NORTHERN Gardener
CREATING & CARING FOR YOUR ENVIRONMENT

Composting

Gardeners have been composting for centuries to increase organic matter in their soil as well as to provide essential nutrients for plant growth.

With the ban on outdoor burning in many communities and the limits on dumping leaves and grass clippings in landfills, composting has become a logical alternative for the disposal of yard waste. When done properly compost emits no odor and has a pleasant sweet scent as a finished product.

The question of "why compost at all" may arise, as some may think it's just as good to dump uncomposted leaves and grass directly into the garden. What happens when this takes place is that the microbes compete with plant roots for available nitrogen when trying to break down uncomposted material. As a result, the garden plants become weak as the available nutrients are being tied up in the decomposition of the green material dumped into the garden.

CARING FOR YOUR ENVIRONMENT

- ✔ Purchase "Compost Starter" or a high nitrogen fertilizer, both available at MNLA garden centers.
- ✔ Ready-made compost bins are available at many MNLA garden centers.
- ✔ Composting uses "waste" materials from your gardens and recycles it back to the garden to improve soil texture.

Requirements for Proper Decomposition

Aeration, moisture, particle size and fertilizer are the four main requirements needed for proper composting.

AERATION: A loose, well mixed pile of compost will reach high internal temperatures which are necessary for destroying weed seeds and other undesirable pathogens if stirred frequently. The absence of oxygen will create a foul smelling compost pile as well as slow the process down.

MOISTURE: If adequate rainfall becomes a problem, a few minutes with the garden hose to moisten the pile is all that is needed. Do not over water as a soggy pile will not decompose properly and will emit unwanted odors.

PARTICLE SIZE: Putting branches and large stems, such as broccoli plants, into a compost pile will slow down the process and take much longer to develop a finished product. The use of a chopper or shredder is beneficial in reducing the material to be composted into small pieces that will decompose quickly. Even using a hand pruner to cut larger material into small pieces is advisable to reduce particle size.

FERTILIZER:Because microbes which aid the decomposition of organic matter use a certain amount of nitrogen for their metabolism, additional nitrogen should be added.

Grass clippings are generally high in nitrogen and will aid in composting if properly mixed with other materials. Grass clippings from lawns that have had herbicides applied recently, should not be used in compost pile. Kitchen waste (meat products, cooking oils, grease fat, bones or

dairy products) should not be used as it attracts rodents and other unwanted creatures. Pet waste as well as human waste should not be used because of the possibility of disease.

Most piles don't evenly heat to a high enough temperature to kill diseased plant material and weed seeds, so don't place these materials into the compost pile.

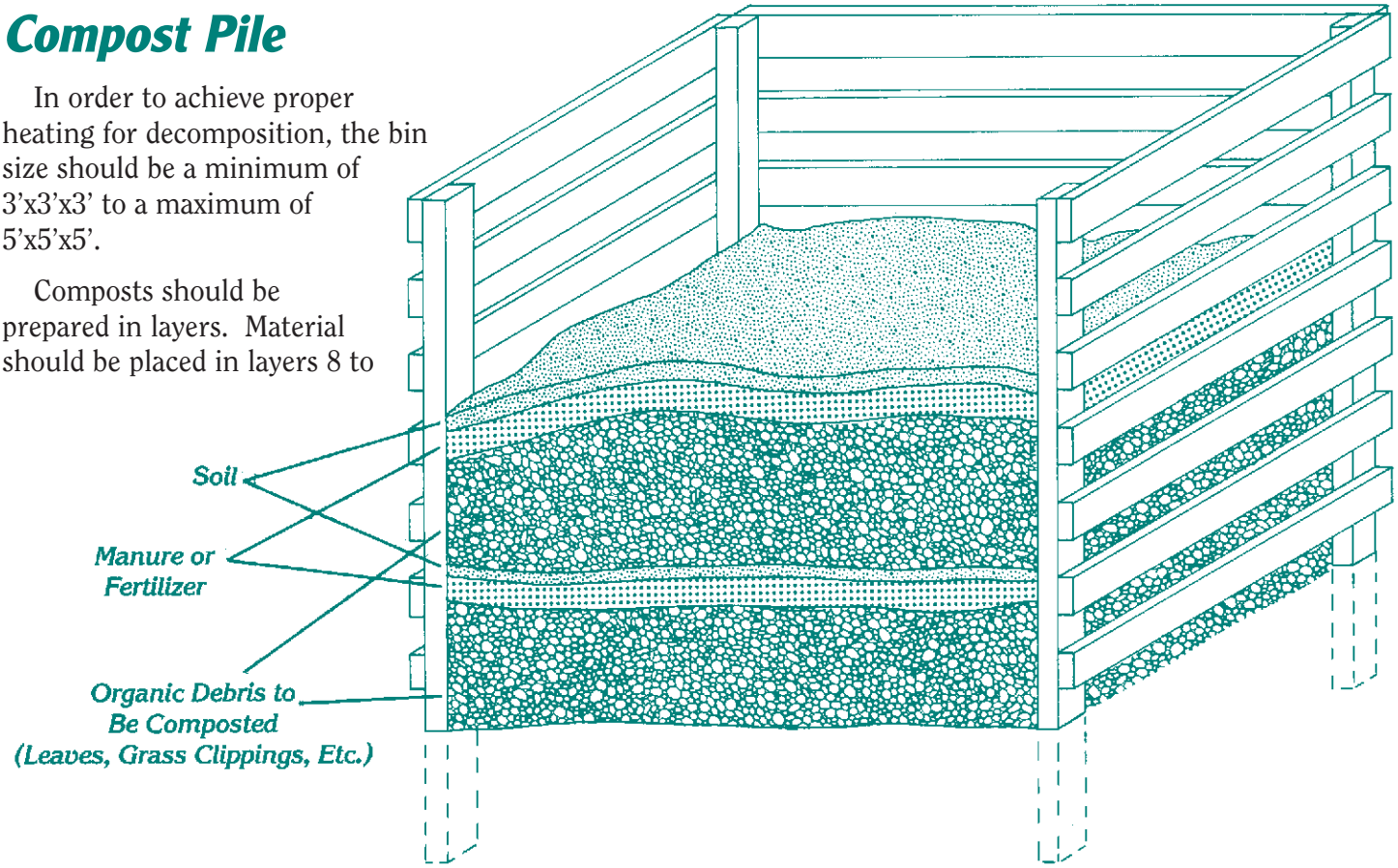
Nutrients such as phosphorus and potassium are usually adequate for decomposition and do not necessarily have to be added to the compost.

Preparing The Compost Pile

In order to achieve proper heating for decomposition, the bin size should be a minimum of 3'x3'x3' to a maximum of 5'x5'x5'.

Composts should be prepared in layers. Material should be placed in layers 8 to 10 inches deep, with the coarser material placed at the bottom. Each layer should be watered until moist, not soggy. To provide nitrogen for the microbial activity to begin, use a cup of 10-10-10 per 25 square feet of surface area or a two-inch layer of livestock manure should be added to each layer of material that is to be composted. A one inch layer of garden soil, completed compost or compost starter should be placed over this next. The purpose of adding garden soil is to provide microbes to aid in the composting process. Repeat this layering until you have filled the bin 3/4 full.

An actively composting pile will reach internal temperatures of 130-160 degrees. If you see steam rising on a cool morning, you will know that proper composting is taking place. The pile should be turned when the internal temperature begins to cool. The composting process is essentially complete when mixing no longer produces heat in the pile, it smells earthy and it is 1/2 of the original pile size. It will usually take about 2 months for a well managed compost pile to decompose. An unshredded pile of compost material may take over a year to decompose properly.



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