

mowing frequently, fertilizing three or four times each year and watering during summer drought, a blend of three or more varieties of improved perennial ryegrasses is a good choice. Sow ten pounds of perennial ryegrass per 1,000 square feet of lawn area.

(Before purchasing seed, request a copy of the Cornell Cooperative Extension Publication, "Cornell Turfgrass Species and Variety Recommendations." It's available by writing or calling: Resource Center, 7 Cornell Business and Technology Park, Cornell University, Ithaca, New York 14850, (607) 255-2080.)

3) Prepare the seedbed when the soil is dry to slightly moist, but not wet. Begin by spread 20 pounds of inexpensive 5-10-5 garden fertilizer over each 1,000 square feet of lawn area to be seeded. Next, run a core aerating machine over these lawn areas at least six times. Finally, rototill and rake new lawn areas smooth.

4) Spread half the seed in one direction and the remainder perpendicular to the first application. This will insure uniform distribution of seed over the entire area. Lightly rake seeded areas to improve contact between the seed and soil before spreading PennMulch® (see the Recommended Lawn Care Products insert) over the freshly seeded lawn.

References used in preparing this fact sheet include:

- Beard, James B. and Robert L. Green, 1994. The role of turfgrasses in environmental protection and their benefits to humans. Journal of Environmental Quality, Vol. 23, No. 3, pages 452-460.
- Gussack, Eva and Frank Rossi. 2000. The homeowner's lawn care and water quality almanac. Cornell Cooperative Extension Information Bulletin 141S2. Cornell University, Ithaca, New York.
- Hummel, Norman. 1990. Lawn care without pesticides. Cornell Cooperative Extension Fact Sheet, page 350.00.
- Minner, David D. 1993. Mowing requirements of turfgrass species. Grounds Maintenance, May 1993, pages 12-17.
- Neal, Joseph C. 1993. Weedfacts - turfgrass weed management - an IPM approach. Cornell Cooperative Extension, Cornell University, Weed Management Series, No. 8.
- Nikolai, Thomas. 2001. When leaves turn to litter. Grounds Maintenance, October 2001.
- Rossi, Frank and others. 2001. 2001 Pest Management Recommendations for Commercial Turfgrass. Cornell Cooperative Extension, Cornell University, Ithaca, New York.
- Rossi, Frank. 2001. 2001-2003 turfgrass species and variety guidelines for New York State. Cornell Cooperative Extension Information Bulletin 247. Cornell University, Ithaca, New York.
- Watschke, Thomas and others. 1993. The effect of nutrients and pesticides applied to turf on the quality of runoff and percolating water. Environmental Resources Research Institute, The Pennsylvania State University.
- Watschke, Thomas L., Peter H. Dernoeden, and David J. Shetlar, 1994. Advances in turfgrass science - Managing turfgrass pests. CRC Press, Boca Raton, FL.

Internet/World Wide Web Resources:

- “**Lawn Talk**” - University of Illinois Cooperative Extension Service
<http://www.urbanext.uiuc.edu/lawntalk/index.html> (accessed on 4/17/03)
An excellent set of thirty fact sheets addressing lawn care issues across northern Illinois.
- “**Sustainable Lawn Care Information Series**” - University of Minnesota
<http://www.sustland.umn.edu/maint/maint.htm> (accessed on 4/17/03)
Possibly the *best* lawn care-related site that I've found on the Internet. Part of the University of Minnesota's "Sustainable Urban Landscape Information Series."
- “**Grubs in Your Lawn**” - New York State Agriculture Experiment Station
<http://www.nysipm.cornell.edu/publications/grubs/index.html> (accessed on 4/17/03)
An excellent overview of white grubs and their management in home lawns.
- “**New Jersey Agricultural Weed Gallery**” - Rutgers University - Cook College
<http://www.rce.rutgers.edu/weeds/default.asp> (accessed on 4/17/03)
Provides excellent photographs and descriptions of weeds you're likely to encounter in your lawn.

5) Once the first seed germinates, usually in five to ten days, letting your new lawn go dry just once will kill half the seed you applied. Therefore, until the new grass seedlings become established - a period of three to six weeks - it's *absolutely critical* that you keep the seeded area moist, but not wet, *at all times*. This likely will mean watering in the morning, and again in mid-to late afternoon almost every day if it doesn't rain!

6) When the new lawn reaches a height of four inches let the soil dry slightly then mow with a *very sharp* blade. Dull mower blades will pull young seedlings out of the ground instead of cutting them off!

7) Six weeks after seeding, fertilize your new lawn with a “winterizer”-type fertilizer if seeded in late summer, or a slow-release fertilizer if seeded in the spring or early summer. See the Recommended Lawn Care Products insert for fertilizer types.

8) After mowing three or four times, your lawn will be ready for normal traffic. It will also be well-enough established to tolerate an application of broadleaf weed herbicide to control unwanted weeds. Twelve to eighteen months after seeding, your lawn will be completely established.

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Central New York Lawn Care Guide

An attractive, environmentally sensitive lawn doesn't just happen - it requires some effort. Fortunately, in return it provides many benefits to you, your family and community:

☞ Your lawn slows water runoff during rain storms, reducing soil erosion and strain on storm sewers. Bacteria and other microscopic organisms in the soil beneath your lawn also remove pollutants before soil water enters underground supplies.

☞ Grass blades are natural air filters. They remove dust and other pollutants from slow-moving air near the ground.

☞ During midsummer your lawn is 30 to 40 degrees cooler than the surface of your driveway, front walk, patio or deck. Combined with properly located trees and shrubs, your landscape can significantly reduce the need for air conditioning.

☞ Your lawn and landscape plantings absorb and deflect sound waves, reducing their intensity before they can reach your home and outdoor living areas.

☞ In combination with trees, shrubs, and other elements in the landscape, your lawn increases the value of your home by five to fifteen percent.

This month-by-month guide to common lawn care activities will help you enhance the beneficial aspects of your lawn and reduce potentially negative effects on our environment. I hope you'll find it to be useful.

March and April

As the last snow melts, stay off your lawn! Foot traffic compacts wet soil and even light raking will pull healthy grass plants out of a damp lawn, leaving bare spots where weed seed will germinate and prosper during the coming summer.

Once your lawn is dry:

☞ Rake out gravel left by snowplows and put twigs and the remains of last year's leaves in your compost pile.

☞ Flush areas exposed to road salt with fresh water.

☞ Lightly rake “dead” patches of your lawn where grass blades are light gray in color, matted down and melted together. These areas are infected by snow mold - a common disease that rarely causes permanent damage. Affected areas will recover as new growth begins in late April.

☞ Use traps or rely on natural predators including dogs and cats to eliminate ground-dwelling moles that push up mounds of soil in early spring. Applying grub control products *won't* get rid of moles as they feed mostly on earthworms.

☞ Don't waste money on spring grub control! While you may see grubs at the soil surface now, they did their damage last fall.

☞ Overseed your lawn *only* if large areas are dead or bare soil is subject to erosion. Instead, wait until late summer when conditions are ideal for new seedlings to be successful. See the end of this fact sheet for instructions on seeding/renovating a lawn.

☞ Late May (Memorial Day) is the best time for spring fertilization. If, however, you can't resist the temptation to fertilize now, use "slow-release" fertilizer containing at least 25% of its nitrogen in water-insoluble (WIN) form. (See the Recommended Lawn Care Products insert for fertilizer recommendations)

☞ Apply crabgrass control, *according to label directions*, between mid-March and early April along driveways, sidewalks and other areas where this grass-like weed is most likely to be a problem. Crabgrass doesn't thrive in the shade or in dense lawns so you'll be wasting money if you apply controls in these areas! Again, see the Recommended Lawn Care Products insert for recommended control materials.

☞ Mow properly. It's the single best thing you can do for your lawn throughout the year!

Mow high - grass plants make carbohydrates (real plant “food”) through the process of photosynthesis. This process, in turn, is driven by sunlight captured by grass blades. The longer the blade, the more sunlight a grass plant will capture and use to make carbohydrates. The more carbohydrates grass plants make, the healthier your lawn will be! So, set your mower to cut at a height of three inches. In shaded areas, raise the cutting height an additional half-inch to make up for lower light levels.

Mow frequently - never cut off more than one-third of a grass blade at any one time. And, leave the clippings on the lawn where they'll act as an organic lawn fertilizer!

Use a sharp blade - sharpen and balance your blade(s) once a month. This will improve the appearance of your lawn and reduce the amount of wear on your mower.

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May

Warm, sunny weather and April rain showers will encourage lawn grasses to produce tremendous amounts of root growth this month. Support this natural growth cycle by:

✂ Mowing correctly - even if it means mowing every three or four days! Mowing incorrectly will reduce root growth which, in turn, will increase your lawn’s susceptibility to damage during the hot, dry summer ahead.

✂ Core aerating your lawn between the beginning and middle of the month. Core aeration machines pull small plugs of soil out of the ground and drop them on top of the lawn. Aeration reduces soil compaction, increases water and oxygen penetration into the soil, and allows carbon dioxide released by grass roots to escape into the atmosphere. And, as the cores break apart, countless thatch-eating microorganisms will spread across your lawn.

✂ Applying slow-release fertilizer during the third or fourth week in May to maintain an adequate supply of nutrients in the root zone of your lawn through the summer. See the Recommended Lawn Care Products insert for specific recommendations.

You may notice tiny four-petaled flowers - three white and one purple - covering parts of your lawn during the first couple of weeks this month. They belong to creeping veronica, an extremely invasive weed that was originally introduced as an ornamental groundcover in the early 1900’s. If you don’t enjoy the dainty flowers of this plant as much as some people do, the best time for controlling it won’t arrive until early October. So, be patient and make plans now for controlling all broadleaf weeds - *including dandelions* - in the fall.

June

If dry weather arrives this month your lawn will grow more slowly and may even start to turn brown. Fortunately, if you’ve cared for your lawn properly, there’s nothing to worry about as it’s simply entering a summer dormancy.

When dormant, lawn grasses can survive extreme heat and drought. While their leaf blades may die, growing points located at or just beneath the soil surface remain alive and ready to grow as soon as rain and cooler temperatures return in late summer.

To help your lawn survive hot, dry summer weather:

✂ *Do not* cut your lawn shorter during the summer. Leave your mower set to cut at a height of 3” to help shade the soil surface.

✂ One inch of water - through rainfall, sprinklers, or a combination of both - each week will keep your lawn from going dormant. To keep water within your lawn’s root zone, apply one-third of an inch of water every two to three days if it doesn’t rain.

Just remember, if you’ve cared for your lawn correctly you don’t need to water it to keep it from dying during dry weather!

July

Japanese and European Chafer beetles may lay large numbers of eggs in *parts of your lawn* this month. *If* they hatch in early August, and *if* the tiny grubs - several fit easily on top of a dime -

survive, they'll feed on your lawn’s root system from August into late autumn.

Note the *italicized* words in the above paragraph? Research at numerous universities indicates that:

✂ Lawn areas in full sun, less than 20 years old, and seeded primarily with Kentucky bluegrass are most likely to contain damaging numbers of grubs.

✂ Conversely, shady lawns more than 20 years old rarely host damaging numbers of grubs.

✂ Japanese beetle traps are very effective at attracting beetles and may actually increase the number of eggs laid in your lawn!

✂ Grub control products are most effective when applied between late July and late August *only to lawn areas where more than eight grubs per square foot have actually been counted.*

✂ Milky Spore Disease, an "organic" Japanese beetle grub insecticide, isn’t effective against European Chafer beetle grubs - which are often more common in Central New York lawns than are Japanese beetle grubs.

✂ Research has now confirmed that only relatively small areas in less than 20 percent of all lawns contain enough grubs (more than 8 to 10 per square foot) to cause significant damage. Therefore, if you’ve regularly applied grub control products over your entire lawn, *you’ve most likely wasted a lot of money and needlessly added a lot of pesticides to our environment!*

If the weather is hot and dry this month, your lawn will grow very slowly. This will give you a break from having to bring out the mower every couple of days! However, to avoid spreading weeds when you do mow:

✂ Mow weed-free areas first.

✂ Wash your mower to remove stolons and seeds of potentially invasive weeds before putting it away.

✂ Insist that your mowing service wash their mowers before bringing them onto your property!

And finally, if you’re planning to start a new lawn, or renovate some or all of an existing lawn, apply Roundup herbicide *according to label directions* four or five days after watering your lawn thoroughly in mid-July. The Roundup will kill all actively growing weeds and grass in your lawn, allowing you to make a fresh start toward an attractive lawn in mid- to late August.

August

Mid-August through early September is the *only* effective time of year to control grubs. Apply grub control products according to label directions and only in those parts of your lawn where you find more than eight grubs per square foot.

It’s also the best time to renovate an existing lawn or start a new one. Warm soil encourages grass seed to germinate quickly. Cooler weather and more frequent rain in September and October will reduce stress on tender grass seedlings. And, seed of relatively few difficult-to-control weeds germinates in late summer,

resulting in fewer weeds popping up among new grass plants.

You’ll find step-by-step instructions for seeding/ renovating a lawn at the end of this page.

And, to help an existing lawn take full advantage of ideal autumn growing conditions, keep mowing your lawn at a height of three inches right through then end of the season.

September

This month’s weather is ideal for root growth, making it an important month for preparing your lawn for the coming winter.

✂ Apply a “winterizer” fertilizer during the Labor Day weekend.

✂ Core aerate your lawn at the same time that you fertilize to encourage vigorous root growth and enhance nutrient uptake.

✂ While big media promotions for weed control products occur in April and May, late September through mid-October is actually the best time of year to control dandelions, clover, ground-ivy (also known as *creeping Charlie*), and other broadleaf weeds.

Why?

✂ The seeds of many weeds, including dandelions, germinate in July and August. It’s much easier to control seedling weeds now, rather than more mature weeds next spring.

✂ Bare spots left after weeds die this fall will fill in with desirable grasses before hot weather arrives next June. However, be patient with fall weed control applications. Some weeds will look healthy until next spring, then die suddenly as they start to grow!

October

Falling leaves can make mowing at this time of year difficult. Despite the nuisance, however, keep mowing right through to the end of the month - and possibly even well into November!

The good news is that studies at several universities indicate that dry, shredded leaves pose no problem when left on lawns in late autumn. In fact, leaves shredded in several directions by a mower and left on lawn areas resulted in an appearance similar to areas where leaves were removed!

At the same time, it’s still a good idea to rake and compost thick layers leaves if they become wet and matted together!

November

When your lawn finally stops growing, lower the height of the last mowing to two inches. A shorter cut may reduce snow mold damage throughout the winter (see the March - April entry).

Research has also shown that grass plants use “late fall” applications of fertilizer more efficiently than fertilizer applied in March, April or early May. Therefore, if you want to have the most beautiful lawn in your neighborhood and/or you shredded a lot of leaves into your lawn, make a second application of “winterizer” fertilizer between Veteran’s Day and Thanksgiving.

December, January and February

It’s not likely that you’ll be using your mower during a mid-winter snowstorm? Instead, use this time to clean it thoroughly - including the deck, engine, spark plug, fuel and air filters, etc. Also sharpen and balance the mower blade(s). In fact, you might want to buy several sets of blades and sharpen them now to make it easier to keep mowing with a sharp blade next summer!

Finally, and possibly quite surprising, mid-winter can be an acceptable time to sow grass seed - providing that the area to be seeded is almost perfectly flat and was properly prepared (i.e., potential weed problems controlled, rototilled, raked, etc.) in late autumn before the ground froze!

To prevent seed germination, “dormant seed” lawn areas after the chance of four or five consecutive days of 50°F weather has passed - roughly early to mid-December. Ideal seeding conditions occur early on clear, frosty mornings when moisture from melting frost will “grab” the seed and settle it into the moist soil. Seed can also be sown on top of a couple of inches of snow. As the snow melts, the seed will settle into the prepared soil surface.

Once the seed is sown it will remain dormant throughout the winter months, germinating only when air temperatures reach into the 60’s and 70’s often enough to raise soil temperatures to 50°F for a week straight - usually about the middle of April.

Summary

All of the practices described in this guide - mowing, fertilization, core aeration, pest management and watering - interact to create an attractive lawn. Therefore, if you consistently neglect one of them, no amount of money or time spent on the others will allow your lawn to look as good as it can!

Lawn Seeding/Renovation Guidelines

1) The key to successful lawn establishment or renovation is to identify, understand, and address factors (poor drainage, dense shade, etc.) affecting your lawn. If your old lawn didn’t thrive beneath the large maple tree in your front lawn, for example, your new lawn won’t either!

2) If you plant the wrong grasses now, your lawn will never look great despite the time and money you spend on it later! So

✂ If you don't plan to water your lawn during mid-summer and aren’t going to fertilize more than once or twice each year, use a mixture of 70% fine fescues (red, creeping and/or chewings fescues), 20% drought and low-fertility tolerant Kentucky bluegrass and 10% perennial ryegrass. If you set your mower deck at 2 1/2 inches, you might get away with mowing these grasses once every two weeks during mid-summer! This type of mix does well in both sunny and shady lawn situations. Sow four pounds of this seed mixture per 1,000 square feet of lawn.

✂ If you don’t mind mowing frequently and want your lawn to remain green through the heat of mid-summer, consider a blend of at least three cultivars of dwarf, turf-type tall fescue grasses. Seed at the rate of eight pounds per 1,000 square feet of lawn area.

✂ If you want a fast-germinating grass and don’t mind mowing