



# Guide to Home Composting

## Why Compost?

Composting is nature's way of recycling organic materials and returning nutrients to the soil. Over time, organic matter such as leaves, grass clippings, twigs, fruit and vegetable food waste biologically decompose into a dark, crumbly soil conditioner called compost. The practice of creating and maintaining a home compost pile accelerates this process.

Organic materials such as yard and food waste account for 33% of the waste generated in a typical Monterey County household. Composting this material is a great way to reduce waste. Using finished compost in your garden:

- Returns nutrients to the soil
- Improves water retention
- Helps loosen-up compacted solids

Whether you have trees and shrubs, a garden, or a few container plants, anything you grow will benefit from compost.



## Getting Started

Compost bins or enclosures are a good way to contain your organic materials during the composting process, although you can also pile your material up in a "heap" if you have the space. To begin composting it is ideal to have a compost enclosure that will allow one cubic yard of volume.

Enclosures can be as simple as a chicken wire hoop or more elaborately constructed with wooden slats or reused pallets. Several commercially made bins may also be purchased and are available in a range of styles to fit any taste or space. Be sure to check out the Last Chance Mercantile at the Monterey Regional Waste Management District for low cost compost bins. Plans to build your own bin are available online at [www.mrwmd.org](http://www.mrwmd.org).

# Ingredients



## How Compost Happens

While a multitude of organisms, fungi and bacteria are involved in the overall process, there are four basic ingredients for composting: nitrogen, carbon, water and air. Composting is a lot like cooking, and the easiest compost recipe calls for blending roughly equal parts of green or wet material (which is high in nitrogen) and brown or dry material (which is high in carbon). Simply layer or mix these materials in a pile or enclosure; chop or shred large pieces to 12" or shorter and add water as you go. Then leave it to the microorganisms which will break down the material over time.



## Nitrogen

Green materials such as grass clippings and landscape trimmings are ideal sources of nitrogen for composting. Vegetable and fruit trimmings and peels can also provide nitrogen. To reduce the potential for pests or odors, it is best to avoid meat or dairy scraps and bury any food scraps deep within the compost pile.



## Carbon

Brown (dry) yard and garden material such as dry leaves, twigs, or hay can provide the carbon balance for a compost pile. Chop or shred large pieces to 12 inches or shorter (thick, woody branches should be chipped, ground up, or left out). Untreated wood chips and sawdust are a powerful carbon source which may be useful if the pile contains excess nitrogen. Along with providing carbon, these dry, brown materials are also important in adding air space (oxygen) to your pile.



## Air

The bacteria and fungi that are in your compost pile need oxygen to live and work. If your pile is too dense or becomes too wet, the air supply to the inside is cut off and the beneficial organisms die. Decomposition will slow and an offensive odor may arise. To avoid this and speed the process, turn and fluff the pile with a pitchfork often, perhaps weekly. You can also turn the pile by just re-piling it into a new pile; many composting bins make this easy to do by coming apart so you can easily re-pile the old pile back into the bin.



## Water

One of the most common mistakes in composting is letting the pile get too dry. Your compost pile should be moist as a wrung-out sponge. To test for adequate moisture, reach into your compost pile and grab a handful of material and squeeze it; if a few drops of water come out, it's probably got enough moisture, if it doesn't, add water. When you water, it is best to put a hose into the pile so that you aren't just wetting the top. You can also water as you are turning the pile. During dry weather, you may have to add water regularly. During wet weather, you may need to cover your pile. A properly constructed compost pile will drain excess water and not become soggy.



## Size

Ideally, the compost pile should be at least three feet wide by three feet deep by three feet tall (one cubic yard). This size provides enough food and insulation to keep the organisms warm and happy and working hard. However, piles can be larger or smaller and work just fine if managed well.

## Organic Materials Exchange

*Looking for a new home for your horse manure? Or do you lack ingredients for your compost pile? Visit the Organic Materials Exchange where you can find a home for your unwanted organic waste or find useful materials for your garden! Listings include livestock manure, compost and various types of mulch. Visit the Exchange at: [www.ome.sccrcd.org/](http://www.ome.sccrcd.org/)*

# Techniques & Troubleshooting

## Composting Techniques

Composting can be done actively, requiring more effort with faster results, or can be done more casually. Both ways will have a positive effect on the environment and produce usable compost. It just depends on how much time you want to spend with your compost pile and how fast you want the compost.

Active compost piles blend equal parts nitrogen (greens) and carbon (browns) with moisture and regular turning (or "fluffing") to promote rapid decomposition. During the active compost process it is common for temperatures in the pile to range between 110-150 degrees.

"Casual" compost piles are also quite workable since compost will "happen" even if you just pile on yard and food waste, water sporadically, and wait. The pile won't get as hot, so it won't decompose as quickly and may not kill weed seeds. Casual composting can take 6-12 months to produce finished compost.

## How to Tell When it's Done

Your compost is finished when the original material has been transformed into a uniform, dark brown, crumbly product with a pleasant, earthy aroma. There may be a few chunks of woody material left; these can be screened out and put back into a new pile.

You may want to stop adding to your compost pile after it gets to optimal size (see above) and start a new pile so that your first pile can finish decomposing (during which time the temperature will drop).

Give it a try! Home composting is best learned by doing. Through practice and observation you will find what works best for your home situation, and you can modify the process to suit your needs. There are also a number of books written on backyard composting; check your local library or bookstore. Check [www.mrwmd.org](http://www.mrwmd.org) for information about workshops and low cost compost bins.



## Troubleshooting

Symptom	Problem(s)	Solution(s)
The pile smells bad	Not enough air or too much moisture	Turn the pile if not enough air  Add dry materials if too moist
The pile will not heat up	Not enough moisture or Pile size is too small or Lack of nitrogen-rich material or Particle size is too big	Add water if dry  Build pile to at least 3' x 3' x 3'  Mix in fresh manure, grass clippings or fruit/vegetable scraps Chip or grind materials
The pile attracts flies, rodents, or pets	Pile contains bones, meat, fatty or starchy foods, or animal manure	Alter materials added to pile; bury fruit/vegetable scraps in the middle of the pile, or under 8" to 10" inches of soil, or compost them in a worm bin.
Pile has slugs in it (and so does garden)	Pile is easily accessible and provides daytime hiding place and breeding ground for slugs	Remove slugs and slug eggs from pile (eggs look like very small clusters of pearls). Locate compost pile far from vegetable gardens and/or create barriers or traps around pile/garden.



# Monterey Regional Waste Management District

14201 Del Monte Blvd., Marina, CA 93933  
831-384-5313 • 831-384-3567 (fax)  
www.mrwmd.org  
www.keepmontereycountyclean.org

## Using Your Finished Compost

### Soil Amending

Dig in as much as 6" of compost into annual garden beds each year or into soil under and around new trees and shrubs before planting. As a soil amendment, compost reacts with soil to slowly release both plant nutrients and essential trace elements.

### Mulching

To use compost as mulch to control weeds and hold moisture in the soil, spread compost 2-3" thick around plants, trees, shrubs, and exposed slopes, leaving 2-3" from base of plant.

### Make Your Own Potting Mix

Screen finished compost to use only the fine particles. Mix with equal parts sand and soil.

*This brochure was adapted from Home Composting guidelines published by the California Integrated Waste Management Board (CIWMB). The CIWMB maintains a website with a wide variety of information.*



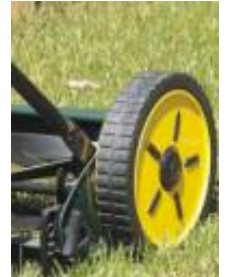
## Other Ways To Reduce Organic Waste

In addition to composting, you can also help reduce organic waste by:

### Grasscycling

Grass clippings make up a large portion of California's waste stream during the growing season.

Grasscycling is an effective way of recycling clippings. Grass clippings left on the lawn decompose quickly and release valuable nutrients back into the soil. To grasscycle follow the "1/3 rule": mow often enough so that no more than 1/3 of the grass blade is cut in one mowing.



### Vermicomposting

For those who don't have a yard, or energy to do "backyard composting," vermicomposting may be an option. Vermicomposting is the practice of using worms in a contained space to make compost from food waste.

Worm bins can be made or purchased. They can fit nicely under the kitchen sink, on a porch or in a garage. Specific types of earthworms are used to consume up to half their weight in food waste. The resulting worm castings are full of beneficial microbes and nutrients, and make a great plant fertilizer.



## Resources

### Books

Backyard Composting, 1992. Harmonious Technologies, Harmonious Press, Ojai, CA, 96 pp.

Let It Rot, 1975. Stu Campbell, Garden Way Publishing, Pownal, VT, 144 pp.

Worms Eat My Garbage, 1982. Mary Appelhof, Flower Press, Kalamazoo, MI, 100 pp.

### Internet

[www.ciwmb.ca.gov/Publications/Organic](http://www.ciwmb.ca.gov/Publications/Organic)

[www.ciwmb.ca.gov/organics/grasscycling](http://www.ciwmb.ca.gov/organics/grasscycling)

[www.wormwoman.com](http://www.wormwoman.com)

[www.mrwmd.org](http://www.mrwmd.org)

Organic Materials Exchange: [www.ome.sccrcd.org](http://www.ome.sccrcd.org)

### Products

MRWMD sells compost bins and supplies, along with landscape supplies, including finished compost and wood chips by the bag or by the truckload.



## About the Monterey Regional Waste Management District (MRWMD)

Established in 1951, the MRWMD's primary purpose is to manage the Monterey Peninsula region's solid waste. Today, the MRWMD is home of the award winning Last Chance Mercantile, Household Hazardous Waste Collection Facility, Recycling Drop-off, Materials Recovery Facility, Monterey Peninsula Landfill, and the Landfill Gas Renewable Energy Project. The board of directors and 140 employees of the MRWMD thank you for doing your part to reduce waste and conserve resources.

For more information call 831-384-5313 or visit [www.mrwmd.org](http://www.mrwmd.org)