

## PREPARING YOUR SOIL FOR PLANTING

The secret to growing a lush, healthy organic garden, whether it be flowers or vegetables, is in the preparation of the soil. In organic gardening, we say "Feed the soil and the soil will feed the plants." Therefore, the initial preparation of a planting bed is of the utmost importance before you ever plant a single plant!

These are the steps that we take here at Natureworks to prepare soil organically:

1. **Take a soil test.** To do this, take 2 or 3 shovels full of soil from different parts of your garden and put it in a clean bucket. Do not just scrape the soil surface, but dig down deeply. Mix the samples together. In doing this, examine the soil with your bare hands. Is it sandy? Clay-like? Does it seem rich, or rather sterile? Once it is well-mixed, place a small sample (approximately 2-3 tbsp.) in a baggy. Take it or send it to the Ct. Agricultural Experiment Station, 123 Huntington St., New Haven, Ct. Indicate on the bag your name, address, and what you plan to grow (flowers, lawn, vegetables, etc.) Also state that you would like the recommendations in organic fertilizers. It takes 1-2 weeks to get back a soil test. This is a free service.
2. **Remove the sod or existing vegetation.** Do this while you wait for the results of your soil test. We rent a gas powered sod lifter for a large area, use a manual sod cutter for medium sized areas (available for rent from Natureworks), or do it by hand with a grub ax for small areas. Compost the sod. We do not till the sod into the garden if planting right away as that encourages lots of grass to grow and the initial weeding is a nightmare. Or you can layer the potential garden bed with a thick sections of newspaper, cardboard, or Planter's Paper (a black biodegradable paper that smothers weeds then decomposes) topped with a 1-2" layer of leaves, grass clippings or shredded bark mulch. An even better way of "sheet composting" is to add 1" of compost, and the appropriate lime, organic fertilizers, and mineral powders as suggested by your soil test before you top it with the smothering material. This is great to do in the fall, letting it sit all winter long, tilling it in the spring. However you plan to do it, you must eliminate the perennial weeds before you start or they will come back to haunt you many times over!
3. **Amend the soil.** We start by adding at least an inch of compost. If you do not produce enough compost in your own yard, it can be purchased at Natureworks. Compost will inoculate the soil with life, introducing millions of soil microorganisms which will break down organic matter and release nutrients to feed the plants. We do not use peat moss unless the soil is extremely sandy or we are planting acid loving plants such as Rhododendrons or Azaleas. We prefer to use compost which has more nutrient value and adds life to the soil in the form of soil microorganisms. Peat moss also is often applied dry and it absorbs up to 10 times its weight in water, thus running the risk of desiccating the newly planted plants! If you use peat moss, be sure to monitor your soil's PH and to moisten it well before using. According to your soil test results, add lime if needed to adjust the PH, rock phosphate for phosphorus, greensand for potassium and lots of other trace nutrients, and any other fertilizers or amendments that are necessary. There are many excellent fertilizer blends now available which provide a good balance of nutrients. Please refer to our Organic Fertilizers handout for more detailed information on the fertilizers and organic amendments. Work the nutrients in deeply so they will be at the root zone of the plants when needed.
4. **Prepare a deep soil bed.** Dig down the depth of 2 shovels. This is the secret to success! If you hit rocks, use your grub axe or a crowbar to remove them. If you hit roots, within reason, you can cut them. Do not scrimp on this procedure as this is your only chance to provide a friable, loose bed for your plant's roots. Once they are in the ground, it is too late! We like to imagine that a plant is taken out of its pot, planted in a deeply dug, organically amended soil, and the roots meet NO RESISTANCE. Therefore, they grow quickly, working their way deep into the soil. The results are plants that establish themselves fast and grow to be strong and lush in the first season. Deeply rooted plants also are much better able to withstand droughts as compared to shallowly rooted plants in stingy planting holes. The old adage "Dig a \$10 hole for a \$1 plant" is not a fallacy! If you use a rototiller to turn over the soil and work in the amendments, make sure it goes down very deep. If it doesn't, you still may have to do some of the digging by hand as you dig the individual holes for each plant.

5. **Mulch your garden.** Organic mulch such as shredded bark, wood chips, coco bean hulls, buckwheat hulls, Mainly Mulch shredded weed-free straw, or shredded leaves add invaluable organic matter to the soil as it decomposes. Mulch keeps down weeds, thus saving hours of labor each week. It also conserves moisture and prevents soil erosion. When mulching, be sure to avoid putting the mulch on the crowns of the newly planted plants. A 1-2" layer of mulch around perennials, annuals, herb, shrubs is of tremendous benefit to the plants.

If all of this sounds like a lot of work, it is! But a properly prepared bed is the only way to have a lush, healthy garden. We take these steps with all of the gardens that we install. The results are obvious as you tour our demonstration gardens. Many that are only 1-2 years old look much older. It is worth the work in the long run!

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