

Composts

for Garden Soil



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THE PRODUCTION of a good vegetable or flower garden is largely dependent on the physical condition of the soil, and its fertility or supply of available plant nutrients. If the soil is well supplied with organic matter and is fertile, the plants should thrive and produce abundantly with a minimum of attention. Soils which are depleted of organic matter and plant nutrients will not grow good crops of any kind. Plant growth on city and suburban garden areas often shows this lack of organic matter content and proper fertility.

Each summer and fall many tons of crop residue go to waste. This material would make good compost. Lawn clippings, crop refuse, and the leaves from fruit and shade trees all make useful composts if handled properly. Materials of this type give the best results if composted for a time before adding them to the soil. Compost also makes a desirable mulch for use around ornamental shrubs and plants.

Those who are fortunate enough to have access to stable manures can keep their garden soil in good condition. Many do not have this opportunity and that is the main reason for the preparation of this circular. There are a few simple rules which should be followed in the composting of refuse materials.

What materials are useful?

The compost pile may be made of some or all of the following materials: leaves from ornamental and fruit trees, lawn clippings, sod, cornstalks, straw, and waste vegetable matter which is not infected with diseases or insects that could be carried in the compost to the succeeding crops. A mixture of sod and manure is ideal for a good compost, but most people have the other materials mentioned and should make use of them. There will be a difference in the amount of available plant nutrients in these materials, depending on their stage of maturity.

The amounts of nitrogen, phosphoric acid, and potash that may be found in 100 pounds of organic material available for composting will average about as shown in the table, if used when the materials are normally first available.

Location of compost pile

A compost pile, while not entirely unsightly, is not very attractive and should be placed out of sight. This might well be behind the garage or shed but better yet in a shrub mass planting. Here it will not be seen by anyone, and the shrubs can serve as a background for

Fertilizer Value of Organic Materials

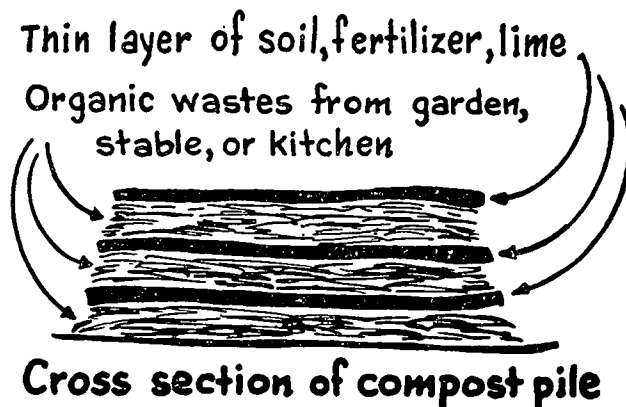
Material	Chemical content per 100 pounds material		
	Nitrogen (N)	Phosphoric acid (P ₂ O ₅)	Potash (K ₂ O)
	Pounds	Pounds	Pounds
Apple leaves*	1.00	0.15	1.20
Alfalfa hay*	2.45	0.50	2.10
Bean vines	0.50	0.10	0.50
Beet tops	0.35	0.10	0.55
Cabbage, stump, and outer leaves	0.37	0.10	0.45
Carrot tops	0.54	0.13	0.11
Cherry leaves*	0.60	0.11	0.72
Lawn clippings	0.50	0.10	0.25
Lettuce	0.25	0.08	0.45
Oak leaves*	0.80	0.35	0.65
Oats and vetch	0.40	0.15	0.30
Peach leaves*	0.90	0.15	1.80
Pear leaves*	0.70	0.12	1.20
Pea vines	0.50	0.05	0.50
Raspberry leaves*	1.35	0.58	0.76
Rye	0.45	0.10	0.40
Tomato vines	0.35	0.10	0.50

* Dry materials. All others green weight.

an attractive flower bed. Maybe the fruit or vegetable garden will offer an even better spot for the compost pile.

Construction of the compost pile

A compost pile should be 4 to 5 feet wide and as long as necessary to hold the materials available. It should not be more than 5 feet high when finished. The material is placed on the entire area selected and packed until it is quite firm and about 1 foot deep.



To supply nitrogen and increase the supply of plant nutrients in the compost, it is advisable to scatter some commercial fertilizer over this firm layer of organic material. If one of the high nitrogen-containing fertilizers like ammonium sulfate or ammonium nitrate is used, $\frac{1}{2}$ pound per square yard is enough but if a complete fertilizer like 5-10-5 is used, it will take about 1 quart per square yard. Also, add about $\frac{1}{4}$ pound of superphosphate and about the same amount of lime. A $\frac{1}{2}$ pound of wood ashes can be used instead of the lime but do not use more than this amount. Each successive layer should have this same treatment.

Add water enough to make each layer moist as it is built. Chemical fertilizer and moisture will aid in a rapid decomposition of the bulky, organic materials. One or two inches of stable manure, poultry manure or that from rabbit hutches, or even rich garden soil, added to the first layer will aid in starting a rapid decomposition.

As the pile is being made and after it is completed, one should add water from time to time to keep the material moist but not dripping wet. If the pile is slightly depressed in the center, it takes the water better. If rainfall is excessive, cover the pile to prevent the leaching of valuable fertilizer elements.

Turn the compost pile

In about 2 months the compost pile is ready for turning. Cut it down from one end in thin slices, and pile it in a new place. This will mix thoroughly, and a more complete breakdown will follow. This process can be repeated in about 1 month and the compost should be well rotted for use the following spring.

A small compost pile

For the gardener living on a city lot or small area, who may have only a small amount of material to compost, this same method can be used on a smaller scale. Organic matter should be saved even though the amounts are small.

The use of composts

Composted materials can be worked into the garden soil to improve its structure and fertility, or they can be used as a sidedressing and for the mulching of plants. Compost is a valuable product wherever it is used.

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