Diagnosing common backyard composting problems

Does your compost pile smell? Does it take forever to break down? Here are some solutions to these and other common backyard composting problems.

Check for moisture

One of the most common reasons a backyard compost pile works slowly or even stops composting is lack of moisture.

The easiest way to check for proper moisture conditions in your compost bin is to randomly grab a handful of composting materials from the pile or bin. Make a fist with your hand and squeeze. One of three things will happen:

- You have **water running** between your fingers. The material is too moist, and you need to turn the pile until it dries out.
- You have **beads of moisture** form between your fingers. The moisture level is just right. No additional care is needed.
- You have **no moisture** between your fingers. You need to add water.

Mix the pile well and repeat the fist test as necessary. This is not recommended if your feedstock is manure or contains food scraps.

Recipes

Backyard composting is most appropriate for those who have a large quantity of organic material—typically yard wastes or fruit and vegetable scraps from the kitchen—and have a space outside large enough to accommodate the volume.

Like any simple recipe, you'll get the best results if you use the right mix of ingredients to make your compost. The key materials are nitrogen-rich "greens," carbon-rich "browns," water, and air.

Yard waste only
3 parts dry leaves
2 parts fresh grass clippings

Yard and kitchen waste
3 parts dry leaves
1 part fresh grass clippings
1 part food scraps

Common Backyard Compost Problems

Symptom	Problem	Solution
Rotten egg smell	Not enough air due to compaction	Turn pile to fluff up and create air pockets. If particle size is small (under one inch), add a bulking agent such as wood chips about 2" in size.
	Excessive moisture: During fist test, if water drips or runs out of your hand, the pile is too wet.	Turn pile to add air and dry out pile. Wood chips or some other bulking agent could be added to increase air space.
Ammonia smell	Excess nitrogen (grass clippings, food waste, fertilizer)	Add more carbon materials (leaves, non-recyclable paper, straw).
Pile doesn't heat up	Pile too small	In order to get the compost pile hot, it must be a minimum of 3' high by 3' in circumference.
	Pile too dry—**the most common problem.** Using the fist test, if you do not see beads of water between your fingers, the pile is too dry.	Turn pile to mix materials. While turning the pile, add water with a hose or watering container. You should let the pile rest for several hours, then give it the fist test again. If beads of water do not form between your fingers, the pile is still too dry and more water is needed.
	Lack of nitrogen	Add materials containing nitrogen (grass clippings, food) or a plant fertilizer high in nitrogen.
	Poor aeration	Turn pile. Coarse materials, such as wood chips, may also be added to create air spaces in the pile.
	Cold weather	If the compost pile is small, it may not be able to heat up in areas that have very cold climates.
	Compost is finished	When appropriate, begin using finished compost in garden.
Attracts rodents or other animals	Inappropriate materials	Materials such as meats, oils, fat, foods cooked in oils or fats, bones, and dairy should not be added to the compost pile.
	Kitchen food scraps too close to surface of pile	Bury kitchen scraps beneath several inches of high-carbon materials (leaves, straw, wood chips).
Attracts insects, millipedes, slugs, etc.	This is normal	To minimize insect problem, turn the outside edges of the pile into the center and make sure the pile heats up. This will kill the eggs laid by the insects and reduce the nuisance insects.

Resources

Backyard Composting Tutorial (Sarasota County, Florida): excellent 20-minute tutorial that teaches you the details about composting; www.compostinfo.com

Backyard Composting: Stewardship Gardening, a service of Washington State University. http://gardening.wsu.edu

U.S. Composting Council: Links to composting resources of all kinds. www.compostingcouncil.org

University of Minnesota Extension, Composting and Mulching: *A* Guide to Managing *O*rganic *Y*ard Waste. www.extension.umn.edu

Earth Kind: Environmental Stewardship Program through Texas Cooperative Extension, Don't Bag It Leaf Management. http://earthkind.tamu.edu/EKHome.html

Cornell Waste Management Institute: Small Scale or Backyard Composting. http://cwmi.css.cornell.edu

Compost Guide: *A* Complete Guide to Composting. www.compostguide.com

Backyard Compost (New Mexico State University, College of *A*griculture and Home Economics). http://cahe.nmsu.edu/pubs/_h/H-110.pdf

Minnesota Pollution Control Agency
800-877-6300
www.pca.state.mn.us

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