How to Prepare Soil for a Garden

We prepare our farmland for cultivation by subsoiling, bottom plowing, analyzing the pH and micronutrient constituents and determining amendment requirements. Gardeners can have the same success if they employ similar techniques on a smaller scale. Applying compost in a variety of methods can solve a multitude of soil issues.

Steps

1. Choose a location with the fundamental requirements for the plants you plan to grow. Normally, this will mean good exposure to direct sunlight for a minimum of 6 hours each day, and sufficient drainage to keep the soil from becoming waterlogged. Also consider possible pests that may visit your garden and help themselves, it might be better to work within a fenced area.

2. Sample the soil material. Basic soils can be sand, sandy loam, loam, loamy clay, and clay. The clay soils do not drain well, and will need loam, sand, or other amendments to allow excess water to drain from them. Sandy soil allows too much water to drain, and will need to be heavily composted or fortified with clay or good topsoil. Garden supply stores can test the soil pH, or acidity, and may recommend adding lime or sulfur to adjust the acid level you specific plants require.

3. Plan the garden layout, allowing room for plants to spread out, vine, or bush as they mature. Watermelons, cucumbers, and squash require lots of space, where onions, radishes, and beets can be grown in smaller spaces. Give yourself room to work, and room for the plants to grow.

4. Strip off the overgrowth from your plot, removing weeds, grasses, and other materials to the clean ground. These can go to the compost pile for later use, but shouldn't be incorporated until they have composted.

5. Turn the soil using a shovel or motor driven rotary tiller as deep as you can. Remember, the roots of your plants will extend deep in the ground to find nutrients and moisture, and by digging or tilling, you loosen the material so they can do so. Remove any large stones or rocks as you work, along with any roots or debris (eg, bits of metal, plastic etc) you encounter. You may need to make more than one pass to break up very compacted soils.

6. Add soil amendments you have determined you will need to balance the pH of the soil and condition it to support good plant growth. This may mean adding compost or topsoil to sand, or sand to heavy clay, and because this varies so greatly from area to area, it may help to talk to a local gardener or county extension agent for advice. Dig or till the garden again to mix in the amendments, as necessary.

7. Smooth the soil with a rake, evening out low and high spots (unless you wish to create height variations for visual interest or drainage).

8. Fertilize the soil based on plant needs. Too much nitrogen can cause wonderful foliage, but no fruit, and this is not the normal goal of the home gardener.

9. Turn the soil and mix it thoroughly one more time after all amendments have been added. Allow the soil to rest for several days, and keep it moist if possible, before planting.

10. Install fences for climbing plants, raise beds where they are helpful, lay out your rows...and plant!
Community Q&A

What is site clearing?
This is simply clearing the site to remove any and all debris. Such debris should be removed prior to gardening.

What is the best trick for removing weeds?
Be sure you remove their roots.

Can hi-lime be used to minimize soil acidity?
Hi-lime might not work because it goes in the soil too quickly. You can use Pelletized Lime to combat acidic soil, as it will be absorbed by the soil on a slower rate. Use 40 pounds per 100 square feet maximum area.

How much water is too much?
If the water pools up and remains pooled after 5 minutes, it’s too much.

Tips

- Talk to local gardeners. They will know exact conditions in your area, pests to be aware of, and planting times.

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