

# COLD/PASSIVE COMPOSTING

## Resource Series

Michigan State University Extension, Genesee County, (810) 244-8500

### WHAT IS COLD COMPOSTING?

Cold (or passive) composting is a method to reduce and recycle organic debris through natural decomposition with minimal management or labor.

### WHY COMPOST?

- **Benefit the lawn, garden and landscape with nutrient-rich soil.**
- **Reduce refuse and waste by 20% - 40% or more going to landfills.** (Legislation in Michigan restricts yard wastes from being dumped in landfills).
- **Save gas and energy required to transport and process yard waste and kitchen scraps.**



### PROS AND CONS OF COLD VERSUS HOT/ACTIVE COMPOSTING

#### PROS:

- **Low maintenance and effort** - little or no need to turn, add water, or monitor temperature.
- **Suitable for most backyard situations.**
- **Easier to provide a steady supply of materials** (including kitchen scraps, weeds, and crop residues) **than a large quantity all at once.**
- **Better ability to suppress soil-borne diseases.**

#### CONS:

- **Takes longer**, so less compost is produced.
- **Doesn't compost as completely.**
- **Doesn't kill weed seeds or pathogens.**

### COLD COMPOSTING METHODS

#### Bins:

- **Materials** - same materials and recipe as for hot compost pile: 2 parts "brown" material (leaves, straw, sawdust, etc.) and 1 part "green" (grass clippings, vegetable scraps, fresh weeds, etc). Add some soil. Same moisture requirement: wet as a wrung-out sponge. Mix together, place in at least a 3 ft X 3 ft X 3 ft enclosure of chicken wire, pallets, snow fence, etc. (which will also hold kitchen scraps in the winter when the pile freezes). Compost will be finished in about a year.
- **Benefits** - No pest problem (especially if meat and fatty scraps are not included); no turning.

#### Sheet Composting:

- **Method:** In the fall, prepare a plot for spring planting, then spread leaves (preferably shredded), add compost and slow-acting fertilizer, and dig them into the top few inches of soil. The materials decompose naturally.

- **Benefits:** Adds organic matter, minerals and microbial life to soil for trees and garden; labor saving compared with compost pile.

### Cover Crops:

*Tip: Stockpile leaves until spring to mix with "green" material when added to the pile or mulching area.*

- **Method:** sow crop in fall, let it over-winter, then dig it in at least two weeks (four is better) before spring planting. Cereal rye, crimson clover, or purple vetch (use in spring).

### Trench composting:

- **Method:** Dig a trench at least 1 foot deep to bury vegetable scraps and yard waste. Mix with soil and cover with a few inches of soil.
- **Benefits:** Use to improve garden plot, with high organic matter and worm populations; best for composting vegetable scraps.
- **Drawbacks:** Labor to dig trenches.

- **Benefits:** increase organic matter in soil, suppress weeds, improve soil structure, retain moisture, fix Nitrogen from atmosphere. Compensates for the loss of grass clippings in grasscycling.
- **Drawbacks:** Labor to turn it into the soil.



### Pit composting:

- **Method:** Dig a hole 12 to 18 inches deep, fill with organic material and cover with a few inches of soil. Let sit for a year or until decomposition occurs. Use compost or place a plant over the hole.

- **Benefits and Drawbacks:** similar to trench composting.

### Mulching:

- **Method:** Spread a 3-6 inch layer of leaves, grass clippings, hay, or weeds on soil around plants once soil is warmed up.
- **Benefits:** Helps in no-till gardening to keep soil friable. Helps retain moisture, suppress weed seed germination, keep root zone cool, and encourage earthworm activity.
- **Drawbacks:** Depletes available Nitrogen for plants (temporarily), draws slugs (which require use of traps and wood ash)

## RESOURCES

- Backyard Composting, Harmonious Technology, Harmonious Press, Ojai, CA
- Let it Rot!, Stu Campbell, Storey Communications, Inc., Pownal, VT
- The Rodale Book of Composting, Rodale Press, Emmaus, PA.
- Ruth Stout's No-Work Gardening Book, Rodale Press, Emmaus, PA
- see also related DNR and MSU Extension Handouts: Grasscycling, Backyard Composting, Mulching Leaves into the Lawn.
- Contact MSUE for Master Composter and Master Gardener Volunteers for community educational projects.

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### Grasscycling:

- **Method:** Let the clips lie when mowing. Cut it high (2-4"), when dry, leaving at least 2/3 of the blade.
- **Benefits:** saves labor and time, retains organic matter, water and nutrients.
- **Drawbacks:** may need to mow frequently.