

PREVENTING PEST DAMAGE IN HOME LAWNS

Quick Tips Summary

- Use mixed grass seeds rather than a single variety
- Fertilize with composted organics or slow-acting synthetic products
- Keep soil at pH 5.8–6.5
- Keep grass height at 5–8 cm
- Adjust mower height and sharpen blades annually
- Water an even 25 mm and only when needed
- Keep your lawn's thatch at about 1 cm thick
- Control weeds by re-seeding bare patches, not compacting soil, and using weeding tools

Many home owners feel that having an attractive, well-kept lawn is important. It not only improves the appearance and value of your property but it provides a relaxing retreat at the end of the day. Recently, people have become concerned about the use of chemical pesticides in home lawns and gardens. Many are looking for non-chemical ways to keep their yards looking good.

Luckily, you don't need to rely on chemical pesticides to have an attractive lawn. In fact, preventing lawn problems is usually much easier than trying to treat them after damage has happened. This brochure outlines some healthy lawn practices to help you head off problems before they start.

Mix that grass

Look for hardy, low-maintenance, mixed type grass seed products

A single variety of grass makes an attractive, uniform lawn, but it also requires a high level of maintenance to keep it in good shape.

Mixed grass lawns are more tolerant to different growing conditions, such as shady areas and dry slopes. They can also better withstand attacks from disease and insects. Some grass varieties can tolerate disease and insects better than others, so combining several varieties reduces the chance that an outbreak will kill large areas of the lawn.

A good all-purpose seed mix has mostly low-maintenance fescue grass combined with smaller amounts of Kentucky bluegrass and perennial ryegrass.

Avoid a fast food diet

Let grass clippings, compost, or old manure feed your lawn

Fertilizing Tips

- Don't over-fertilize—too much can cause damage to water resources
- Use organic fertilizers such as composts or well rotted manure
- If you use synthetic fertilizer products, use slow-releasing nitrogen, not fast-releasing

In order to grow, all plants need three main nutrients: nitrogen, phosphorous, and potassium. Nitrogen promotes growth and a dark green colour in plants. Phosphorous is essential for root growth. Potassium helps the lawn tolerate wear and stress.

Grass uses these nutrients from the soil as it grows. To maintain a healthy lawn, you must replace them by adding fertilizer, composts, or other organic soil additives to your lawn. Lawns that don't get enough nutrients tend to be slow-growing, weak, and susceptible to damage.

Balance: the key to successful fertilizing

The key to fertilizing a lawn is to achieve a balance by providing just the right amount of nutrients at the rate the lawn grass can use them. You can test your soil periodically to check the lawn's nutrient balance. Apply fertilizer in April and May or September when the lawn is actively growing, not during the summer when lawns don't grow as much.

Choosing the right fertilizer

Don't use fertilizing products that advertise fast-action or promise quick green-up because they often provide too much nitrogen at once. Too much nitrogen produces soft, weak plants which are very susceptible to wear and damage. Any nitrogen not used by plants can be flushed out of the soil when it rains, which not only wastes money but pollutes surface and ground water.

Choose either a bulk organic material such as compost or well rotted manure, a bagged organic or composted fertilizer, or a synthetic lawn or turf fertilizer. Use a synthetic fertilizer that contains 40–60 per cent of its nitrogen in a slow release form. You can tell by looking for the following on the product label: slow release N, water insoluble N, or the letters W-I-N. These fertilizers release nitrogen at a rate that the plant can use.

You can also leave grass clippings on your lawn to provide some of the nutrients that it needs. If you follow the mowing and watering guides in this

brochure, only a small amount of clippings will be produced at each mowing. These quickly decompose back into your lawn. Over the season, grass clippings can supply up to 30 per cent of the nutrients the lawn requires.

Sweeten sour soil

Make sure your soil is at the right acidity level

Lawn Soil Tips

- Keep soil's acidity at pH 5.8–6.5
- Add the right amount of lime if needed
- Test your soil every three years

The acidity level of soil affects the amount of nutrients that plants can use. Lawn grasses, like many plants, grow best when the soil pH is just slightly acidic and has a pH value in the range of 5.8 to 6.5. Plants can't use nutrients properly when the soil has a pH that's too high or too low.

The soil in many areas of Atlantic Canada is quite acidic, testing at a low pH. The soil often needs lime to raise the pH to the best level. You should test lawn soil every three years to determine if lime is needed. Most major garden centres have soil testing kits and have experts who can explain liming procedures.

Take just a little off the top

Cut grass to a height of 5–8 cm

Mowing Tips

- Adjust your mower blades to cut grass to 5–8 cm—most are set too low
- Mow your lawn regularly, removing no more than one third of the grass length each time
- Sharpen your mower blades annually

Most grass varieties used in Atlantic Canada grow best and are healthiest when kept to a height of five to eight centimetres. Research shows that maintaining this height can reduce lawn and weed problems by 50–80 per cent. The lawn can develop a deep root system and grass that's dense and thick. It becomes more tolerant to drought and better able to compete against weeds.

Mowers and blades

You'll get a better cut if the grass is dry and the mower blades are sharp. Dull mower blades shred and tear the grass plants and can result in an unsightly brown lawn.

Let rain do the work

Water only when needed, just enough to soak the roots

Watering Tips

- Water only under drought conditions and no more than 25 mm at one time
- Water in stages if soil is too dry to absorb it all at once
- Water in the mornings or evenings when it isn't hot

Most lawn grasses need about 25 millimetres of water per week to grow properly. In Atlantic Canada, lawns usually receive enough water from rain in all but the driest periods of the summer.

Don't water unless the grass really needs it. If footprints stay compressed for more than a few seconds and the grass fades to a dull greyish-green colour, the grass needs water. Watering too often and lightly makes plants weak and have shallow roots. Watering too much at once just wastes clean drinking water.

You can choose not to water your lawn during periods of summer drought. Grass will rapidly turn green again when the fall rains replenish the soil. But a lawn that

is drought-stressed or dormant is more prone to damage from invasion by insects and weeds.

Watering the right way

If you do water during a dry period, use just enough that 25 mm covers the entire surface of the lawn. You can set up a small rain gauge to determine when you've watered that amount.

If the soil is very dry, apply the water in stages to allow it to soak in. If the water starts to run off the surface, wait an hour before continuing to water in the same area. During the hot summer months, water before mid-morning or in the evening to reduce the amount lost to evaporation.

Manage the thatch

A little is healthy but too much is trouble

Tips To Managing Lawn Thatch

- Keep lawn thatch at about 1 cm thick
- Top-dress by spreading a 1-cm thick layer of topsoil or compost over the lawn annually
- Remove excess thatch once a year in the fall
- Hand-rake hard with a fan rake or use a mechanical de-thatcher

All grasses form thatch, a layer of dead leaves and roots between the base of the living leaves and the surface of the soil. Some thatch in a lawn is good because it helps cushion the growing point of the grass and insulates the soil from high summer temperatures.

If the layer becomes too thick, it reduces the amount of water and nutrients moving down to the roots. Grass roots will begin to grow near the soil surface, weakening the plant. Thick layers can also shelter lawn-damaging insects and disease-causing fungi.

Maintaining the right thickness

You will need to remove some thatch physically if it has built up to more than about 1 cm. De-thatching is best done in the fall when the lawn is actively growing and will quickly recover. Remove thatch by raking the lawn hard by hand with a fan rake or by using a special de-thatching machine. You can rent a machine from equipment rental outlets or hire a lawn care company to de-thatch it for you.

Top dressing is another method that works well. Spread a 1-cm layer of compost or good quality soil over the entire lawn surface once a year. This slowly breaks down the thatch and also builds up good organic matter in your soil.

Control those weeds

Re-seed bare or damaged grass patches, don't compact soil, and use specialized weeding tools

Weeds are by far the most common and visible pests facing home owners. Maintaining a healthy, vigorous lawn is the best defence against weed invasion.

Weed problems usually begin in areas where

- the lawn is in poor condition
- the soil is compacted
- the grass has been heavily damaged by insects or diseases

Where thin or bare patches begin to appear, weed seeds already in the soil quickly germinate and grow in these damaged areas.

Do the following to protect your lawn from weeds:

- Repair or re-seed thin, bare, or damaged areas quickly to avoid giving weeds an opening.
- Prevent thin or bare areas by distributing foot traffic evenly over the surface of the lawn.
- Avoid compacting the soil by keeping off the lawn when it's very wet.
- Build a proper path to frequently visited places such as the compostor or garden shed.

All things green and slimy

Correct poor growing conditions to control algae or moss

Problems such as algae or moss are a signal that the grass is being grown under poor conditions. These could be soil that is compacted or short of nutrients, or grass in shade that isn't getting enough sun. The only way to cure these problems and prevent them from returning is to correct the conditions.

A final word about lawn pests

Most lawn pests that can damage your lawn are always present in low levels, whether they're weeds, insects, or diseases. When you maintain a healthy lawn, these organisms successfully co-exist with the grass and you usually don't even notice them. But sometimes, even with good lawn care practices, pest problems can still develop. If this happens, you need to figure out what specific pest is causing the problem before trying to control it. As a last resort, you may have to try a chemical pesticide.

Pesticides and the provincial

Non-essential Pesticides Control Act

If you decide to use pesticides, ask your garden centre to help you select products that have the least impact on human health and the environment. Be sure that they are applied safely by following all of the label directions.

The Nova Scotia government has approved the *Non-essential Pesticides Control Act*. Beginning in the spring of 2011, the act will prohibit the use and sale of lawn care pesticides in the province except for those on an allowable list. Check the province's list of allowable pesticides for products that are effective against the problem. The list will be available by the spring of 2011 on Nova Scotia Environment's website.

Lawn alternatives

Recurring pest problems in your lawn are often a sign that the growing conditions aren't right for grass. If problems persist, you might want to consider replacing your lawn or part of your lawn with another type of landscape feature, such as a drought-tolerant garden, a natural habitat garden, or a decorative rock garden.

Although it may take a few years, following the healthy lawn practices outlined in this brochure will help you create an attractive, healthy lawn that can resist pests naturally.



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