

ESTABLISHING A LAWN FROM SEED

The establishment of a home lawn is a task that should not be taken lightly. Following proper establishment procedures and planting high quality seed are the keys to successfully establishing a lawn.

Time of seeding

The best time to seed a lawn in most of New York is between August 15 and September 15. Fall planting is preferred to spring and summer seeding because seeds germinate and grow rapidly in the warm soil. The warm days and cool nights are ideal for seedling growth and there is also less weed competition in fall than in early spring. Establishment in spring and summer is possible when irrigation is available, but infestation with annual weeds will likely be a problem.

Follow these steps carefully to establish a new lawn:

1. *Remove existing vegetation.* If there is existing weedy vegetation on the site, especially of the type with a persistent stems or root systems, it will need to be removed. If this step is skipped, these weeds (such as quackgrass or ground ivy) will most likely appear in the new lawn. Removal is best accomplished by using a broad-spectrum herbicide (such as glyphosate). If only annual weeds are on the site, then this step can be safely skipped.
2. *Modify the soil.* If the native soil is extremely rocky, droughty, compacted or poorly drained, you may wish to make modifications, such as installing underground drainage or irrigation lines. For soils that are either very sandy or high in clay, adding four to six inches of loam, and/or rototilling four to six inches of high quality compost into the soil, will be beneficial. This is the only opportunity you have to modify the soil, so take advantage of it.
3. *Soil test.* The only way you can know what amendments are needed is to send a sample of soil to a laboratory for pH and nutrient analysis. Due to a New York State law which restricts the use of phosphorous on lawns, it is important to determine if the soil needs additional phosphorous, because it is most easily added during the establishment process. Getting a soil sample tested by a lab takes a few weeks, so it is best done well before you plan to plant the seed, but after soil modifications are done. Cornell Cooperative Extension of Rensselaer County can test soil for pH in-house for a modest fee, and can help you send your soil off to a lab for a nutrient analysis. Contact us for details.
4. *Establish a rough grade.* Eliminate low spots, large rocks, roots, etc.
5. *Apply lime or sulfur.* Use these products as directed by the results of the pH test and rototill them into the top six inches of soil.
6. *Rake and remove any debris.*
7. *Firm the soil surface by lightly rolling or watering (if necessary).*
8. *Apply fertilizer.* If you have your soil test report, follow the recommendations for applying fertilizer based on the results. If you didn't have your soil tested, you should apply a "turfgrass starter fertilizer" (these are special products sold under this general name) at the rate recommended on the label. Rake the fertilizer into the top few inches of soil.

9. *Sow the seed.* Select a seed mixture containing improved varieties that are suited to your site and the projected uses of the lawn. See the fact sheet “Turfgrass Species: A Description of Grasses to Grow in the Capital District of New York State” (#7.441) for help in choosing what type of seed to purchase. Broadcast the seed uniformly over the area using a drop or rotary spreader. Achieve a uniform rate by seeding in opposite directions after setting the spreader to deliver at ½ the desired rate. Excessive seeding rates create too much competition between the seedlings, so resist the temptation to apply the seed heavily. Seeding at the correct rate encourages tillering, which is the lateral development of the grass plants.
10. *Rake.* Using very light pressure, rake the seed into the top 1/8 to 1/4 inch of soil. While some seed may remain visible, it will still germinate better than if it is buried too deeply.
11. *Roll.* Lightly roll the area to establish good seed-to-soil contact, but avoid causing more soil compaction.
12. *Crabgrass control (for spring seeding).* Unless prevented, crabgrass and other aggressive annual weeds can take over a new lawn started in the spring. Crabgrass seed lies dormant in the soil for years, waiting for just the right opportunity to germinate. Garden centers sell herbicides that stop crabgrass from germinating, but only one product (siduron, a.k.a. Tupersan) is both available to homeowners and safe on newly seeded areas. Remember that most such herbicides are NOT safe on newly seeded lawns – they will prevent the crabgrass AND the grass seed from germinating. Read the labels carefully before purchasing.
13. *Mulch.* Use weed-free straw uniformly over the area to conserve moisture and reduce erosion on sloping ground. Apply approximately one bale per 1,000 square feet of area. Do not use pasture hay as it contains abundant weed seeds. Other effective mulching materials are made from wood fiber or excelsior (formed into blankets) and newsprint (made into pellets). A thin layer (less than ¼ inch) of very fine, weed-free compost can also serve as a mulch.
14. *Water.* Keep the soil surface moist to prevent the seeds from drying out. This often requires light (five to ten minutes), frequent (twice daily) watering for two to three weeks after seeding. Gradually reduce the water after the seedlings emerge to encourage deeper rooting. Once grass covers about 60 percent of the ground, the surface can be allowed to dry to a greater degree between waterings.
15. *Fertilize.* About three weeks after the seedlings emerge, apply a lawn fertilizer at a rate of 1 lb. of nitrogen per 1,000 square feet (this will most likely be indicated on the bag). This will increase shoot density and the seedling’s ability to withstand diseases such as rust.
16. *Mow.* Once more than 60% of the grass reaches at least two to three inches, start mowing. Mowing encourages lateral shoot development, increases stand density, and helps the turf out-compete the weeds. Make sure your mower blade is sharp. Dull blades can tear young seedlings from the soil.
17. *Broadleaf weeds.* After you have completed the task of establishing your lawn, you will notice broadleaf weeds germinate amongst the grass seedlings. Most broadleaf weeds can be easily controlled with a selective herbicide after the turf is established. In general, it is safe to apply most such herbicides after the lawn has been mowed at least two times, but read the product label for specific instructions.

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This publication contains pesticide recommendations. Changes in pesticide regulations occur constantly and human errors are still possible. Some materials mentioned may no longer be legal. All pesticides distributed, sold or applied in New York State must be registered with the New York State Department of Environmental Conservation (DEC). Questions concerning the legality and/or registration status for pesticide use in New York State should be directed to the appropriate Cornell Cooperative Extension specialist or your regional DEC office.

READ THE LABEL BEFORE APPLYING ANY PESTICIDE.