COOPERATIVE EXTENSION SERVICE
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Facts No. 11

## Recycle Plant Nutrients By

# Composting

**Extension Bulletin E-727, April 1977**
**COOPERATIVE EXTENSION SERVICE, MICHIGAN STATE UNIVERSITY**

Don't bag or burn leaves and grass clippings. Use them to save money and energy by producing plant food in your own backyard.

Leaves and grass clippings you have been burning or handling as trash contain valuable plant nutrients. If you recycle your own plant food, you will not need to buy as much commercial fertilizer for your garden. It saves energy in manufacturing too.

Compost also makes an excellent mulch for flower beds, trees and shrubs. It can add life and beauty to your environment by recycling the nutrients that would otherwise be wasted.

### Making A Simple Compost Pile

1. Place material to be composted in a pile 6 to 8 inches deep.
2. Cover the material with ½ to 1-inch of top soil. Soil contains micro-organisms which will decompose the organic material. It also prevents odors and flies. After the compost has "worked" for two or three weeks, the composted material can be used for top soil to cover recently added material.
3. Wet the layer thoroughly, but do not saturate with water.
4. Leave the top layer flat or saucer-shaped to trap rain water.
5. Mix the material by moving it from one pile to another. The better it is mixed, the faster it will decompose. Mix 2 or 3 times per year.
6. After one to two years, start using the composted materials.

### Faster Compost

For those who want to do a little more and produce composted material faster and a little richer, follow this procedure.

1. Build or buy a container for the compost pile. This will prevent the material from blowing away or being scattered by dogs or wild animals.
2. Spread a portion of the materials to be composted in a layer 6 to 8 inches thick.
3. Sprinkle this layer with complete fertilizer like 5-20-20 or 12-12-12. Use 3 cups of fertilizer per bushel of compost material or mix in some animal manure.
4. Add small amounts of dolomitic limestone (⅔ cup per bushel of compost). This will counteract excessive acidity and hasten decomposition. Do not use lime if you plan to use the compost for acid-tolerant plants such as blueberries.
5. Wet the layer thoroughly, but not enough to wash the fertilizer away nor to saturate the material. The micro-organisms need air as well as moisture.
6. Add a small amount of fertile soil to each layer. This provides micro-organisms to decompose the material and to prevent odors and flies.
7. Form additional layers 6 to 8 inches thick on top of the first one until all material is in the pile. Use the same procedure as for the first layer.
8. Keep pile moist, but not saturated.
9. When adding garbage, cover each new addition with soil to prevent odors and flies.

*A variety of materials can be used to make the compost container.*

**By Willard E. Bosserman,**
*County Extension Director, Roscommon and Crawford*

## "Super Fast"

With more care, it is possible to compost organic waste in about two weeks. The main requirements are:

- need animal manure
- need to shred all plant materials
- pile must heat to 130°-150°F.
- keep well watered
- pile must be aerated

A suggested program: mix two parts (by volume) of plant material with one part of manure. Leaves are difficult to decay by this method only. If they are used, mix one part leaves, one part other plant residues, such as grass clippings, and one part manure. All coarse material should be chopped or shredded. Water the heap thoroughly.

The mass should start to heat within 30 hours. If it doesn't, add more manure or 1/5 pound urea nitrogen per bushel of heap. Ground limestone may be helpful. Apply at the rate of ¼ pound per bushel of heap.

After heating starts, turn pile every three or four days so that air enters the mass. Keep pile well watered.

## Material to Use

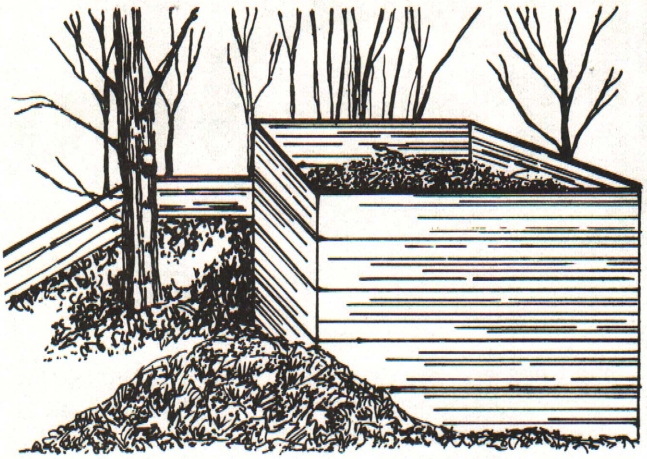
Material can be any garden or plant refuse, leaves, grass clippings or even garbage.

Do not include meat scraps in the garbage. Dogs and wild animals will scatter the compost. It also attracts rodents.

If you use sawdust, it is more important that you use animal manure or a high nitrogen fertilizer to supply nitrogen. Wood is very low in nitrogen and the micro-organisms need it to decompose the woody material.

Diseased plant material should not be used because of the danger of carrying the disease over to next year's plants. You may burn diseased material if you do it in a safe manner.

Two bins permit turning compost by moving it from one bin to the other.



*The large container is for starting compost. The smaller piles are material that is being turned and finished product.*

## Containing the Compost

Almost anything can be used to contain the material from blowing or being scattered by animals.

The most simple method is to dig a small hole in the ground. This contains the material, but sometimes is too wet.

A wire fence will work, however the outside edges remain dry and do not decompose. Because of this, some people think their pile is not working. All they see is the dry material showing through the wire. The material in the center, if moist, will decompose.

A solid-walled container made from cement blocks, logs or boards keeps the pile from drying out. Or, there are commercial containers on the market. These are especially good if you want a neat appearance. You can build neat ones as well.

## Shredders

The compost pile works faster if the material is shredded into smaller particles. There is more surface area exposed to the bacteria, therefore they can decompose it more rapidly. There are numerous shredders on the market. You must determine if the added speed and additional materials you can use warrant the cost of the machine. The shredder does permit you to use some woody tree and shrub prunings you might not otherwise be able to use.

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