

# COMPOSTING



**THE KEYS TO GREAT  
COMPOSTING**



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## The Keys to Great Composting





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## **INTRODUCTION**

Have you ever thought much about composting? Many people have not, but composting can be a great way to not only help the environment, but to also help provide your lawn, garden and flower beds with some wonderful nutrients that is cheap and effective. Composting is easy once you get the hang of it and you may find that this is a hobby your whole family will soon enjoy.

### **Composting in your Household**

The key to composting is to really understand composting and why it works and how it will work for you. Many people have misunderstandings about compost. Some people think that the only people that compost are the ones that are “earthy” people that live off the land and farm their own food. Other people think that those that compost live on large farms or have livestock. The truth is that all kinds of people compost—everyone from the family of four in the suburbs to the single person that lives in a small apartment. It does not matter how much space you have, you can make composting work for you and do your part to help the environment.

### **Learning to Compost**

Before you get started with composting, you need to learn the basics. You should take the time to find out how you can compost, what type of bin or container you need, what kind of material you can add to your composting bin and when and how to harvest. Take the time to learn other ways to compost as well, such as worm composting, grasscycling and even toilet composting. There are many ways to compost and it is not very hard to learn the ins and outs.

### **Ready to Compost?**

Does all this talk about saving the environment and making great compost for your yard have your pumped about this hobby? If so, then it is time to get started. Keep reading to learn what you can do to compost and get started now.





## COMPOST: ENVIRONMENT RECYCLING

Have you ever heard of compost? Most people have, but probably do not fully understand this very interesting and beneficial recycling method. In fact, many people do not give composting a second thought because they consider it “inconvenient” or “messy”. Composting has been around for a very long time and proves a beneficial way to reuse materials that would otherwise end up in the garbage pail. With today’s technology, composting does not have to take up a lot of time and it can be quite useful to you in a variety of ways.

### Understanding Compost

In order to fully appreciate composting, you have to understand what composting is and what it is not. Composting is not a method to recycle everything you have in your home. You cannot compost anything—to get its full benefits, you have to know what you can and cannot compost. Composting is not difficult. Sure, just like anything else you are learning for the first time, it does take some time and practice, but it is not hard to do. Composting does not take up a lot of room. Some people choose to have large composting bins on site, but you do not have to do this to have success at composting. Last of all, composting is not expensive. If you do choose to start composting, there will be initial costs of getting all of your composting materials, but after that, your compost bin will pretty much be maintenance free if you learn how to do it properly.

### Getting to Know Compost

By definition, compost is simply the end product of decomposed organic matter. This may include any type of organic matter such as kitchen scraps and leftovers, garden waste, leaves, yard clippings, manure and even sawdust and straw. Composting happens naturally and you can harness this natural breakdown cycle and use it to your advantage. Anything that is considered organic will break down without the aid of a compost bin. It just takes time. When you compost in your home or in your backyard, you are giving nature a hand and speeding up this process. What you do with the end results is up to you, but many people choose to use their compost for their gardens. While compost is not all that high in essential nutrients, it is considered a soil conditioner and not a fertilizer. This can really help your soil if you garden because it improves the soil structure and can also help attract beneficial insects to your garden or flowerbeds.

Now that you know a little about composting, it is time to delve deeper into this wonderful way to recycle and reuse.

## COMPOSTING BASICS

Composting is a wonderful way to recycle. It seems that “going green” is certainly the trend these days. You often hear sayings and slogans that will help you remember that recycling is the way to go such as “green is good”, “you have the power today to change tomorrow” and even the ones that are as simple as “recycle today”. These are all aimed at trying to get the average person to stop and think about the planet and composting is one way to do this.





## Throwing It All Away

Have you ever thought about the sheer amount of trash that makes into the dumpsters and landfills? Even the garbage man in your small neighborhood picks up a huge amount of trash each and every week. Add that up over time and you can imagine how fast the landfills grow. However, recycling is a great way to help reduce the mass that fills the dumpsters and landfills. There are many ways to go about recycling—from tossing the cans into the recycling bin, to donating old clothes and unused toys to a charity to composting. Yes, composting is a way to recycle. If you don't throw it into your trash can and compost it, you have just turned those old kitchen scraps into something much more useful.

## What is composting?

Composting is a natural decomposition process. When you put organic matter out, it does breakdown and eventually turn to nothing. That is a natural process and it is this process that you can learn to take advantage of for your own benefit. In fact, once you learn the basics of composting, you will find that the entire compost cycle will work faster than it does in nature. The real advantage to utilizing the composting methods is that you are taking “things”, whether they are kitchen scraps, or other organic matter and saving them from the landfill and garbage pail to recycle them into something that can benefit the environment. Did you know that it is estimated that between 20 and 30 percent of garbage filling up the landfills is actually yard and kitchen waste? This is waste that can be used in a positive way that benefits everyone. The organic wastes that you produce both in and around your household, will go back into the environment and becomes valuable resources. You will find this composting (your end result for your efforts) a great money saving advantage if you enjoy yard work, planting flowers or trees or if you garden. No matter how small or large your yard is, you will find that composting is a great way to supplement the soil and produce wonderful results for your efforts.

## A Look at the Basics of Composting

Now that you have a general idea of what composting is, it is time to explore the wonderful (and beneficial) world of composting. Composting is not something that just environmental enthusiasts or even avid gardeners do (or should do). Composting is something that everyone can do and even if you do not have a lot of room for this method of recycling, you can still find a process and a method that works for you. The basic idea behind composting is that everything you save from the garbage can equals to less things filling up the landfills. When you stop to think about the mounds and mounds of trash produced by everyone around the world, it is easy to see why recycling is preferred. You know that you can recycle soda cans, newspaper, magazines, plastic products and even clothing. What about the other stuff? How about the potato peels leftover from those mashed potatoes that you cooked for dinner? How about the grass clippings left over from mowing your yard? When you bag them up, these all take up room in the garbage pail, too. So, why not take the time to recycle them into something useful? Composting can help you do this. It is fairly easy and you really don't need any special skills or even a lot of special tools and equipment.

## Who Uses Compost?

You may wonder why you should spend the effort into making compost when you are not even sure what to do with it. There are a lot of people that compost. Your next door neighbor may compost and you may not even know it. It takes up very little room, it does not smell and it is easy to do. Most commonly,



gardeners and those who enjoy growing fruits and vegetables, compost. This is because they use it and they can see the benefits in the compost every day. The benefits of composting are invaluable to the avid gardener. Compost material allows the soil to hold more water, thus this means that the gardener will use less water. In addition, compost will add more nutrients to the soil. Nutrients are extremely important to those who grow plants, flowers and crops. Without a good supply of nutrients in the soil, the plants will suffer. So, in short anyone who enjoys a little yard work and takes care of flowers, trees, shrubs, lawns and vegetables can use compost. Don't have a yard? Maybe you have a few houseplants or keep a container garden on your patio or deck. You can benefit from using compost, too.

### **More Benefits of Composting**

There are so many great benefits to composting. If you have ever explored the world of gardening, or have tried to keep your lawn green and healthy, then you know it can prove quite costly. You can head down to your local home and garden store every few weeks and spend a lot of money on things to make your plants and lawn the envy of your neighbors and friends. You can also pocket that money and use what you already have to get the same results. Composting will give you an almost constant supply of free, effective and environmentally friendly soil conditioner and fertilizer. When you take care of your lawn or garden, no matter what you grow, your plants need fertilizer to grow and produce great results. Unlike expensive (and potentially harmful) chemical fertilizers, compost has all of the nutrients that almost all plants need to grow. You can forget using those chemicals all together when you compost. You have it when you need it and you don't have to spend the extra money on chemicals and other expensive yard and garden supplies. You also do not have to worry about the environmental impact of contaminating the water in your area from run off.

### **Helping the Plants Grow Better**

In addition to keep your plants and lawn looking healthy, an experienced "composter" knows that when you use composting correctly, it will also help keep the soil loose and will give your plants better access to the soil through root entry. This is quite beneficial because every gardener knows what a pain it is to loosen compacted soil for gardening. You will also find that right recipe of compost will help reduce your water bill. Wonder how? When the soil is loose, the compost will give the soil an overall better texture. This improved texture will help hold in the water. This will require less watering and in the end, you save time and money on your water bill.

### **Natural Compost**

Composting is a natural part of life and natural compost forms everywhere and serves an important part of the environment. Anything that lives—plants, fruits, vegetables, animals—live and die eventually. When returned the Earth, the composting cycle begins. The result is rich soil-like material that nurtures future plants and other growing things. This is what composting is all about and when you compost at home, you are harnessing this power.





### WHAT MAKES COMPOSTING WORK

Just about anything that you use in your home—any type of organic matter—can be used to make compost. If you have vegetable or fruit scraps, leaves, grass clippings, twigs or small branches, wood chips or wood shavings, tea bags and even coffee grounds and filters can be thrown into your composting bin.

#### Microorganisms at Work:

Have you ever heard of microorganisms? By definition, a microorganism is an organism that can only be seen with a microscope. They are usually single celled and may include algae, fungi, protozoan and bacteria. These are very diverse and while most are considered “unicellular”, there are some microorganisms that are multicellular and some can even be seen with the human eye. Microorganisms are the basis behind composting. They help break down the material quickly and efficiently.

#### Where Microorganisms are Found

These tiny microscopic live in all parts of the biosphere—they are important to life, both for humans and plants. Microorganisms are found in liquids and water. They are found on the ocean floor, hot springs, and even in the soil. They are deep inside of rocks and even inside the Earth’s crust. Microorganisms are critical to life and to recycling nutrients back to the Earth. They help the ecosystem by decomposing. In addition, studies into microorganisms can help fix nitrogen levels and microbes in the air help with precipitation and weather. Interestingly enough, people who are involved with biotechnology can use microorganisms to their advantage. They can be used in food, beverages, medicine and they have hundreds of other uses.

#### Microorganisms in Composting

When talking about microorganisms, they are important to composting. These tiny living microbes do most of the work when breaking down the organic material to usable compost. In composting, fungi and bacteria are very important in the whole composting process. In addition, living insects and animals that live in the soil also take part in the composting process. Many composters find earthworms very useful in composting. They use organic material as food and this in turns will provide many useful nutrients that are necessary for healthy growth of plants and other living things. When the composting process is complete, the nutrients are used once again by the Earth. This is a natural way to recycle and is very important to everyone. When you make your own backyard compost, it can be mixed in with the soil to serve as mulch and even fertilizer.

### THE KEYS TO GREAT COMPOSTING

Since composting is a natural process, then it makes sense that you can use composting to your advantage. Microorganisms break down all sorts of organic materials such as grass, vegetable and fruit scraps, leaves, and coffee and tea bags. If you decide to compost, then you must know the keys to successful composting. Here is what you need to make your compost efforts succeed.







## **Organic material**

When you compost the key ingredient you will need is organic material. Generally, to get good results with composting, you will need a well mixed mixture. This includes using three parts of brown material, which includes all sorts of organic material such as small twigs, wood shavings, dead leaves and coffee grounds. The brown material should be high in carbon to make the mixture complete. Next, you will need one part of green material. This includes fresh yard clippings, such as grass or leaves and garden pruning. The green material that you use should be high in nitrogen. This will give you a good basis for your composting mixture.

## **Moisture**

Having a good amount of moisture is also very important to making your own compost at home. With the right amount and the right kind of moisture, your composting efforts will be wasted. Your composting mixture should feel moist to the touch, but should not be too soggy or wet. Too much moisture will cause your compost mixture to rot, while too little moisture will hinder the composting cycle.

## **Temperature**

When you compost, the temperature of your mixture is extremely important. If you live where it is very warm or very cold, then you need to make sure you are keeping your compost at the correct temperature. Your compost should feel warm to the touch, but not too hot. Using the right type of compost bin or container will help you keep your compost mixture at the right temperature all year round, especially if you live in an extreme hot or cold climate.

## **Air**

The last key ingredient you need for a good compost mixture is air. Your compost must have good circulation in order to complete the process successfully. If your compost does not get air, it will begin to smell. In addition, you will need to turn or mix your compost on a regular basis so that the material at the bottom can get the same amount of air.

## **THE THREE Rs OF COMPOSTING**

Trash and garbage are big problems, especially when people do not take the time to recycle. It is estimated that a large city or small state in the United States has the ability to produce up to two million tons of yard waste each year. That is correct. Yard waste. That does not include other types of trash that gets thrown away each day. Even very simple outside chores and cooking can add up big when it comes to organic waste. The sad fact of the matter is that most of this garbage is not garbage at all, but prime candidates for composting.

Noteverything that you cut in your yard or use in your kitchen is trash. It does not need to fill up the landfills. Instead, this large amount of waste needs to be composted. Even if you do not have a compost bin in your backyard, many cities offer drop off sites for composting and other organic waste. You should check into this and take advantage of this offer. Here are the three Rs of composting, or reusing organic materials that will not only help you, but will also help the environment.



**Reduce:**

The first “r” to remember when composting is “reduce”. This means that you can help the environment by reducing the amount of yard waste that you create. It may sound complicated, but it is not. You can do what is called “grasscycling”, which simply means that you do not bag your grass when you mow. Instead of dumping into your trash bin, you will leave the clippings on your lawn. Over time, these grass clippings will compost and will help return nutrients back to the soil.

**Reuse:**

Next on the list is “reuse”. This simply means that you if you can reuse your yard waste, then you are doing yourself and the environment a big favor. If you mulch your leaves when you rake in the fall instead of putting them in those big black lawn bags, then you can reuse it on your lawn or flowerbeds. You can do the same thing with small branches, twigs and other woody materials. This will save you money when it is time to mulch and fertilize your lawn, too. Good mulch will help retain water, thus reducing your water bill and it will help control the amount of weeds that grows as well.

**Recycle:**

Of course, the last thing on the list is “recycle”. When you compost, you are using your yard waste and kitchen scraps to produce an end result that helps you and the Earth. Good compost, made by recycling these organic materials will give you a valuable soil conditioner.

**HOW TO GET STARTED WITH COMPOSTING**

Composting can be done no matter where you live or what kind of space you have. If you live on a large plot of land, then you have an unlimited ability to compost all you want. However, if you live in a small home or apartment, you probably do not have room to put a large compost bin in your yard or patio. That does not mean, however, that you cannot compost at all. In fact, there are all sorts of ways to compost and all you really need is a little know-how and a few key materials. You will soon be on your way to composting and recycling.

**Getting Started**

First of all, before you start to compost, you will want to learn how to do it properly. It is not all that difficult, but if you do it incorrectly, you may wind up with a smelly or buggy mess on your hands. In addition, you can’t just throw anything in your composting pile. Not everything that comes from your yard or your kitchen is suitable for composting. So, the first thing you will want to do is to learn what you need.

Yard and/or food waste will get you started into your composting endeavors. There are some things that should not be composted, such as dairy products and meat and this will be explored in more detail later. You will also need some space; although the amount of space you use will depend on how much composting you will plan on doing. You will also want to get a bin or enclosure for your compost, although this is also optional. Some people prefer the wide open space for their composting. Composting containers will also be explored in more detail later. There are so many types of composting containers you can use, and the one you will choose will depend on your space and your personal preferences. There are other tools that you will find quite useful for composting. These will include a kitchen waste





pail or bucket, a garden hose, a wheelbarrow and small garden tools such as a spade.

### **Choosing Your Space**

The next thing you will want to do to get started is to choose your space. Choose your space carefully. Generally a small area that is out of direct sunlight will be your best option. If you are worried about insects or rodents, then you may prefer to put your composting pile away from your home. This is especially true if you opt for an open composting container or no container at all. It is also a good idea to choose a space where you can water it easily, or a space near your water source. Remember that moisture is important to your composting.

### **Starting Your Composting**

You can start your composting at almost any time of the year. However, you should remember that if you live in extreme heat or cold, it may be more difficult to keep your compost at the correct temperature to start out with. Many people enjoy starting their composting in the fall when they have a lot of leaves they have raked. Dead leaves make a wonderful addition to a compost pile because they are rich in nutrients and break down quickly and easily. Once you have added your ingredients to your compost pile, you will want to remember to keep it moist and add water as needed. You will also want to remember to turn your pile every few weeks to keep it circulated.

### **Using Kitchen Waste**

Besides using yard waste and grass clippings for your composting pile, you can also use a wide variety of kitchen scraps for your composting needs. Many people like to have a small composting pot or container with a tight lid on it in their kitchen. They will simply put their kitchen scraps inside of it and when it gets full, they will dump it into the large composting pile outside. This is a great and convenient way to compost what is inside your home. It is better if you add small pieces of kitchen waste to your container rather than large pieces. If you can, you should shred or chop the waste up into small bits before adding to your pot. Smaller pieces will allow it to break down faster than larger pieces.

### **Choosing a Kitchen Compost Pail**

As mentioned, one of the easiest and most convenient ways to start your composting is to use up the kitchen waste that you already have or will use. Many people will place a small pail or container in their kitchen and add in kitchen scraps as they cook. There are many different types of compost pails that you can choose from. You don't even have to buy anything fancy, but there are "fancy" ones out there that will do the job and look good sitting on the kitchen counter. No one will even have to know that it is full of old food and scraps.

A stainless steel compost pail is a good and stylish choice. You can even choose from smaller ceramic varieties or even larger ones. Many of these types of pails will feature a tight fitting lid to ward off insects and odors. Some will even have a carbon filter to help keep the odors contained inside. If you are in the market for a good looking and useful compost pail, look for one that is at least one gallon. This will hold a good amount of scraps and will keep you from heading outside to dump it out every time you cook. Also



look for one that has a good handle to make carrying easier on you. If you do want to shop for compost pails for your kitchen, then make sure if it has a carbon filter that you will be able to buy replacements when necessary. You can even purchase “biobags” that will line the pail and will biodegrade in your composting bin.

## **CARBON AND NITROGEN BALANCE**

As you get deeper into composting, you will soon learn that some things work quite well in your compost pile, while others do not. If you put the wrong material in your compost, it can leave a mess on your hands. With the right “ingredients”, you will have a rich and useful compost that will work well in your gardening.

### **The Browns and Greens of Composting**

So, how do you know what works and what does not? Many people that compost think of composting in two different categories—the brown category and the green category. The brown category will give your compost pile a high amount of carbon, while the green category will give your compost a high amount of nitrogen. You will also need a source of microorganisms to help the composting process along.

#### **What are carbons?**

Carbon, by definition, is a building block of molecules that make up all organisms on the Earth. In organic matter, carbon is stored in plant tissue and is emitted back into the atmosphere through respiration. Carbon is an elemental that is essential to survival—not only for plants, but for humans and animals as well. Carbon is also essential to composting. When you have the right ratio of carbon material in your compost, you will get better results.

If you are composting, then you will need to find things to add that are considered high in carbons. These are the “browns” of your compost pile. Brown carbon materials that are highly recommended for composting include the following:

Leaves-dead leaves will work the best. Many people like to add their fall leaves to their composting pile because of the abundance of carbons.

Dead plants-adding all types of dead plants or even dead plant cuttings from your house plants will make a great addition to your compost pile.

Straw-if you are lucky enough to have an abundance of straw, throw this in as a high carbon material. Shredded paper-brown paper bags and shredded newspaper will work especially well in your composting pile as high carbon matter.

Shredded twigs-if you are doing yard work, add in some shredded twigs from your pruning.  
Pine needles-if you have pine trees in your area, making use of fallen pine needles will benefit your composting.





Sawdust-sawdust is another high carbon material that can be added to your compost pile. Make sure your sawdust comes from untreated wood.

### **What is nitrogen?**

As you compost, you will also learn that nitrogen is extremely important to composting. By definition, nitrogen Organic materials that are high in nitrogen are considered the “greens” of composting. You need a good mixture of greens to get the composting results you want. The following are all greens that are high in nitrogen.

Grass-grass is a great example of organic material that is high in nitrogen. You can use your lawn clippings after you mow and add them to your compost pile. This is a great way to reduce your lawn trash and recycle.

Green weeds-if have a lawn, or even flowerbeds, then chances are, you have weeds. Put these weeds to work and make them useful by adding them to your composting pile. Get the weeds out of your lawn and recycle them.

Manure-Manure may be smelly, but it is very useful when you farm or garden. If you have access to manure, then you can use it as your “green” organic material for your composting.

Kitchen scraps-Turn your kitchen scraps into something useful by adding them to your composting. You can use almost anything that comes from your kitchen except meats and dairy products. These should not be added to your composting because they will not breakdown correctly.

Pond algae or seaweed-you may not have access to either of these, but these are both great “green” additions for your composting and are high in nitrogen.

Clover and alfalfa-Both clover and alfalfa are high in nitrogen and will help your compost ripen for your use.

### **Adding Organisms to your Compost**

Once you have your high carbon “browns” and your high nitrogen “greens” for your compost, you will also need to make sure you have the right type of organisms to aid in the breakdown of the material in your compost. There are many things you can use for this but the most common organic materials include the following:

- Old compost
- Cow manure
- Soil
- Chicken manure
- Horse manure
- Compost starters, available for purchase

Interestingly enough, when you compost and look at the carbons, nitrogen and organisms you can add, you will learn that some of these work together better than others. For example, a mixture of dead





plants, green weeds and soil will make optimal compost. Leaves, grass and old compost also work well together. Pine needles, kitchen scraps and compost starters are another mixture that works well together. These mixtures will give you optimal results with your compost.

### **Learning the Balance of Composting**

As mentioned above, some of the greens and browns will work better together than others. That is because not all browns have the same carbon content and not all greens have the same nitrogen content. You have to have the right balance to make it all work in your favor. This may sound quite difficult to the beginning composter, but once you learn how to do it and what works best with the materials you normally use, you will get the hang of balancing your compost mixture.

### **The Carbon-Nitrogen Ratios**

All organic matter has both carbon and nitrogen, but not always in the same amounts. The balance between the two is called the carbon-to-nitrogen ratio (or C:N ratio for those who are scientifically inclined). For composting to work, you must have the right mix or the right balance of the carbon and the nitrogen. The nitrogen will provide the protein production, while the carbon is needed for the energy. Of course, you know that all organic matter will break down on its own if left to nature, but if you are making compost, then you want the best and fastest results. Studies into composting have shown that if you want to make high quality compost that smells nice (nice smelling compost should have a sweet smell) quickly, then you will need to maintain a carbon-nitrogen ratio that is somewhere between 25 to 30 parts carbon to 1 part nitrogen, or you can put it 25-30:1. If you have a ratio that is too high, then you have excess carbon. The decomposition will slow. If you have a ratio where the nitrogen is too high (or you have a low ratio), then you will have smelly compost.

Again, when you have a high amount of carbons, you have a lot of browns and high nitrogens are greens. Below is a look at the estimated carbon to nitrogen ratios for common additions to the composting bin. This list, from highest to lowest, may help you determine what you need when you compost for the right ratio.

#### **Brown (carbon) Ratios:**

Wood chips, untreated: 400:1

Shredded cardboard: 350:1

Newspaper, shredded: 175:1

Pine needles: 80:1

Corn stalks: 75:1

Straw: 75:1

Leaves: 60:1

Fruit waste or scraps: 35:1





Peanut shells: 35:1

Wood and wood ashes: 25:1

Striking that perfect balance is very important to composting. You know you need the carbons, but you also need the nitrogen. This same principal also applies to greens, which are high in nitrogen. Here is a list of common high nitrogen ratios in order from highest to lowest.

Weeds: 30:1

Garden waste: 30:1

Hay: 25:1

Vegetable scraps: 25:1

Clover: 23:1

Coffee grounds: 20:1

Kitchen or food scraps: 20:1

Grass clippings: 20:1

Seaweed: 19:1

Animal manure (cow, horse, chicken): 15:1

Alfalfa: 12:1

There are, of course, many other things that you can compost, but many times, these do not have the best ratio, which is 25-30:1. If you find that your ratios are high, you can add grass clippings or manure for quick results. If it is too low, then adding paper, dry leaves or untreated wood chips can fix the problem. Excess nitrogen is not a bad thing, but it will give you an odor.

Many people who compost either out of necessity or because it is a hobby will prefer to have a higher nitrogen level to their compost and deal with the odor. They know that having higher nitrogen content will keep the compost piling “cooking”, so to speak. In addition, choosing a closed composting bin will help keep the smells of your composting pile under control a little better than an open pile or a pile that is not contained at all.





## COMPOSTING RECIPES

Now that you understand the importance of the right carbon to nitrogen ratio, you can start following some “recipes” for composting. A good recipe, when followed carefully, can make the difference between great compost and a smelly one. In fact, many composters will compare making compost to a little bit like baking a cake. You will add the right ingredients, in the correct amounts, you will stir your mixture and then you will let it “bake” for a certain amount of time.

### “Baking” Kitchen Compost

There are plenty of things that you use in your kitchen on a daily basis that will give you a good foundation to your composting. You might even be surprised at the things you normally throw away that you could be recycling into your compost. You can use a mixture of some or all of the following when you use kitchen ingredients in your compost:

Vegetable peels and vegetable seeds

Eggshells

Fruit peels and fruit seeds

Nut shells (peanut shells are especially useful)

Coffee grounds (you can also use coffee filters)

Fruit and vegetable scraps

### Baking Yard Compost

Again, the same principal applies to using your yard waste for your composting. You can use all or some of these “ingredients” for your compost pile.

Hay and straw

Wood chips, untreated

Grass clippings

Weeds and other garden waste

Leaves

Manure

Sawdust

Shredded paper and cardboard







### Other Ingredients to Compost

There are great deals of other “things” you can compost. These are all ingredients you probably already have around your house. The following low maintenance compost recipe will yield results that are effective, but it is slower to make. Depending on your ratios and the temperature, it could take months for this recipe to “bake”. You will need:

- Straw
- Dried leaves
- Untreated sawdust in small amounts
- Untreated wood chips in small amounts
- Cardboard pieces
- Shredded newspaper
- Dryer lint
- Corn cobs and corn stalks
- Shredded brown paper (such as brown craft paper or grocery bags)

Pine needles

Pine cones

Egg Shells

This recipe will give you fast results and you will find that the compost will be ready in only a few short weeks. You will need:

Manure (cow, horse, rabbit, goat, chicken)

Fish meal

Blood meal

Cottonseed meal

Alfalfa and/or pea clover

Green garden waste, such as weeds

Sea weed

Coffee grounds

Lake moss

Hair

Kitchen scraps, especially those from vegetables

Grass clippings from untreated grass

Sod

### Ingredients to Avoid in Your “Recipes”

While there are many things that you can add to your compost, there are things that you should completely avoid for a variety of reasons. Here is what you should always avoid adding to your composting pile.

Meat products, bones, fish, dairy products and oil: All of these will cause odors and will certainly attract not only insects but rodents as well. These items also do not break down as well or as fast as other organic matter.

Pet feces: You already know that some animal droppings are wonderful additions to your compost. Horse, cow and chicken manure works very well. However, pet feces should never be used. Cat and





dog feces do contain disease and will harm your composting efforts.

**Weeds with seeds and runners:** When you add in seeds and runners to your compost pile, guess what? It will grow and spread in your compost. You can add weeds, but make sure they are either dead, or have no seeds or runners.

**Insect infected plants and plants that are diseased:** While it may be very tempting to throw in those dying houseplants or other plants with small bugs, this will cause problems. These diseases and insects will not die in your compost. In fact, they will spread.

**Treated wood shavings and sawdust:** Any type of treated wood should be avoided. This is because it contains toxins and strong preservatives that will harm your compost. If you plan on using wood, make sure that you only use wood that is untreated.

**Ashes:** Using an abundance of ashes in your composting will cause the composting process to slow. It is normally better to avoid ashes.

Other things that you should avoid in order to get the best results include persistent weeds such as poison ivy, bindweed, quackgrass and multiflora. Human feces should also be avoided. Any plants that have gone to seed should also be avoided.

### **Mix and Stir**

When you have all of your ingredients for your compost, you will need to mix and stir. Composting does not work well if you just let it sit outside. Again, like a cake or cookie recipe, it works better when you add the ingredients in the right order and you follow the directions carefully. You know what happens when you don't follow a kitchen recipe correctly. The same thing can happen with compost. You will end up with a smelly mess. Composting is easy, but only when you take the time to learn how to follow the "recipes" of good composting.

### **Steps to Mixing and Stirring Your Compost**

One of the first things you will want to do when you make compost is to make sure that you have broken down any large matter into smaller pieces. Large chunks of kitchen waste, garden waste and paper will take a very long time to break down when you compost. It is always a good idea to shred paper and cardboard before adding and to make sure that anything else you put in is in small pieces. Some people that compost prefer to go ahead and shred all of their pieces before adding in to save time when they are ready to add to the bin.

### **Adding Ingredients All at Once**

Next, when you are following a composting recipe, you will want to make sure that you add in all of your ingredients at one time. This is because when you add in ingredients a little at a time, they will not decompose at the same rate. It is not advisable to keep adding ingredients into your composting bin at different times. If you are concerned about having waste sitting around waiting for a composting bin, then you might want to consider having several smaller composting areas going at all times.





## **Adding in the Right Order**

As soon as you are ready to start building your compost pile, you should know that the order in which you add your ingredients will determine your end results. You will have better compost when you add it in layers—in a certain order. Start with a good thick layer of twigs and small sticks. This will raise the bottom of the compost up just slightly and allow for circulation and a bit of breathing room. You will then want to layer the carbon material and then the nitrogen material in alternating layers. It is always a good idea to start with the carbon, then nitrogen and so on until you have it all added into your compost bin.

## **Water Comes Next**

Moisture, in the correct amounts, is critical to composting. You can't have good compost without water. Once you have all of your layers in your compost bin, you will want to add water. You will need to make sure that you do not add too much. You will add just enough water to make the pile feel a bit like a damp (but not soggy) sponge. Imagine the feeling of a sponge that has been squeezed out. That is the feeling you are going for when you compost. One sure-fire way to tell if you have enough water (or too much water) in your compost pile is to get a small handful of the mixture. Squeeze it in your hands. Does water drip out? If only a few drops of water comes out, then you have the perfect amount of water. If water pours out, then you have added too much and you will need to add more dry ingredients to the mixture to saturate the excess water. If no water comes out at all, then it is too dry.

## **Let Your Compost Bake**

The fun part of composting starts after you have added in all of your ingredients and the water. It is time to stir and wait. You will need to take the time to stir and rotate your compost every five to seven days. This will ensure that all of the ingredients you have layered into your compost pile or bin is evenly distributed and circulates well. Stirring is also crucial to your end result because it will replenish the food and oxygen for the microorganisms that are in your compost. Those microorganisms need a fresh supply of both every few days. Stirring will also help ensure that the temperature of your compost is evenly distributed. It is important that the temperature of the mixture stays between 104 degrees to 160 degrees. This should be the case even in colder climates. One interesting note about temperature: when the temperature reaches around 130 degrees, most of the disease and pests, along with seeds and weeds will die inside of your compost. A good temperature will also help ensure that your composting will decompose faster.

Another note about composting: if you opt for a low maintenance composting recipe, it will take longer because the temperature will not reach a higher temperature than those that are high maintenance. These will not, however, kill off seeds and weeds, so don't add those to the low maintenance composting.





### When is the compost done?

Of course, when you spend the time making compost, you will also need to know when the compost is done. After you have added all of your ingredients to your compost bin and stirred and let it sit for the appropriate amount of time, you need to know when the compost is ready to use. It is normally easy to tell when it is “baked”. Most of the time, your compost mixture is finished when it has an earthy smell. All of the particles that are in the mix should look the same size and texture. In addition, compost that is ready to use will have the color of dark brown soil and will feel light and fluffy. There should not be a foul or odd smell to compost when it is done and if you see that your composting material has not broken down into uniform texture and size, then it needs to sit a while longer before being used. Making sure that your compost is ready will give you useful compost.

### Testing the Compost

Another way to tell whether or not your compost is ready to use is to see if any of the original materials still looks like what it was when it went in. If so, your compost is not ready to use yet. If you are still not sure if your compost is ready to take out and use there is another simple test that you can perform. Expert composters recommend taking out a handful of the compost and placing it in a small plastic bag (a thick zip top freezer bag will work well). Close the bag tightly and let it sit for 24-48 hours. When you open the bag, there should be no strong odor. If not, this means you can begin using your compost. The best end result that you can hope for with composting should have a light, almost sweet earthy smell and have a nice light texture.

It may take a little work and time for you to learn when the composting is ready to use, but once you understand the difference between “good” compost that is ready, and compost that needs more time to “bake”, you will soon be an expert at making your compost.





## FIXING COMPOSTING PROBLEMS

Composting does sound pretty easy. After you have learn all the basics, such as the best place to put your composting bin, what kind of ingredients are acceptable and which ones are not and how to maintain your compost, you will have no problems making compost whenever you have the ingredients on hand. There are, however, things that can go wrong when you compost. If you are starting a compost bin and notice that it just doesn't seem to be going the right way, then you may need to look for some solutions. The following are all common problems that composters have and how to fix each one.

### Problems:

**Bad Smell:** You find that your compost pile or bin is wet and it smells like rotten eggs or a mixture of rancid vinegar and butter. This is a common problem and usually means that your compost needs more air. If you add too many “fresh” ingredients, such as kitchen waste, then you may experience a nitrogen level issue. Your compost may stay too wet or have too much nitrogen. The solution for this is more air or more dry ingredients. One of the easiest ways to fix this is to turn your pile and add more dry material such as wood chips, sawdust or dry leaves. If your pile is much too wet, then you may need to drain the pile. If the smell is very bad and you must get rid of the odor, then composting experts recommend a simply solution. Bury your compost that smells and start a new pile.

**Compost is not breaking down properly:** Another very common problem that many composters have is that they find their compost material is not breaking down properly. This is caused by a compost pile that is too dry or you may find that the pile is too damp with a sweet smell. If the compost is too dry, then all you will need to do is to add the right amount of moisture. Remember, you can tell whether or not the pile has too much water by squeezing a small amount in your hand. If it drips, then you have too much water. If it crumbles then it is probably too dry. You can also have this problem if you have the wrong levels of nitrogen. Try adding greens to your compost—either green grass clipping or manure. This will help solve the problem.

**Pile is not warm enough:** Another very common problem associated with composting happens when the compost does not stay warm enough. By now, you should know that the temperature is vital to getting the composting correct. If your compost does not reach the right temperature, it will not work. The center of your compost pile should be at least 130 degrees. This temperature should be evenly distributed. Sometimes, temperatures in composting piles can dip if the pile is too small. If this is the case, then you might try to incorporate your small pile into a bigger pile or put them in a secure container that will help regulate the inside temperature.

**Compost attracts insects or contains insects or larvae on the inside:** Compost commonly attracts insects, but it should not have insects on the inside of the composting pile. Many times, composters that do not use a secure container will experience this problem. In addition, if you add meat or other animal products to your composting pile, you will get all sorts of insects. You can minimize the number of insects and other pests to your compost pile by burying your food scraps deep inside the pile, especially if you





have an open compost pile. Keeping the temperature at the correct levels will also minimize the insects that your pile attracts. Having the right amount of moisture will also help with insects. Some insects are harmless (such as earthworms) and may actually help the composting process along. Try to identify your insects before destroying them.

**Compost pile attracts fire ants:** Fire ants are also quite common when you have a compost pile. Most of the time fire ants in a compost pile means that the compost is too dry. This is an easy fix. You will simply need to turn your compost and add water. Again, make sure that you add the right amount of water. If you find that your fire ant problem is very bad and you need to rid of them quickly, it is acceptable to use a low-toxicity fire ant bait. Use caution. You can use the bait around and near the pile, but you should not add the bait to the actual compost pile.

With a little experience and practice with your composting, you will be able to recognize what is wrong with your composting pile and know exactly what you can do to fix the problems. Many of the solutions for composting are easy to fix and do not require much time.





## HOW TO USE YOUR NEW COMPOST

After all the time and effort you have spent perfecting your compost, you are ready to put it to good use. Compost is a wonderful way to help with yard work and gardening. Even if you are not an avid gardener, you can find ways to use your compost. You can even give it to a gardening friend, who would probably love to take it off of your hands. There are so many things that you can do with your compost. It is excellent for trees and shrubs and can help retain water and will add valuable nutrients to the things you plant around your home. Here is a closer look at what you can do with your new compost.

**Refreshing the soil:** A great use your finished compost includes refreshing or amending the soil. Completed compost can be added or “turned” into your existing soil in your garden or flowerbeds to add nutrients. You can easily add up to six inches of new compost material to your soil each year. The compost will slowly release the plant nutrients and the trace elements that will enrich your gardening soil. The most popular time for adding compost to the soil is during the spring. This is when most gardeners are planting new growth and working with their soil. You can also spread the compost on your soil right after planting season ends. This will allow the trace elements and the nutrients to seep down into the soil for maximum benefit. Another great way to use up compost is to add just a small amount into a seed furrow during planting. This will help your vegetables, perennials or annuals get a good start with plenty of nutrients. If you have a large amount of compost and a large yard, then consider adding it while you are planting trees, shrubs or large vegetable gardens. It can also be used to help repair damaged lawns.

**Use the compost for mulch:** While you should remember that compost is not the same thing as mulch, you can use compost in much the same way as you would use mulch. Mulch is often used to cover flowerbeds to help retain moisture, stop soil erosion and to help stop the growth of weeds. You can use compost for many of the same uses. You can spread compost in two to six inches deep around your plants, shrubs, trees and slopes. When you do this, the compost will help do the same thing as mulch—it will help deter weeds, stop erosion and help retain and conserve water.

**Use the compost for plant potting:** You can also put your new compost to good use by using it for potting mix. If you enjoy potted plants in your home, you know that you can spend a lot of money buying high quality potting mix. When you make your own compost, you will have an unlimited supply that will give your plants all the nutrients they need. Completed compost can be used along with equal parts of potting soil and sand to create a nutrient rich potting mix. Before you use your compost for this purpose, make sure that all of the particles are broken down into fine pieces for the best results.

### Advantages of Using Your Compost

Compost makes great material for gardening and yard work, and you can see that there are many advantages of using it. Compost is known to be very beneficial in several ways as well as very versatile. Using your compost will:





- Help the environment by recycling organic matter that would otherwise end up in the garbage pail and filling the landfills.
- Help improve the structure of the soil and will give it a good density. This will help plant roots have better growth.
- Helps improve the water capacity and helps retain moisture. This means that there is less water leeching and you will save time and money by watering your plants less often.
- Helps increase the moisture infiltration and permeability of soils that are heavy and hard to use for growing plants. This will also help reduce the amount of run-off and erosion.
- Helps control or slow down some soil-borne plant pathogens that can cause disease
- Helps supplies significant amounts of organic matter to the soil
- Helps supply helpful micro-organisms to the soils and the other growing material, which helps growth
- Helps improves and stabilize the soil pH
- Helps control certain pollutants found in the soil

### QUICK TIPS FOR COMPOSTING

Now that you have learned more about how to compost and the benefits of doing so, keep in mind some of the following keys to great composting.

- Microorganisms are the key to composting. They live in the soil and eat organic matter. Feed them all sorts of organic material such as leaves, grass, banana peels, old apples, old vegetable matter, leaves and weeds.
- Microorganisms also depend on carbon. High carbon material that you can add to your composting include plain paper, untreated sawdust and wood chips, straw and dried leaves.
- You compost needs air. It will not give you the right results without air. Be sure that if you are using a composting bin or other contain, you have holes in it to allow air inside. It is also a good idea to stir your compost every few days so rotate the matter. Without air, the microorganisms in your composting will die and that will led to rotten odors from your composting pile.
- Your compost pile needs the right amount of water. Not too much, and not too little either. Your compost should feel a bit like a wet sponge when you squeeze it in your hands, but it should not be drippy. If you have a closed container, make sure you are adding water when it is dry.
- The temperature of your compost pile is important. If it is too cold, it will not do well. The temperature of your compost pile should be between 90-140 degrees.







- Using a large compost pile is better. If you are going to compost, it is almost always better to use a large pile instead of a small one. This will ensure that the entire pile can maintain a good temperature year-round.
- Use small pieces of organic matter for the best results. It is never advisable to throw in large pieces of organic matter. This will make it very difficult for the composting process to work efficiently. It will slow down the entire process. In addition, chopping or shredding the material before adding will ensure an even distribution.
- Give your compost time. You can expect your compost pile to take any amount of time with many factors taken into consideration. Six weeks to a couple of years is the norm. It all depends on your level of commitment and care.
- Place a small composting pail in your kitchen to help you remember to throw those scraps into your composting bin.
- Spread finished compost in your flowerbeds, in your potted plants and around your trees and shrubs to help them get the nutrients and trace minerals they need to survive.

## **A LOOK AT COMPOSTING BINS**

As you learn more about composting, you will want to consider getting a compost bin. Many composters will start an open compost pile in the backyard to see if it is a hobby they enjoy before spending money on a composting bin. This is always a good idea. Once you know that you are going to continue with composting, you might want to take a look at some of the available composting bins. There are many different styles and sizes that will fit almost any budget.

### **Advantages of a Composting Bin**

You know the advantages of composting, but do you know that there are advantages of using a compost bin over an open composting pile? The right type of composting bin will keep all of your organic composting material in a neat place, rather than out in the open. This is quite beneficial if you are worried about weather taking a toll on your compost pile. Another advantage of using a composting bin rather than an open pile is that the temperature is much easier to maintain. When you compost, you must have the right temperature in order for the matter to breakdown at an efficient pace. This will speed the entire process up when you are composting. In addition, a composting bin will help retain the correct levels of moisture and you don't have to worry about rain saturating your composting bin. Last of all, when you do use a composting bin, you have less of a chance of attracting fire ants, insects and rodents.

### **How to Choose a Compost System**

So, now you know that you need a compost bin of some sort if you plan on continuing to compost at regular intervals. There are many options out there and when you start doing your research, you may not know which one to choose. There are several ways to compost—and there really is no right or wrong way. What you decide to use will depend on your personal preferences and what you expect to get out of your composting. If you are not worried about how long it will take to finish a pile, then you can opt for a less expensive or a homemade version. However, if you intend on finishing up a pile every few weeks, then you will probably want to opt for a more expensive version that makes composting easy and fast.





Of course, your budget and your available space will also dictate the type of composting system that you ultimately decide to use. Some of the composting systems that are designed to turn out a large volume of compost very quickly will certainly cost you quite a bit more than the kind that will only hold a very small amount.

## **Take a Look at Composting Methods**

Before you decide what type of composting bin you want to use, you will need to decide how you will compost. While there is really not “right” or “wrong” way to compost your kitchen scraps, grass clippings, old leaves, garden waste and wood chips, there are definitely different ways to do it. The way you decide to compost will ultimately help you figure out which composting bin is right for you.

## **Two Methods of Composting**

Generally speaking, there are two methods that you can choose to compost. The first one is called passive composting and the second one is called turning composting. While the way you will go about composting with these two methods will differ, your goal is to get the same end results, which is having an end product that you can use in your home and garden.

**Turning Composting:** Turning composting will require a little work and effort on your part. In exchange for your work, you will get faster results for your composting efforts. When you opt for turning composting, you will “turn” or rotate your composting bin. There are turning units that will allow you to do this easily. When you turn your composting pile on a regular basis, you will help the compost stay aerated and retain a good moisture level. Doing so will speed up the decomposition process giving you a great amount of compost that you can use. The good thing about turning units is that they do work much faster than passive methods. This is due to the fact that when you turn the compost, the aerobic bacteria, or microorganisms in your bin, are distributed throughout making the breakdown process work well. You will need to turn or mix your compost in a turning bin every five to seven days and you may ever well end up with your final composting product in six to eight weeks. The cons of using a turning unit is that they do typically take up more room and you will spend more on these units. You can build one, but will take you long.

**Passive Composting:** The other method of composting is called passive composting. A passive method of composting will require less work on your part. It is called passive because you take a backseat role to the whole composting process. With this method, you add your material and let nature do its work. However, this process is very slow and can take months or even years to produce an end result. You can use passive composting when you really don’t care when your compost pile is done and you just want to compost your grass or leaves. This is also the least expensive way to compost.

## **Ask Yourself Questions First**

Before you run out and buy the first available compost bin that you find, you will want to make sure you are buying the right one. Ask yourself a few questions before spending your hard earned money. The answers will help give you some direction into which composting bin is right for you.

How much waste do you want to compost? If you are planning on only composting your kitchen scraps





and a bag or two of leaves from your small yard, then a smaller composting bin would be the right choice. However, if you live on acres of land and have horses, cows, crops and a big family, then a larger composting bin will prove more beneficial.

What materials do you plan on composting? Is your answer your potato peels and apple cores? Or, do you plan on composting large amounts of leaves, garden waste and animal waste? The answer to this question will also help you determine whether or not you should go with a large compost bin or a small household sized compost bin.

What kind of space can I dedicate to composting? If you live in an apartment, or have a very tiny backyard, then it will not be feasible for you to get one of the barrel sized composting bins. Your space is very limited. However, if you have a large yard or even live on a few acres, then you have a lot of room and can pick almost any size composting bin that you want. In addition, if you are using certain materials in your composting bin such as wood chips, sawdust and papers, then you will also need storage room for those items. You might even need a compost curing pile, which will take up more space.

Why are you choosing to compost? Many people think that composting is simply a responsible thing to do and they do it because it is better for the environment and takes up less space in the waste bin. These are usually your weekend gardeners that choose to use their finished product on gardening. If this sounds like you then a smaller bin is the right choice for you. If, however, you farm or live on a large amount of land, then perhaps composting is more important to your way of living.

How much time do you have? Are you a composter that has grass clippings now and then and you hate to bag them up when they can be put to good use? Maybe you are and you don't really care if your compost pile takes three months or three years to finish. Maybe you are more motivated to compost and you want faster results. This factor will also help you decide on a composting bin.

### Types of Compost Bins

Choosing the right compost bin does not have to be difficult. You only need to take the time to do your research and find out what is most beneficial to your composting needs, interests and your available space. You will find everything from small kitchen composting pails to large and expensive multi bin systems that will allow you to do a lot of different type of composting at once. There are some things you should look for when choosing a composting bin.

- Look for proper aeration. This means your compost bin you are considering should have air holes to allow the compost mixture to breath and complete adequately.
- Look at the opening. Does the compost bin you are thinking about purchasing have a large enough opening to help you get all of your composting in and out of easily?
- Look at convenience. Check to make sure that the compost bin is convenient for the type of composting you are planning on doing.
- Look to see that your compost bin will detract rodents and repel insects. This is especially important because nothing is worse than opening your compost bin to find a scurrying rodent or an infestation of insects.
- Look at the amount of space it requires. As mentioned above, there are many different sizes of composting bins. Make sure that you have adequate room for the one you are considering.





- Look at how it is built. Many avid composters will highly recommend that bins that are seated or built above ground do a better and more thorough job than those that sit directly on the ground.
- Look at your price range. Of course, the cost of your compost bin will be a big factor when you go shopping. Composting bins really range in price. You can get some very cheap while others will cost you quite a bit more. Check to make sure you are ready to make an investment in a composting bin before buying.

Keep all of these considerations in mind as you shop for your composting bin. Remember that you will be using your composting bin on a regular basis so you want to make sure that you get the one that works for you.

### All Sorts of Compost Bins

Here is a closer look at the common types of composting bins. Some of these bins can be handmade using materials you probably already have around your home. Some of these are expensive and meant for serious composters.

### No Bin System

The no bin system is just that—a way to compost without the use of any type of bin. You may also hear this system referred to as an “open” composting system or a composting pile or heap. This is certainly the most cost effective way to compost because you do not need to buy anything to get started. This is a choice method for those that are really only interested in re-using and recycling yard waste such as garden clippings, wood chips and grass clippings.

You will need a moderate sized area for this system and you will need to make sure it will not attract animals such as rodents, squirrels and raccoons. Many composters that use the no bin system will cover the pile during the rainy season to prevent it from washing away.

A no bin composting system is ideal for composters that do not want or do not have time to spend on constant composting maintenance. This is also a great choice if you have a small amount of space in your yard or you do not have a lot of money to spend on getting started. Many people who are just getting interested in composting will start a no bin system and see how they like the hobby before investing in a store-bought bin or before they spend the time building their own.

### The Pros of Using a No Bin System

- A no bin system is simple to get started
- It is cheap and there is almost no money needed to get it going
- It can save space. You can make your pile as big or as small as you have room for it.
- It is low maintenance

### The Cons of a No Bin System:

- This method is not preferred for those with neighbors in close proximity
- It can attract wildlife and insects
- It can lose heat, thus taking longer to compost
- The pile can spread easily





## Hoops Composting System

Essentially a hoop composting system is one step up from pile or heap composting. A hoop composting bin is cheap and can be made at home using stakes and wire. You can also purchase inexpensive plastic enclosures that are open at the top or have a lid. Most composters like using a hoops system because it is a bit neater than using the open pile system. While these are covered and somewhat enclosed, they are not resistant to critters and insects. In addition, these are a great choice for those that may want to expand their composting needs because it is adjustable.

Many times, a person will select a hoop composting bin when they are not completely sure they want to spend their time composting. It is a good choice over an open pile, but it is not as expensive as other methods, such as purchasing expensive compost tumblers. Many store bought hoop systems will hold about 173 gallons (or 21.7 US Bushels). These are mainly meant for grass clippings and leaves that the average household will produce. It is fast, each and light weight so it can be moved when needed.

### Pros of Using a Hoop Composting System

- These bins are inexpensive and are easy to find at your local home and garden store
- They are easy to set up
- They are lightweight, making them a breeze to move if necessary
- These bins will hold all of your composting in one convenient place and will not allow your pile to spread
- Many of these bins are adjustable and can adjust up to over three feet in diameter
- These will retain heat and moisture better than an open pile
- Bins are easy to store when not in use
- Has good ventilation

### Cons of Using a Hoop System

- Will not hold as much organic matter as some other methods
- Does not retain moisture and heat as well as an enclosed bin
- May take a lot longer to complete a composting cycle over a tumbler or other type of bin
- Some do not come with a lid
- May attract rodents, wildlife and insects
- Is not good for kitchen scraps and other types of organic material





### One Bin Composting System

Simply put, a one bin composting system is a way to compost using only one bin. It seems simple enough—and it is. These types of composters can either be handmade or commercially bought. They come in all shapes and sizes, too. The most common shapes you will see include the cone shape, square, or circular. The one bin composting system is a great option if you know that you have the time and space to devote to composting. These also work out well when you know that you are not going to produce a huge amount of compost. You do not live on a farm or acres of land. You simply want to compost the things that your family uses in and around your home. You don't need anything fancy or too expensive. Often times, the one bin composting system will fit the bill.

These bins are relatively inexpensive and when you make them at home, they are even cheaper depending on the materials you choose to use. If you buy one at your home and garden store, it will probably come with a lid and have some sort of ventilation. The ventilation is very important so your compost can breathe. A lid is also crucial because it will ward off raccoons, deer, squirrels and other wildlife as well as rodents and all sorts of undesirable insects.

### Pros of Using a One Bin System

- Less expensive than a tumbler or multi bin system
- Can be made at home
- Will help keep out critters and bugs
- Looks more attractive than a heap or an open system
- Provides good ventilation
- Provides good aeration
- Will help keep in moisture
- Comes in all shapes and sizes to fit almost any budget

### Cons of Using a One Bin System

- May not be big enough or versatile enough if you do a lot of composting
- Can be hard to turn
- Will require stirring or mixing on your part
- May have small opening making it hard for you to stir or harvest
- May take longer than a larger system or a tumbler
- Is more expensive than an open pile and a hoop system





## Multi Bin System

The next type of composting bin that is quite popular is the multi bin composting system. While these can be built, they are also available for purchase through companies that sell composting supplies. These types of bins are large and are great for those that live on a large amount of land and plan on doing a lot of composting, or composting of different varieties. In addition, these are also great for community composting or garden co-ops because they can be added to at various times and can hold a large amount of composting.

The most attractive feature of the multi bin system is that it is highly efficient and will allow the composter to work on three different composting piles at the same time. That means that you can always have one composting pile going and two others that are either just starting or finishing up. Because of the different stages, it is easy to have fresh compost on hand for most of the time. In addition, these are generally easy to use and to harvest and are animal and insect resistant.

### Pros of Using a Multi Bin System

- Easy to use
- Can have different stages of compost going on all the time
- Easy to harvest
- Can be used for a very large amount of composting
- Can be used for several families at the same time
- Will deter insects, rodents and wildlife
- Can be built if cost is an issue
- Provides good aeration and moisture retention
- Will produce an end result when managed carefully
- Can compost a wide variety of organic material

### Cons of Using a Multi Bin System

- Comes in different shapes and sizes, so you must consider which one is right before making a purchase
- Is more expensive than other bins
- Takes up more room than smaller type bins
- Must be mixed or turned at regular intervals
- Make take longer to compost than tumblers

## Using a Compost Tumbler or Spinner

Next on the list of useful composting system includes the compost tumbler, or “spinner”. These types of bins are very efficient and usually the top choice for serious composters. A tumbler is a self-contained barrel or drum that rotates for quick and easy mixing and turning of the compost. This will make the decomposition process much quicker, producing results in only a few weeks, not months or even years as some of the methods.

A compost tumbler is a good option for people that want to do composting that provides them with quick results. These tumblers are convenient and can be used in a small space in the backyard or on your land. Most of the time, these systems will provide you with a closed container keeping bugs and rodents away from your compost. A compost tumbler will be a bit more expensive than other systems and this is





certainly a consideration to think about when you are entering the world of composting.

#### Pros of Using a Compost Tumbler

- Does a lot of the hard work for you, little effort is required on your part
- Accelerates the decomposition process
- Is easy to rotate—because of the constant rotation of your pile, it will keep a constant and steady supply of fresh material in the mix.
- Insulates the temperature better than any other system
- Retains moisture
- Features good aeration
- Is enclosed so it deters insects, rodents and other wildlife
- Keeps odors to a minimum
- Comes in many shapes and sizes to suit almost any composting need from yard waste to kitchen scraps

#### Cons of Compost Tumbler

- Much more expensive than other systems
- May be heavy and hard to move from one location to another
- Because of the accelerated decomposition, may smell worse than other systems
- Usually a single bin system—will not allow you to compost more than one composting pile at a time

## THE POWER OF WORM COMPOSTING

Have you ever heard of worm composting? Many people have not, yet worm bins, or worm composting is nature at its finest and is a unique way to compost food scraps. In addition, you can take advantage of worm bins no matter how big or small your yard. In fact, many schools, restaurants and other institutions take part in worm composting because it is environmentally sound and because it works. Because of the uniqueness of worm composting, a great deal of time will be taken to discuss the ins and outs of worm composting as well as telling you how you can get started with this interesting and fun hobby.

### Learning the Basics of Worm Composting

Worm composting is a very unique form of composting. This is a method that will allow you to use just kitchen scraps and nothing else. There are many composters that will use a compost tumbler or other method mentioned above for yard waste and will also keep a worm bin to compost their kitchen scraps. Worm composting works great for many people because you can take up as little or as much space as you want, using large bins or small containers. Worm bins also discourage rodents and insects and has little to no smell. You can also keep your worm bin outside or indoors depending on your space needs. When you go with this method, it will produce a rich and dark material that can be used as a soil conditioner. Every gardener knows that earthworms are their friend in the garden, but they are also friends in the composting bin!







## How Worm Composting Works

When you compost, you can compost all year long and when you keep the temperature correct, you can produce rich compost. Essentially, worm compost bins contain moistened bedding and a supply of red worms or earth worms. Left in the bin, the worms along with the microorganisms in the organic material will turn the organic material into the compost. Worm composting is also known as “vermiculture”. This is a very popular method of composting for all sorts of people. Here are a few advantages of worm composting.

- It is easy and inexpensive
- Can be used by people with limited space
- Works quickly and efficiently
- Gives you a high quality compost
- Can be kept indoors or outdoors
- Produces very little odor
- Is a good hobby that even children can enjoy

## Starting with Worm Composting

Once you have decided that you want to give worm composting a try, you can start quite easily. It only takes a few things to get started. In fact, you may already have some of these things on hand. The following will tell you exactly how you can get started with worm composting.

### Get a Worm Bin

The first step in starting worm composting is to obtain a worm bin. There are many different types of worm bins that you can purchase or make. If you are interested in making your own, it is not all that difficult. A rubber storage container with a lid works very well as will galvanized tubs, plastic containers and wooden containers with a lid. You will need to make sure that you do not use a clear container. This will cause too much light to enter inside and will kill your worms. A dark colored container will work the best for worm composting. If you are looking for a cost effective method, then a rubber container is a great option. You can even build a worm bin using old tires. This is another very effective and inexpensive worm composting method, especially if you have room outside in your yard or in your garden.

Plastic containers will crack over time and wood will eventually be eaten away. Galvanized tubs are a good choice, but they do cost more. As you choose your bin for your worms, keep the size in mind and make sure that it has a cover. The larger your bin, the more worms you can keep. You will need about one pound of worms for every square foot of surface area. You can estimate that there are about 1200 worms in one pound. In addition, you will need a cover. This is to protect the inside from light and to prevent your compost from drying out.

### Provide Ventilation

The next step in setting up a worm composting bin is to make sure that you have adequate ventilation. You will need several small holes (1/8 inch or 3 mm) about four inches from the bottom of the container. If you do not place the holes in the right place, your worms will stay at the bottom and will die. Remember that proper ventilation is critical not only for worm composting but for all types of composting. If you are





unsure where or how to place the holes on your bin, just remember that the bottom of your container and the sides are the best locations for your air holes.

### **Get the Bin Ready for the Worms**

After you have chosen your bin and have prepped it for proper ventilation, you can now get your bin ready for your worms to move in. The best way to prepare your bin for your worms is to place thin strips of unbleached corrugated cardboard, shredded newspaper or straw in the bottom of the bin. You can also use dry grass. This initial layer of bedding will give your worms a source of fiber and will help keep the compost well ventilated. You will also want to add a layer of dirt on top of your first layer and moisten. Do not add so much water that it is drippy. Allow your bin to sit for a day or so before adding the worms. This will allow the water to completely saturate every part of the material.

### **Obtain Your Worms**

Now you are ready to get your worms. There are several different types of worms that you can choose from. In fact, there are some worms that are bred and sold especially for this purpose. Digging up a bunch of worms from your backyard probably will not help you because it will be difficult for you to find enough and they may not make it. If you are not sure where to look for worms that you can buy, try your local gardening store or contact a gardening club in your area. You can even find dealers on the Internet. As you choose your worms keep in mind that the most common worm used for composting is called the “Red Wiggler”. These worms are about four inches long and have a yellow tail. Night crawlers are also good choices. They reproduce slower than the Red Wigglers; however, they grow larger and do eat more. If you are using cardboard or other coarse paper, the night crawlers will be able to handle it. You can also certain varieties of fishing worms.

When using these worms, you will need to make sure that you do not let them go in the wild if they are non-species. Fast reproducers, such as the Wigglers, may cause problems with hardwood forests because they consume the leaf litter too fast. It is important that you make sure that whatever type of worm you choose, you make sure to keep them confined.

You can expect to pay about \$15-20 per pound of worms that you buy. If you order your worms online, they will be carefully shipped to you and if you get your shipment and find that your worms didn't quite make it, most online companies will gladly reship a fresh supply or refund your money.

### **Maintaining Your Bin**

Now that you have added your worms, you will need to properly maintain the bin. The first thing you should know is that worm bins do much better when kept elevated off the ground. You can use almost anything to elevate your bin including pallets, cinder blocks, or even bricks. Elevating the bin will help the ventilation and will make your composting work much faster. You should also keep in mind that worms can escape, so you need to make sure that the ventilation holes are not too big and that you care for your worms properly. You will need to maintain the proper moisture and fed them on a regular basis. Many worm composters will tell you that you can also keep your worms happy by keeping a light on your bin on the same place. As far as moisture goes, you will want to make sure you lightly water the surface inside your bin about every other day, especially when the weather is hot and dry outside. You





will want to feed your worms about once a week. They will like vegetable scraps. A good feeding routine will encourage reproduction. You will also want to make sure that you also add shredded newspaper, cardboard or hay about once a month to give your worms a fresh supply of fibrous material.

### **Feeding Your Worms**

It is time to feed your worms. Your worms will devour almost any type of food products; however, there are some foods that are better than others. In addition, there are some foods that you should avoid. When you get ready to add food to your bin, it is always better to chop or crush the food scraps will help your worms consume the scraps faster than large chunks. If you are really into worm composting, you can also puree the food scraps before adding them to your compost bin. Some great options for your worms include vegetable and fruit scraps, egg shells, coffee grounds, unbleached coffee filters, and used tea bags. Egg shells are highly recommended for several reasons. First of all, the shells will increase the calcium content in the compost. Worms also like to curl inside the broken shells. You can dry the egg shells and grind them before adding for good results. You can also add ground and moistened grains such as oatmeal, rice and flour. Paperboard, grass, leaves and cotton products can also be added. You can add wood chips or sawdust, but it will take anywhere from nine to twelve months for your worms to eat.

You should not feed your worms any meat or dairy products, eggs (although as mentioned dried eggshells are great) or oily or greasy foods. You can feed your worms citrus fruit and rinds, but these should not be a part of a regular diet. They are acidic and not the best food for your worms.

### **Time to Harvest Your Compost**

When it comes time to harvest your worm compost there are a few different harvesting techniques you can use. The one that you will use will largely depend on the type of bin you have, how large it is and what you feel most comfortable doing.

#### **Hand Harvesting:**

The simplest technique is not for the squeamish. Put on a pair of rubber gloves or gardening gloves and push away any material that is not completely composted. Being careful not to harm your worms, scoop a section of the worms along with the material and set on a piece of newspaper. Carefully scrape away the compost in layers. Your worms will then make their way to the center of the pile you removed. Give them some time to move and then take the mound with no worms and use as you please. You should place the worms back into the compost bin. You can repeat this process until you have enough compost to use for your project.

#### **Hands-Off Harvesting:**

Another method that many people find easier and less messy requires you to push the contents of the pile to one side of the bin. Add some fresh bedding, dirt, food and water to the empty side. It will take a little while, but eventually, the worms will find the fresh food and bedding and will move to the other side of the bin. You can then use your worm-free compost as you wish. If you choose this method, you must keep in mind that you can't hurry the worms to move, so you will need to have a little patience while they migrate to the other side of the bin.





### Using a Worm Separator:

The last method that is quicker than the hands-off technique is great if you don't want to wait on your worms or you don't want to sift through the compost with your hands. You can purchase worm separators or make your own. Barrel separators will cost you quite a bit, but they are very easy to use. If you like to build things, you can make your own shaking box. These are not too difficult to make and will help you keep your worms and your compost separated when you are ready. Of course, if you buy a worm separator, the cost will depend on the size you need.

### What to do with Harvested Worm Compost

Once you have harvested your worm compost, it is ready to use. Have you ever thought about what you will do with your very own worm compost? You can use worm compost in much the same way as you use regular compost. It is great to add to the soil to add nutrients.

### Storing the Compost

After your soil is complete, you can either use it or store it for later use. You may need to store your compost because you are not quite ready to use it or you may have produced more than you can use at the time. If you want to use it, you can add it to your potting soil for all of your indoor plants and add it to your garden soil as soil amendment. If you choose to store your compost, there is a right and wrong way to do it. First of all, you can store it in plastic zip top style bags. You can store it in small amounts, such as in gallon sized bags or you can purchase the larger storage bags. Using plastic bags will help keep the compost moist and easy to work with when you are ready to use it. Keeping it in bags will allow you to store it for a long time. You can also leave your compost in the bin if you are not ready to start another compost heap or you can store it in a rubber container with a tight fitting lid. If you have a large amount that needs to be stored, you can leave it on the ground, cover it with heavy plastic wrap and secure the wrap with heavy bricks or cinder blocks.

### Making Worm Compost Tea

Compost tea, you say. Well, this is not the type of tea you drink. Compost tea is a liquid form of compost that will allow you to water your plants with lots of helpful nutrients. To make compost tea, you will add about one to two inches of compost to water in a large can or a rain barrel. Allow the water and the compost to "steep" for a day or so while you stir. When it is done, you can add it to your plants or your garden.

Another method for making worm compost tea requires the worm castings, a piece of burlap, and a bucket of water. Form a sack shape with the piece of burlap and fill it with the worm castings. Place the sack in the bucket of water and let it soak for several hours. The sack is serving the purpose of a tea bag. After several hours, you have a liquid that is ready to use. It is full of nutrients and will help your garden crops and house plants grow big and strong. This is the best way to make sure your plants are getting their nutrients naturally—and it is inexpensive.





## Quick Tips for Worm Composting

Here are some things to keep in mind when you are ready to forge into the world of worm composting. These tips will help ensure that you have a great end product that benefits you and the environment.

- You can use a two or three bin system to help you compost quickly and easily. You can move uncomposted material to an empty bin and take out what is ready to use.
- If you would like to collect the fluids from your worm compost, it is a good idea to put a collecting tray under your bin. If you raise your bin off the ground and have ventilation holes at the bottom, the fluid will drip out. This is ideal to use the same as you would use compost tea.
- When you worm compost, it is like building a small eco-system. If you find other insects living in there with your worms, it is better not to remove them. They are usually beneficial insects (with the exception of centipedes that will eat your worms).
- Green food such as green grass, carrot tops, leaves, clover and alfalfa are all great foods for your worms. These will increase the nitrogen in your worm bin.
- There are many things you can use for your bedding. Shredded paper, egg cartons, cereal boxes and even cut up cardboard are great additions. Make sure you avoid glossy paper, such as magazines and don't put plastic in there.
- If you use pre-composted cow manure, your worms will appreciate you. Bury it three inches deep in your bin and let your worms go to work. You can also add sheep, goat and rabbit pellets that are not pre-composted.
- There are lots of brown foods that will increase your carbon levels. These include paper, leaves, bread and untreated wood chips. If you add lawn or grass clippings, it must be untreated. Otherwise, your worms might die.
- Remember moisture is very important. Never let your compost dry out. This will kill your worms faster than anything else.
- Make sure you understand your worms. Some worms are very sensitive to the oils and pH levels on your skin. You may need to handle your worms using gardening gloves or rubber gloves to protect them.
- The temperature on your worm bin should hover between 50-80 degrees. Anything under or above can kill your worms. If you have a small bin, consider moving it in your garage or basement in extreme temperatures.
- Be careful of using powdered limestone. The carbon dioxide can kill your worms if your bin is not well ventilated.

## LEARNING ABOUT GRASSCYCLING

Have you ever heard about grasscycling? Grasscycling is another form of composting that is not only beneficial to you, but will help reduce the amount of bagged grass clippings that make it to the trash heaps. When you think about it, it does make sense. Anyone that has a yard will mow—and not only once or twice a year, but repeatedly throughout the year. You are left with lots of grass clippings. It used to be fashionable to bag the grass clippings and put them out with the weekly garbage. However, many people are now seeing this as unsound for the environment. After all, grass clippings make up a huge percentage of household waste produced each and every year across the United States. A 1000 square foot lawn can easily produce 200-500 pounds of grass clippings each and every growing season.

A good alternative to bagging all that grass is called grasscycling. You can actually leave those clippings





on your yard after mowing and they will break down in seven to fourteen days. Clipped grass serves as a great fertilizer and can actually help your yard retain water. This will help reduce the number of watering your yard may need. That is great benefit from something you were going to toss anyway.

Some people do not like or cannot leave their grass clippings on their lawn. Some homeowner associations prohibit this so you will have to bag your grass. The good news is that even if you can't leave the grass on your lawn, you can still put your grass to good use. You can collect the clippings and use it to mulch around your flowerbeds and shrubs. It is also great to use in your vegetable gardens. The grass clippings will help retain soil moisture and will help stop the growth of weeds that seem to always encroach in the flower beds. One word of warning: if you have new plant growth, keep your grass clippings at least two inches away. If you do put grass clippings too close to your new plants, it can "burn" them.

Remember:

- If you mow less often and set your mower to a higher clipping level, you will save on the amount of grass clippings you produce
- Avoid letting large clumps of grass sit on your lawn. This will choke out new growth
- Mow when it is dry and make sure you use a sharp blade for the best results
- Avoid using chemicals and fertilizer on your yard if at all possible. The run-off is bad for the environment and will harm your grass if you plan on using it for any type of composting
- Water your lawn on a less frequent basis

## COMPOST TOILETS

As in the "not for the squeamish" category of composting is the compost toilet. Yes, some people actually use compost toilets in their home. Some are quite primitive and some feature some technology so that you would never know the that they did not use water. A compost toilet is a toilet that uses very little or even no water at all. It is designed to treat human waste to reuse for compost. While compost toilets are not for everyone, they certainly have their fans.

It is important to understand that compost toilets are not connected to a sewage system. These are good choices for those that live in remote areas without sewage systems. They are also not connected to any septic tanks. Instead, they work using aerobic biodegradation.

### How Compost Toilets Work

You are probably wondering how a compost toilet works. These toilets work by giving the waste an enclosed area allowing the natural process of decomposition to take place. This can easily be compared to the way a forest floor allows for the decomposition of wildlife droppings. A compost toilet can provide the user with valuable nutrients to be used. There are many styles of composting toilets, but they are all designed on the same principal—to allow aerobic decomposition of human waste. Some features of composting toilets include injected air for increased decomposition, the addition of composting worms to help the process along, mixing tongs to help stir the mixture, heating elements to ensure the proper temperature and air baffles to keep the distribution of air even throughout.





## Why Use Composting Toilets

Composting toilets are quite interesting and many people do not even know they exist. They really are not for everyone, but some people do not mind the extra work they take when they know they are doing their part to help the environment through water conservations. Why would anyone choose to use a toilet that is not connected to septic or sewer systems? There are benefits. First of all, when you replace your standard flushing toilet with a composting toilet, you are helping conserve water. Standard flushing toilets do use a lot of water and composting toilets use none at all. In addition, using one of these toilets also does not release harmful materials into the environment and will help make use of the useful nutrients. The compost can be used for home gardens and other home uses.

## Types of Composting Toilets

There are several different types of composting toilets. Some you can buy commercially and others can be made. If you want a composting toilet for your home, then a commercial kind may be your best option. If you are outfitting something outside, such as a campsite or another place where plumbing is difficult, then one you make may work well for you. A composting toilet that you buy for your home may cost you quite a bit—some may cost up to \$1500. However, you can buy lower end versions that are made for less frequent use for much less money. One thing you have to keep in mind is that you will save money in the long run when using these toilets.

## Commonly Asked Questions about Composting Toilets

Below are some of the most frequent questions that people have when it comes to compost toilets.

Do these toilets smell?

The smell is probably the first question many people have when it comes to composting toilets. The answer to that is no, they do not smell. If a compost toilet is properly installed and operated according to the way it should be, you will have no smell from this toilet. A compost toilet does have a constant suction of air at all times and it may even produce less of a smell than a regular flush toilet. You should remember that these toilets may smell if they are overloaded or if they are not installed the right way. Are there many advantages to using a composting toilet?

There are several advantages of using a flush toilet. First of all, it will greatly reduce the amount of water used. This will help you save money in the long run and will help conserve water on a higher level. Interestingly enough, there are some small towns and cities that use only composting toilets and they save money by not having sewage fees or high water fees. The other advantage is that your composting toilet creates valuable and highly useable compost that can be used in your flower beds and lawns. Some experts recommend that you not use the material from composting toilets in your vegetable gardens, but this is not universally accepted. These toilets are environmentally friendly and can help minimize pipes, sewage plants and treatment centers and this would in turn help reduce the impact leaked sewage has on rivers, oceans and other marine bodies.





Can these be used for more than just human waste?

Yes, you can use most composting toilets for other composting needs as well. You can add almost anything to them (except meat products and dairy products). If you have food waste such as vegetable and fruit scraps, egg shells, coffee filters and coffee grinds and even paper and cardboard, these can all be added into your toilet. Even disposable cotton diapers and tampons will work well in these toilets.

Are composting toilets approved by cities and local health officials?

The answer to this depends on where you live. If you live in a rural area or other area where indoor sewage is not available, then these toilets are generally accepted. However, if you live in a place where there is indoor sewage, then you may have a hard time getting approval for one. If you are interested in a composting toilet, you should check with your local city officials and health code enforcement to find out if you can have one where you live.

Have these toilets been used for long?

Yes, in fact, composting toilets are the first known types of toilets. Consider how waste was handled when there was no plumbing at all. The very first commercially made composting toilet was made in the 60s and while improvements have been made on the original design, they still have the same purpose. These toilets are becoming increasingly popular as more people are trying to do “the right thing” when it comes to leaving their footprint on the planet.

Are these toilets expensive?

As mentioned above, composting toilets do range in cost. One that you buy could cost you about \$1500. Some cost less, it just depends on what you want and your needs. If you think about spending \$1500 on a composting toilet as opposed to spending thousands of dollars on a sewage system, you can see that they really are cost effective. The savings you get from these are generally look at from a long term perspective.

While these toilets may not be right for everyone, they are certainly interesting. You may see more of these toilets in the future as people and cities look to using less water and helping the environment.

## TIPS FOR BUILDING YOUR OWN COMPOSTER

Now that you know more about composting, it is time to get started. You can make your own composting bin quite easily. Building a compost bin is not at all difficult and when you follow compost bin plans that are available on the Internet and in composting books, you will have a bin that is ready to use very soon.

One of the easiest way to build a compost bin is to start off with a small trashcan. If you enjoy cooking and think you will have lot of kitchen waste, then you can also use a kitchen composting pail. You simply fill it up when you cook and dump it in your larger bin when you are ready.

Another popular composting bin that you can make at home is a rolling compost bin. You can use 55







gallon drums that have a tight fitting lid. These rolling bins will cost you around \$10 and work well when you provide a few ventilation holes in the bottom and on the sides. These work really well for leave and grass, but they may be harder to stir and mix. A rolling bin works well if you have limited mobility or anticipate the need to move your bin when it is full.

Find how to build compost bin plans on the Internet and in books that are for composting. If you are just getting started in composting, you will be glad to know that there are many different types of bins that you can build in all different sizes.

### **Using Compost Activator**

Compost activators may good for you to use when you compost, either in a bin or with a composting toilet. You can use these when you want to help speed up the composting process. The compost activators include bacterial cultures and can help your compost work under lower temperatures. This will work very well if you live in colder climates and you find your composting process gets slowed down. You can buy composter activators online and through dealers that sell composting goods. They are relatively expensive, so they may not fit your budget.

### **CONCLUSION**

As you can see, there are many benefits of composting. Composting may seem a bit overwhelming at first, but it is really not all that difficult. You will need to learn how to compost before you get started. Having the right materials on hand will help you as you first start composting.

The main advantages of composting is that you are taking something that would otherwise end up filling the landfills and your waste bin and you turn into something useful. As you well know, kitchen scraps, yard waste and grass clippings can really add up. When you are talking about a large family, or a large city, you can see that you can do your part in helping the environment by simply composting. Of course the other advantage of composting is that you are left with a useable organic material that will give your lawn, flower beds and fruit and vegetable gardens trace minerals and high quality nutrients that they need to thrive. You can stop paying so much for expensive and potentially harmful commercial fertilizers and start composting for even better results. Almost anything that comes from your kitchen can be composting—including vegetable scraps, fruit scraps and even coffee grinds and filters. Just avoid meat and dairy products for the best results.

Once you start composting on a smaller level, you can start looking into other ways to compost. Consider grasscycling, which will reuse your grass clippings as well as worm composting. You can use worms do help compost your food and other organic matter such as wood and yard waste. You might even consider, or at least researching a compost toilet, which can save you in water. Composting is wonderful and in today's world, people are doing all they can to help save the planet. If you are ready to compost, get your supplies and get started today.

