

COMPOSTING

Nature's Way of Recycling Organic Materials

From USDA's Agricultural Research Service

WHY COMPOST?

Cities, farms, windy storms, restaurants, zoos, riding stables... and others...all produce large amounts of bulky organic materials, like leaves, tree limbs, straw, food waste, and manure. These waste materials are typically sent to landfills. Composting, a process that speeds up natural decomposition, provides a recycling alternative.

Compost has a variety of benefits. For example, compost enhances rainfall penetration, which reduces water runoff and soil erosion. This in turn reduces sediment, nutrients, and pesticide losses to streams by 75-95 percent. Compost also improves the soil and enhances beneficial microbes that help reduce plant diseases and pests.

BUT WHY SHOULD I COMPOST?

Well, for starters, composting...

- gives “oomph” to your soil—naturally,
- reduces the need for synthetic fertilizers,
- reduces greenhouse gases,
- reduces the need for landfills, and
- helps the environment!

HOW DO I GET STARTED?

The composting approach you take depends on the materials you have available and how much room you have. If you have yard trimmings, leaves, and the like, you'll need to go the “backyard” route, producing compost that can be spread around your garden—under shrubs, in vegetable beds, or in flower pots.

If your space is more limited, and fruit and veggie scraps are the primary materials you want to compost, you might try vermicomposting—worm composting! Vermicomposting is an efficient way to produce a high-quality product suitable for houseplants, seedling transplants, or general garden use. And you can also use the worms for fishing!

Either way you go, here are some helpful resources to get you started.



**Compost + Smart Soil
and Crop Management =
Healthy Plants + Clean
Water and Air**



RESOURCES

www.epa.gov/epawaste/conservation/rrr/composting
www.howtocompost.org/info/info_composting.asp
<http://cwmi.css.cornell.edu/compostbrochure.pdf>
www.ces.ncsu.edu/hil/hil-8100.html
www.whatcom.wsu.edu/ag/compost/Easywormbin.htm
www.wormwoman.com

Really motivated? Check out these online certification courses offered at www.proprecycles.org/Certification/index.html. Look for:

- “Introduction to Recycling”
- “Backyard Composting Basics”
- “Collection Techniques & Options”

THE RESEARCH SCENE

Compost properties can be tailored to meet commercial horticultural, land management, and conservation needs. Researchers at the USDA Agricultural Research Service, Beltsville Agricultural Research Center in Maryland are discovering new ways to prepare composts from a variety of mixed sources of organic materials. These materials can be custom designed to produce vigorous healthy plants and landscapes under different conditions. Beltsville compost activities include:

- creating designer blends to improve the soil,
- creating designer systems for plant disease control,
- finding ways to insure pathogens in manure and compost are destroyed and safe to use,
- developing delivery systems for high-value crops,
- discovering how pharmaceutical materials can be biodegraded,
- using compost in stormwater and runoff management,
- using compost to produce vegetative covers for landfill, and
- assisting with developing reference materials for compost producers, testing laboratories, state regulators, growers, consumers, and certification programs.

Beltsville’s two-acre composting facility has been in operation for over a decade. Read about it at www.ars.usda.gov/is/pr/1998/980528.htm.

CONTACT FOR FURTHER INFORMATION

Dr. Patricia Millner, Research Microbiologist
Environmental Microbial and Food Safety Lab
Agricultural Research Service, USDA
Pat.Millner@ars.usda.gov, (301) 504-5631

