SCOUTING FOR CUTWORM

Cutworm is the common name given to the larva of several noctuid moth species. Key species include: army cutworm, pale western cutworm, redbacked cutworm and dingy cutworm. Only larvae cause damage; adults, eggs and pupa have no impact on crop productivity.

Prevalence:
- Regions and crops impacted vary by species of cutworm. Timing of life cycle and feeding behaviour is also species specific.

When and how to scout:
- Check fields in spring and early summer for cutworm damage, which varies by crop.
- Scout for notched, wilted, dead, or cut-off plants (crop seedlings or weeds). Look around damaged plants for cutworms. Use a trowel or shovel to carefully search through the top 5 cm of soil for cutworm larvae.

How to identify:
- Smooth-skinned, hairless caterpillars
- Colour ranges from pale to black, may have lines or spots
- 3 pairs of true legs, 5 pairs of false legs
- 3-5 cm long
- Often curl up when disturbed

Spray thresholds:
- Varies by cutworm species, crop type and stage of crop development

BENEFICIALS

BENEFICIAL INSECTS THAT HELP TO CONTROL CUTWORMS

GROUND BEETLES

How to identify:
- Head at eyes narrower than section behind head
- Elytra (front wings) may have striations or pits
- Run rapidly when disturbed
- Adults range in size from less than 3 to 30 mm

How they help with control:
- Ground beetles are among the most important cutworm predators, with about 400 species on the Canadian Prairies and upwards of 80 species present in any field (Holliday et al. 2014).
- Depending on their size, ground beetles may attack eggs, larvae and pupae of cutworm.
- Walkden (1950) reported that one adult of the ground beetle species *Calosoma lugubre* Leconte consumed 16 mature corn earworm larvae before losing interest.

BENEFICIALS

PARASITOID WASPS (BRACONID, ENCYRTID, ICHNEUMONID)

How to identify:

- Depending on the species, they can be extremely small – for smaller species 4 or 5 will fit on the head of a pin – which makes them difficult to identify.

How they help with control:

- Encyrtid wasp lay their eggs and pupate within cutworm, causing the pest to become a "mummy." Army cutworm studies have shown that one egg laid by the encyrtid wasp *Copidosoma bakeri* (Howard) into the cutworm divides a number of times to produce many "twins", producing up to 2,500 adult offspring from the body of the host (Byers et al. 1993).
- Braconid and ichneumonid lay their eggs in early instar cutworm larvae, which kills the pest.

Other Beneficials:

- Parasitoid flies – bombyliid and tachinid species
- Insect predators – ants, rove beetles and stiletto fly larvae