# **Composting** Questions and Answers

#### Topics – click to jump to these sections:

- Getting Started
- What Can & Can't Be Composted?
- Pests & Problems
- Using Compost

#### More Information

- Call the Garden Hotline, (206) 633-0224 or e-mail <u>help@gardenhotline.org</u> with your questions, or to request a free *Composting at Home* guide, and other fact sheets.
- Or view all our brochures online at <u>www.seattle.gov/util/services/Yard</u> or <u>www.gardenhotline.org</u>

# **Getting Started**

#### Why compost?

Composting is a great way to turn your yard waste or kitchen scraps into a valuable soil builder. Compost makes all plants healthier, reduces the need for summer watering, prevents soil erosion, and reduces the need for chemicals like fertilizers and pesticides too. That means a healthier yard for your family and pets. Composting at home also reduces the cost and environmental impacts of hauling yard waste to landfills or central composting facilities.

#### What's the difference between yard waste and food waste composting?

Yard waste can be easily composted in an open pile or bin by chopping things up, adding water and waiting a year. But food waste can draw rats, so you need to use a rodent-proof bin like a worm bin or food digester, or bury food scraps under at least 8 inches of soil in the garden, to keep animals out.

**Do I need a bin to make compost?** Not for yard waste composting (though it's convenient), but <u>yes for food waste</u> composting, to keep animals out.

#### How large an area do I need to compost?

That depends on how much yard waste or food waste you want to compost (how big your yard is, and how many people in your household):

- For yard waste, one or two 3X3 foot bins is enough for most city lots. A place to store extra materials like fall leaves and finished compost is handy but not essential.
- For food waste composting, one 2x4x1½ foot worm bin is enough for 2-4 people's scraps. If using a Green Cone or Home-made Food Digester, we recommend having two so one can finish composting while you fill the other.
- The best location for a yard compost pile or bin is a level, shady spot away from the house. Worm bins also like the shade, outside or under a shed or in a cool basement. Green Cones of food digesters can go either in sun or shade, but away from the house.

#### How will I know when my compost is finished?

Finished compost is dark colored, sweet smelling and crumbly. It's ready when most of the original materials are no longer recognizable (some tough woody materials may still be present – which can be sifted out and returned to the pile).



#### How long does it take to get finished compost?

Most yard trimmings will decompose in 6 to 12 months if the pile is kept moist through the summer. You can speed up the process by:

- Chopping up sticks and stalks,
- Mixing "green" materials like grass with "browns" like fall leaves and stalks,
- Making a bigger pile, about 1 yard square,
- Turning the pile every month or two, and
- Keeping the pile as moist as a wrung-out sponge. (Dry piles will stop composting).

Does compost need to be turned? No, but it speeds up the process.

#### Do I need to water my yard waste compost pile?

Yes! Add water when you add materials or turn the pile, to keep it as moist as a wrung-out sponge. (If you squeeze it, a few drops of water should run out.) The most common cause of slow composting is that piles are too dry. Put your pile in a shady location, and cover with a lid or a scrap of carpet in the summer to hold moisture.

# How do I know if I have the proper carbon to nitrogen ratio (C:N) for fast composting?

Mixing roughly equal volumes of fresh "greens" (grass clippings, fresh weeds and flowers, etc. – higher in nitrogen) and dried "browns" (straw, corn stalks, fall leaves, etc. – higher in carbon) provides a good C:N balance. Experiment to find a recipe that works for you, or check a composting book for tables showing the C:N ratios of different materials. 30:1 is an ideal mix for fast composting.

#### Should I add compost "starters", soil, or fertilizer, to speed up the composting process?

- "Starters" are just dry bacteria and fertilizers they're not needed and expensive.
- Soil is handy to cover it adds some good bacteria and holds moisture, but it's not essential.
- Fertilizer (or some nitrogen source) is only needed if you have all "brown" materials like leaves and stalks, and you want to speed up the composting process by adding more nitrogen.

#### How can unfinished compost be reheated?

Relatively fresh materials will heat up if turned, bruised or shredded, and given adequate moisture. Reheat older "brown" materials by mixing in an organic high nitrogen fertilizer, green grass clippings or fresh manure, plus water.

#### Should limestone be added to compost?

No, it slows the process. Add lime directly to your soil, if a soil test indicates acid soil or low calcium.

# Do I need to use a shredder to make good compost?

Only if you want to compost sticks over ½" diameter, waxy evergreen leaves, or large volumes of shrub prunings.

#### What tools can I use to shred or chip woody materials?

- Hand pruner or machete: Green or woody vegetable stalks, and prunings up to <sup>3</sup>/<sub>4</sub> diameter.
- Lawn mower: Leaves, stalks and twigs up to 1/4" diameter.
- Electric chipper: Leaves, stalks and twigs up to 1" diameter.
- 3-8 H.P. Gas Shredder: Small amounts of twigs and branches up to 2" diameter.
- Commercial shredder (8 + H.P.): Branches over 2" diameter.

Call the Natural Lawn & Garden Hotline for more information on shredders and chippers.

#### Do compost "tumblers" work?

Compost tumblers or "barrel turning units" can work efficiently if materials are chopped, moistened and contain adequate nitrogen, but they're more work and materials often dry out too quickly. They're best for mixed food and yard waste composting.

# What's the difference between a food digester (like a Green Cone or Home-made Food Digester) and a worm bin? Aren't there supposed to be worms in both?

Yes, but with a food digester the worms just move in from the surrounding soil.

Food digesters are easy to use (just dump kitchen scraps in and wait a year). Worm bins require a little more work – you fill the bin with moistened "bedding" (leaves or shredded paper), add red worms, and then bury the scraps in the bedding.

# Where can I get plans to build a worm bin, and do I need to buy worms or can I just dig them up in my backyard?

If you live in Seattle or King County, you can get worm bin plans by calling the Garden Hotline (206-633-0224, e-mail <u>help@gardenhotline.org</u>). Or you can download *Worm Bin Plans and Use* at our <u>website at top</u>, or find plans in Mary Appelhof's book *Worms Eat My Garbage*.

You will need red worms for your bin, not night crawlers or earthworms found in the back yard. To find out where to purchase red worms, contact the Hotline, see the *Compost Resource List* on our website, or get some worms to start from a friend with a worm bin.

# I'd like to begin a composting program at my child's school. How do I get started?

If your child goes to school in Seattle, contact the Master Composter Volunteer Coordinator at 206-633-0097 to arrange to get some help from the Master Composter volunteers. Outside Seattle call your local solid waste utility or county extension agent for information about compost programs. Your local library will also have books on composting.

# What Can and Can't Be Composted?

Deack to top

# Food Waste Composting Questions

# Can I compost if I just have kitchen scraps?

Vegetable kitchen scraps (without meat, fish, dairy products or oily foods) can be buried at least 8" deep in the garden, or composted in worm bins, Green Cones, or home-made foodwaste digesters (made from a metal garbage can). Call the Garden Hotline or see the website at top for plans.

# Why can't dairy products, meat or fish be composted?

Animal products attract flies, rodents and other pests which create nuisances and carry diseases. They also make bad smells.

# Can coffee filters and tea bags be composted in a worm bin or Green Cone?

Yes. Any uncoated paper product may be composted. Worms love coffee grounds and filters, as well as tea bags.

# Yard Waste Composting Questions

# Can I compost all my yard trimmings?

Compost everything except diseased plants, invasive weeds (like morning glory, "bind weed", and quack grass), weeds with seed heads, and waxy evergreen prunings like laurel or cedar (they're very slow to break down unless shredded).

# Can weeds be composted? How do you stop them from spreading in compost?

- The leaves and roots of most weeds can be composted, except:
- Don't compost weed seed heads, since many seeds will survive temperatures up to 140° F.
- <u>Don't compost roots or runners of weeds that can resprout</u>, such as morning glory ("bind weed"), quack grass, buttercup, and ivy. Either dry them on the driveway or rot inside a black plastic bag until they're dead (then compost them) or put them in the yard waste collection.

# Can yard trimmings treated with pesticides and herbicides like "Weed & Feed" be put in the compost? What happens to them in the compost pile?

Most of these chemicals break down fairly well when fully composted (one year). But to be safe, don't use the finished compost on food crops. The best plan is to avoid using these toxic products in the first place.

To learn more, call the Garden Hotline (below), or the Washington Toxics Coalition (206) 632-1545, or the Washington Department of Ecology Hazardous Wastes Hotline (800) 633-7585.

Commercial composting facilities use a hotter, more controlled composting process that is very effective at breaking down most pesticides, so purchased compost is safe for gardens.

#### Can vacuum dust be composted?

No. While the natural fibers would break down, synthetic carpet fibers won't. More important is that carpets collect pollution that's tracked into the house – it's best disposed of in the trash.

# Can glossy magazine and colored newspaper pages be composted?

Some glossy papers contain toxic pigments, so these materials should not be composted. Recycle your glossy magazines. Colored newsprint is safe to compost or use in worm bins in small amounts.

#### Can fireplace and barbecue ash be used in the compost?

Wood ash is an excellent source of potassium, a major nutrient required for healthy plant growth. However it is very alkaline, and should only be used in small amounts (a handful in a bucketful of compost.). Never burn or use ash from treated or painted wood. Commercial charcoal briquettes often have additives, so it's best not to use that ash on food gardens – scatter it under shrubs instead.

#### Can pet wastes be added to home compost?

No, because you handle compost with bare hands and may use it on your food garden. Instead bag it and put in the trash. Don't leave pet waste on top of the ground – it just washes off into our streams.

# Can evergreen leaves from laurel, holly and rhododendron be composted? Rose prunings? Pine needles?

These waxy-coated materials are slow to compost unless shredded. It's better to put them in the "Clean Green" yard waste pickup, for commercial composting.

#### Can limbs from trees with tent caterpillars be composted?

Do not compost limbs or other parts of trees with tent caterpillars on them. The eggs will hatch the following spring unless they are burned or destroyed in a very hot compost pile. Call the Garden Hotline for more information.

#### Can diseased plants be composted safely?

No. Unlike commercial composting facilities, home compost piles rarely get hot enough to kill plant diseases. Mildewed plants are O.K., since mildew spores are everywhere anyway.

#### Can wood chips, sawdust, bark, or shavings be composted?

Because they're so slow to compost, it's better to just spread them as "mulch" under trees and shrubs, where they control weeds and hold moisture.

#### Can sod be composted without continually resprouting?

Yes. Sod should be stacked upside down in piles covered with black plastic to exclude light and stop all growth. Wet each layer as you stack it. Peel the black plastic back every few months and re-wet the pile, then recover. In one year you'll have rich soil-like compost.

# **Pests and Problems**

#### What can be done about a smelly compost pile?

Smelly piles are caused by too much water, no air, or the addition of meat or other animal products. Fix these problems by:

- Mixing fresh grass clippings with stalks or brown leaves to help air get in.
- Keeping the pile as moist as a wrung-out sponge, but not soggy.
- Turning wet or soggy piles to let air in.
- Keeping food waste out of yard waste piles, and animal products out of worm bins or food digesters.

# Are rats attracted to compost? How can I get rid of them?

Two things attract rats:

- Food scraps especially meat and dairy products. Never put food in your yard waste compost pile or bin – rats will chew right in. Instead use the more rodent-resistant worm bin, Green Cone or home-made food waste digester designs (call the Hotline, or see website at top.)
- 2) Sometimes a <u>dry compost pile</u> can attract rats as a nest site, especially if close to a fence or building. Keep you pile moist enough to compost, and it won't attract them.

# Something has been tunneling into my food digester/worm bin. What should I do?

The food in Green Cones and worm bins can attract rodents. To make them less attractive:

- Keep animal products out only compost vegetables, fruits, and grains.
- Move the bin away from fences, walls, or shrubs that provide cover and access for rats.
- Wrap the Green Cone basket, or worm bin bottom, in wire mesh. Call the Hotline for more directions, or see the *Green Cone User Guide* or *Worm Bin Plans* at our <u>website at top</u> D.
- Refill around the Green Cone with gravel, then place bricks or stones on the surface.

# How can I stop flies and other insects from becoming pests around the compost pile?

Don't put food scraps in the pile. Bury excess garden produce or fallen fruit.

# I have small black flies in my food digester. How can I get rid of them?

Keep some sawdust, dry leaves, or wood shavings nearby, and add a thin layer each time you add food to the digester. There will still be some flies, but fewer.

# Are bugs in my worm bin OK? How can I get rid of fruit flies?

Many bugs (sow bugs, spiders, centipedes and slugs) may be at work in the worm bin, helping decompose organic materials. Most of them are not a problem. Fruit flies can be avoided by completely burying food scraps beneath the bedding. Adding some finer-textured bedding like sawdust or peat moss also helps.

#### Do compost piles attract slugs?

Compost piles can provide daytime hiding places for slugs who may graze in gardens at night, and their eggs may be spread with finished compost. To avoid this, remove the slugs and slug eggs (eggs look like very small clusters of clear or white pearls). Place compost piles in areas away from vegetable gardens or create barriers (traps, copper flashing, etc.) around the pile to contain slugs.

# There are a lot of bees in my yard waste compost pile. How do I get rid of them?

Like rats, bees like excessively dry compost piles as nest sites. Keep your pile moist enough to compost (as moist as a wrung-out sponge) and they won't stick around. Call the Garden Hotline (206-633-0224) or email <u>help@gardenhotline.org</u> for suggestions on how to move bee nests.

How can I prevent grass clippings from becoming matted and smelly? Mix fresh clippings with leaves and stalks so air can get into the compost pile. If you have too much grass clippings, leave some on the lawn ("grasscycling"), or spread them as thinly as mulch around trees, shrubs, or gardens.

# How can I store kitchen scraps so they don't smell bad until I compost them? Try this:

- Empty your kitchen scrap container daily, into a bucket with tight-fitting lid on back porch.
- Put your kitchen scrap container in the freezer if you can't empty it for a few days.
- Put some sawdust or shredded paper in the bottom of containers, to absorb excess moisture.

# **Using Compost**

Dack to top

# Do I need to add fertilizer to my garden if I use compost?

Yes, but less than you would need otherwise. Compost is a soil conditioner, but releases major nutrients (nitrogen, phosphorous, potassium) very slowly. Compost improves nutrient availability, stores added fertilizers in the soil for gradual use by plants, neutralizes acid soils, and adds minerals needed for plant growth.

# How does compost affect the acidity (pH) of soils?

Finished yard waste compost is neutral, and helps to improve our naturally acid Northwest soils.

# What can I do with composted grass if I don't have a garden?

First, consider "grasscycling," leaving grass clippings on the lawn to recycle nutrients and improve the soil. If you compost grass clippings and have nowhere to use them (unlikely; almost every yard has some shrubs that will benefit from a compost mulch), find a neighbor who can use the compost.

# Is it okay to garden in pure compost? In compost mixed with fill soil?

It's best to mix compost with mineral soils (clay, sand or loam) for gardening. Combining mineral soils and compost creates ideal texture and provides anchorage for plant roots. To start gardening, mix 1/3 compost (by volume) with 2/3 clean fill, or with the soil in your yard. Then each year add about one inch of compost to the garden, and dig it into the soil in spring or fall. If you need more compost than you can make, call the Garden Hotline for bagged or bulk compost suppliers.

# How do I use my compost as mulch around my trees and flowers?

Spread a layer one to three inches deep around the plant, out as far as the leaves or branches reach. Keep the compost mulch at least one inch away from plant stems and tree trunks, because it can hold too much moisture against the bark. Replenish your mulch layer once a year.

# Is it safe to grow food in composted sewage sludge?

Washington Department of Ecology allows use of commercially composted sludge (also called "biosolids" compost) if it meets the State's guidelines. The guidelines allow biosolids compost to include some heavy metals, at levels that the US EPA has determined to be safe. Repeated applications, however, could cause a buildup of heavy metals. If you're concerned, limit use of biosolids-based compost to lawns, trees and shrubs, and around ornamental plants.



Compiled by Seattle Tilth for the Natural Soil Building Program Sponsored by Seattle Public Utilities Last Updated: 11/22/2011



To learn more, see Composting at Home on website at top, or call the Garden Hotline.  $\mathfrak{D}$  back to top