LAWNS

INCLUDING FERTILIZING AND MAINTENANCE

HUMBER NURSERIES 'GREEN THUMB GUIDE'



HOW TO HAVE A BETTER LAWN THAN YOUR NEIGHBOUR







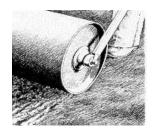


Fig. 1

Fig. 2

Fig. 3

Fig. 4

Every homeowner dreams of having the perfect lawn. While lawns require some degree of maintenance, having the perfect lawn is easier than you think, and guite affordable. Whether by seed or sod, you can have a lawn which is the envy of the neighbourhood.

CREATING A NEW LAWN WITH SOD

Preparing the soil

To prepare the soil for sod or seed follow Humber's recipe for a successful lawn. Begin with a 5-8 cm base of good soil mix (50% topsoil -25% peat moss -25% sand) and roto-till into the top 8-10 cm (Fig. 1). Remove rocks and debris and rake level. Do not leave any depressions now or you'll have a lumpy lawn (Fig. 2). Apply a Turf Starter fertilizer at the recommended rate <u>before</u> installing sod or seed. Water deeply to a depth of about 6 inches. Allow drying approximately 24 hours and then beginning laying sod. Do not have sod delivered until you are ready to begin installation as it may start wilting if not laid quickly.

Installing the sod

Choose a starting point parallel to the longest straight edge of your yard. Stagger the sod strips as if you're laying bricks. Avoid overlapping edges; butt edges and ends of sod so that they fit tightly (Fig. 3), but avoid cutting sod into short, narrow strips. Trim sod with a sharp knife. Don't stand or kneel on the sod while it's being laid as you will leave air pockets in the recently tilled soil underneath. In hot weather, lightly sprinkle water on the sod as it is being laid to prevent drying out. Use a lawn roller to lightly squeeze out air pockets (Fig. 4).

Watering

Watering is the most important step in developing a healthy lawn. Immediately after installation, soak your new lawn thoroughly to a depth of 15 cm. Use a moisture meter to check the proper watering depth. Soak your new lawn repeatedly each day, or as often as necessary, to keep it moist. Deep frequent watering keeps the sod from wilting and helps the roots get established. Be careful not to flood, as lawns will not grow in standing water. After 2-3 weeks, once your sod lawn is established, you can reduce watering frequency. Varying climate and soil conditions will determine the proper watering cycle. Infrequent, deep soakings (once every 5-14 days) will best encourage your grass to develop a strong, deep root system.

Pest and Diseases

Our sod comes weed, insect and disease free when delivered. However, weeds and insects may invade your lawn from neighbouring areas. Frequent mowing will reduce most annual weed problems. Use weed controls sparingly during the first growing season. A vigorous, healthy turf is the best prevention for weed and insect problems.

CREATING A NEW LAWN WITH SEED

The most important considerations in establishing a new lawn are drainage, quality of the soil, preparation of the seedbed, and your choice of seed, fertility and moisture.

If you choose to plant your new lawn in the spring, begin just as soon as the soil is dry enough to work, preferably mid-April to mid-May. This will give your new grass time to get well established before hot dry weather sets in.

Fall is also an excellent time to start your lawn (mid-August to the end of September). Your seedbed is less likely to dry out at this time of year, and the grass should be well established before winter.

Choosing and planting the seed

It pays to select good quality seed mix. Select based on sun and shade conditions in your yard.

Don't skimp when seeding. Apply liberally with a mechanical spreader, although small areas may be hand seeded. Try to broadcast the seed as evenly as possible, applying half the seed traveling back and forth and then crossing your first pattern at 90° with the balance of the seed.

Rake lightly, and then use a lawn roller to ensure that the seed is in firm contact with the soil. Water slowly and evenly until the top 2.5 cm of the soil is thoroughly moist and keep it moist until grass seedlings are well established. Avoid creating puddles.

Humber Nurseries Quality Grass Seed

For a lawn in full sun:

HUMBER ELITE ESTATE MIX

- Kentucky Bluegrass 45%
- Creeping Red Fescue 35%
- Esquire Perennial Ryegrass 20%

Apply at the rate of 1 kg per $50m^2$ (570 sq. ft.) for new lawns and 1 kg Per $100m^2$ (1140 sq. ft.) for overseeding existing lawns.

For sun or shade:

HUMBER QUICK SHADE MIX

- Kentucky Bluegrass 20%
- Esquire Perennial Rye Grass 20%
- Creeping Red Fescue 60%

Apply at the rate of 1 kg per $40m^2$ (430 sq. ft.) for new lawns and 1 kg Per $80m^2$ (860 sq. ft.) for overseeding existing lawns.

Tending the new lawn

Cutting a lawn frequently stimulates the growth of leaves and a healthy root system. When new grass has grown to a height of 6 to 8 cm it may be cut, but not shorter than 4 or 5 cm. Do not let the grass grow so long that it will not stand upright. Ensure that your mower blade is sharp to avoid unnecessary bruising of the new plants. Using a mulching mower eliminates the need to remove grass clippings, is beneficial to the lawn, and is environmentally friendly.

Feeding a new lawn

If you start your lawn in the spring, it will require feeding again in early summer and again in fall. For this first feeding use half the rate recommended on the fertilizer package. Use the full-recommended rate for the fall feeding.

What about weeds?

If you have been careful to put down good topsoil, weeds should not be a big problem during early growth. Some careful hand weeding is best for the few weeds that may appear during the first 4 to 6 weeks. After a new lawn has been cut at least twice you may apply a weed control if necessary, but be sure to follow the directions on the package very carefully.

Over-seeding can improve your lawn

Over-seeding will continue to improve your lawn over time if you follow these simple rules:

- 1. Keep your lawn free of weeds either by hand weeding or with a chemical weed control.
- 2. Fertilize your lawn at least three times a year, following directions on the package.
- 3. Each spring or fall, after cutting grass very short, rake thoroughly and if necessary, add a little top dressing.
- 4. If the soil appears hard and compacted, try an aerating roller, then top dress and apply seed.
- 5. Try and keep your lawn cut to about 5 cm in height and avoid leaving cuttings longer than 12 to 15 mm on the lawn after mowing.

Mowing

- Newly sodded or seeded lawns should not be mowed for about two weeks. Be sure to keep the mower blades sharp. Cutting your lawn regularly will encourage a thick, dense turf that resists weeds.
- There are several good reasons to set your mower blades on the high side. A plant can't have a strong root system unless it has strong leaf growth. Cutting too short leads to weak roots that have difficulty absorbing water and nutrients. Close cutting can also injure the plants, which will slow the rate of growth and reduce vigour. Mowing at the proper height is also the first line of defense against the invasion of weeds, and it is the first cultural practice you should adopt if you want your grass to crowd out some of the weeds already there. Lawn grasses are very competitive, and only a few weeds can successfully outgrow them. Most weeds either can't get enough light or soil space, or they can't take the continuous mowing. It is in weak, thin lawns that weeds thrive and cutting too short weakens lawns, especially in hot weather.
- Let the rate of grass growth, not the calendar, dictate your schedule. When the grass is growing fast, 8 to 10 day intervals between mowing can leave a lot of clippings, most of which must be removed (or you will soon have a thatch problem). Small grass clippings can be left to rot and add organic matter to the soil. Clippings that dry out and interfere with new growth should be removed, piled to make compost, and returned to the lawn in that form. Finally, don't mow a wet lawn unless a long rainy spell forces you to. Wet clippings jam the mower and clump together on the lawn in messy piles. A mulching mover eliminates the need to remove clippings and at the same time benefits the lawn.
- Before mowing long grass, rake in the direction opposite of which you intend to mow. Cut the lawn taller in hot dry periods and shorter in cool wet weather. Try not to remove more than 40% of the leaf area in any one mowing. The quality of the cut may be improved if the lawn-mowing pattern is varied. One week it should be mowed in one direction then crosswise the next, then at an angle and so on.

DO NOT roll the lawn with a heavy roller in spring, as it causes compaction, which hinders air and moisture penetration and can cause pooling. Stay off the lawn as the frost melts and the ground is wet.

DO NOT rake the lawn hard. Rake LIGHTLY with a fan rake. The first application of high nitrogen fertilizer will break down the brown thatch into valuable humus.

DO NOT top-dress the lawn with topsoil or manure; they both can introduce broadleaf weeds and weed grasses. Use top dresser instead.

Special lawn problems

A lawn naturally grows in a thick dense habit and under optimum conditions it will grow vigorously with few problems. Follow these basic quidelines to keep your lawn robust and healthy:

- Proper nitrogen fertilization is the key to preventing diseases in your lawn and also affects insect populations. Too much nitrogen and the plant will store nitrogen in its tissues, which is perfect for disease start up and nurturing. Too little nitrogen makes the lawn weak and even more susceptible to disease and insects. Carefully follow the manufacturer's instructions on the fertilizer package.
- When you water, do so deeply and infrequently. Watering too often and for short periods causes shallow roots and weaker plants. Soil should be moist to 15 cm below the surface.
- Mowing your lawn at the proper height (50% taller than its normal height of 5 cm) will keep it growing vigorously.
- Control your thatch layer 1 cm is about normal. If more, then it must be removed as it hinders disease and insect control. The thatch layer also hinders the flow of nutrients, water and air to the soil. Thatch builds up when your lawn is overfertilized, over watered, or the soil is too acidic.

Following is a list of common pest and insects:

Dogs

Dog urine can burn your grass. Burnt areas should be cleaned up prior to re-seeding or re-sodding. Products like CIL Patchgrass may also be used.

Moles

Moles are 1- 15 cm long with strong forelegs and long claws. They are often found tunneling under lawns with large populations of white grubs. Controlling grubs is the best way to control them (see below).

White Grubs

Grubs are milky-white in colour with brown heads and are about 3 cm long. They create brown areas in the lawn that roll easily up as a roll of sod would. These insects are the larvae of various beetles such as June and Japanese beetles. The entire lawn may die from their feeding on the roots. Some of the beetles lay their eggs in spring, early summer or late summer; therefore, they are around for most of the growing season. Grubs will feed in summer, and then move deeper to over-winter and resume feeding in spring. Use nematodes for control (see our Green Thumb Guide to Nematodes for more information).

Chinch Bugs

Chinch bugs are black or brown with white wings, approximately 1 cm long and the nymphs are pinkish with a white band. Damage from Chinch bug results in the grass being yellowish and dead. If you suspect chinch bug, cut both ends out of a tin can and push it into the lawn, then fill with water and let it sit for 10 minutes. If Chinch bugs are present, they will float to the top. Control with nematodes. Affected areas may need to be re-seeded.

Leafhoppers

Leafhoppers are wedge-shaped insects that you usually see hopping from leaf to leaf. They are about 1 cm long and yellow, green or grey. They tend to walk backwards or sideways. The grass may look bleached or thinned and there will be white or brown spots on single leaf blades indicating the leafhoppers are feeding on the plant sap. Control with insecticide or beneficial insects.

Cutworm

Cutworms are grey, black or brown worms approximately 5 cm. long. Often they are found in the thatch layer and you may see them by pulling back a section of grass. The grass will look chewed unevenly along its edges. One cutworm can sever the stems of many grass plants in one night. These worms feed only at night and for the entire length of the growing season. The adults become dark night-flying moths with stripes on their fore wings. Control with nematodes.

Sod Webworm

Sod webworms are 1 to 2 cm long and light brown or grey with black spots. You will see white moths flying over the lawn in the evening and you will also see the silky white tubes near the roots with the worms inside. They create patches the size of a saucer in hot, dry areas of the lawn, which may enlarge to irregular patches from mid-May to October. Control with nematodes.

Ants

Black, brown or red in colour, they scurry about with great speed and build sandy mounds with holes in the centre throughout the lawn. Ants don't actually feed on grass but their mounds can smother the grass and their tunnels dry the soil and roots out. Ants will feed on newly sown grass seed. Control with insecticide or Nematodes.

Lawn Weed Control

Use a pre-emergent control containing corn gluten in spring and fall to prevent weed seeds from germinating. Selective herbicides can be applied during the season to control broad leaved weeds. As a cautionary note, corn gluten cannot be applied 5 weeks before or after reseeding the lawn.

FERTILIZERS

What the numbers mean

The numbers on a fertilizer package are the proportion of Nitrogen, Phosphorus and Potassium given as a percentage of the total contents. No matter the manufacturer or the brand name, the three most important nutrients are always given in the same order. Choosing an appropriate fertilizer will be made easier when you consider how plants use these nutrients.

NITROGEN promotes leafy growth and will always be proportionately higher in a lawn fertilizer such as 20-3-4. It is represented by the first number and produces the rich dark green colour of a healthy lawn.

PHOSPHOROUS is essential in promoting good root development and will always be proportionally higher in a Plant Starter formula such as 5-15-5 or 10-52-10. Fertilizers with a high phosphorous content should be used for ALL new plantings throughout their FIRST growing season. A new lawn, whether done with seed or sod, requires phosphorous to become well established.

POTASSIUM provides overall strength and vigor and is important for winter hardiness and root development. This is often the highest number in fall lawn fertilizers.

* HUMBER NURSERIES LTD.

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