



Pest Control No. TPC 12

Cutworms, Family *Noctuidae*

Cutworms are the caterpillars of noctuid moths. There are two different species; Agrotis segetum (turnip moth) and Agrotis ypsilon (greasy cutworm). The greatest attacks from cutworms are often during dry summers, on light soil.

Host

Cutworms feed mainly on the stems of young plants at ground level. The primary hosts are vegetables and roots, but they also attack maize, tobacco and coffee.

Symptoms

Cutworms feed at night, eating the stems of young plants at, or just above, ground level, sometimes completely severing them. They can work right along a row, leaving the wilted and dying seedlings behind them.

Description of pest

Cutworms are large green, grey or brown caterpillars. They curl up into a 'C' shape when disturbed. They can grow up to 2-5cm long.

Life cycle

Female moths lay eggs in batches of 30-50, on leaves and stems of plants and weeds, as well as on plant debris. 1000 eggs can be laid over 1-2 weeks, and these take about 14 days to hatch into caterpillars. The young caterpillars feed on the leaves of the host plant for the first two weeks then move into the soil. Thereafter they remain in the soil during the day, usually within 10-25 millimetres of the surface. The caterpillars come out at night and feed for 1-2 months before pupating. The fully-grown caterpillars are 30-40 millimetres long. When ready to pupate they burrow into the soil and become reddish brown pupae, emerging as a moth after 2-3 weeks.

Prevention and control

Be vigilant: Check vulnerable crops every day. At the first sign of injury (wilting/collapsed plants) search the soil around the plant base until you find (and destroy) the culprit. This will prevent the cutworm moving on along the row. Go out on a warm evening with a torch and carefully examine the plants. Pick off and destroy any cutworms!

Removal: For small infestations, dig the cutworm out of the ground. Carefully search around the base of the damaged plant until the grub is found. For large infestations use the methods below.

Soil checks: Check soil pH. Acidity is said to encourage cutworms.

Beneficials: Ensure there is adequate habitat for birds that will eat the caterpillars. Many insects also feed on this pest so encourage a wide range of insect life. Mulching provides habitat for many beneficial insects.

Ploughing: Caterpillars and pupae that are brought to the surface through ploughing dry in the sun or are eaten by birds. If allowed into the garden, chickens or other domestic birds will eat the caterpillars and pupae.

Cultural control: Lay a thick layer of ash around the plants to prevent egg laying. If you know you have a cutworm problem, plant more crops than you need to make allowance for possible damage.

Planting: Avoid direct seeding if you know you have a cutworm problem. Plant out well-grown transplants, as these are large enough to withstand attack.

Barriers: Protect vulnerable young plants with stiff card 'collars' when transplanting. Push the collars a few centimetres down into the soil. Old tin cans with the base removed or pieces of plastic drainpipe can also be used. Two thin sticks pressed into the soil close to either side of the stem will also prevent the cutworm encircling and cutting the stem.

Spraying: Spraying or watering around the affected plants with a preparation made from pyrethrum, chilli or garlic can be effective against cutworms at all stages of their life cycle. Other plants that may be effective are; *Lonchocarpus capassa*, *Mundulea sericea*, *Tephrosia*, *Combretum imberbe*, *Spirostachys africana*, pawpaw, finger millet, *Datura stramonium*, *Ricinus communis*, *Solanum panduriforme*. Please contact us for more details on preparations of those plants that are available to you.

Cutworm spray: Crush a handful of dead cutworms with some water. Strain this mixture then dilute with 4 parts water before spraying on the crops.

Cow manure: Mix thoroughly one shovelful of dry cow manure with 10 litres of water. Cover the solution tightly and stir it once a day for 14 days. A handful of wood ash can be added to reduce smells and add useful minerals. After 14 days, dilute the mixture with 4 parts water before spraying. Spray onto the soil surface around seedlings.

Watering: In a greenhouse soaking the soil with water will bring any cutworm to the surface. They can then be picked up and destroyed.

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