

# GARDEN BEDS

## How to Revitalize Garden Beds and Grow Healthy Vegetables and Flowers

Spring and fall are the times to revitalize garden beds. Good news! You don't have to invest lots of time or use expensive chemical additives for plants to grow vigorously. If you feed the soil naturally, the soil will feed the plants.

For years, gardeners have applied chemical fertilizers to soils to feed plants. These can leach out and pollute groundwater. In addition, this approach bypasses the natural cycles of feeding microorganisms – and throws the soil out of balance. In fact, chemical fertilizers and pesticides often kill earthworms and beneficial microorganisms, as well as interfering with the breakdown of organic matter. In time, this causes the soil to become less fertile, more compact, and less able to hold water and nutrients.

So, how can a gardener grow healthy plants and support the natural cycle of soil replenishment?

Test your soil. Find out whether it has a balanced pH and enough nutrient and mineral reserves to sustain healthy plant growth. Soil test kits are inexpensive and available at most lawn and garden centers, or through your local county extension service.

Aerate your garden beds. Turning the soil and allowing air into it is vital; oxygen enables microorganisms to digest organic matter and thus fuels the natural cycle. Note: do not work soil without supplying it with new organic matter. Aerating the soil will encourage microorganisms to digest whatever organic matter is presently in the soil – and accelerate the process of depleting the soil if it is not replenished with new organic matter.

Add fresh compost or other organic matter to garden beds each year. For best results, add leaf compost or composted cow manure to the soil. Turn over the top 2-4" of garden bed with a spade, then rake or spade 2-4" soil, composted manure, leaves, or other organic matter into the soil surface. This enhances organic matter content, improves air, water, and nutrient retention, increases drainage, and stimulates microorganism activity.

Prepare your beds this way either spring or fall with good results: in spring to prepare beds for planting, or in fall to condition the soil and give plants an early start the following spring.

Fertilize. A well-fed garden bed should not need additional fertilizing. But, if you wish to give plants an extra boost, feed them with all-natural, organic fertilizers such as Espoma Plant-Tone. Natural organic fertilizers have low numbers (in the single digits) on the label. These come from plant or animal sources. They are naturally low in nitrogen, occur in forms that are released slowly into the soil, and do not leach into and pollute groundwater. Feeding plants with an all natural, organic fertilizer will make nitrogen and other nutrients available to the plants at a natural pace over a longer period of time; plants will sink longer roots, store more nutrients, and grow more slowly and vigorously. Another good practice when planting is to use a starter fertilizer such as Espoma Bio-tone Starter or a plant starter fertilizer to stimulate healthy root growth.