

The Organic Garden

Healthy Plants Make Healthy Food

The beginning of any successful garden is in the preparation of the soil. One of the fundamental principals of organic gardening is to build the soil which in turn will provide the plants with the nutrients they need to grow; a rich soil alive with microorganisms is the key to a healthy garden and healthy food. An organically fed soil can sustain plant growth for a long time because the microorganisms in the soil are slowly breaking down the organic matter into the nutrients your plants need to grow. This is in contrast to chemical fertilizers, which are water soluble and leach out of the soil whenever you water or it rains, and thus need to be applied more often. Chemical fertilizers also kill the soil microorganisms and deplete the organic matter in the soil.

So then, your first step will be to determine the type of soil in your garden: either sandy, loamy, or clay. The ideal soil like everything else in life is a compromise; it must be able to hold water long enough for the plants to absorb it, but not so long as to cause the roots to begin decomposing. Sandy soil typically has great drainage but very poor water holding capability. Soil with high clay content is usually just the opposite; it holds water well but drains poorly. To improve the condition of the soil we will be adding organic matter which will increase the water holding capacity of a sandy soil as well as improve the drainage in a heavy clay soil. Most vegetable and herb plants will do best in a well-drained rich loamy soil with plenty of organic matter, there are exceptions of course so be sure to check the soil requirements for the plants you're planning to add to your garden. To provide organic matter you can use compost, leaf mold, well rotted manure or peat moss. We feel the best material to use to condition your soil is compost, because in addition to fulfilling the organic matter requirement, compost adds vital nutrients and trace minerals that are necessary for your plants growth. Compost also contains many important microorganisms that will make nutrients available for consumption by the plants in your garden.

The next step is to determine the ph and nutrient levels in your soil; this is done with a soil test. You can buy a simple soil test kit and test it yourself, or you can send a sample or two to be tested at a laboratory, most state universities offer this service. While the test you can perform yourself will give you a reasonably good idea of the general conditions, the results from a laboratory test are much more accurate and the labs will make recommendations on how to correct whatever deficiencies are indicated. Make sure to mention your desire to use "organic" methods, and the lab will make the appropriate suggestions.

Soil ph, which is the measure of acidity/alkalinity, is very important because it controls the availability of nutrients essential for growth. The range to aim for is between 6.0 and 7.0 for most plants, but as with soil types, there are exceptions, so take note of any special requirements.

Now that you've had your soil tested let's look at some of the ways to improve it. There are many organic materials that can be incorporated into the soil to compensate for low nutrient levels; compost, well-rotted manure, leaf mold, blood meal, bone meal, rock phosphate, greensand, limestone, as well as blended organic fertilizers. As mentioned previously, well made compost is an excellent source of nutrients and trace minerals and is by far the best choice. You can make your own compost, or buy it either in bags or bulk. You also may be able to obtain it from your town; many towns now have composting facilities. Peat Moss is another good soil conditioner especially for plants that like an acid soil; however Peat moss has no nutrient component to speak of so you'll have to use it in conjunction with an organic fertilizer for nutrients and lime to neutralize the acidity.

Now we are ready to prepare that new planting bed. We'll start by adding a 3"- 4" layer of organic matter along with some rock phosphate and greensand and most likely some lime. This is the time to consult the soil test results to determine how much of the various ingredients to use. Once you've got it all spread out on the beds, go to the shed and get out your favorite spading fork or Rototiller and turn it into the beds.

Finally, the hard physical work of soil preparation is done and it's time to start planting. The best time to do your planting is either in late afternoon or on a cloudy day. Avoid doing any planting on a hot sunny day; it's very stressful for the plants, as well as the gardener. Now that all the work is done why not sit back and enjoy the beautiful show that nature puts on for us all... and perhaps, start planning your next garden.



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