

## Organic Fertilizers

Fertilizers supplement the nutrients already in the soil. Manufactured fertilizers (non-organic) are generally concentrated and quick acting, while organic fertilizers release their nutrients more slowly. Organics require warm soil to break down and release their nutrients.

Too much of any fertilizer can cause pollution by leaching into groundwater or running off into surface waters. Organics may be safer in this respect because they tend to release their nutrients more slowly.

Some common organic fertilizers are listed below. Their approximate percentages of nitrogen, phosphorus, and potassium are listed in parentheses. These percentages can vary somewhat from product to product.

***Blood Meal. (12-0-0)*** This dried blood from cattle slaughter houses is a rich source of nitrogen. Do not apply more than recommended rates because it is concentrated enough to harm plants.

***Bone Meal. (6-12-0)*** This is a slow-acting fertilizer that releases phosphorus gradually. Bone meal is good for bulbs that don't sprout for several months after they are planted and for alkaline-loving plants such as clematis and lilac.

***Cottonseed Meal. (7-3-2)*** In warm soils this fertilizer is readily available with little danger of over fertilizing. Use for acid lovers such as rhododendron, blueberry, and azalea.

***Fish Emulsion. (5-1-1)*** This is a well-rounded fertilizer consisting of partly decomposed ground fish. The smell is strong but will dissipate in a day or two. It confuses pests that can't get past the fish smell. It has a high concentration of nitrogen and can burn plants if overused.

***Seaweed Extracts. (9-2-7)*** Seaweed is an especially good source of trace elements that your plants may need. Its odor is not as strong as that of fish emulsion, but it is more expensive.

***Manures.*** Nutrient concentrations vary widely with the kind of animal they are from. Although concentrations are lower than in manufactured fertilizers, manures improve soil structure and increase its water holding capacity. Fresh manures can cause food-borne illnesses by contaminating vegetables with pathogens. They also can burn tender roots. Therefore, gardeners are encouraged to use composted manures or apply fresh manures at least 60 days before harvesting any garden vegetables that will be eaten raw.

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Source: Organic Fertilizers, WSU Extension Stewardship Gardening.  
<http://gardening.wsu.edu/stewardship/organic/orgfertil.htm>