Build Bins

Transcript – Vermicomposting

Good day everyone. We are going to learn about building different worm bins. I'm very enthusiastic about different methods of composting because they all have their different benefits, their different advantages, the different ways that they are utilized and maintained. And when you have a lot of, let's say revenue streams of manure coming in, or compostable materials, it's good to have a great variety. So, thank you so much for joining. My name is Hassena Kassim and a big thank you to the Grow Network. Let's go ahead and dig in. So, build bins, we're going to go over lots of them. There are many ways to vermicompost. We'll go in-depth about worm towers, stacked systems, wooden bins, vermifurniture, and the vermivillage tote. I hope that you enjoy these methods and that a few of them will resonate with you.

Hey, good morning. [Extended silence from 0:01:08.0 to 0:04:23.2] Composting and vermicomposting. There are an abundant amount of decomposers in the outdoor piles: bacteria, fungi, earthworms, millipedes, slugs, snails, root-feeding nematodes, and as you can see, the list goes on. Not that these would be particularly bad in vermicomposting, but if you plan on doing your vermicompost outside, it would be a really good idea to get your red wigglers from a cleaner source than your outdoor compost pile unless you want to sift through it and identify the red wigglers. Otherwise, you're going to get a lot of these other things. Bacteria and fungi, you're going to see that in the vermicomposting bin; there's necessarily no reason to add it, but things like slugs and snails and millipedes, and also some centipedes, I've noticed when I add a lot of woodchips to my indoor pile, and I must--indoor pile, the indoor vermicomposting bins, I notice if I put wood chips in there, the pillbugs population goes way up, and that's not--while they are good decomposers, they aren't necessarily something that I want to be breeding more of and putting in the garden because they can and will eat your seedlings, and that's no good. So, get your worms from a good source; that way you make sure you got the right species.

And let's talk about worms that you'll find in the pile. There are about 1800 species of earthworms in the world, but you're only going to find about three different ones in your outdoor composting pile especially if it has access to the earth, and I prefer those kind of bins. The tumblers always seem to dry out on me, but like you've seen, we just have a simple three-pile system. So, in that bin, I've seen composting worms; they're likely toward the top. They like to be in the freshly decayed material, the stuff that's loaded with bacteria and fungi. These are really your red wigglers, your manure worms, they go by a lot of different common names, but they're not the only worm you'll see out there. The worms that make vertical tunnels in the soil are going to be your earthworms and while they do eat a good amount of soil and process it, they like leaves. If you have an area that's kind of muddy, you can look around for earthworm middens, as they're called, and you'll see a pile of poo near the entrance. And on some mornings, you can see that they've pulled leaves and sticks and you can watch them pulling these into their burrows.

But they make permanent tunnels in the soil. Their bodies are coated in a mucus and that mucus kind of helps seals those tunnels to keep them active. And then even deeper in the soil, if it's really good soil, there'll be root dwelling worms and they're deep within. You're not likely to see them; you might have some in the bottom of the compost pile that builds up enough depth, but they're really just going to want to eat the soil and they're not going to come up too often. So, get your worms, your red wigglers, from a reputable source. There's the earthworm midden; see it's a globular mound of poo, and earthworms are kind of neat; they don't poop in their burrows. They come up to the surface to relieve themselves. They don't go too far from their entrance though. It's interesting.

So composting worms. If your outdoor pile touches the earth, there's a good chance they'll be a mix of species like we reviewed. Worms not to invite in an indoor compost pile. So not all those manure, composting worms you're going to see in the top part of your compost pile outside, not all of them are going to be the red wrigglers that you want. Jumping worms tend to be very aggressive feeders. They have very big appetites which sounds like it'd be great for the compost, but if any of them get into your soil, a few county extension offices have sent out notifications about them. What they do is they turn the soil into a coffee ground like substance and while you think, oh wow, a bunch of vermicompost would be amazing, well, these worms consume so much organic matter that it actually causes soil erosion, and sick or dead plants are very possible because the worms are eating up all the nutrients, bacteria and fungi before the plants can get to it.

And then earthworms like we talked about, they make the vertical burrows in the soil. They do belong in the earth; they will thrive better there, and there's also a worm that you might see in your compost pile called flatworms, and they actually eat other worms. They can eat a whole population of red wigglers. They actually kind of liquefy and suck the juices kind of like a spider does. It's pretty interesting, but you wouldn't want those if you're breeding red wiggler worms for making compost. So those are my thoughts on the different kinds of worms and why it's so important, especially as we learn more about worms being invasive species. I think it's a good idea to choose a worm that's not going to be real invasive. There's a pretty good chance if you use your vermicompost outside, that the worms are going to survive. They can survive freezing temps so whatever you bring into your home, there's a pretty good chance it's going to get out into your landscape as well. So, choose your worms wisely.

Hey, good day. I wanted to show you one more of our outdoor [silence from 9:58 to 11:18]. So, compost as a livestock feed. I tell you; I really enjoy making compost, and we are going to get into building a worm tower first, but we're going to get into all kinds of worm bins. But you can, just to give you some thoughts, you can raise worms in your windrow. You just make a long pile of compost that's about three feet tall and as you work your way down the row of compost, or down the windrow, you put your fresh stuff on one side, and it starts to break down where you had first put it. So, they do take up a little bit of space, but you can add bad produce scraps, items not favored by your animals, moldy items that you wouldn't want to feed to like your goats, or chicken, or other livestock, and you can allow it to compost for a little bit. And then every day I put more bedding on it, and then I let the chickens out. They'll eat the bugs, they won't complain about turning the compost pile, and I found that this really helps break up the compost. It helps reduce our feed bill a little bit, and we want to do this more around our property because the longer that we can let the compost pile sit, the more biologically active it will be with critters, grasshoppers, and other things that the chickens would really enjoy eating. Plus, they will serve as our weed eaters and keep our fence line grass down.

So, the first worm bed we're going to build is called a worm tower. Have you ever wanted to make vermicompost right in the garden? Do you don't want to entice mice and other creatures? And a worm tower might just be what you're looking for. Worm towers can be made of many materials. The simplicity of design leads to an ease of use. Basically, when you're doing a worm tower you want holes in the bottom of something and a cap on top. You can make them how pretty or however you like. So, let's go ahead and get into it. Worm tower supplies: a pipe, a bucket, an old nursery pot, anything will do. You can add a screen; it's completely optional. I just put window screen underneath the lid to help keep flies away. Circular saw if you'll be cutting the pipe or the bucket. A drill for making holes. A quarter inch is probably the smallest you'd want to go. You wouldn't want to go real big like an inch because you don't want other things like mice to get in the compost and then a shovel or a posthole digger for installing.

Hey there. The first worm bin that we are going to [silence 13:46 to 15:48]. Hey there. So welcome to the installation of [silence 15:51 to 20:20]. So, worm tower review. Basically, holes in the bottom of something and you cut the pipe or the bucket to the desired height and it's really up to you. You wouldn't want to go with something like three feet tall because the worms aren't going to move up two feet into the air to get to the compost. They're going to stay at the bottom where it's closest to the soil. So, drill several holes in the bottom in two or three rows depending on the size of your container and choose an appropriate spot. Dig in, go ahead and put your parts together, slide the bucket in there, some compost, the screen, and the lid, and just get right to it. I do tend to put some of these things in an area where,

especially in our terrace garden, that when it rains, and it does rain here quite a bit, that anything leeching off of the vermicompost will be caught by that garden bed or the next bed over through like a little swale or something. So that way we're kind of making our own compost tea too just from it leaching in the soil. I don't think it has a huge effect on it, but when you're growing a lot of nutrition food every little bit helps.

So, the worm tower advantage: compost right in the garden and this is one we have put in--this is I believe, probably a five-gallon nursery pot. I put some extra holes in the bottom of it and then I just set it right on top of the soil and put the compost in it. I'm hoping the compost is heavy enough to hold it in place. If it does blow over, the next thing I'm going to do is just dig down a little bit, but I wanted to see if it made a difference for the compost that's in the four-inch pipe as opposed to a larger surface area. It can just hold more, but I wanted to kind of test more and see if I could make compost faster by using a larger surface area. Anyway, any kind of container that you have, the important part is that you just start composting and it'll let you know how it's going. So, it's effective in a variety of climates, the worm towers are; the lid and screen keep critters out like mice and raccoons, create a microclimate by providing shade on one side of the pot, and if you have it in a shady spot you might want to consider having it in the back of the garden where it's not going to block sun, but they can be made of varying heights and materials, just don't go too tall. Get a five-gallon bucket and if you prefer not to dig, just put the tower on top of the soil and make sure that it's heavy enough that it won't blow over.