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STARTING A NEW LAWN

There are many reasons for establishing new plantings of turf. Owners of newly constructed homes may be starting their first lawn. Homeowners with previously established lawns that may have declined or failed may want to start over. Regardless of the reason, it's important to take the time and prepare in advance to guard against problems afterwards.

Soil Testing. Perhaps the most important step to take in advance is to have the soil tested. A soil test will give information on soil texture and organic matter content. The test will also provide information on the relative acidity (pH) of the soil and whether or not limestone is needed. Levels of plant nutrients such as nitrogen, phosphorus and potassium are also reported along with suggestions for fertilizer additions if needed. To have soil tested, it is important to take a sample that is representative of the area. With a trowel shovel or auger, take thin slices or borings of soil from 10 to 20 places in the area to be sampled. Sample to a depth of 3 to 5 inches and mix all the soil together in a clean pail and send or drop off about 1/2 pint of the mixture to the Experiment Station. Submit separate samples for different or problem areas.

Site Preparation. If a lawn has failed or declined, it is best to determine the cause and take the proper steps to prevent it from happening again. If poor drainage resulted in poor turf, the site could be regraded or underground drainage aids could be installed. If insects or diseases have injured or killed the turf, they should be controlled before starting again. If perennial weeds are a problem, it might be necessary to control them before reseeding.

A question that frequently arises is, "should new top soil be brought in when reestablishing a lawn?" With few exceptions, new top soil is rarely

needed where an established soil exists. Newly built homes may have had the surrounding top soil removed during construction and new top soil will be necessary. If there is a need to change the elevation of a lawn to improve drainage or for aesthetic reasons, then new top soil will be needed. In any event it is always wise to have samples of top soil that is being considered for purchase tested in advance. Many so called top soils or loams are of very poor quality and consumers are often left with little recourse after purchase. New top soil should never just be placed on top of existing soil. Half should be placed on top and tilled together with the existing soil to form a transition zone. This assures better drainage from one soil to the next. The other half of the top soil can then be placed on top, tilled with the first half and made ready for seeding.

An easier way to improve conditions is to amend the existing soil with organic matter. Organic matter will help to improve the drainage of poorly drained soils and will help to improve the water and nutrient holding capacity of coarse textured, excessively drained soils. Good sources of organic matter are peat moss and well aged leaf compost. To do the job correctly, start with large amounts - four 6 cubic foot bales of sphagnum peat moss or 2-3 yards of compost per 1,000 square feet. The organic matter should be fully incorporated into the top 4-6 inches of soil. For large areas, it's advisable to use a roto tiller.

Before tilling or incorporating organic matter, suggested amounts (if any) of limestone should be evenly spread on top. This ensures that the pH of the soil in the upper 4-6 inches is adequate for turf growth. The two most common types of limestone available are: ground dolomitic limestone and pelleted limestone. Ground dolomitic limestone is the most commonly used product. It is a good source of calcium and

magnesium in addition to being able to raise the soil pH. Pelleted limestone is a finer ground dolomitic limestone that has been processed into a pellet. The pellet breaks down quickly upon contact with water and, because of the finer particle size, the limestone raises pH quicker but the effect is not as long lasting as ground limestone. For that reason less pelleted limestone (65-75% of the suggested ground limestone rate) will be needed to raise the soil pH but it will be needed more frequently.

After the soil has been tilled and smoothed, fertilizer can be applied. Germinating grass seed or newly installed sod needs a readily available source of nutrients. Twenty pounds of a field or garden grade 5-10-10 or 5-10-15 fertilizer per 1,000 square feet is a standard rate. The fertilizer should be spread evenly over the entire area and lightly raked in. The area is now ready for seeding.

Seeding. The best time of the year to successfully start grass seed in Connecticut is between August 15 and September 15. During this period, the seeds germinate quickly and the seedlings grow rapidly. Another time to start grass seed is in late winter or early spring. This is a more difficult time because the soil is usually wet and cold, reducing the chances for good tilling. Grass seedlings started in late spring through mid-summer are rarely very successful.

The type of grass seed chosen depends on the location and the sort of care and use the lawn will get. Kentucky bluegrass grows well in full sun, well drained conditions. It responds well to fertilization and irrigation, forming a dense sod. It can go dormant and turn brown during hot, dry summers with no irrigation, but will usually recover when cool, rainy days return. It is susceptible to several diseases so it's advisable to select blends of two or more disease resistant varieties when seeding a lawn.

Fine fescues are more suitable for less optimum locations where fertility is low or excessive drainage prevents adequate moisture. They will do well in sun or shady locations. They too are drought intolerant and may go dormant even sooner than Kentucky bluegrass. The best fescue to use is red or creeping red fescue. It's again advisable to select 2 or more varieties for the seed blend.

Improved perennial ryegrasses are best adapted to moderate conditions. They are the easiest to establish and have good winter hardiness. They will withstand heavier traffic and require about the same care as Kentucky bluegrass. The perennial rye grasses usually work well in combination with Kentucky bluegrass and fine fescues.

Turf quality tall fescues are recent introductions to the lawn seed business. They are improved varieties of a grass that is more commonly used for conservation or forage areas. They are more suited to poorer conditions such as drought, low fertility and high temperatures. They can usually withstand heavy traffic. It's usually best to grow a pure stand of tall fescues to avoid competition with other grasses.

When sowing, it's important to make sure that the seed is evenly distributed on the entire area. A reliable method on large areas is to split the total amount of seed needed in half. Using a mechanical spreader, apply one half of the seed walking back and forth in parallel lines, being careful not to overlap. Spread the other half similarly, walking in lines at right angles to the first direction. Be sure that it is not windy when spreading grass seed.

After sowing, rake the entire area lightly, covering the seed with about 1/8 inch of soil. Don't cover with too much soil or germination will be reduced. If lawns are seeded during hot weather, or on steep slopes, it might be necessary to mulch with straw. Be sure to use a seed free straw - not hay - to avoid getting the seed of unwanted grasses or weeds in the lawn. Shake the straw out thoroughly to a depth of 1 inch. On slopes, it might be necessary to hold the mulch down with well anchored netting.

Newly seeded lawns must be kept moist until the grass is well started. Irrigation should be gentle and evenly distributed. Depending on the weather, newly seeded areas may require frequent light waterings (once or twice daily) to keep the area moist. If temperatures are correct, the seed will be germinated in about 3 weeks. After germination, discontinue daily watering but avoid drying out. Water established seedlings more deeply to encourage deep roots.

Sodding. Another way to establish a lawn is by installing pre-grown sod. A properly installed, sodded lawn can provide an instant dense lawn

that might be preferred to waiting for a seeded lawn to be established. A sodded lawn will be considerably more expensive than a seeded lawn. Sod can be installed at any time during the growing season as long as adequate water is provided.

The soil preparation for sod is the same as for seeding. Most nursery-grown sods are Kentucky bluegrass which do well in sunny locations. Sod consisting of grass types for shady locations may be more difficult to obtain. The soil surface should be moistened before laying down the sod. Sod is usually sold in strips. Lay the strips down with the edges tightly together with staggered joints like a brick wall. Cracks can be filled in with screened soil. Roll or tap down the installed sod to give good contact with the soil. Water often enough to keep the soil moist until the roots have established in the soil.

Bare Spots and Overseeding. Bare spots often occur in lawns due to problems such as drainage, compaction, insect or disease. To reseed or sod these areas, follow the guidelines for seeding entire lawns, paying special attention to eliminating the cause of the original bare spot. If appearances are important, it's wise to determine the type(s) of grass growing in the existing part of the lawn and match the new seed to them.

Occasionally, a lawn will require overseeding. Thin lawns are usually the result of neglect where fertility and irrigation have been reduced and some, but not all of the grasses have died out. In

many cases, weeds have grown in where the grass has died out. They should be controlled before overseeding. The timing, fertilization and liming for overseeding is the same as for seeding large bare areas. It's important to get new seeds in contact with the soil, so after seeding, rake the entire area. Be sure to water enough to keep the soil moist.

Lawns can also decline from too much attention. Sometimes, fertilizers are applied with such frequency that the grass grows very quickly. This produces a larger amount of stems and roots that die off forming a thick layer of organic matter. This layer is called thatch and it can reduce the hardiness of a lawn. Lawns with thatch problems rarely need to be overseeded. Thatch removal methods such as core cultivation or aeration will improve conditions and allow the turf to grow successfully.

Summary

There are many reasons for establishing new plantings of turf. Owners of newly constructed homes may be starting their first lawn. Homeowners with previously established lawns that may have declined or failed may want to start over. Regardless of the reason, it's important to take the time and prepare in advance to guard against problems afterwards. Getting a representative soil test done and proper site preparation prior to seeding or sodding will greatly increase your chances of long-term success.

Typical grass seed mixtures

	Sunny		Shade
	A	B	
Kentucky bluegrass	50-60%	-	10-20%
Fine fescues	20-30%	-	60-70%
Improved perennial ryegrass	15-25%	-	10-20%
Turf quality tall fescue	-	100%	-
Lbs. of mixture per 1,000 sq. ft.	3.5-4 lbs.	7-10 lbs.	5-6 lbs.