

Backyard Composting Q & A

Session One – Why compost? plus a look at a 3 bin system:

Links that were discussed during the program:

King County Soil Testing Program: <https://kingcd.org/programs/better-soils/healthy-soil/>

Calculator for adding compost: <https://www.greenmountaincompost.com/compost-calculator/>

Waste to Garden Project: <http://zerowastevashon.org/solutions-2/waste-to-garden-improving-vashon-soils/>

Vashon Community Compost Facility Study: <http://zerowastevashon.org/vashon-compost-facility-study/>

King County Feasibility Study for Vashon organics processing:
<https://www.kingcounty.gov/depts/dnrp/solid-waste/facilities/vashon-compost.aspx>

For more composting information visit ZWV at: <http://zerowastevashon.org/home-composting-systems/>

Three Bin composting chat questions with Barry Foster:

Are cardboard, brown paper bags, etc. ok for composting?

Yes, they are “brown” materials that can compost nicely.

Do you use straw to insulate the outside edges of your bins?

No, I don't use straw to insulate and I am trying to keep things as simple as possible

What size are the bins?

About 3.5 feet on each side.

How do you keep the raw materials in waiting?

I keep a leaf pile at all times and straw I get from the chicken coop. I try to fill a bin all at once.

Is old potting soil ok to put in a bin?

Yes, that should be ok

Where do you get your leaves?

I run the mower over them to chop them up and then pile them, but that probably is not necessary as long as the layer is not too thick. 3-4” at the most.

Do you add kitchen scraps to the piles?

Yes I just dig a hole into the pile and cover it up. By the time it all goes to the middle bin it has plenty of time to cook and cure in that stage

How long does the first bin take to process?

It depends on the time of year and temperature. Under ideal conditions in summertime I can move it over to the second bin in 3 weeks. This could take 6 weeks in the winter. After that it stays in the 2nd bin 2-3 months.

Are the piles invaded by roots?

It has not been a serious issue for me, but one could put a barrier at the base of the pile if it is a problem.

What are brown materials to use and not use? Sawdust? Peat moss?

Avoid walnut and cedar. Other sawdusts are ok. Peat moss requires depleting peat beds that take eons to build. Coconut coir doesn't have the environmental impact and work well instead.

Why the weed cloth on top?

(Barry) It helps keep the compost moister and heats it up a bit on top. It also help stop the impact of rain on the piles. It will slow down leaching too.

Why not just put the kitchen scraps right into the garden bed?

It can be done, but it will take a long time to break down and will be attractive to vermin.

What about weeds, can they be composted?

Yes, as long as the stems won't send out roots and there are no seeds.

What about added manures?

Chicken, rabbit, llama, sheep manures are fine to add in moderate quantity or in bedding, but avoid horse manure. Unfortunately eastern WA hay fields are treated with a powerful and persistent herbicide, Clopyralid, which is concentrated in the manure. It will stay in the garden for 3-5 yrs. Legumes (beans, peas) will not grow and other plants may grow but will be stunted. Steer manure may be ok, but not if they are fed on tainted hay.

How about other green materials?

Flowers, chipped yard waste are ok. Lawn clippings are good if no chemicals have been applied. Coffee grounds are considered green also. They are high in nitrogen.

Session Two – Static Piles:

How do you control rats and other vermin?

A metal container or covering the compost bin sides, bottom and top with galvanized hardware cloth works. Don't compost meat or dairy as this attracts them. The metal tumbler composting or worm bins in 5 gallon buckets system that is talked about in session #3 also may be a good solution for kitchen scraps.

Can you compost just leaves? Is that better?

Yes, that would be mimicking what happens on the forest floor. It will work eventually. By adding a nitrogen source as green matter like grass clippings, one can speed up the process. If you are in no hurry, then a leaf pile will eventually break down into nice humus rich compost. 6-12 months should be plenty. Or run the mower over the leaves and use them as mulch for garden beds.

What about the TED talk that says to use only leaves?

This may be the talk that brought up this question. It is a point of view, but it is not the only option. Some people are not going to have the access to compostable materials as others. But if leaves are available, they are great for composting.

[TED Talk on composting](#)

What leaves are good for composting or not good?

Most of our leaves compost well. Some glossy leaves like madrona will take longer than say maple. Avoid walnut leaves or sawdust. It is toxic to many plants. Alder leaves are very good. Pine needles can be used, but they will tend to be more acidic. Shred the leaves first. It really helps them break down quickly and stops matting.

Where can I get straw for my compost pile?

Island Lumber carries compressed bales. VI Horse Supply has full bales.

How do you break up the soil without tilling?

A broadfork is an excellent tool for this. And they are made on island.

<https://www.vashonbeachcomber.com/news/modern-manufacturer-makes-a-classic-farming-tool/>

What is important for healthy compost?

Composting works with the help of microorganisms breaking down the organic material into simpler components. Done right, it will be rich in nutrients and humus. The microorganisms need air, water and food, just like we do and in the right proportions so that they can have maximum activity. The main things necessary for healthy compost are a balanced diet with more carbon material (brown) than nitrogenous material (green). The pile should be damp, but never soggy. It should have aeration that can be achieved in multiple ways. The simplest, is turning the pile once or twice. In a static pile, adding layers of loose material like straw will help air enter the pile. Some put perforated pipes in the pile to introduce air. A cover is not necessary, but it can help reduce leaching and the impact of rain on the pile. If at all possible, introduce leaves to your compost and keep it contact with the ground. This permits an exchange of beneficial microbes and earthworms into the compost. For more information check out the sites listed on the ZWV website composting page.

Where can I find out more information on David Johnson's method of creating fungal compost using a bioreactor?

There are several excellent lectures by him on YouTube that cover the science behind this developing process. There are also some that show the building of his prototype composter.

For general information this website is a good start:

<https://www.csuchico.edu/regenerativeagriculture/bioreactor/david-johnson.shtml>

Can I make a composter out of a 50 gal garbage can?

Yes, you can make a tumbler or a static pile composter. The main thing is to assure aeration and to moisten the pile.

<https://pallensmith.com/2014/02/27/trash-can-compost-bin/>

<https://youtu.be/XZyox5yLiMU>

What amendments can be added to compost?

None should be needed, especially when leaves are added. Locally, rinsed seaweed, comfrey and nettles can boost the mineral content. Some people also dampen the pile with fish emulsion and

add rock dust like azomite. A few cups of wood ash can also be added as long as it is just from yard waste or firewood.

Session 3: Tumblers and Worm Bins

What are the systems that were demonstrated?

Jora : <https://www.joracomposters.com/>

Mantis: <https://mantis.com/compare-mantis-composters/>

There are many other systems too.

What doesn't work well in the winter?

Composting depends on microorganisms to do the breaking down of the organics. Their activity slows down below 50°F. They are still working, just slower. However, with a proper mix, compost will still cook. Adding a bit of chicken, rabbit, sheep manure can help activate the pile.

If I don't need the compost now, can it be stored?

Yes, compost stores well if it is dry.

What about adding Biochar to the compost?

Biochar is beneficial. It locks carbon in the soil, retains moisture and provides structure for the microorganisms and fungi to inhabit. You can add some biochar to any composting system. This has the added benefit of pre-inoculating the biochar.

<http://zerowastevashon.org/solutions-2/biochar/>

What about kitchen scraps? Does this system get hot enough to kill potential meat pathogens?

Properly run, a good composting system will reach from 130 to 160°. This requires monitoring and proper aeration and moisture levels. When in doubt, don't add meat products. They are not necessary to make good compost.

What kind of potential disease problems are we talking about?

The most common pathogens to be concerned about are E-coli and salmonella. *Aspergillus fumigatus* mold can also be an issue. Pet manure should never be used. There are parasites in it that could survive and transfer to humans.

<https://www.planetnatural.com/composting-101/compost-concerns/pathogens/>

How long do worms take to breakdown food into worm compost?

A pound of worms can digest about a pound of kitchen scraps in a week. It helps to chop up kitchen scraps in advance. Most compost systems have a trap door or method to scavenge the compost at the bottom of the pile. Typically this can be robbed once or twice a year in an active and well-fed worm bin. The worms slow down in winter and go into the ground if it is very cold out. Spring and fall are the best times to get the worm compost.

How do you separate the worms when robbing the bin?

Try to avoid removing the writhing ball of worms in the middle of the pile. There will be some that will end up in the extracted compost and that's ok. If you find a ball of them, return them to the top of the worm bin.

Where can I get red wiggler compost worms?

There are several online sources. Try to avoid summer shipping. Or ask around. There are many worm bins on island and most people are willing to share a bag of worms. Or you can put a composter with an open bottom in a shady area and start filling it with kitchen scraps. Some folks on island have had the worms show up on their own after a few months. If they don't show up, ask a neighbor for a can o' worms.

Where can I learn more about the bucket worm bin system and how to build it?

<https://www.thespruce.com/inexpensive-worm-bin-from-plastic-buckets-2540077>

Does your compost system provide enough for all of your garden?

That depends on the size of the garden(s) and capacity of the composting system(s). A top dressing of compost is often sufficient for an established bed, but a starter bed may need a lot of compost to bring up the carbon levels in the soil. That may require buying compost or soil that has a good amount of compost blended in.

Do you capture the worm tea and use it?

Yes, if the system is designed to capture it. It is full of good nutrients. This is one of the benefits of the bucket system.

Is it ok to use wood ash in a worm bin?

Biochar is ok and so is adding a handful wood ash once in a while. Just don't smother the pile with it.

Where can I find out more on vermicomposting?

This is a nice resource. There is even an interview with Mark Yelkin from Vashon. They also sell worms on this website.

<https://www.redwormcomposting.com/videos/worm-guy-mark-yelkin/>

Are woodchips available on island?

Contact local arborists and tree cutters. Make sure there is no walnut in the chips. Alder is the best, but other trees are also ok. Avoid anything that might have poison oak, weed seeds or contaminants. You can also try to sign up for them at: www.getchipdrop.com.