

HOME GROUNDS FACT SHEET



Cornell University
Cooperative Extension
Nassau County



Horticulture Center
Demonstration & Community Gardens
at East Meadow Farm
832 Merrick Avenue
East Meadow, NY 11554
Phone: 516-565-5265

Low Maintenance Lawn Care

A successful low maintenance lawn starts with having good soil. Soil is the foundation that supports the turf, including root and leaf health. What do you need to know about your soil?

pH

Soil pH is a measure of acidity/alkalinity in the soil. The level of acidity/alkalinity is very important. Some nutrients are not available to the grass if the pH level is not in the proper range. The best level for your pH is 6.3-6.8, or at least in the range of 6.0-7.5. Although the grass will still grow outside this range, there will be adverse effects on nutrient availability, soil microbes and soil structure that could lead to greater weed and disease problems. Soils with a low, or acid, pH will need lime to raise the pH. Only a pH test can tell you what, if any, lime you need to add and how much you need to apply.

Texture

Soil is composed of sand, silt, clay and organic matter. Organic matter and clay help soil hold water and nutrients. Organic matter is the most important component for providing proper drainage and holding nutrients in sandy Long Island soils. Most Long Island soils need additional organic matter. Amend soils with fibrous compost rather than additional sand or clay to improve drainage and improve retention of nutrients. Peat moss is not the best choice because most peat moss makes the soil more acid while compost tends to neutralize the soil. Leaving clippings on the lawn also helps to give back organic matter to the soil as does mulching in finely shredded leaves.

Compaction

Your soil may be low in organic matter and could be very compressed making it hard for roots to penetrate deeply to get water and nutrients. You can test the level of compaction by pushing a screwdriver into the soil profile (do this on an average day, not just after a hard rain or irrigation or during a drought). You should be easily able



to push the screwdriver in to a depth of 6 inches or more. If you cannot, then soil is compacted and should be core aerated. Core aeration is a process that opens holes in the soil, coupled with amending the soil by topdressing with organic matter. Over time, this will make your soil less compacted.

Surroundings and Use

The next step is to analyze your surroundings. How much sunlight does your turf get and how much traffic? Some grasses will tolerate a little shade while others will tolerate none. Remember that you'll need at least 50% sunlight which is a minimum of 4 hours daily for turf to survive, and you'll need 6 hours for turf to thrive. Turf in shade will be much weaker, less tolerant of traffic and more disease prone. Try to avoid shady areas for grass growth—plant something else instead. Traffic is also a concern. Some grasses tolerate foot traffic while others don't. Consider the following grass choices, keeping shade, traffic issues and fertilizer needs in mind.

Kentucky Bluegrass spreads to the sides and has medium to fine blade texture. It is rather slow to germinate (21-28 days), taking approximately 90 days to establish so that it has enough density to be used. The average seed rate for broadcasting a 1,000 square foot area is approximately 1-2 pounds. Bluegrass does best with irrigation but does wear well to foot traffic. If an area has been damaged, the grass can spread back into the area and cover up the bare spot. Although Kentucky bluegrass makes a beautiful lawn, it does not have the lowest maintenance requirements.

Perennial Ryegrass has a "bunch" type growth habit. It does not send out "runners" the way bluegrass does. It has a dark green color and medium leaf texture and blade width. Perennial ryegrass germinates quickly, approximately 7-14 days and establishes in about 60 days. It is an excellent choice for open, sunny or damaged areas because of its quick growth. To cover an

continued

C-1-27 RT 2/09

Building Strong and Vibrant New York Communities

Cornell Cooperative Extension in Nassau County provides equal program and employment opportunities.

area of about 1,000 square feet you would need a seeding rate of about 5-9 pounds. Ryegrass has **no** shade tolerance (beware of rye in grass seed mixes for shade) but has good tolerance for traffic wear.

Tall Fescue has a “bunch” growth habit with coarse leaf blade texture with medium to dark green color. The average establishment time is 180 days. The seedling rate for a 1,000 square foot area is the same as for perennial ryegrass, about 5 to 9 lbs. Because tall fescue is considered fast growing, more frequent mowing may be required. However, if it is maintained at about a three inch height it is less prone to disease and insect problems than other grasses. Tall fescue performs well as far as shade tolerance. It is classified as “good” with respect to wear tolerance from foot traffic. Unless tall fescue is over-watered or over-fertilized, it rarely has problems with thatch. Of the cool season grasses, tall fescue is considered to be the most heat and drought tolerant.

Fine Fescue grows in a bunch habit, but some species do spread slowly. It has very fine, almost needle-like leaf texture and medium to dark green color. The establishment from seed for fine fescue takes between 21-50 days. The average seeding rate is 3-5 lbs. per 1,000 square feet. Fine fescue has some drought tolerance and is considered excellent under shady conditions. Compared to the other cool season grasses, it is better adapted to infertile and acidic soils. It is considered “poor” when rated for wear tolerance because it does not tolerate abrasions that are associated with foot traffic. Fine fescues have been used in blends where there are shaded conditions and where low maintenance is desired.

For example, a blend for a sunny, low maintenance lawn applied at the rate of 4-5 pounds per 1,000 square feet could be a combination of:

- 65% fine fescue blend
- 15% perennial ryegrasses
- 20% Kentucky bluegrass blend

Seeding

The first week of September (plus or minus 2 weeks) is the best time for starting a new lawn from seed or renovating your lawn. **See Home Grounds Fact Sheets C-1-12 Building a New Lawn, C-1-14 Steps to Successful Lawn Renovation.**

Irrigation

If you already have an irrigation system in place, learn how to use it correctly or your lawn will suffer and the environment can be harmed by excessive leaching. Chances are improper irrigation could be contributing to your disease and insect problems or turfgrass stress. The best management practice is to apply irrigation based on the amount the plant uses and rainfall received. Low maintenance lawns ideally should not be irrigated. Allow turf to naturally become dormant during dry spells. Turf can be seriously weakened by almost allowing dormancy, then watering to bring back green

color at the last minute. Let natural rainfall break dormant periods in the low maintenance lawn.

If you must water, the best irrigation practice is to set your automatic sprinkler system to manual. Operate the system to deliver 1-1.5 inches of water to turf once a week on a *deep, infrequent* basis. In a typical landscape, 0.2” of water moistens soil to a depth of 1”, therefore 1” total of water should go down about 5” and get to the area where most of the turf’s absorbing roots are located. Use a rain sensor; this sensor shuts the system down in the event of natural rainfall.

Water between midnight and 8 am to reduce the time leaves are wet. Light, frequent irrigation on established turf is not a good practice: it promotes disease and insect problems. Light, frequent irrigation on established turf is associated with poor wear tolerance. Better yet, let the grass become dormant during a drought so that it can avoid stressful conditions altogether. It should come back to life when the rains return with only a minor loss in quality. The major drawback is that dormant lawns look straw brown.

Fertilizing

Fertilizer efficiency can be profoundly affected by the soil pH. 75% of your fertilizer is unavailable to plants at a pH of 4.5. 54% is unavailable at a pH of 5.0. 33% of fertilizer is unavailable at a pH of 5.5. 20% is unavailable at a pH of 6.0. 0% of fertilizer is wasted (all can be utilized by the grass) at a pH of 7.0. These figures certainly demonstrate the importance of proper soil pH in your lawn areas.

A low maintenance lawn of fine or tall fescue on high quality soil at the proper pH may not need to be fertilized annually. A low maintenance lawn of perennial rye or Kentucky bluegrass can be fertilized with 0.5 lb. of actual nitrogen/1000 square feet in May and then again in September. Older, dense lawns can be fertilized at this lower rate, but younger ones may need more to look good and have fewer weeds. If your soil is in good condition and your pH is in the right range (make sure you soil test to be sure) you may be able to do with only 1 pound of actual nitrogen per 1000 square feet/year. Soil amendments like compost can also help promote healthy soils, turf, and nutrient cycling, thus reducing the need for added fertilizer.

Mowing

The leaf of the grass is used to store food and manufacture more food through photosynthesis. When we maintain grass at less than 3 inches, it can result in a shortage of food to the root system. This causes some roots to die so that some of the leaves no longer get enough nutrients and water. This causes the turf to thin out and weeds to come through. The best thing you can do for your turf is to maintain a three inch mowing height. For every 1/8” the mower blade is raised, you’ll get a 30% increase in leaf surface area meaning more food and more food storage. It also means more densely growing turf that conserves moisture and shades out weeds. Return clippings: they are also free or recycled nutrients.