



Organic Gardening Compost

by OrganicGardenInfo.com

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Introduction

Organic Gardening Compost Is Your Soil's Main Source of Food

That's right... organic gardening compost is food for your soil. Using many different ingredients in your compost will supply and replenish all the important nutrients that your soil needs for healthy crop growth and increase insect pest resistance.

Making your own compost will also help reduce unnecessary garden waste going to landfills! (Nice benefit in this age of "waste"), and it's much better to create your own fertilizer instead of throwing away perfectly good organic material. Compost will significantly save you money on expensive fertilizers as well.

If you want to be successful at organic gardening then there is no compelling reason NOT to make your own compost! In my opinion – organic gardening and compost are synonymous.

The Benefits

All soils will benefit from the use of organic gardening compost. Compost helps neutralize soils with extreme conditions. If the soil is sandy and has rapid drainage, compost can help the structure by adding more bulk with humus and organic matter and increase the soil's water holding retention abilities.

[Soils](#) with fine soil structure (clay, clay-loam) will benefit, because compost will increase porosity by adding humus and organic matter. Compost will also make these fine-textured soils easier to work with and erosion resistant.



Humus – The Soil’s Glue

Humus is an important by-product of compost. Humus results from decomposition of all the organic matter you place in your compost (see Ingredients for your Compost below). Humus acts like glue that holds all the soil particles together, and it helps prevent erosion and increases a soil’s moisture holding ability.

Compost is like a Casserole of Garden and Kitchen Stuff placed in a Croak Pot.

Simply stated - compost is a mixture consisting mainly of decaying organic matter for [fertilizing crops](#), gardens, and yards. [Making compost](#) from garden and household waste (stuff) is one of the most important functions an organic gardener can do. It's easy and inexpensive and uses little effort.

Compost Ingredients consists of most kitchen food waste and garden surplus organic matter. The ingredients are pretty much everything except the kitchen sink!

Ingredients for your Compost

- Cardboard
- Coffee grounds

- Egg shells
 - Fall leaves
 - Fruit and vegetable scraps
 - Grass cuttings
 - Old straw & hay
 - Paper based Egg boxes
 - Paper towels & bags
 - Plant material
 - [Rabbit, pigeon, cow and horse manure](#)
 - Rodent bedding
-
- Sawdust
 - Soft prunings
 - Tea bags
 - Tree and shrub clippings
 - Tree Leaves
 - Vegetable plant remains
 - Weeds
 - Wood ash
 - Wood shavings
 - Woody prunings

DO NOT USE IN YOUR COMPOST

- Ash from glossy magazine colored news paper
- Cat litter and cat feces
- Coal ash
- Cooked food
- Disposable diapers
- Dog feces
- Fish
- Human waste
- Meat

Check out the Compost sources at [Organic Gardening Information Directory](#)

Four Steps to Make and Manage your Organic Gardening Compost

Following these steps will ensure that you will be successful with building your Compost. Creating compost should be easy and fun!

1. [Selecting your Compost Location](#)
2. [Selecting your Compost Structure](#)
3. [Making your compost](#)
4. [Compost Maintenance](#)
[Using your Compost](#)

Organic Gardening Compost Benefits

The compost benefits are many. It's truly amazing what compost can do for your organic garden soil. Compost has a truly exceptional capacity to improve the properties of your garden's biological make-up (living soil organisms), soil nutrition and soil structure.

Compost Benefits Biological Make

Your organic garden soil has living soil microorganisms that include bacteria, algae, fungi, and protozoa. Without getting too technical lets just say that a healthy soil has lots of biological life and these organisms need organic matter (compost) to survive and thrive. This living-soil-life helps with soil health, decomposition of organic matter, replenishment of nutrients, humus formation, promotion root growth, nutrient uptake, and herbicide and pesticide breakdown.



As your organic matter increases, your native earthworm population will also increase in your garden soil. With the presence of earthworms, you have the actions of soil their tunneling that increases nutrient levels, water penetration, and aeration.

Compost Helps Control Plant Diseases Organic gardening compost adds organic matter into your garden soil that increases the population of soil microorganisms, which in turn help control plant diseases. There is research that actually shows that certain soil microorganisms "suppress" certain plant diseases.

Compost Benefits Soil Nutrition

Compost helps modify and stabilize pH in your organic garden soil. Compost will raise or lower the pH of your soil depending on your existing garden soil, and what organic matter you add to the compost. Compost made up of neutral to alkaline materials will increase the soils pH. And the reverse is true as well. Acidic compost will decrease a soil pH. Compost also helps protect the soil from pH level fluctuations.

Just because soil has nutrients doesn't necessarily mean your plant roots can utilize them. In poor soils (and dry soils), there is poor nutrient exchange between the roots and the soil. Compost will improve the soil's nutrient exchange capacity allowing your plants to utilize the nutrients more effectively. If your soils have little organic material, you can bet that nutrient or fertility level is low. **YOU NEED COMPOST!**

Organic Gardening Compost Provides a "Ton" of Nutrients Ok maybe not a ton but compost provides many nutrients in the form of micro and macronutrients. Compost provides a good amount of macronutrients NPK (nitrogen, phosphorous, and potassium) but it's the micronutrients are the real heroes of your compost. The organic matter in the soil helps release these nutrients in a stable and slow way that is more beneficial to your plants.

Compost and Commercial Organic Fertilizer Does Compost do away with commercial fertilizers? The answer is maybe, no and not necessarily. I know that's not a straight answer, but there really isn't one. Depending on what nutrients your soil is lacking (or in abundance) certain organic fertilizer will be necessary. In addition to providing nutrients (micro and macro), compost helps make fertilizer more effective in the soil.

Compost Benefits Soil Structure

Composts will enhance your garden soil's structure. If the soil is sandy and has rapid drainage, compost can help the structure by adding more bulk with humus and organic matter and increase the soil's water holding retention abilities. Soils with fine soil structure (clay, clay-loam) will benefit, because compost will increase soil porosity (sponginess) by adding humus and organic matter. Compost will also make these fine-textured soils easier to work with and erosion resistant.

Compost in both the short term and long term provides enormous benefits to your soil structure. In the short term, compost helps prevent compaction (an enemy to plant roots and soil organisms!) in fine structured soils. It increases the soil's water holding retention abilities, and improves soil structure in sandy soils. This brings us to the long-term compost benefits. In addition to more of the above short term benefits the use of compost increases the soil humus content. Humus acts like glue that holds all the soil particles together, and it helps prevent erosion and increases a soil's moisture holding ability. Humus will also make the nutrients more available to the garden plant's roots.

Improved Soil Structure Saves on Water Usage Compost will provide more water holding retention capacity that will in turn increase drought tolerance and better water usage in the soil. With better water holding capacity, you will have to irrigate less often.

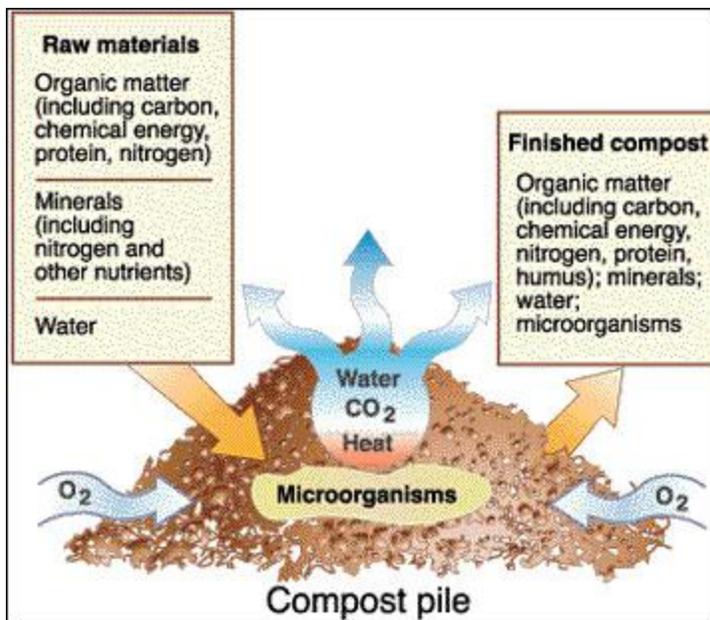
Compost Requirements

Let's Get a Little Scientific

There are seven main compost requirements needed for really great compost decomposition. These requirements are compost size, air, moisture, fragment size, green matter, dry matter, and heat. Keeping these compost in mind will help to ensure a lot of humus and nutrient rich compost for your organic garden.

Compost Size

Your compost structure (or compost pile) must be at a minimum of seven cubic feet to provide enough heat, air, and moisture for adequate decomposition and compost requirement. See [Selecting your Compost Structure](#)



Air

For rapid decomposition, you need excellent ventilation for compost. If there's not enough air (oxygen), then the decomposition process slows down and you'll get some bad odors-not good if you're preaching "Organic" to everyone! Keep this in mind when selecting your [compost structure](#).

Moisture

Moisture is very important for compost requirements, but not wetness. Balance is important here ... not too much water or too little. In hot weather, it's important to keep the compost moist. When there's rain, protect the compost to prevent nutrients from leaching out and away.

Fragment Size

The effect that fragment size has on decomposition is much like the effect of throwing wood in a burning fireplace. Throwing (placing) a log in the fire doesn't have an immediate reaction... it takes some time for it start to really burn. BUT if you throw a handful of fine-sawdust into the fire there is an immediate, and dangerous reaction - the sawdust almost instantaneously combusts! This reaction occurs, because the "surface area" of all the pieces of fine-sawdust together is significantly more than the surface area of the large log.

Now how does this relate to compost requirements and fragment size? The smaller the fragment sizes the faster the decomposition. Depending on your time, your budget and energy level, shredding leaves and branches may not be something you'll want to do.

Green Matter and Nitrogen

Think of green matter and nitrogen as lighter fluid for your compost. Green matter has a significant amount of nitrogen, which speeds up compost decomposition. Typical sources of green matter are grass clippings, fresh green leaves, weeds. Sources of nitrogen are bloodmeal, organic nitrogen based fertilizers, rabbit, pigeon, cow and horse manure. I'm sure you can think of a lot more examples... just think "Green".

Dry Matter

Healthy compost has balanced carbon to nitrogen ratio...this is not as complicated as it sounds. Dry matter helps increase the carbon base of your compost. Dry matter also helps absorb moisture and maintain compost porosity and structure.

Good sources of dry matter for your compost pile are dry leaves, small dry twigs and shredded dry branches, paper towels & bags, cardboard, sawdust, wood ash, wood shavings, woody prunings, rodent bedding, old straw & hay, and paper based egg boxes.

Heat

If you were to reach towards the inside of your compost pile, you'll notice how hot it is. Decomposition in a compost pile can reach up to 140 degrees Fahrenheit (60 degrees Celsius) in the center. That's hot! The advantage of this heat is that it will kill weed seeds and help sterilize your compost... and impress your friends and family.

To keep the heat up you may want to experiment with using a black plastic tarp. I use this during the winter months and it helps contain the compost heat and keeps rainwater from over saturating it. Keep ventilation in mind though.



Selecting your Compost Location

Selecting your compost location for proper composting is important. Garden prunings, leaves, and weeds if left alone in a pile will decompose, but with composting, you want to speed this decomposition.

Choose Convenience

Above all, choose a location that is easy to get to and convenient. Most of your trips to your compost will be from your kitchen (food scraps), so the compost location should be as close as practically possible. It should be placed as not be in the way of family and pet traffic.

Caution – Do not place your compost near areas where animals are able to defecate, because feces harbor pathogens that are harmful to humans.

The Area Should Be Level with Good Drainage

Your location should be on a level area with good soil drainage. Soils with poor drainage will slow-down the compost decomposition. It's not always possible, but areas with filtered shade are preferred. Also, avoid windy locations (or protect it from the wind). Windy areas can dry out and decrease the compost pile's temperature.

Learn to Camouflage your Compost Location

There are zillion different ways to create a compost pile (bin or box, etc.), but it's a good idea to take a military approach to it and use camouflage. You can camouflage using tall flowers, manageable shrubs, a fence or a vine covered trellis. Be creative when you integrate your compost into your garden.



Compost Locations to Avoid

- Under trees – Locate your compost under trees with caution, because after heavy rains and the tree's shade, the compost may dry out too slow. The trees roots may send roots into the bottom of the compost searching for nutrients and water.
- Against permanent wooden structures – Compost will rot any wood in contact with it. It's fine to use wood for the compost pile or to fence it in, as long as you know that you may need to replace it every three to four years.

- Under house eaves or against the house – If the compost is place under roof eaves, the compost may not get enough rainfall or it may get to wet due to excessive rain run-off. Try to place your compost at least 20 feet away from the house.
- In sight of your neighbors – If you live in a densely populated housing area, be respectful of your neighbors. You may think that your compost is a beautiful thing, but if it's in plain site of your neighbors, they may not appreciate it. Try to keep the compost out of site.

Selecting your Compost Structure

Selecting your compost structure is NOT as important as you would think. What is important is that you create compost.

Compost needs seven main [requirements](#) in place for proper decomposition. Those factors are compost size, air, moisture, fragment size, dry matter, green matter, and heat. Initially though, you need to make sure that your structure provides minimum compost size. A compost structure or pile that is too small will not create hot enough heat for proper organic matter decomposition.

Preference and practicality will be the real reasons for the structure you select. If you don't have a lot of room in your garden, you may want to use a tumbler or commercial compost bin. With more room, you have more options, like a compost pile or a wire-based compost bin.



Minimum Size of Compost

Your compost structure (or compost pile) must be at a minimum of seven cubic feet to provide enough heat, air, and moisture for adequate decomposition. Your "finished" compost should also provide enough compost for your garden to make your efforts worthwhile.

What's Seven Cubic Feet?

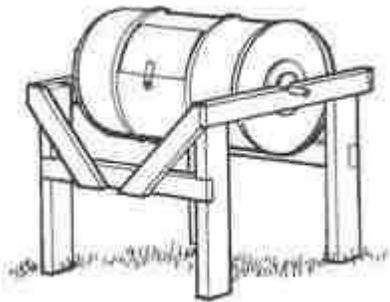
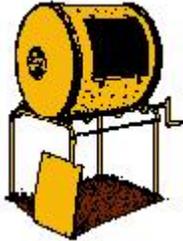
It's easy for me to tell you that the minimum size of your compost pile should be seven cubic feet, but what does that mean?

- Seven cubic feet is (simple approximates): Two feet wide by two feet deep by two feet high
- .5 meter wide by .5 meter deep by .5 meter high
- 55 gallons
- 208 liters
- 11 5-gallon buckets
- Two full large wheelbarrows

Types of Typical Compost Structures

Compost Tumbler

The Compost Tumbler usually has a drum type unit placed between vertical uprights, and you manually turn the tumbler or drum.



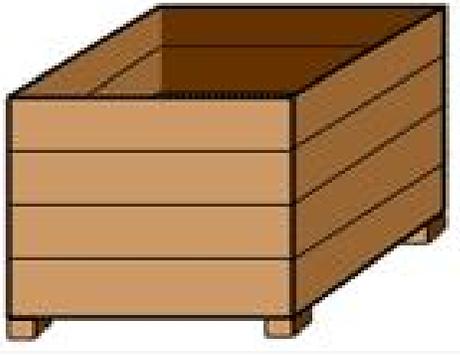
- Advantages: Very easy to mix and turn compost materials
- Compost is very well aerated
- Excludes rodents
- Easy to move (mobile)

Disadvantages:

- The Compost Tumbler can be expensive`
- You lose contact with your native soil for microorganisms and earthworms exchange

Stackable Compost Bin

The Stackable Compost Bin can be made of wood or commercial types are available.



Advantages:

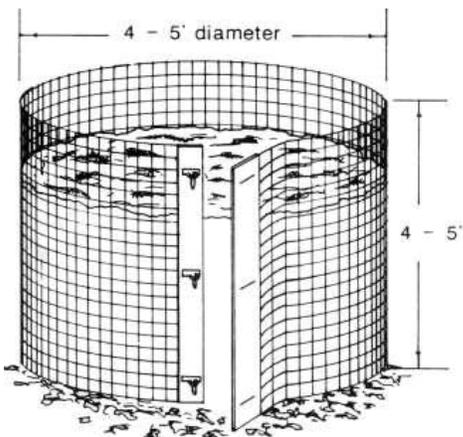
- Makes it easy to adapt to the size and volume of compost
- Compost layers are well contained and easy to manage

Disadvantages:

- Need more space for unused stacks
- Many parts (stacks) to inventory
- Building complexity increases

Wire Mesh Compost Bin

Wire Mesh Compost Bins are perhaps the most versatile of compost structures. They are easy to build and maintain.

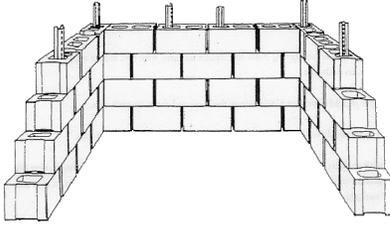


- Advantages: Compost is very well aerated
- Easy to move (mobile)
- Rodent resistant
- Easier to work with finished compost
- Inexpensive to build
- Contact with your native soil for microorganisms and earthworms exchange

- Disadvantages: The wire will rust within time

Fixed Compost Bin

These types of compost structures are stationary, and are usually located in a permanent location. Materials used are wood, wire, blocks, or brick

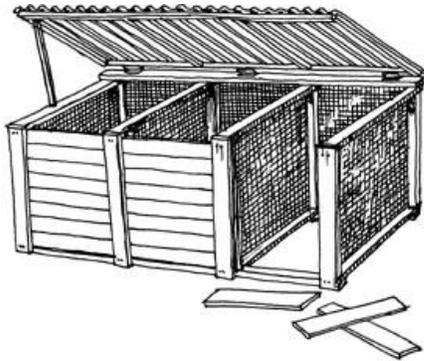


Advantages:

- Contact with your native soil for microorganisms and earthworms exchange
- Easy to camouflage
- Disadvantages: Not mobile
- Materials to build could be expensive
- Manual turning required for aeration

Multi Compost Bin

Multi Compost Bins work based on incrementing your compost from one bin to the next. As the first bin's compost is filled, and as had time to decompose, it is then turned into the second bin, and so on into the next. Most of the finished compost will end up in the last bin, and you can begin to use it for your garden from the bottom of the pile.



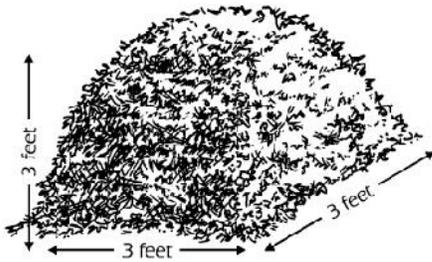
Advantages:

- Contact with your native soil for microorganisms and earthworms exchange
- Easy to camouflage
- Easier than fixed compost bin to turn compost for aeration
- Large quantities of compost are easier to work with

- Disadvantages:Not mobile
- Materials to build could be expensive
- Manual turning required for aeration
- Labor intensive

Freestanding Compost Pile

Freestanding Compost Piles are convenient in that they are easy to build and maintain. You can also add organic material as needed.



- Advantages:Inexpensive to build
- Contact with your native soil for microorganisms and earthworms exchange
- Little effort is need to maintain
- Compost location can be easily changed

- Disadvantages:Easy for rodents to invade
- May appear unattractive if it is in plain view of neighbors

Once your compost structure is selected you can now learn how to make compost.

Compost Making

You've selected your [compost location](#) and [structure](#) and now its time to for compost making. I say, "compost making", but the process is more like feeding a slow burning camp fire... you just keep placing enough wood (organic matter) on the fire to keep it from burning out.

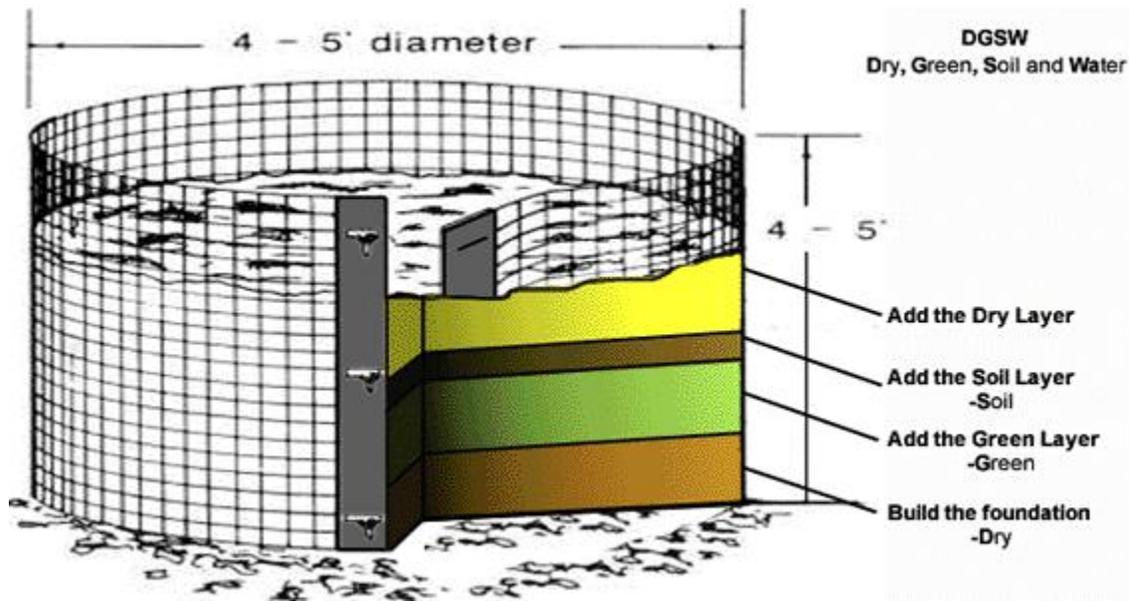
Also, compost making is like raising children, everyone has their own opinions and will tell you how do it. But as you know, raising children is about the love, time, and attention that really matters. Over time you'll discover what works best for you. [OrganicGardenInfo's Compost Making Approach](#)

My approach is simplicity. As long as you understand a few fundamentals (see [Compost Requirements](#)), it's very hard to screw it up. And even if you don't get it right...soils are very forgiving, as long as you focus on [long-term soil health](#).

I recommend keeping a **laid-back approach** to making compost, because it involves no turning, no special decomposition additives, and low labor input. Again, keep it simple and fun. The laid-back approach is collecting and building your compost as the organic matter becomes available. The laid-back approach usually takes a year to decompose (like a fine wine), and next year's compost is the compost you're creating this year. IT'S EASY!

Note: *Just because I recommend the laid-back approach, doesn't mean that you can't get a lot more sophisticated and methodical. I just don't have a lot of time, and this works for me. Do-Learn-Experiment and you'll discover what works for you.*

The laid-back compost making approach is simply DGSW. DGSW stands for Dry, Green, Soil and Water. That's it! That is all you need to remember. Understanding DSGW and applying it will allow you to create quality compost that rivals any compost made by the Masters (which I'm not).



Five Steps to Laid-Back DGSW Compost Making

1. Build the foundation. This is a one-time step done at the initial phase of compost making. You do this once and forget about it.

Take a shovel or garden fork and loosen the soil base of your compost pile down about eight inches (21 cm). Once the soil is loose, water the area, but do not saturate it. Then lay four to six inches (11 cm -15 cm) of rough organic material.

Examples of rough organic material are:

- Twigs and small branches
- Large dry weeds
- Vegetative stalks
- Palm branches
- Sunflower stalks, etc.

Think of this initial layer as that organic matter that you would normally use a chipper or shredding machine to break down, but instead you're letting the composting process do it for you. Very Cool!

2. Add the Green layer. The green layer is the organic material that is high in nitrogen. This layer is also the Kitchen waste (wet) material that will decompose quickly. You can even mix in (added cost) nitrogen based organic fertilizer (to help speed up the decomposition) to really get it cooking. The thickness of this layer is not that big of a deal, and is usually dependent on what you have available. As a rule, don't go thicker than six inches (15 cm).

Examples of organic material used in the green layer are:

- Fruit and vegetable scraps
- Grass cuttings
- Plant material
- Rabbit, pigeon, cow and horse manure
- Soft prunings
- Tree and shrub clippings
- Vegetable plant remains
- Weeds

3. Add the Soil layer. ALWAYS add the soil layer after the green layer. The importance of the soil layer is not to add bulk, rather it's to eliminate decomposition odor and add microorganism from your native soil to your compost. Add just enough soil to cover the green layer.

It's important that you use your native garden soil, as it is readily available and contains its very own soil DNA that you're improving and utilizing.

I usually take a five-gallon (18 liters) bucket full of soil for this layer from the garden. You may even want to set a side a larger container with soil so that as you add small amounts of kitchen waste you can take a small garden trowel and cover the waste as you go.

Just remember do not leave the green layer exposed.

4. Water the new layer. Much like a newly planted bed of seedlings this layer needs to be watered, but do not saturate it. You must treat your compost at this point like a living dynamic organism that will bring benefits to your garden beyond all your expectations. It's truly remarkable what you have at this point.

5. Add the Dry layer. The dry layer is much like step one, except the organic material is much less bulky. This layer can be four to six inches (11 cm -15 cm) thick.

Examples of organic material used in the dry layer are:

- Cardboard
- Coffee grounds
- Egg shells
- Fall leaves
- Old straw & hay
- Paper based Egg boxes
- Paper towels & bags
- Rodent bedding
- Sawdust
- Tea bags
- Tree Leaves
- Wood ash
- Wood shavings
- Woody prunings

Repeat steps Two through Five

On an ongoing basis and as organic material becomes available from your yard and garden, repeat steps 2-5.

It's important that your compost stays moist not dry – keep it moist but not saturated. It's best to think of keeping it as moist as a wrung-out sponge.

Compost Maintenance

In General, compost maintenance depends on the type of compost method you are implementing. If you are using the [laid-back approach](#) then turning of the compost is not required. On the other hand, if you want to speed up the decomposition process then actively turning your compost is in order.



Key Steps In Maintaining your Compost

Turning – Turning your compost pile adds oxygen and speeds up the decomposition process. Be careful, turning too often hinders the population of microorganisms and prevents the compost from heating to required temperatures.

The rule of thumb is to turn the compost two times a month.

Watering – Your compost is like a living dynamic organism, and this organism needs moisture to develop. Moisture is very important for compost, but not saturation. Treat your compost just as if it were a new bed of seedlings - and like seedlings, never let the compost dry out.

Well-managed compost will not smell. On the other hand, foul odors can increase when your compost is too wet. In the case of heavy rains, protect with plastic to prevent saturation and nutrients from leaching out and away.

Using Compost in Your Garden

It's the beginning of your growing season and now you can begin using compost you [created](#) last year.

Benefits

Let's take a moment and review the [benefits](#) of your compost.

Every area of your garden and yard will benefit from the use of your compost. Most important, compost helps neutralize soils with extreme conditions.



Sandy Soil - Sandy soils have rapid drainage. Compost can help the structure by adding more bulk with humus and organic matter and increase the soil's water holding capacity. **Fine Soils** - Fine soils (clay, clay-loam) will benefit, because compost will increase porosity by adding humus and organic matter. Compost will also make these fine-textured soils easier to work with and erosion resistant.

Humus - Humus is an important result of finished compost. Humus results from decomposition of all the organic matter you place in your compost. Humus is the glue that holds all the soil particles together, and it helps prevent erosion and increases a soil's moisture holding ability.



And it doesn't end there. Once you begin using compost in your garden year after year, your native soil will begin to improve and the results will be healthy plants that are insect and disease resistant. Native earthworms, beneficial soil insects, and microorganisms will begin to populate and improve your soil as well.

Note: *Compost loses nitrogen during the decomposition process, and will not be able to supply your soil with as much nitrogen compared to other sources of nitrogen. Over time, though, the remaining nitrogen in the compost will release slowly into your soil, but not in significant amounts.*

Using Your Compost

Vegetable and Flower Garden

At the beginning of each planting (or annually), spread 1 to 2 inches (1.5 cm – 5 cm) of compost over the garden area. Work it into the soil before you prepare it for seeds or seedlings. You can also use the compost as mulch instead of working it into the soil.

Container Gardening:

Using compost as an added soil mix is highly beneficial for your container plants. Try one of two approaches:

Mix 1/2 compost with 1/2 of your native soil. If your soil is clayey, then you may want to increase the compost portion.

Mix 1/3 compost, 1/3 native soil and 1/3 sand.

As a Mulch for your Shrubs and Young trees:



Add at least 2 inches (5 cm) around the base of your shrubs and young trees. The diameter should equal the diameter of the plant's canopy. Compost mulch provides humic acid that will penetrate into your native soil improving water retention, aeration, and fertility.