## COMPOSTING ...

Saves you money by lowering garbage bills and replacing commercial products with your compost. Helps garden and house plants by improving the fertility and health of the soil.
Saves water by helping the soil hold moisture and reducing water runoff.
Benefits the environment by recycling valuable organic material and extending the life of our landfill.

There are many methods of composting just as there are many ways to cook. Your compost bins will be filled with the leftovers from what you eat and what you grow in your yard.

## BINS

WIRE HOOP BINS ( $10 \mathrm{ft} \times 3 \mathrm{ft}$. chicken wire) are easy and fairly inexpensive to build and keep your yard waste compost pile tidy.

WOOD \& WIRE BINS are low-cost containers for yard waste and easy to build. The bins can be made rodent proof by adding a lid so you can add food waste. Recycled fences or old pallets work well.

THREE BINS or TURNING UNITS allow waste to be turned on a regular schedule. They are good for gardeners with a large volume of yard waste. This method produces high-quality compost in a short time if you work at it.

## MANUFACTURED BINS

Most bins are made from recycled plastic, are smaller than 1 cubic yard, and have been designed for backyard use.

OPEN AIR BINS feature air vents along the sides.
ROTATING DRUMS or compost tumbles are units which rotate and create compost quickly. Bins must be turned regularly. Some people opt for two drums.

EARTHWORM BOXES Our Earth Worms are Easy flyer has
detailed instructions


## NO BIN METHODS:

HEAP composting is a simple method but only if you have a huge yard.
PITS are 18 to 36 inches deep and 3 ft square. Be sure to cover. Consider two pits: fill one with new waste and harvest from the one you filled last year. TRENCH \& POSTHOLES. Bury at least 18 inches and let Mother Nature do the work. Postholes are a great way to add fish scraps to your yard.
SHEET COMPOSTING. Layer grass, leaves and leave for the winter

## COMPOSTING BASICS

A balance of CARBON, NITROGEN, AIR and
WATER is needed to make compost. If possible collect enough materials to fill your compost bin.

CARBON or BROWN material
Brown, dry yard and garden materials provide the carbon balance for your pile. Chop or shred large pieces. The smaller the pieces, the faster the compost.
Examples: grass clippings, leaves, shrub prunings, twigs, hay, flowers, sawdust, vacuum dirt, pine needles* and weeds that have not gone to seed** Woody branches should be chipped.

## NITROGEN or GREEN

 materialGreen materials provide
the nitrogen to the pile.
Always bury food scraps
deep inside the pile to
 avoid potential odors or pest problems
Examples: peels, rinds, vegetable and fruit waste, coffee grounds w/filter, tea bags, egg shells, hair, fresh grass clippings, chicken/horse/rabbit/cow manures.
*10\% Rule. If you are unsure about a material such as pine needles or eucalyptus, only add $10 \%$ to your mix. ** If there is a weed that you do not want in your yard, DO NOT add it to your compost pile.

Desired mix is 30 parts carbon to 1 part nitrogen: CARBON SOURCES NITROGEN SOURCES
Sawdust 500:1
Fresh grass clippings 30:
Dry leaves 60:1
Kitchen scraps 20:

## DO NOT COMPOST

Meat, Bones, Dairy Products, Greasy Foods, Diseased Plants and NEVER add cat or dog manure (for fish waste, see posthole method)

## AIR

Aerobic Composting means fast, hot composting.
HOT composting will kill weed seeds and pathogens. Turn once a week to keep aerobic activity high.
WARM composting will not kill weed seeds, takes longer but will yield more compost for your garden.

AIR TIPS: Turn your pile
with a compost turning tool or garden fork.

## Alternate Air Sources

Let air into your existing pile. Holey pipes, bundles of bamboo/corn stalks, and
 woody branches add air pockets in your pile. Use old broom sticks or a jet of water to poke holes into your pile.

Bacteria, fungus and insects that live in your compost need oxygen to work. Sufficient oxygen keeps your pile sweet smelling.

## WATER

Keep your pile as damp as a wrung out sponge. Compost piles need about $50 \%$ moisture. Dampen layers when building the pile then add water through perforated pipes or a jet of water. Keep a cover on open piles during hot, dry weather or rainy weather.


Books
The Mulch Book by Stu Campbell Let it Rot by Stu
Campbell
Easy Composting, Ortho Books.
Worms Eat My Garbage by Mary Appelhof

## SETTING UP YOUR COMPOST PILE

1. Choose a bin
2. Choose a location, preferably near a water source.

You can compost in sun or shade, on dirt or concrete
3. Gather equal weights of carbon/brown and
nitrogen/green materials.
4. Layer around a holey pipe:

- Carbon/ brown materials
- Nitrogen/Green materials
- Sprinkle with water
- Add a bucket of finished compost or soil to activate
- Repeat layers topping with carbon/brown materials
- Covering is optional depending on your bin. 5. Check it in about a week. Dig around and you'll find that your pile will have warm spots.

6. Add more waste as it becomes available.


A compost pile may not appear to be active as the outer layers are acting as insulation; most activity is happening inside.

## HOW LONG DOES IT TAKE

Yard Waste Only with 50-50 balance of Carbon and Nitrogen, monitor air and water with no additional turning: 12 months or more

Yard Waste Only: as above but turned once a week and/or adding alternative air sources: 3 to 8 months

Yard Waste and Food Wastes: with 50-50 balance of Carbon and Nitrogen, monitor air and water. Turned once a week and/or adding alternative air sources: 3 to 8 months.

## The more you fuss with and turn the pile the faster your compost will happen.

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## A LITTLE COMPOSTING SCIENCE

HOT Composting requires more effort with quick results. A HOT pile that has the right blend of carbon, nitrogen, air and water and is turned regularly will heat up to $120^{\circ} \mathrm{F}$ TO $150^{\circ} \mathrm{F}$. The high temperature will kill most weed seeds and speed up the decomposition process so that the compost may be ready in 3 months or less.

WARM composting can be done more casually WARM piles work if you add yard waste, bury your food wastes, water sporadically and wait. The pile won't get hot enough to kill weed seeds. WARM, casual composting can take up to 12 months.

## Is it done yet?

Compost may be finished if it looks dark and crumbly and smells earthy instead of moldy or rotten. More details are in our Using Compost flyer.

## BUGS and other PROBLEMS

Bugs, ants, earthworms, slugs, and other insects will appear after the initial hotter stages. They are good for the pile, especially the soldier fly whose grayish larvae will appear when the conditions are right.


Maggots, on the other hand,
usually mean that you forgot to bury the food waste. You can make ants disappear by disturbing their nests with water or by turning the pile.

Rodents can generally be controlled by turning the pile and disturbing their nest. Use non-toxic Rodetrol for bait if necessary. If problem persists, do not add food scraps or use an animal-proof compost bin. See www.ourwaterourworld.org for less-toxic gardening.

## Keep your Compost Happy

Rotten or ammonia odors are the most common complaint from composters. Your pile does not have enough oxygen and may be too wet. Turn the pile and add dry materials.

Most backyard compost piles don't heat up because bins are too small. You can get more heat by adding a little water while turning the pile. Cover the pile with a tarp or old carpet. You can also add more nitrogen/green materials.

## BACKYARD COMPOSTING



## COMPOSTING

is Nature's way of recycling. Gardeners can turn fruit, vegetable and yard waste into dark, crumbly, sweet-smelling soil amendment.

Sponsored by
City of Vallejo
\&
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Information:
707 645-8258


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