

Bronx Green-Up • THE NEW YORK BOTANICAL GARDEN



Bronx Green-Up, the outreach program of The New York Botanical Garden, provides horticultural advice, technical assistance, and training to community gardeners, school groups, and other organizations interested in improving urban neighborhoods through greening projects. At the heart of Bronx Green-Up are the community gardens of the Bronx and a compost education program.

Creating a Lawn Area

What are the Gramineae?

- The Gramineae or the grass family is a large and widespread family of plants; there are about 600 genera and perhaps 10,000 species of grasses. They are monocots or monocotyledonous plants because when the seed germinates only a single baby leaf (one cotyledon) appears. Grasses can reproduce by stolons, rhizomes, or tillers.
- The plant anatomy is composed of two basic parts. Anything above the ground is called a “shoot.” The shoot is composed of a central stem and leaves. The leaves have two parts: the blade (the flat leafy part) and the sheath (the rounded part just below the blade). The stem supports the leaves, and roots support the entire structure underground. The stem develops swollen areas called “nodes;” where the plant will develop a new leafy top after being cut.

How to Start a Lawn Area by Seed?

There are several important steps to establish a lawn area by seed.

Soil Preparation

1) Pregrading

The first step is to prepare the surface of the area where you will have the lawn. First, remove all rocks, sticks, weeds, and any other debris that are larger than three-quarters of an inch. These should be removed from the area because they will interfere with mowing and cultivation.

2) Subsurface Grading

- All grades should slope away from any buildings at a minimum slope of one degree. Any slope over 33 degrees is too steep for grass and a ground cover should be considered instead.
- The subsurface grading (subgrading) should establish the grading contours for the final grading to follow; the subgrading should look exactly like the final grading only lower.
- Do not plan on leaving high spots with less top soil or filling low areas with extra top soil because this will affect the drainage.
- You can rent a tiller to prepare and mix the top soil at least 10”–12” deep.

3) Final Grading

Final grading lays down a good layer of top soil to create the final layer of soil that will support the lawn. There are several important points to consider in this process.

- The topsoil should be equally applied throughout the lawn area.
- A minimum of 8” of good topsoil is necessary for a lawn area with heavy clay or sandy soil; if the soil is better only 4” of topsoil is needed.
- Add 2” of topsoil and then rototill at least 6” deep. Add 2” more of topsoil and repeat the same operation.
- After tilling two to four inches of topsoil, add the remainder of the topsoil to the lawn area. Rake and remove any rocks, weeds, or debris to get a good level planting surface. If you have a small lawn roller, fill it a quarter to half full with water and gently roll the soil.
- Once the soil is prepared, add the starter fertilizer. In general, a good starter fertilizer with a NPK ratio of 12-25-10 can be spread on the surface of the soil, at least 8 lbs. per 1,000 square feet. It is always best to test the soil prior to preparation to determine what nutrients are needed.

For additional information, contact Bronx Green-Up at 718.817.8026 or bronxgreenup@nybg.org.

Seeding a New Lawn

Types of Grasses

Once the soil is prepared and fertilized, you can begin the seeding process. There are two important aspects to consider:

- **Warm season grasses** are best established in the spring as soon as the soil temperatures are right for germination and the soil temperature is between 78°F–85°F.
- **Cool season grasses** are best established in the fall or late summer when the soil temperatures are between 60°F–75°F.

The reason for these differences is in the growing habits of the grasses. Warm season grasses thrive in the heat of the summer and have most of their growth during this time. In the fall, warm season grasses go dormant. Cool season grasses, on the other hand, grow best in the cool air temperature and warm soil temperature of late summer and early fall.

Sowing Seeds

- It is best to sow seeds early in the morning when the temperature is lower and there is less wind. The soil should have an even moisture, moist but not too wet.
- If the area is very large, rent a sowing machine. For small areas, you may use a hand-seeder that shoots the seeds away from the walking gardener.
- When you are ready to sow, divide the grass seed into two equal amounts. Apply the first portion by moving along one side of the lawn area and then turn 180 degrees to return just as if you are mowing. Make sure the grass seed overlaps just a little bit from the spreader. Take the other half and apply the remainder by going up and down the lawn at right angles to the original direction.
- To increase contact with the soil, you may use a rolling barrel filled with water.

Mulching

It is good practice to mulch the exposed seed with straw for 3 main reasons:

- 1) Protects the seed from strong winds, rain, and birds.
- 2) Maintains a good germination temperature.
- 3) Keeps moisture around the seedlings.

Remove the straw as soon as the seed starts to germinate very carefully.

Watering

Watering is one of the most critical elements; without water the seed will not germinate. It is especially bad if you let the soil dry out when the seedlings are starting to grow. Keep the area moist but not wet. If you put too much water the soil will break apart and cause erosion. It is recommended to water early in the morning or in the evening when the temperature is lower and there is less wind.

Germination

After the grass seed has germinated, follow these steps:

- Do not walk on top of the area for at least 6–8 weeks.
- Check seed germination and re-seed the areas with poor germination.
- Reduce the water little by little every week to stimulated root growth.
- Do not mow the grass until it gets to 3” tall.
- Do not apply any herbicides.