

Healthy Choices to Control Lawn and Garden Pests

LEATHERJACKETS

What Do They Look Like?

- Leatherjackets are the larval form of the European crane fly (the adult is illustrated on the right)
- Leatherjackets are shiny, light grey to brown, worm-like maggots with irregular spots, up to 4 cm in length
- They have a tough outer skin, which is the reason for their name
- Adults resemble giant brown mosquitoes with long legs. Their bodies are up to 2.5 cm in length
- Adult crane flies are completely harmless

Where Do I Find Them?

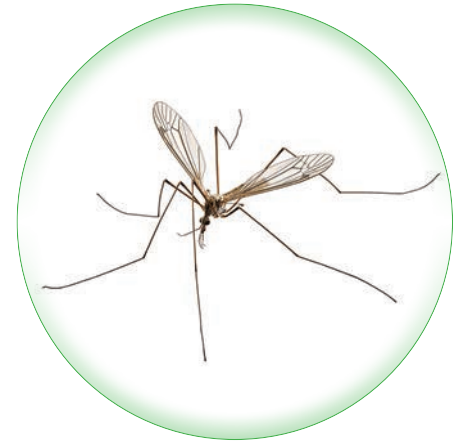
- Leatherjackets live underground just below the soil surface
- They feed on decaying vegetation, fungi and the roots of lawn grasses
- They are most active during April and May

Leatherjacket Life Cycle

- Crane flies have one generation a year
- Adult crane flies lay eggs during late summer in grass or soil. They prefer wet or tall grass
- Larvae begin feeding on grass roots in the fall. They overwinter in the soil
- In spring, the larvae resume feeding until June, when they become adults

What Does The Damage Look Like?

- Leatherjackets attack grass roots, creating sparse, brown



patches in lawns. In a heavy infestation, the brown patches become bare

- Additional damage may be caused by birds and other animals digging out the larvae

Are Leatherjackets Really A Problem?

- Leatherjackets are rarely a problem in healthy lawns
- High numbers of larvae could cause damage to a healthy lawn, but their natural predators, such as birds, will generally keep leatherjackets in check
- Unhealthy lawns — those with poor drainage and a lot of thatch — are at greater risk of damage from smaller infestations since grass plants are already stressed

What Can I Do? Non-Pesticide Treatments

First determine if you have a leatherjacket problem:

- In areas of your lawn where you suspect leatherjackets, dig up and fold back several small sections of turf to expose the roots of the grass and count the larvae you see
- Instead of digging, you can use a “soap drench” of non-phosphate, biodegradable soap in water to thoroughly soak a small section of your lawn and count the

leatherjackets that emerge within 5 - 10 minutes (you may need to repeat this several times)

- in different areas of your lawn to get a better sense of the problem)
- If there are more than 20 larvae in a square foot of soil, consider control options

The best time to control leatherjackets is in the spring:

- Use a mechanical lawn aerator or power rake to improve air circulation and boost lawn health. This will also kill some of the leatherjackets
- Remove leatherjackets manually using a net, rake or by handpicking them. Then drown the larvae in soapy water
- Practise good lawn care. Mow to keep grass height at between 6 and 8 cm. Longer grass generally means a healthier, more pest-resistant lawn
- Make sure your lawn has an adequate balance of nutrients. Low pH or a lack of essential nutrients such as nitrogen, phosphorus and potassium can weaken turf. Apply organic mulches or compost to add nutrients
- Special microscopic worms called nematodes may be purchased at garden centres. They kill leatherjackets by acting as parasites. Talk to a garden professional before using this control method

How Can I Prevent It Next Year?

- Aerate or power rake your lawn regularly and encourage birds to frequent your yard by providing bird seed and by planting native shrubs and trees
- Allow the top layer of soil to dry out in late summer to kill crane fly eggs
- Maintain a healthy lawn by watering deeply but infrequently
- Add compost as a mulch in spring and fall to feed your lawn

A Good Start Towards A Healthy Lawn

- Ensure you have the best grass and soil for the area and climate (drainage and organic matter content is just as important for lawns as gardens)
- Use a variety of grasses that can tolerate a range of growing conditions
- Aerate and top dress with finely screened compost and sand in the spring or fall (for proper drainage and root development)
- Ensure the pH of your soil is between 6.0 and 7.0 (add agricultural lime to raise pH, peat moss or sulphur to lower it)
- Water deeply but not too often (like a slow, soaking rain), in the early morning
- Rake up and remove thatch build-up (dead grass on the surface of the soil)
- Mow high and use sharp blades (maintain grass height of 6 to 8 cm to shade the soil, prevent water evaporation and allow the grass to better compete with the weeds)
- Mow frequently (no more than 1/3 of grass blades should be removed each cut)
- Use a mulching or hand mower to leave grass clippings on lawn (“Grasscycle”) Grass clippings can supply 25 per cent of your lawn’s fertilizer needs every time you mow
- Re-seed lawn, in spots where it’s necessary, in the fall

