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Composting

Michigan State University

Cooperative Extension Service

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October 1971

2 pages

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Compost will improve the environment

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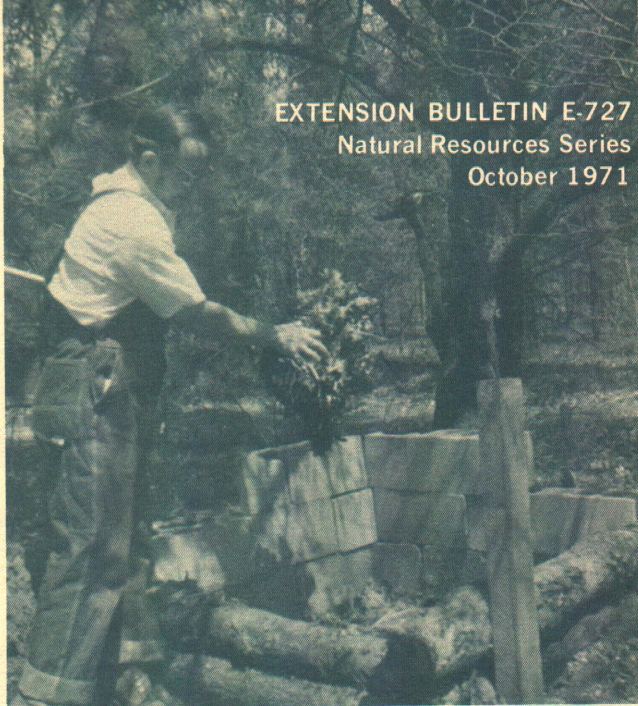
Make a compost of leaves, grass clippings and even garbage instead of burning or dumping them in the land fill. Compost can be used to enrich the soil for vegetable or flower gardens, house plants, top dressing the lawn, and even producing earthworms. It is also an excellent mulch for flower beds, trees and shrubs. The use of compost will thus add life and beauty to our environment.

Some school teachers build small units for making compost for classroom demonstration. Others make sufficient compost for use on the school's shrubbery, trees and lawns. Community compost piles have been built for use by a neighborhood.



Figure 1—A fence is desirable to contain the compost pile. Dig a hole in the ground to increase holding capacity.

EXTENSION BULLETIN E-727
Natural Resources Series
October 1971



Making a Compost Pile

A fence is desirable to keep the pile inbounds. It can be built of cement blocks, logs, boards or wire fence. A hole can be dug in the ground for the compost pile.

Spread a portion of material to be composted in a layer two to six inches thick. This can be leaves, grass clippings or other organic material. Oak leaves and pine needles will also decompose. However, shredded leaves will decompose more rapidly. Garbage can be used, if free of meat scraps. Meat scraps should not be used since they may attract dogs and raccoons. If garbage is used, be sure to cover it with one to two inches of soil after each addition to prevent odors and flies. Less soil is needed if the garbage is cut finely and slightly packed. Be careful when using large amounts of garbage in the compost pile. It can attract mice and rats.

Cover the first layer of compost with one-half to one inch of top soil. Top soil is loaded with micro-organisms which will immediately begin to break down the organic matter.

Top soil can be taken from your garden or purchased. Sub-surface soil will work, but does not have nearly as many micro-organisms as top soil. Composted material can be used as a good source of desirable micro-organisms.

This is all that is necessary, but you can hasten the process by taking some other steps.

Adding Lime

Some materials produce a slightly acid condition in the decomposition process. This is not serious but decomposition can be hastened by adding approximately one-half pound of lime to each six-inch layer of compost in a 15-square foot area.

Lime is basically calcium carbonate, and is usually in the form of ground limestone or marl. It is sold at most farm and garden supply stores.

Do not use lime in the compost if you plan to grow acid tolerant plants such as blueberries. Use of hydrated lime is not advisable.

Commercial Fertilizer

Bacteria use large amounts of nitrogen in the process of organic matter decomposition. Add fertilizer high in nitrogen to each layer to help feed the bacteria.

Some good fertilizers for composting: ammonium sulfate (20% nitrogen), ammonium nitrate (33% nitrogen) and urea (45% nitrogen). There are many complete fertilizers containing nitrogen. Be sure to use a grade of fertilizer that is high in nitrogen.

It is difficult to recommend an amount of fertilizer to



Figure 2—Compost is a good way to recycle garbage.



Figure 3—A fertilizer high in nitrogen will hasten decomposition. This one is 20-10-5.

use because of the variations in nitrogen content. However, do not use more than one-fourth pound fertilizer per 15 sq. feet of compost, 6 inches deep (about 6 bushels of heap).

Sawdust, paper and woody plants are especially low in nitrogen. For composting such materials, increase the above fertilizer rate to one-half pound.

Mixing, Soaking

Decomposition is more rapid if all of the ingredients are thoroughly mixed. Mixing can be done with a fork. Mix two or three times a year to speed decomposition. Shredding coarse plant material will make it easier to mix and speed up decomposition.

Bacteria also need moisture. Leave the top of the pile flat or saucer-shaped so rain water will soak-in. During dry weather, it is wise to add water to the pile.

Composting in Two Weeks

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 refuse with one part of manure. Leaves are difficult to decay. 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 one-fifth pound urea nitrogen per bushel of heap. Ground limestone may be helpful. Apply at the rate of one-fourth 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.



Figure 4—Composting is a way to recycle waste, organic material to enrich soil and beautify our environment.