



Chinch Bug

Bacillus Thuringiensis (BT) is a natural control for these caterpillars, so when you see the moths, wait two weeks and then apply BT. Repeat next spring.

Try 25 mL pure liquid soap or 50 g hand soap in 4 L water, once a week, for a few weeks. Palm-oil soap doesn't work.

You can also mix garlic juice with 4 mL alcohol per 4 L water and spread over the lawn.

Another method is to spread wood ash, lime or rye flour on the caterpillars to asphyxiate them.

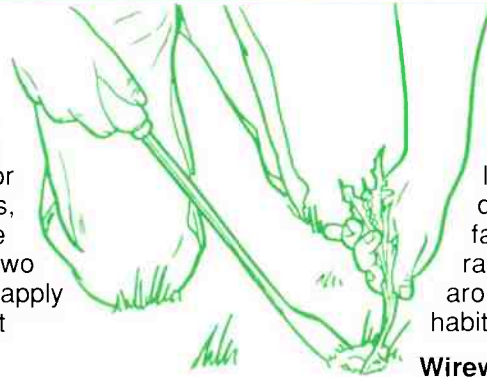
Webworms like thatch, so dethatch and aerate regularly. Reseed bare spots.

Chinch Bugs

Chinch bugs suck the sap from turf grasses, causing yellow patches on the lawn that spread as the season progresses. The adults overwinter in hedgerows, fencerows and roadsides near houses. They love the thatch and compacted soil of an unkempt lawn. To see them, remove the top and bottom from a can, then push it into the ground and fill it with water. The chinch bugs will float up.

The larvae expose the crowns and roots, weakening the grass and causing the worst-affected areas to die during hot spells. Symptoms resemble those of drought. You may need to use a chemical insecticide for a serious infestation. After eliminating the infestation, you can use ecological methods to prevent it from recurring.

If you see bugs in spring, spread rotenone, diatomaceous earth or pyrethrum¹. Spray the affected area with soapy water once a day for 10 to 14 days, or with a solution of a handful of wood ash and lime in 8 L water. Spread a flannel sheet over the treated area. In 15 to 20 minutes the bugs will stick to the sheet and you will be able to kill them in a bucket of soapy water or pick them up with the vacuum cleaner.



Certain plants should be pulled out by the roots

Good lawn maintenance also keeps the insect population at an acceptable level. To promote a healthy lawn and discourage bugs, fertilize in spring and fall, and water properly in the morning, rather than the evening. Dethatch around September to eliminate the bugs' habitat.

Wireworms

The **wireworm** is the larva of the click beetle. Wireworms live in the soil and feed on roots. They thrive in wet, compacted soil. The female beetles lay their eggs in May and June, and that is the best time to fight them. Follow the same steps as for grubs, and remember to aerate your lawn.

Earthworms

Earthworms aerate the soil and shouldn't be destroyed. In September, earthworms come to the surface briefly to breed. If you see their castings during summertime, it is probably because the lawn is cut too short or there is organic matter in the soil that hasn't decomposed properly. Lawns should be cut to a height of 7 cm. As a last resort, to reduce the earthworm population, spread sulphur or diatomaceous earth on your lawn.

WEED CONTROL

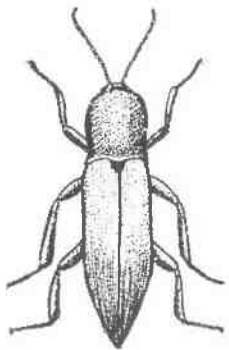
The presence of weeds alone can often tell you what is wrong with your soil and lawn care practices. Before treating weeds with chemicals, try to change certain lawn conditions. A lawn cut too short favours the development of weeds.

Thistle, plantain and dandelions should be pulled out by the roots because mowing won't eliminate them.

Lamb's quarter and barnyard grass disappear with regular mowing; keep the grass 7 cm long. Mallow, purslane and foxtail can be seen on new lawns, but they disappear as the grass becomes thick and healthy.

DISEASES

Diseases like mildew or dollar spots usually occurs when a lawn isn't well kept. Acidic soil, poor drainage, overwatering, overcutting, nitrogen imbalance, shade, thatch and compacted soil all promote the development of disease. The permanent solution is to correct these problems by not watering at night, letting the lawn dry out before watering it again, trimming trees and having the soil



Wireworm



Thistle

1. Note: Rotenone and pyrethrum are toxic to fish and amphibians. Be sure not to pollute streams, rivers or other bodies of water.

COMMON NAMES**CONDITIONS OF THE SOIL****REMARKS**

sheepsorel
dandelion
cinquefoil
wild strawberry

acid soil

Add lime to the soil in fall.



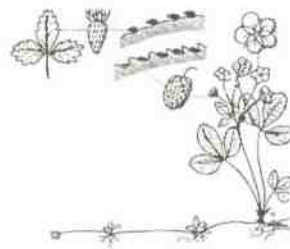
Sheepsorel



Dandelion



Cinquefoil



Wild Strawberry

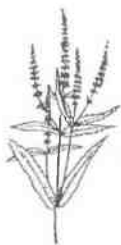
fern
mint, plantain
squirrel grass
yellow nutsedge
speedwell

wet and shady soil

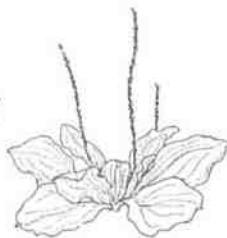
Trim trees, aerate the lawn and let dry between waterings may reduce their number.



Fern



Mint



Plantain



Squirrel grass



Yellow Nutsedge



Speedwell

clover
milfoil
hawkweed
spurge

soil low in humus and nitrogen

Manure or natural fertilizer (fish meal) mix with vinegar (1:1) and applied in spring may correct the nutrient balance.

crabgrass

Crab grass must be hand pulled before the seeds drop to prevent its rapid spread.



Clover



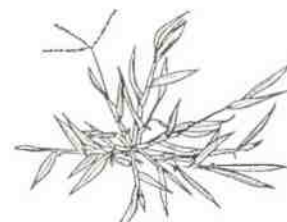
Milfoil



Hawkweed



Spurge



Crabgrass

self-heal
wild onion

argillaceous soil

Spike the area and fill the holes with sand and organic matter at a rate of 2 to 3 kg/100 m² per year. Rake the surface to level it. Repeat each fall for two to three years.



Self-heal



Wild Onion

daisy

compacted soil

Add sand and peat moss and aerate to improve the soil texture.

bindweed
spurge
knotweed
woodsorrel

Spike the area to improve the soil texture.



Daisy



Bindweed



Knotweed



Woodsorel

wild vine

shady soil

Trim trees.



Wild Vine

Thistle, **plantain** and **dandelions** should be pulled out by the roots because mowing won't eliminate them.

Lamb's quarter and **barnyard grass** disappear with regular mowing; keep the grass 7 cm long. **Mallow**, **purslane** and **foxtail** can be seen on new lawns, but they disappear as the grass becomes thick and healthy.



Lamb's Quarter

analysed to determine the type of fertilizer it needs. Always remove grass clippings from a diseased lawn. Diseases can be quite selective, and a mixture of seed will prevent complete destruction of your lawn.

Diagnosing lawn diseases can be difficult, so you may need a professional to identify the exact problem. Monitor regularly during cool, damp weather to catch the disease as early as possible.

A few fungal diseases that may appear in the lawn are described below. Mushrooms are usually caused by rotting wood in the soil, and they will soon disappear if picked or raked.

Rust occurs on a lawn that isn't properly maintained and is kept too short. It forms powdery reddish pustules on grass blades.

The powdery grey growth seen on a shady lawn in cool weather is known as mildew. Cut tree branches to admit light and air.

Snow mould appears when the snow stays too long in the spring, causing white patches of dead grass. Remove snow from shady spots if it doesn't melt in spring. Don't feed with nitrogen fertilizers in fall, and cut the grass to 4 cm (1.5 in) before winter.

Dollar spots appear as small golden-brown circular patches during wet weather in spring and fall. Correct the nutrient levels, dethatch and water in the morning only, to let the soil dry.

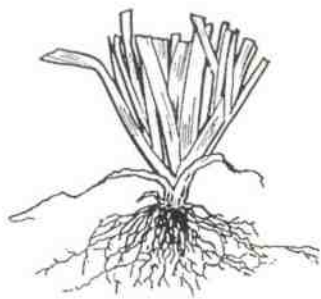
Fairy rings are rarely seen in turf that is less than five years old. They are circular patches of dead grass with an outer ring of dark green grass. Elimination is very difficult but they can be controlled.

Spike the infected turf with a garden fork to a depth of 15 cm, starting outside the outer green zone and working inwards. Sterilize the fork with rubbing alcohol after each use. Pour soapy water into the holes daily for a week and then plain water every day for two months.

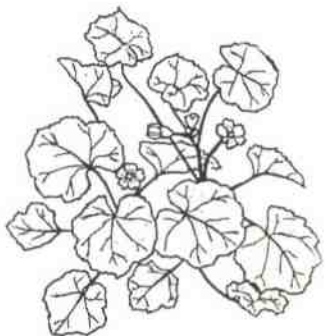
To eliminate fairy rings completely, strip a layer of turf at least 25 cm thick from 45 cm outside the outer green ring to inside the bare zone. Follow these directions exactly, and be careful not to drop any contaminated earth or grass on any other parts of the lawn, or you may spread the disease.

GOOD LAWN CARE

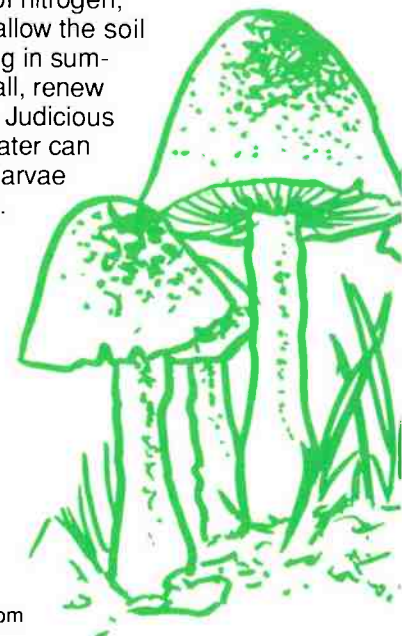
Good lawn care reduces the damage done by insects, diseases and weeds. To keep your lawn healthy, cut to a height of 7 cm, fertilize with the right amount of nitrogen, water thoroughly and allow the soil to dry out after watering in summertime, dethatch in fall, renew the soil and trim trees. Judicious spraying with soapy water can keep grubs and other larvae under control naturally.



Barnyard Grass



Mallow



Mushroom



Purslane



Foxtail

SUGGESTED READING

Alex, JF and CM Switzer. 1985. Ontario Weeds. Agdex 640. Publication 505. Toronto: Ontario Ministry of Agriculture and Food. 200 p.

Schultz, Warren. 1989. The Chemical-Free Lawn: The Newest Varieties and Techniques to Grow Lush, Hardy Grass. Emmaus, PA: Rodale Press. 194 p.

Smith, Miranda and Anna Carr. 1988. Rodale's Garden Insect, Disease and Weed Identification Guide. Emmaus, PA: Rodale Press. 328 p.

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Published by Authority of the Minister
of the Environment

© Minister of Supply
and Services Canada 1989
Cat. No. En-40-206/5-1990-E
ISBN 0-662-17680-4

Disponible en français

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