

## SOIL MANAGEMENT

### Fertilizers

Vegetables and flowers usually grow better if fertilizer containing Nitrogen, Phosphorus and Potassium is mixed into the soil prior to planting. Organic fertilizers are derived from plant, animal, and mineral sources. They are not made with synthetic materials. Organic fertilizers feed microorganisms in the soil, which break down the organic matter and release nutrients in a form that plant roots can absorb. The advantage of using organic fertilizers is that they contain more than one nutrient. These nutrients are released slowly, in smaller quantities, making them available to the plant for a longer period of time. They are less likely to burn plants or be lost from the soil. Another advantage is that organic fertilizers may also act as soil amendments.

Inorganic, chemical, or synthetic fertilizers are often referred to as commercial fertilizers. These fertilizers are usually water-soluble and produce a sudden flush of mineral salts that are taken up rapidly by plants. They act quickly and can produce good yields, but they do not “feed earthworms and other humus-making creatures”.

Prior to planting apply fertilizer uniformly over the soil, then till it in to a depth of about six inches. Manure that is not mixed into the soil after it has been applied will lose some of its nitrogen content as ammonia gas. Phosphorous and potassium have very little mobility in the soil; they must be worked into the soil where plant roots can reach them.

During the growing season, most plants will periodically need additional applications of nitrogen fertilizer. A fertilizer containing nitrogen should be applied on direct-seeded crops when the plants have four to six true leaves. Fertilizer containing nitrogen should be applied to transplants about four or five weeks after planting.

Additional applications of nitrogen fertilizer should be made at intervals of about four to six weeks depending upon the crop. In sandy soils, which require frequent irrigation, small amounts of fertilizer will be required at more frequent intervals. [Click here for more information on Post Planting Fertilizing.](#)