

## Home Composting

*William T. Hlubik, Middlesex County Agricultural Agent; Jonathan Forsell, Essex County Agricultural Agent (deceased);  
 Richard Weidman, Middlesex County Program Associate; and Mark Winokur, Former Program Assistant*

### What is Composting?

Composting is a natural process where organic materials decompose and are recycled into a dark, crumbly, earthy smelling soil conditioner known as “compost”. Compost improves soil structure and moisture retention, and contributes to healthy plant growth by providing plant nutrients.

### Why Should I Compost?

- Composting can save money!
- Reduces fertilizer and water use
- Avoids garbage collection and landfill fees
- Reduces the need for soil and plant amendments
- Composting helps the environment
- Reduces the volume of garbage going to landfills, transfer stations and incinerators
- Composting benefits your soil and plants
- Improves soil structure and texture
- Increases aeration and water holding
- Promotes soil fertility

- Stimulates healthy root development
- Aids in erosion control
- Reduces chemical inputs
- Composting is easy
- Save time bagging grass and leaves
- Quick and fun way to do part for the environment

### Compost Ingredients

#### Do Compost:

- ✓ Vegetable food scraps
- ✓ Grass clippings
- ✓ Leaves
- ✓ Flowers
- ✓ Weeds
- ✓ Sawdust and wood ash
- ✓ Chopped twigs and branches
- ✓ Coffee grounds w/filters



**Don't compost:**

- × Meat scraps
- × Diseased or insect infested plants
- × Weeds with seeds
- × Dog and Cat feces
- × Food with grease or soap residues

**Composting Methods**

**Slow Harvest: Ready in 12-18 Months**

Made by adding layers of available yard waste over several months.

1. Set compost bin where it will get rain.
2. Put yard waste in bin as it is generated in your yard. The material at the bottom and in the center will compost first.

**Fast Harvest: Ready in 5-15 Weeks**

Made by mixing equal weights of green and brown materials at once.

1. Add green materials such as grass clippings or vegetable scraps mixed with brown materials such as leaves (no woody-type materials should be included).
2. Add water to pile until it's as wet as a wrung out sponge.
3. Turn pile with a pitch fork or compost aerator tool twice a week for faster compost production (less often in wintertime).

**Types of Compost Bins**

Compost can be made in open piles. However, to help keep a pile neat and maintain conditions needed for rapid decomposition, consider simple homemade or

store bought bins. See back page for demonstration sites in New Jersey.

**Homemade Bins:**

- Made from wood pallets
- Made from snow fences



**Store Bought:**

- Compost Tumbler
- Durable Plastic Bin



**Troubleshooting**

Here is how to solve problems should they occur:

Symptom	Problem	Solution
Pile has a rotten odor	Not enough air	Turn pile
Pile has ammonia odor	Too many greens	Add brown material like leaves/straw
Pile is dry	Not enough water; too much woody material	Turn and moisten; add fresh greens
Low pile temperature (pile is not composting)	Pile is too small	Add new materials
	Insufficient moisture	Add water
	Poor aeration	Turn pile
	Lack of nitrogen	Mix in greens like grass or food scraps
	Cold weather	Insulate pile with layer of straw or cover with tarp
Pests (rats, raccoons, insects)	Presence of meat or fatty food scraps	Remove from pile

## Keys to Good Compost

**Water:** The microorganisms in the compost pile need water to live. Water pile only as needed, to maintain compost as moist as a wrung out sponge. Don't let your pile dry out completely.

**Nutrients:** The microorganisms in the pile need carbon for energy and nitrogen for protein in order to survive. A good balance can be achieved by mixing two parts of nitrogen rich green materials such as grass clippings, with one part of carbon rich brown materials such as leaves. However, carbon-rich leaves by themselves will compost.

**Aeration:** To speed up decomposition, turn the pile frequently using a pitch fork. This provides the microorganisms with enough oxygen to thrive so they can heat up the compost. Placing large branches at the bottom of the pile will also help add air to the pile. Minimal turning would be once per month and less frequently during the year.

**Surface area:** The more surface area the microorganisms have to work on, the faster materials will decompose. Consider chopping materials, particularly brush or branches which have a diameter of 1/4 inch or more. Pile size is also important. For quicker decomposition, pile should be at least 3 feet x 3 feet to hold the heat of microbial activity, but not so large (larger than 5 feet x 5 feet) that air can't reach microbes at the center of the pile.

## Use for Compost

**Mulch:** Spread compost around flower and vegetable plantings, trees, shrubs, and on exposed slopes. This will smother weeds, keep plant roots moist, and prevent soil erosion.

**Soil Conditioner:** Mix 1-3 inches of compost into vegetable and flower beds before planting. This returns organic matter to the soil in a usable form.

**Potting Mix:** Make your own mix by using equal parts of compost and sand or soil. Make sure compost is fully decomposed and screened.

## Resources

Some books to help you along...

*Backyard Composting*, Harmonious Technologies,  
P.O. Box 1865-100 Ojai, CA 93024

*How to Grow More Vegetables*, John Jeavons,  
Ecology Action, 5798 Ridgewood Rd. Willits, CA  
09590

*Let it Rot*, Stu Campbell, Storey Communications,  
Inc., Schoolhouse Rd., RD#1, Box 105, Pownal,  
VT 05261

*The Rodale Guide to Composting*, R.A. Simpson,  
Rodale Press, 33 E. Miner St., Emmaus, PA  
18098

*Worms Eat My Garbage*, Mary Appelhof, Flower  
Press, 10322 Shaver Rd., Kalamazoo, MI 49002

*For additional information on composting or where to get compost materials, call your Rutgers Cooperative Extension county office, found in the telephone directory blue pages, under "County Government" or your county recycling office.*

## Compost Deconstruction Areas

These areas in New Jersey have various types of compost bins on display. Call ahead for hours and when tours or workshops are given.

### Atlantic County

Atlantic County Utilities Authority Geo Garden  
6700 Delilah Rd.,  
Egg Harbor Township, NJ  
Contact: (609) 646-6600

### Burlington County

Burlington County Resource Recovery Geo Garden  
Complex, Rt 543,  
Border of Florence and Mansfield Township  
Contact: (609) 499-5210

Mazza & Sons, Inc. Recycling Facility  
3230 Shafto Rd.,  
Tinton Falls, NJ  
Contact: (732) 922-9292

**Middlesex County**  
Davidson's Mill Pond Park, Riva Avenue,  
South Brunswick, NJ  
Contact: (732) 745-3443

**Monmouth County**  
Deep Cut Park, Red Hill Rd.,  
Middletown, NJ  
Contact: (732) 842-4000

**Morris County**  
Frelinghuysen Arboretum, 53 E. Hanover Ave.,  
Morris Township, NJ  
Contact: (973) 326-7600

**Passaic County**  
Passaic County Office of Recycling  
1310 Rt. 23 N,  
Wayne, NJ  
Contact: (973) 305-5734

---

Photos Courtesy of Lindsay Halladay

Mention or display of a trademark, proprietary product, or firm in text or figures does not constitute an endorsement by Rutgers Cooperative Extension and does not imply approval to the exclusion of other suitable products or firms.

© 2004 by Rutgers Cooperative Research & Extension, NJAES, Rutgers, The State University of New Jersey.

Desktop publishing by Rutgers-Cook College Resource Center

Revised: August 2003

**RUTGERS COOPERATIVE RESEARCH & EXTENSION  
N.J. AGRICULTURAL EXPERIMENT STATION  
RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY  
NEW BRUNSWICK**

Distributed in cooperation with U.S. Department of Agriculture in furtherance of the Acts of Congress on May 8 and June 30, 1914. Rutgers Cooperative Extension works in agriculture, family and community health sciences, and 4-H youth development. Dr. Karyn Malinowski, Director of Extension. Rutgers Cooperative Research & Extension provides information and educational services to all people without regard to race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Rutgers Cooperative Research & Extension is an Equal Opportunity Program Provider and Employer.