

PLANT SCIENCE AND LANDSCAPE ARCHITECTURE

COMPOSTING: Do the Rot Thing!

About one third of the stuff we throw away is compostable! Composting is a great way to reduce how much we put in our trash.

There are four ingredients for composting:



- 1. Browns
- 2. Greens
- 3. Air
- 4. Water



Who or what makes compost?

It's all about micro-organisms because they make compost. The micro-organisms need the right ingredients to make them happy so that they will do their job correctly.

The happier they are, the better the compost. Ok, so what makes them happy? Well, they need water, air and brown and green material. When the micro-organisms are happy they generate heat energy. The more heat, the better they are at decomposing. An active compost pile will heat to somewhere between 130 and 160 degrees Fahrenheit. *That's really hot!*



So are you ready to compost? Here's what you'll need to get started:

1. Browns

Browns provide carbon. Here are some ideas:



- Paper, like shredded pieces of used scrap paper, and old envelopes (without the plastic window)
- Dry leaves, small branches, twigs, straw, sawdust, dried grass clippings, and dried weeds without seeds.
- Shredded newspaper not the glossy sections

2. Greens

Greens provide nitrogen and include things like:

- Fresh grass clippings, green leaves, and fresh weeds without seeds.
- Vegetable and fruit peels and scraps, coffee grounds, tea bags and coffee filters.



Here's why you need carbon and nitrogen:

Carbon – microbes use carbon as an energy source.

Nitrogen – microbes use this element to build proteins in their bodies.

So, carbon and nitrogen make the microbes really, really strong so they can do their job correctly.



When building your compost pile, alternate layers of greens and browns materials. *Recipe tip:* mix three parts browns to one-part greens.

3. WATER

Ideally your compost should have moisture content of 50% or so. That's like the moisture level of a damp wrung out sponge. This will keep your micro-organisms happy. They don't want it to be too wet, they don't want it to be too dry ... this is just right.

Tip: Test it out – squeeze a handful of your compost material -- it should leave your

4. AIR

Your micro-organisms need air to survive.

hand moist but not drip more than a few drops.

So to keep them healthy, grab a shovel and turn over your pile every 2 to 3 weeks.

How do I know when my compost is done?

When the material is dark and rich in color and there are no remnants of your food or yard waste, then it's ready! If it smells like dirt and crumbles in your hand then it's ready to use.

GOOD COMPOST MATERIALS:



Greens:

Vegetable and fruit scraps, fresh grass clippings (if no herbicides applied), fresh weeds without seeds, coffee grounds and coffee filters, and tea leaves/tea bags. Chicken, rabbit, cow, and horse manure.

Browns:

Dry leaves, straw, dry hay, sawdust, woodchips from untreated wood, dried grass clippings, shredded paper, dried weeds without seeds, cardboard rolls, shredded newspaper.

Other materials:

Eggshells, plain rice, plain pasta, bread, used paper towels (not greasy).

BAD COMPOST MATERIAL: Do not add:

Meat, fish, eggs, dairy products, oily foods, bones, dog or cat manure, weeds with mature seeds, plants infected with disease, anything treated with pesticides or chemicals. Stickers from fruits or vegetables, fats, grease, lard or oils.

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Backyard Composting

Composting is the most basic form of recycling; a way to turn garden and kitchen wastes into a rich, crumbly soil supplement that will provide nutrients for your plants, attract earthworms, and improve soil structure and drainage. It is also a most practical and convenient way to handle yard wastes and easier and cheaper than bagging these wastes, or taking them to the landfill or transfer station for disposal. If you have a garden, lawn, tree or shrub plantings, or even planter boxes, you have a use for compost.

What is Composting

While the decomposition of plant and/or animal wastes by soil microbes occurs naturally, by composting, this process is enhanced and encouraged to proceed more rapidly turning organic wastes into a valuable soil amendment.

Composting Principles:

Biology – The compost pile is really a teeming microbial farm. Bacteria start the process of decaying organic matter. They are the first to break down plant tissue and also the most numerous and effective composters. Fungi and protozoa soon join the bacteria and somewhat later in the cycle, centipedes, millipedes, beetles and earthworms do their parts.

Materials – Anything growing in your yard is potential food for these tiny decomposers. Carbon and nitrogen, from the cells of plant, animal, and microbial debris, fuel their activity. Everything organic contains carbon and nitrogen. The proportion of these two elements is known as the carbon to nitrogen or C:N ratio. It may range from 500:1 in the case of sawdust to 15:1 for kitchen vegetable wastes. A C:N ratio of 30:1 is ideal for the activity of compost microbes. The microorganisms use the carbon in leaves or woodier wastes (brown stuff) as an energy source. Materials higher in nitrogen, like grass clippings* and spent flower stalks (green stuff), provides the microbes with this essential element to build proteins for their bodies.

Surface Area – The more surface area the microorganisms have to work on, the faster the materials are decomposed. It's like a block of ice in the sun – slow to melt when it's large, but melting very fast when broken in to smaller pieces. Chopping your garden wastes or putting them through a shredding machine or running them over with a lawnmower will speed decomposition.

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Volume – A large compost pile will insulate itself and hold the heat of microbial activity. The center will be warmer than the edges. Piles smaller than three feet cubed (27 cu. ft.) have difficulty holding sufficient heat while those larger than five feet cubed (125 cu. ft.) may not allow enough air to reach the microbes at the center. These proportions are of importance only if your goal is a fast, hot compost pile. All organic debris will decompose eventually.

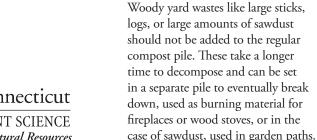
Moisture and Aeration – All life on Earth needs a certain amount of water and air to sustain itself. The microbes in the compost pile are no different. They function best when the compost materials are about as moist as a wrung-out sponge and are loosely packed to provide for many air passageways.

Time and Temperature – The quicker the pile heats up, the faster the composting process occurs. Piles will heat up because of the activities of the microorganisms. A pile will decompose in a few months if you use materials with a proper C:N ratio, chop them into small- to medium-size pieces, begin with a big enough volume, turn regularly, and see that moisture and aeration are adequate. If you are not in a rush to make compost, just add materials as they become available, turn occasionally, and eventually, in 1 to 2 years, the materials will decompose.

Compost Ingredients

Yard wastes such as fallen leaves, grass clippings, hedge trimmings, weeds without seed heads or sprouting roots, and spent garden plants all are suitable to add to the compost pile. Kitchen wastes, like outer cabbage leaves, carrot peelings, melon rinds, coffee grounds, tea bags, and eggshells can also be composted.

Materials not recommended for composting are diseased garden plants, grass clippings if the lawns are treated with herbicides or other pesticides, meat, bones, cooked foods containing oils (may attract animals or flies or cause odors), and dog or cat droppings (may contain pathogens harmful to humans).



Logs and large sticks can be shredded



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and used as path materials or left whole and used to delineate garden beds.

Compost Bins

A compost pile can be built without any type of enclosure. Typically some system is used to contain the compost pile as it looks neater, keeps the compost pile together, and makes it harder for curious animal visitors to explore. A single bin can be purchased or made from available materials such as lumber, fencing, cinderblocks, or pallets. It is also possible to make compost in large garbage barrels (with added air holes), plastic commercial composting bins, and rotating drum units. Leaf compost can be made in large leaf bags after collection each fall.

Where large quantities of materials are available, three bin units are often constructed. One bin is for compost making, another for turning the compost into, and the third is used as a holding unit for organic materials like leaves or garden debris.

In the fall leaves and grass clippings picked up while mowing the leaf-strewn lawn can be composted by using them to mulch garden beds or by turning them into the soil once vegetables are harvested and beds are cleared of spent plants. This last practice is often referred to as sheet composting. Kitchen wastes can also be buried in holes or trenches in the garden and covered with soil. This keeps animal pests away if this is a concern and over time the kitchen wastes will decompose and add nutrients and organic matter to the soil.

Selecting a Compost Site

Locate compost piles preferably on a partially shaded site where there is access to water. Site them where they will not be objectionable to look at, and also close enough to the house so that adding collected kitchen wastes on a regular basis year-round will not be difficult. Compost piles should not be located in poorly drained areas where water would accumulate. Water should not stand in or around the bin. Odors can develop when too much water is present.

Starting the Pile

Novice composters usually build their first few piles in layers. This gives one a sense of the proportions of brown to green material to use and recipes can then be adjusted according to the types of organic materials available. Begin the bottom layer of a 4-foot by 4-foot pile with a coarse material like cornstalks, half-inch branches or other item that is somewhat irregularly sized and able to let air into the bottom of the pile. Then add 8 to 10 inches of a 'brown' material, like leaves, 2 inches of a 'green' material, like grass clippings, kitchen/garden wastes, or horse manure with bedding. Follow that with a shovelful of good garden soil or finished compost, and repeat these layers until the pile it about 4 feet high and wide. Check to see that each layer is slightly moist and add water if necessary.

Sometimes large amounts of just one type of material, like leaves, are available. This is a great source of carbon but nitrogen would need to be added to hasten decomposition. An organic or inorganic nitrogen fertilizer such as bloodmeal, cottonseed meal or urea could be added at the rate of about one cup of the organic materials per 6- to 8-inch layer of leaves or 1/3 of a cup of urea per 6- to 8-inch layer of leaves. Spread the fertilizer evenly over slightly moist leaves.

Maintaining the Compost Pile

If made with regards to the C:N ratio and all at one time, the interior of a 4' by 4' by 4', or larger, compost pile will reach a temperature somewhere between 130 and 160 degrees F within 3 days or so. As the microbes use up the available nutrients, decomposition slows and the center of the pile will cool. Once it reaches 100 degrees F, it is time to turn the pile. To speed the composting process, the pile needs to be thoroughly mixed. Turning will also help to more thoroughly combine the materials and physically break them into smaller pieces.

Using a spading fork or pitchfork, turn the pile once or twice a month, if not measuring the temperature, and every time the temperature declines to 100 degrees F if the temperature is being measured with a compost thermometer. Keep the pile slightly moist but not soggy. Another way to turn the pile is to use a compost aerating tool that has 'wings' on its end that open and close. This compost aerating/turning tool is available by mail order and at some garden centers.

If you follow these steps, your compost should be ready to use in about 2 to 4 months if made during the warm growing season. An unattended pile can take a year or longer to decompose. A tumbler or drum –type composter, turned on a daily basis, will make smaller amounts of compost in 1 to 2 months.

The final product will have less than half the original volume of the compost pile. It should be dark brown in color and have a pleasant, earthy smell. The original materials, that were used to create the pile, should be unrecognizable.

Compost Uses

Compost can be used to enrich the soil of flower or vegetable gardens, to improve the soil around trees and shrubs, as a soil amendment for house plants and container plants, and when screened, as part of a seed-starting mix or top-dressing for lawns. Compost helps improve the structure of heavy, fine-textured soils, adds water and nutrient holding capacity to sandy soils and also adds essential nutrients. It is important to monitor the amounts of nutrients added to soil from compost additions because excessive nutrients contribute to poor plant growth as well as environmental problems.

*It is recommended that grass clippings typically be left on the lawn but they may need to be occasionally collected if the grass is allowed to grow too long between cuttings.

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Selecting A Backyard Compost Bin

After the decision is made to begin composting, the next task is deciding what kind of compost pile or structure would be best suited to the area set aside for this purpose. Choose from simple, homemade holding bins to expensive commercially produced units. Your selection should be based on practical criteria such as price, convenience, usability and aesthetics.

MAIN TYPES OF BINS

Stationary bins: These bins sit in one place for the duration, unless you exert time and effort to relocate them. Examples include a bin made of concrete blocks, recycled lumber, or a wooden two or three-bin unit.

Movable composters: Movable bins are nice if you have just one container and want to turn your compost regularly to aerate or re-moisten it. Lift the container off the pile, set it aside, and fork or shovel the organic matter back in. Examples of easy-to-move containers include a homemade wire enclosure, a lightweight plastic model without a bottom, and a manufactured wire bin with collapsible sides.

Open bins: Examples of open bins include homemade square bins made of shipping pallets and manufactured circular enclosures made of lightweight recycled plastic with pre-formed ventilation holes. Although they are easy and inexpensive to build, your material can dry out faster or become too wet, depending on climate.

Closed bins: Closed bins are sealed from the elements. Homemade wooden bins with hinged tops and sheet metal bottoms (with drainage holes) serve as an example. Many manufactured options are available. They discourage pests, but are usually more expensive than open bins. These closed bins can easily become overly moist if too much 'green' materials are used so moisture levels should be monitored.

Commercially Produced Bins

Tumblers: A basic tumbler style is shaped like a canister that is rolled over the ground to mix the materials. Other styles include a large drum that rests on its aboveground stand with a hand crank to turn it, and smaller units that are grasped and spun as they rest on slightly concave pads on the ground.

One problem with tumblers is that fresh, moist materials occasionally clump into a compacted, heavy ball so attention needs to be paid to the proportion of 'green' to 'brown' materials placed inside the bin. How easily the unit can be turned depends upon its style and weight, how much and what type of organic matter it is filled with, and a person's physical limitations

Plastic Static Bins: Round or rectangular bottomless bins are typically less expensive than tumblers. Organic materials are deposited in the top and finish compost removed through a bottom door. Turning the materials is often difficult in smaller bins so either use a compost aerator or lift the bin off of the materials, mix them up and put them back into the bin.









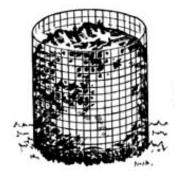
Home Made

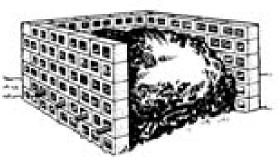
Holding Units: These are simple containers used to store garden waste in an organized way until these materials break down. A holding unit is the easiest and least expensive way to compost. It only requires placing wastes into a pile or bin as they are generated. Non-woody materials, such as grass clippings, crop wastes, garden weeds, and leaves work best in these systems. A holding unit can be a cylinder formed of wire (chicken wire is too weak to hold up to the bulk), or wood scraps. Openings in the sides need to be large enough to permit plenty of air but small enough to contain the materials that are decomposing.

Trash Can Bin: To convert a plastic trash can into a composter, cut off the bottom with a saw. Drill about 24 quarter-inch holes in the sides of the can for good aeration. Bury the bottom of the can from several inches to a foot or more below the soil surface and press the loosened soil around the sides to secure it. Partially burying the composter will make it easier for microorganisms to enter the pile.

Wire Bins: Use an 11-foot length of 2-inch x 4-inch x 36-inch welded, medium-gauge fence wire from your local hardware or building supply store. Tie the ends together to form your hoop. A bin this size holds just over one cubic yard of material. Snow fencing can be used in a similar fashion. Another option is to make a square wire bin composter. Eventually it could be expanded to form a three-bin unit if needed.









Block or Brick or Stone Bin. Lay the blocks, with or without mortar, leaving spaces between each block to permit aeration. Form three sides of a 3-to 4-foot square, roughly 3 to 4 feet high.



Wood Pallet Bin. Discarded wooden pallets from factories or stores can be stood upright to form a bin. Attach the corners with rope, wire, or chain. A fourth pallet can be used as a floor to increase air flow. A used carpet or tarp can be placed over the top of the pile to reduce moisture loss or keep out rain or snow. Make sure pallets are not treated with chemicals or pesticides before using.

Multi-bin systems: More experienced composters and those with large amounts of organic materials might consider two or three bin systems. The different bins are at various stages in the composting process so there is usually a more steadier supply of compost for gardens. Having two or three bins also allows for one section to be used for storing materials, one for active composting, and one for curing or storing finished compost. Each bin should be at least $36 \times 36 \times 36$ inches. Be sure to allow air spaces between the sidewall slats, and make the front walls removable (lift out slats) for easy access. Lift-up lids make adding materials easy and can be put in place during heavy rains to keep the pile from getting too wet.

By Brad Armstrong, UConn Master Composter & Dawn Pettinelli, Assistant Extension Educator



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COMPOST BIN (4'X 4'X 4')

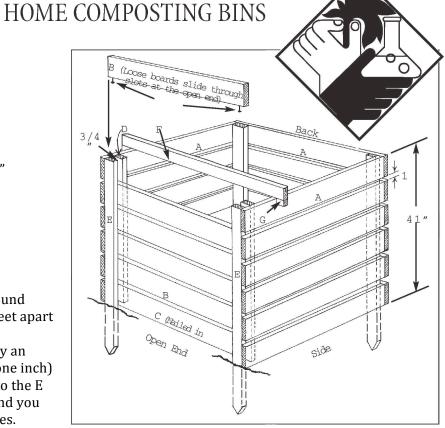
LUMBER NEEDED

Rough Cut Pine - No. 4 pine

- A. 18 pieces 1" x 6" x 48"
- B. 5 pieces 1" x 6" x 45 1/2"
- C. 1 piece 1" x 6" x 46"
- D. 2 pieces 1 1/2" x 1 1/2" x 38 1/2"
- E. 4 pieces 3 1/2" x 1 1/2" x 48" (tapered at one end)
- F. 1 piece 1" x 4" x 51 3/4"
- G. 2 pieces 1" x 4" x 2"

DIRECTIONS

- Place two E pieces on the ground with the outside edges four feet apart with the 1 1/2" side up.
- Place six A pieces horizontally an equal distance apart (about one inch) from top to bottom and nail to the E pieces. Repeat this process and you have constructed the two sides.
- Stand the two sides four feet apart and nail six more A pieces horizontally to catch the sides, and you have constructed the back.
- Nail one D piece vertically 3/4" away from piece E to make a 3/4" slot between the D piece and the E piece at the open end of the bin. (This slot is a track into which the five B pieces will be inserted.) Do the same with the other D piece on the other side of the open end.
- Nail the C piece across the open end, inside the slot (horizontally at the bottom) to match the level of the A pieces at the bottom of the sides.
- The remaining five B boards should fit into the groove.
 Put two nails into the bottom (1" edge) of each board, leaving about one



inch of the nail protruding to separate the boards at the same interval as on the sides and the back.

 Nail the G pieces at the end of the F pieces, forming a lip at each end to make a spreader bar. This should be put across the top of the bin to prevent spreading as the bin fills with compost.

WIRE BIN (3'X 3'X 3')

LUMBER NEEDED
16 pieces 1" x 4" x 3'
1 piece 1" x 4"x 16' for corner braces



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MATERIALS NEEDED
12 feet of 36"wide 1/2"hardware cloth
32 joint fasteners
150 poultry wire staples or power stapler

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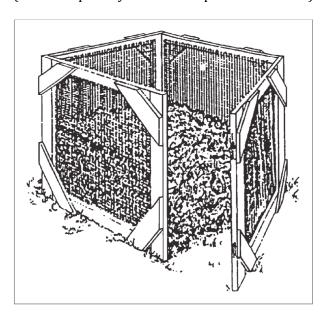
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Four 3" galvanized butt door hinges Four large hook-and-eye gate latches

DIRECTIONS

- Make a 3-foot square of 1" x 4"with two 3' lengths and two shorter pieces to fit between them.
- Join these boards with two joint fasteners at each corner to hold them together.
- On the other side, nail or screw a corner brace to each corner.
- On the side with joint fasteners, put a 3' x 3' piece of hardware cloth. Bend over edges 1" and staple wire every 4" to the wood, keeping it as tight as possible.
- Construct three other sides the same way.
- Connect each pair of frames with two hinges.
- Then put the hook and eye gate latches on the other ends so that the sections latch together.

(Plans adapted by Master Composter Bob Eber.)



MORE COMPOSTING EQUIPMENT

Many materials and tools are sold to help the home composter. Some are listed here:

• **Chipper/Shredders** – Break the plant material into smaller pieces. They may chip branches of various sizes as well.

- **Aerators** Enable air to penetrate into the pile.
- **Thermometers** Monitor existing compost pile temperatures.
- **Compost Bins** Confine the composting material in a defined space. They may be made of wood, wire or brick.

These materials can be found at garden centers and other retailers that sell gardening products. In addition, garden supply catalogs offer some or all of these products.

READING MATERIALS

Numerous sources of information dealing with composting are available from magazines, books, gardening programs and internet sites. Many gardening books in your local library have information on composting.

The following books contain valuable information on composting and are available from many local bookstores or garden centers. Although not a complete list, they are representative of current knowledge about composting at the home level.

Compost This Book by Tom Christopher and Marty Asher. Sierra Club Books. 1994. ISBN 087156596x

Let It Rot by Stu Campbell. Storey Communication. 1998. ISBN 1580170234

The Rodale Book of Composting. Deborah L. Martin (editor). Rodale Press. 1992. ISBN 0878579915

Secrets to Great Soil by Elizabeth P. Stell. Storey Communications. 1998. ISBN 1580170080

Soil and Composting by Nancy J.Ondra.A Taylor's Weekend Gardening Guide. Houghton Mifflin Co. 1998. ISBN 0395862949

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Vermicomposting – Indoor Composting with Worms

Looking for a low-tech way to recycle kitchen scraps while at the same time creating a great soil amendment, right in your own home? If so, vermicomposting, or in layman's terms, composting with worms might be just the solution you are looking for. The basic premise of vermicomposting is that worms live in a container of moistened, shredded paper bedding into which food wastes are placed. The worms consume both the bedding and the kitchen scraps, and produce nutrient-rich castings which are added to gardens or planting mixes. A well-maintained worm bin should not smell and can recycle at least one pound of food waste for every pound of worms per week.

Making A Worm Bin

There are several ready-made worm bins on the market. Some consist of stacking trays with a liquid collection pan at the bottom while others are more simple plastic or wooden units. Most beginning worm farmers make their own bin out of a 5 to 10 gallon dark-colored, plastic storage bin with a lid. Do not purchase clear or translucent plastic bins as worms need a dark environment. As a general rule of thumb, each ½ lbs. of worms requires about one square foot of space so the size of the container depends on how many worms will be acquired.

Drill

1/8 to ¼ holes in the top, sides and bottom for oxygen to enter and for any liquid to drain. The number of holes varies although there are usually at least 2 rows of holes going around the sides and at least a dozen on the bottom and top. This smaller bin can be set inside a larger bin, other plastic container or foil roasting pan. The reason for this second container is to collect any excess liquid which might seep out if a lot of watery fruits and vegetables are feed to the worms and not enough absorbent bedding is added.





Newspaper is usually the bedding material of choice because of its widespread availability. Other bedding materials include shredded non-glossy office paper, non-corrugated cardboard (corrugated cardboard contains glues) or coconut coir which is sold in brick or pellet form and expands with water. Shred the newspaper or paper and soak in a bucket of water. Wring the paper out and place it in the worm bin fluffing it up somewhat and filling the bin 1/3 to ½ full of bedding. If mixing coconut coir in, soak that material first as well.

Worms do not have teeth. They digest their food in their gizzards and need grit to do this. Place a handful or two of very fine sand or soil into the bin and mix it into the moistened bedding. Because garden soil can harbor eggs of sowbugs, slugs, and undesirable (for composting) earthworm species, microwave each handful of soil for 90 seconds on high. Loosely cover the soil with plastic wrap or a paper towel before microwaving.

Which Worms To Use

Now for the worms! Red wigglers are great for indoor worm bins. Friends with worm bins are often happy to share extra worms. Sometimes worms need to be purchased. If this is the case, worms should be ordered by their Latin, not common name. The species of worms that are the best for vermicomposting and less likely to cause damage to native ecosystems in New England, if any escape, are *Eisenia foetida*. Prices for *Eisenia foetida* range from \$20 to \$30 per pound. One-half to one pound of worms should be enough to start a bin. There are about 1000 red wigglers in a pound and they can consume from 1 to 2 pounds of food wastes per week. Once the initial cost is incurred, it is doubtful that more worms will need to be purchased and they will supply you with an infinite amount of nutrient-rich castings. All you have to do is properly manage them.

Care and Feeding of Composting Worms

So what do composting earthworms require? They need a dark, moist environment, food, comfortable temperatures of between 50 and 80 degrees F, and they need to breathe. Earthworms do not have lungs. They breathe through their skin and can only do this when their skin is moist. Bins should always be as moist as a wrung out sponge if not a bit wetter. Keep a spray bottle filled with water next to the bin so moisture can be added whenever necessary. Also composting worms do not tunnel like garden worms; rather they live communally under the bedding.

Worms like soft, mushy food since they cannot chew. Cut fruits and vegetables into smaller pieces before placing a handful or so in a few spots around the bin. Fresh items will take a few days to be colonized by microbes which start to break down the food and soften it. Place food items down into the bedding and cover them up to discourage fruit flies. Usually worms are fed about once a week. Check to see that the previous week's food is being consumed before adding more. Uneaten food may signal overfeeding or a dislike for a particular food item. If a particular food item has been left untouched for a couple of weeks, remove it and refrain from adding it to the worm bin again.

Food items that are readily accepted by composting worms include vegetable and fruit cores, peels and leftovers, tea bags and coffee grounds, egg shells, leftover cooked grains like rice and quinoa without added butter or oils. Occasionally add a handful of high cellulose material like sawdust, torn up un-corrugated cardboard or fall leaves. Never add meat or dairy products, fish, paper with bright inks, pet feces or fish.



Harvesting and Using Castings

Worm castings can be harvested once or twice a year depending on the bin size and number of worms. An easy way to harvest the castings is to just dump the whole bin onto a plastic table cloth, clean the bin and fill it with fresh bedding material and a handful or two of microwaved soil. Sort through your pile of castings and worms and place any worms back in the bin. Some worm farmers move everything in the bin to one side, and add fresh bedding and food to the other side and worms should move over to the new feeding area within a month or two. Then the castings can be removed with any remaining worms put back in the bin.

The harvested worm castings can be directly added to garden beds, used as a component in a potting mix or enlisted to make a compost tea. For the most part, the casual worm farmer is only able to harvest enough castings to cover part of the vegetable garden ½ inch deep. With each harvest, another part of the garden can be amended.

The two most popular reasons for adding vermicompost to the garden are for added nutrients and added pest protection. As previously mentioned, vermicompost is rich in many plant nutrients. What has been more recently noted and studied is that additions of vermicompost in garden beds may deter and/or reduce the amount of feeding by certain insects.

The bottom line is that worm composting is an easy way to reduce food wastes which otherwise would be headed to the incinerator or landfill while at the same time providing a valuable soil amendment.

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