis ypsilon* Rott. with a large number of occurences and another genus named *Agrotis segetum* Schiff with a lower population density in comparison with previous genus were identified.

Therefore, investigations were conducted on the genus *A. ypsilon*.

The moths of this species emerge in the spring and start to fly in the vegetable fields. The females lay their eggs individually or in batches on different parts of the plant close to the soil surface.

Within two weeks the eggs hatch and the small larvae start to feed on leaves and buds. These small larvae pass their preliminary larval stages and after several moulting, penetrate into the soil during the days, appearing at nights to feed on green stems of plants near the soil, causing plants to break and wilt.

The last larval stages pass the autumn in the depth of 15 cm in the soil and overwinter there till next spring. Early in the spring these larvae appear on the soil surface and change to pupae inside a clod den. The moth emerges after Three weeks. This pest has three generations under the climatic conditions of Tehran province.

A kind of wasp parasite from the genus *Apanteles* was collected from the place where eggs were laid inside the larvae of last stages.

The most effective cut worm control can be obtained by following procedures:

At the end of growing season, collecting and burning crop residues, deep plowing of the harvested field in autumn, and if possible, flood irrigation of the infested field during winter.

For the chemical control of cut worm There insecticides(Chlorpyrifos 5 G.› lindane 25% w.p and carbaryl 85% w.p. ) were tested, and based on statistical analysis, following chemicals found to be effective.

First group: Chlorpyrifos 5 G, Lindane 25% w.p.

Second group: Carbaryl 85% w.p.

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