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Waste Management Division**  
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# COMPOSTING ABC's



SANTA BARBARA COUNTY  
**Resource Recovery &  
Waste Management Division**  
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**BROUGHT TO YOU BY YOUR**  
Resource Recovery and  
Waste Management Division  
of the Santa Barbara County  
Public Works Department

# Introduction

This guide will show you how easy it is to make compost using garden trimmings and food scraps in your own backyard. Composting will improve the health and appearance of your yard, save money on fertilizers, all while preserving natural resources and protecting the health of your planet.

Composting is nature's way of turning organic materials back into nutrient rich soil in order for the cycle of life to continue. Fungi, bacteria and invertebrates in healthy soil transform organic matter into vital nutrients used by plants to nourish new growth. The best way to build healthy soil in your garden is by creating compost.



*It's up to us to help nature  
complete its cycle!*





## Waste Reduction

In your kitchen, waste as little food as possible. In your yard, keep clippings and leaves on site as mulch. You can save money and help the environment while reducing your waste!

### IN YOUR KITCHEN —

**Limiting food waste reduces the need to compost as much material.**

Try these simple methods to reduce waste:

- **Inventory and use** what you have before you buy more.
- **Make a plan** before you go shopping. Only buy what you will use.
- **Be creative** by using the edible parts of foods that you normally throw away. Make stock for soups and sauces, sauté beet tops, make croutons from stale bread.
- **Donate** healthy, safe, and untouched foods to food banks.
- **Freeze, preserve, or can** surplus fruits and vegetables.
- **Know how much food** you're actually wasting by measuring your waste.
- **Reduce plate waste** by only taking what you will eat.



Visit [LessIsMore.org/FoodDonation](http://LessIsMore.org/FoodDonation) to learn more about feeding people or animals in your community with the food waste you can't reduce.



Visit [LessIsMore.org](http://LessIsMore.org) for more information.

### IN YOUR YARD — DO MORE BY DOING LESS!

**Keep fallen leaves, grass clippings, and other yard materials in your yard as a mulch.**

Mulch can be organic material such as wood chips, grass clippings, leaves or compost that is spread over the soil surface. Mulch will conserve water, suppress weeds, moderate soil temperatures—all while naturally decomposing into the soil and nourishing your plants. This is the natural cycle.



**Alternately, yard waste can be recycled in the curbside green waste recycling program.**

Put unwanted yard waste into your green container where ultimately the material will be ground and screened and marketed as a mulch product. Local orchards, landscapers, parks and residents use this mulch to build soil and enhance their landscapes.



Call 681-4981 to learn about how you can pick up free mulch or get it delivered for as low as \$10 per ton.

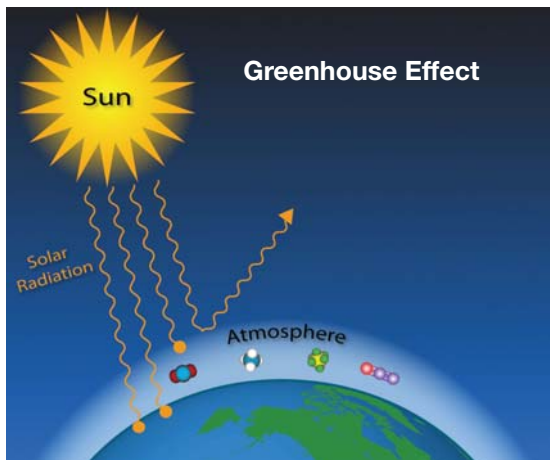


Visit [LessIsMore.org](http://LessIsMore.org) for more information.

## Why Compost?

**Your hand is the last hand to ever touch what you throw in the trash.**

Organic material that you put into the trash will be landfilled. Organics comprise about 37% of our waste stream here in Santa Barbara County. Composting where you live keeps these materials out of landfills, where they take up valuable space and have the potential to release methane gas into the atmosphere, a greenhouse gas that is 25 times more powerful than carbon dioxide in regards to global climate change. You can make a difference just by composting in your backyard and sharing what you know with your friends and community!



**The best option is to not generate waste at all.**

If we do generate waste, backyard composting and participating in your Green Waste Recycling Program are better than throwing organics away. In the future, the County has plans to build an anaerobic digester that would generate electricity and soil amendments from organic material that would otherwise end up in the landfill.

Find out more about this exciting project at [ResourceRecoveryProject.com](http://ResourceRecoveryProject.com).



## How Do You Compost?

There are many ways to manage the decomposition of yard waste and food scraps where you live. A compost bin or pile is a contained way to manage the breakdown of these materials. Naturally, the decomposition process will happen no matter how you control it.

### MEET NATURE'S FBI



Fungi



Bacteria



Invertebrates

**These decomposers break down organic waste into compost.**

Check out the **aerobic composting** section on the next page if you have enough outdoor space and generate yard waste and food scraps that you would like to compost.

If you live in multi-family housing, want to compost in your classroom or office, or just generate food scraps then check out **vermicomposting**—composting with worms—on page 9.





# Aerobic Composting

We recommend aerobic composting systems for those with an outdoor space. You can easily turn your yard and food waste into compost in as little as three months.

Aerobic means requiring the presence of oxygen. Oxygen is essential to keep our friends the FBI alive. The FBI will naturally show up in your system. It's your job to keep these critters happy and productively breaking down introduced materials from your yard and kitchen.

## SELECTING A PILE OR A BIN

Some people start with a pile, and move up to a bin when they're ready.

You can give your pile some structure with chicken wire or by nailing scrap wood together to make a four sided box. You can even compost in a pile and cover with a tarp!



If you want something more contained, the County sells Earth Machine Composting Bins for only \$45. That's half price! Get them at these locations:

**North County Public Works Building:**  
620 W. Foster Road, Orcutt  
Open Mon.-Fri., 8:00 a.m. – 5:00 p.m.

**South Coast Recycling and Transfer Station:**  
4430 Calle Real, Santa Barbara  
Open Mon.-Sat., 7:00 a.m. – 5:00 p.m.

Take the time to consider your options and then select a bin or pile to fit your needs.

## PLACEMENT

Select an unpaved, flat and shady or partly shady spot near a water source, and preferably out of sight. You should also consider proximity to your feedstock (yard and kitchen waste). Ideally, the compost area should be at least three feet wide by three feet deep by three feet tall.



## GENERAL INGREDIENTS

- 3 parts Browns, as a carbon source
- 2 parts Greens, as a nitrogen source
- Water, just enough to keep materials moist
- Oxygen, throughout materials so the FBI can breathe

### Browns

Eggshells, nut shells, ashes from wood burning fires, sawdust, hay and straw, yard trimmings, houseplants, wood chips, leaves, shredded newspaper, other paper products, cotton or wool rags, dryer lint.



### Greens

Raw or cooked fruits and vegetables, bread and grains, coffee grounds and paper filters, grass clippings, paper tea bags, manure from herbivorous animals.



**KEEP OUT:** Dairy products, fats and oils, greasy foods, meat, pet wastes, anything treated with chemicals or pesticides, stickers from fruits and vegetables, roots of perennial weeds, coal, glass, metals, plastics.



## THE EASY METHOD OF COMPOSTING

### Follow these simple steps to create compost:

1. Add **three parts brown materials** and **two parts green materials** together. Smaller pieces mean more surface area for the FBI to work their magic, and generate a quicker finished compost.
2. **Mix brown materials**, like dried leaves, into the pile and always be sure to **bury greens** (fruit and vegetable waste) under 10 inches of browns. As long as greens are buried there will be no odor.
3. The pile **should be warm** as materials break down.
4. When you add to the pile, **turnover and fluff the pile** using a shovel or pitchfork to get oxygen into the pile.
5. **Keep the pile as moist** as a wrung out sponge. **TIP: add water if necessary during step 4.**
6. **When material at the bottom is dark and rich in color**, with no remnants of food or yard waste, **your compost is ready to use.** You can screen large chunks out if you like, or leave it as is.
7. Depending on how you manage your system, **you can have finished compost in as little as 3 months.**



## TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Rotten egg smell	Not enough air or too wet	Turn pile and incorporate browns
Ammonia smell	Too many greens	Incorporate browns
Pile doesn't heat or decomposes slowly	1. Pile too small	Add more organic matter
	2. Insufficient moisture	Turn pile and add water
	3. Not enough air	Turn pile
	4. Cold weather	Increase size and insulate with straw or tarp



## Vermicomposting

Vermicomposting uses worms to consume organic waste, ideally small amounts of non-fatty food scraps. Worms eat their weight in organic material each day and then produce a finished compost product called castings. Vermicomposting requires less space than other composting methods, and is ideal for indoor areas like classrooms and apartments. Also recommended for high-density urban areas with little yard waste and space.

### OVERVIEW

Accomplish vermicomposting in a covered container with a bedding of newspaper or leaves. Fruit and vegetable scraps are added as food for the worms. Over time, the food and bedding will be replaced with castings, a rich brown matter that is an excellent natural plant food.

#### What size bin should I build?

Depends on the amount of food waste your household produces in one week.

**Use the formula:** one square foot of surface area per pound of food scraps produced per week. For example, a bin that is 4 square feet is perfect for 4 pounds of food scraps produced per week.

#### How many worms do I need?

**2 pounds of worms to every one pound of food scraps** produced per day.

#### Worms Like to Eat

Vegetable scraps, fruit peels and scraps, leaves, tea bags, coffee grounds and filters, untreated paper towels and tissue paper.

**Fun Fact:** worms especially enjoy pumpkin and melon scraps.



**KEEP OUT:** Meat and bones, dairy products, oils and fat, and woody yard waste.





## CREATING YOUR SYSTEM

### What you need:

- **Electric drill with ¼ inch drill bit — or you can punch holes manually**
- **2 plastic bins\***
- **Newspaper and handful of garden soil**
- **Food scraps**
- **Red wiggler worms**

\*Bin #1 will be for your composting worms, and Bin #2 for catching the drainage or leachate.

### STEP 1

Drill or punch **ventilation holes in Bin #1 around the top** and **drain holes on the bottom** of compost bin.

### STEP 2

Drill or punch **holes on the side of Bin #2** (leachate bin) for ventilation, just below the mid ridge in the bin.

### STEP 3

Place the **top onto the worm bin** (you will only need one). Then **place Bin #1 into Bin #2**.

### STEP 4

**Shred 3 to 4 pounds of newspapers into ½ inch strips.** Soak shredded strips in water and then squeeze out water so strips are damp.



### STEP 5

**Fill Bin #1** three quarters of the way full with prepared bedding material. Keeping the paper loose and fluffy is the goal. Mix in a handful or two of garden soil into the bedding.

### STEP 6

**Place Bin in a shady and accessible area** with moderate temperatures of 55 to 75°.

### STEP 7

**Add worms** evenly and lightly over the damp bedding material. Let the worms acclimate to their new home for a week before introducing food scraps.

### STEP 8

A week after introducing worms you can **feed your worms** by spreading out a thin layer in just one area of the bin in the middle of the bedding material and alternate weekly where you place the food.

**TIP:** to aid the decomposition processes, **chop, shred, and bruise waste before feeding to your worms.**

### STEP 9

**Check your bin** when you add food for moisture level (moist as wrung out sponge), and ensure that added food is always covered with a few inches of damp bedding material.



## HARVESTING YOUR FINISHED CASTINGS

After 4 to 6 months push the castings produced by your worms to one side of the bin and place fresh bedding in the other. For about a month bury food scraps in the fresh bedding to allow the older compost to mature. After harvesting the finished compost, add more damp bedding to that side.



## TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Fly population	Exposed food	Add one inch of fresh bedding and add moisture. Can add a small amount of baking soda.
Bin has rotten egg odor	Anaerobic Conditions	Add fresh bedding and fluff up
Ant population	Bedding is too dry	Keep bedding moist

## MAKE YOUR OWN COMPOST TEA *Try this idea!*

### Directions:

1. Fill a bucket with water.
2. Place compost inside pantyhose or cheese cloth.
3. Soak compost in water for 3–5 days stirring occasionally.
4. Dilute as desired.
5. Apply directly to plants.

## Using Your Compost

Whether you aerobically compost or use a vermicomposting system you will be left with digested organic material — finished compost!

You can work your finished compost into the soil or simply leave it on the surface above plant roots. Applied compost will increase nutrient levels, permeability, water retention of your soil, and much more!



## CONGRATULATIONS!

You have just closed the loop, and made a huge positive impact by keeping organic materials out of the landfill.

## RESOURCES

- Visit: [LessIsMore.org/compost](http://LessIsMore.org/compost)
- Call Santa Barbara County's Composting Specialist: 882-3600
- EPA: <http://www2.epa.gov/recycle/composting-home>
- Composting Council: <http://compostingcouncil.org/>
- Visit the links or call the numbers provided in this booklet.

