What You Need to Know About...

Worm Inns



By Bentley "Compost Guy" Christie

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<u>About This Guide</u> - I created this report for all those wanting to learn more about Worm Inn vermicomposting systems. I've written a lot on the topic over the years, but compiling all the important info into a single resource has been LONG overdue!

You are welcome to share this report freely with anyone *as long as* you don't modify the contents in any way.

Disclosure & Disclaimers - I want to make it very clear that my opinions regarding the Worm Inn *are* biased. I After all, I sell Worm Inns on my website(s).

But this is a bit of a "chicken and egg" discussion. It's not that I'm passionate about Worm Inns <u>because</u> I sell them, but rather that my passion for this system is what led me to sell them in the first place (and the reason it's the ONLY bin I sell*). It is honestly the best (easiest + most effective) home vermicomposting bin I've used.

*I don't technically sell any other bins, but I *do* sell a set of DIY plans for building another kind of single-compartment flow-through bin (<u>VermBin Series</u>). In case you are wondering how these bins compare to Worm Inns, I've provided a link (later on in report) to a post I wrote on the topic.

I also want to make it clear that the advice given is this guide is my own – i.e. based mostly on my own experiences with Worm Inn systems (although I do share some information provided by other Worm Inn users). Like any of my vermicomposting information, it's <u>not</u> meant to be treated as "gospel", but rather as a set of "guidelines". Try things out for yourself and decide what works best for you and your situation.

<u>About Red Worm Composting</u> – I've been blogging about my vermicomposting (mis)adventures since late 2006, and continue to enjoy sharing this quirky passion of mine with as many people as I possibly can!

If you would like to stay in the loop regarding all things RWC-related, I recommend signing up for the <u>Red Worm Composting email list</u>.

If you have not done so, I <u>HIGHLY</u> recommend joining the <u>Red Worm Composting</u> <u>Facebook Community</u> – an excellent place to interact with fellow "Worm-Heads", and get your questions answered! A BIG thanks goes to my good friend, and "ultimate admin", Larry Shier for all his hard work, helping to make it such a fantastic resource!

(<u>NOTE</u>: If you are a Worm Inn owner I also highly recommend the private RWC Worm Inns Facebook group and email list – just <u>drop me an email</u> to learn more about those).

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INTRODUCTION

No need to waste any time here. Let's dive right in!

WHAT is it?

The Worm Inn is a lightweight singlecompartment flow-through system. Organic waste materials are added at the top, rich vermicompost is removed from the bottom. It relies on the natural habit of "epigeic" earthworms (worms that live close to surface) to feed on wastes close to the surface and their tendency to move away from their own waste materials (castings) as the concentration increases.



In a word, the Worm Inn is all about "optimization". Not only does it help you optimize the vermicomposting process – but you can also end up with an optimized vermicomposting *experience*.

<u>WHY</u> use it?

Easy – There is only one compartment to deal with. Once it is set up it can continue to process wastes indefinitely (since vermicompost will continue to be removed from the bottom).

Fast – It offers phenomenal air flow, which greatly speeds up (and just generally, aids) the vermicomposting process.

Fewer Headaches – When the process remains very aerobic, the hassles just naturally decrease. The zippered mesh lid helps to greatly reduce issues with fruit flies and gnats. Even if you *do* end up with some (which is less likely than with other bins), they won't end up 'in your face' or all over the house. Speaking of which, the Worm Inn is also...

Perfect For Indoors – It's usually the 'stink' and 'bugs' worries (whether warranted or not) that almost always deter people from setting up indoor vermicomposting systems. With the Worm Inn these hassles are all-but-non-existent.

Great Vermicompost – When you have enough air flow to support an "optimized" vermicomposting process, the end product is also going to be high quality.

WHO can benefit?

This is a system that most people can benefit from – but be sure to check out some of the caveats I offer in the next section.

Brand New Vermicomposters – Unlike the usual enclosed plastic bins, Worm Inns are extremely forgiving. You can get away with over-feeding. You won't end up overwhelmed with bugs. It can make vermicomposting feel "easy" even without a lot of experience under your belt.

Seasoned Vermicomposters – Worm Inns can help you turn more of your waste materials into higher quality vermicompost! What's not to love?

Entrepreneurial Vermicomposters – What's great about Worm Inns is that they support fantastic densities of composting worms AND produce beautiful, high-quality vermicompost more quickly than many other home systems. So you can start your own fun, part-time business selling worms and/or "black gold". My good friend, John White, has taken things one step further – creating the ultimate 'win/win' scenario -by using the money he earns from worm sales to take his wife out on fun dates, (even putting some towards bigger getaways etc). You can learn more in a silly article I wrote >><u>HERE</u><<

WHO might not benefit?

Neglectful Vermicomposters - This is definitely a system for *active* vermicomposters! If you tend to neglect your worm bins for long periods of time, it will be more difficult for you to enjoy the benefits offered by the Worm Inn. (But then again, I can be as neglectful as the best of 'em, and I've still done well with them!)

Outdoor Vermicomposters – I think of Worm Inns as the "ultimate indoor system" because they help to make vermicomposting so easy and hassle-free. While they CAN work OK outside, there will a greater chance of headaches. For one thing, in warm/dry weather it will be very difficult to keep your system moist because it is so breathable. During rainy weather – especially at night time – there will be a higher chance of worms escaping from the bottom of the Inn (particularly high if rain is allowed to pour right into the system). Exposed to solar radiation (and weather in general), the Worm Inn itself will break-down considerably faster than if sitting indoors. Lastly, it doesn't offer any insulation to protect against the cold.

All that being said, at certain times of year (especially if at least somewhat sheltered) a Worm Inn could work very well outdoors. In fact – as long as you kept the system well moistened, I suspect this system could work much better in a hot garage or shed than a

typical plastic worm bin simply due to the excellent evaporative cooling potential.

Arid Region Vermicomposters – As we just discussed, obviously an arid *outdoor* location (particularly one that's hot) will be extremely challenging. But even indoor locations in very arid regions may be less than ideal for the effective use of this system. My recommendation for those who do have very low humidity would be to keep the Worm Inn in a fairly small room, if possible, and to use a humidifier, or even something as simple as some open buckets of water, to help boost air moisture levels. Needless to say, spraying the system down regularly, and using plenty of water-rich food will be important as well.

SOME TERMINOLOGY

Wastes – As used in this guide, this refers to any sort of organic wastes (wastes that come from living organisms - or contain organisms that were once alive - that break-down via natural biological processes) suitable for being added to a vermicomposting system.

System vs Worm Bin – I tend to use these interchangeably (and many others do as well), but technically speaking, a "bin" is really just part of the overall "system". It's simply the container that holds everything, but the full system consists of the bin + worms/ecosystem + habitat + food etc. Don't get too hung up on this, though!

Vermicompost vs Castings – Again, I do tend to use these interchangeably, but "castings" actually refers specifically to worm feces (worm poop, if you prefer). Some will try to convince you there is such a thing as "100% worm castings" - but in actuality the stuff that comes out of ALL vermicomposting systems (EVEN the material that's been finely screened) is more accurately referred to as "vermicompost". There will *always* be material that has not passed through a worm, or at least not humified (basically, turned into compost).

"Living Material" - This is a term I came up with to refer to (typically) dark, rich, earthysmelling materials like well-aged horse manure, leaf mold, and various types of composts, that contain an abundance of beneficial aerobic microbes. Adding these materials to an active vermicomposting system can be considered an effective form of "optimization". To learn more about "living material" I highly recommend you check out my <u>Living Material</u> <u>Report</u>.

BACKSTORY

I figured some people might have an interest in learning how the Worm Inn came to be in the first place. If not – no harm no foul – simply scroll ahead to the next section!

I'm proud to say that I actually played a small role in the inception of the original Worm Inn concept. Some years ago now, I was inspired - by the Australian "Swag" and artist Amy Youngs' fascinating "Digestive Table" systems – to create my own version of a fabric worm bin. Me being me, I also had to be a bit silly about it.

And thus the "Creepy Pants Vermicomposter" was born!

I hung up an old pair of denim jeans, constricted the bottom of the legs with zip ties, and filled them up with typical worm bin materials...and of course, worms!



Not too surprisingly (in hindsight) – while fun, the experiment itself didn't work out all that well. Denim is, after all, biodegradable – so it didn't take long before the pants started rotting.

In case you are interested in every dirty, rotten detail (lol), here are all the Creepy Pants blog posts:

<u>The Creepy Pants Vermicomposter</u> <u>Creepy Pants Update</u> <u>Moldy, Creepy Pants</u> <u>The Pants Come Off!</u>

In July of 2008, about a month after the "pants came off", so to speak, I received an email from a reader, of the RWC blog Robin Crispe, entitled "My Take On Creepy Pants". Somehow, Robin had ended up inspired by those dirty, rotten pants, and she had created her own fabric bag worm bin. As for the name, here was her exact wording:

"I wanted to call this The Bentley, but thought that wasn't specific enough :) I'm going to call it the Worm Inn."



(What's funny is I completely forgot about "The Bentley" part, until I dug up that fateful email while putting together this guide! I'm touched! LoL).

When I saw Robyn's creation I was completely beside myself with excitement and – long story, short – I convinced her that she needed to share her Worm Inns with the world! While initially unsure about the idea (she was actually quite self-conscious about the design – let alone the idea of trying to sell them), my trademark "Compost Guy" enthusiasm (lol) eventually won her over, and she really decided to go for it!

Along the way, she came up with a brilliant upgrade – the zippered lid (originally it was just attached in 4 spots with velcro – and the "Worm Inn Pro" was born.

Eventually Robyn did decide to move on (she was moving to China for a new teaching position), but thankfully she sold everything to "Worm Dude", Jerry Gach before she left. Jerry, being the entrepreneurial mogul that he is (while he holds down a very demanding full-time corporate job, I might add), then proceeded to *really* put the system on the map!

One thing that's always impressed me is the fact that Jerry could have easily outsourced the creation of the Worm Inn overseas – likely for a very low cost. But instead, he's continued to provide employment to U.S. based seamstresses (and hasn't even, to my knowledge, bragged about this – which I think he should! lol). This helps to explain why you can't get this system for a rock-bottom price.

Jerry made the zippered lid a standard feature (so no such thing as a "Pro" model anymore), cut down on the color choices (I think a "Flower Power" Inn would now be considered a collectors item! LoL), and came up with a nifty kit for helping customers to create their own pvc pipe stand.



In early 2011 Jerry told me about a brand new, super-sized Worm Inn he had created. I'll be honest – at the time I was quite skeptical of the idea. I just didn't think the stand, or even the straps themselves would be able to support the weight once full. Nevertheless, I agreed to to help him come up with a fun way to introduce it to the Red Worm Composting community. Since he hadn't yet given the monster a name, we agreed that a "Name That Worm Inn" contest would be a great way to go.

As you will likely know by now, the winning name was Worm Inn Mega! There were a lot of great ideas put forth though. Be sure to check out the winner announcement post for a pretty lengthy honorable mention list.

"<u>Name That Worm Inn – Winners</u>"

With the new Worm Inn named, it seemed that the Mega had a bright future ahead of it, until – not too long after the end of the contest – Jerry informed me that he was indeed encountering challenges with supporting the weight of a full Mega system.

I thought for sure that would be the last I'd hear about the Mega...but of course it (thankfully) wasn't! I don't even know all the details about the dramatic comeback, but the important thing is that by the fall of 2013 the Worm Inn Mega was back in the picture – and I had one of my own set up down in my basement bathroom.

I was in love!

I'd always appreciated my Worm Inn – but the Mega was a whole new sort of home vermicomposting machine. I was also very pleasantly surprised to discover that the pvc stand – while somewhat wobbly – easily supported the weight of a full Mega (as did the straps).





The Worm Inn Mega became my new favorite indoor vermicomposting system!

The only thing that changed along the way is that I decided to switch to a wooden stand, thanks to the <u>inspiration provided by</u><u>Blake Ketchum</u>.

As impressed as I was with the pvc stand, once I started using the wooden stand, I realized there was no comparison – and as you'll learn in the next section, I've even gone so far as to stop offering the pvc stand kit to Mega customers (I provide plans for the easy

DIY wooden stand instead).

And that, my friends, basically brings us up to present day!

I can't wait to see what the future holds for the Worm Inn!

WORM INN SPECS

As most of you will likely know by now, there are two models of Worm Inns – The (smaller) "Regular" model – which used to be called the "Worm Inn Pro" before the zippered lid became a standard feature - and the Worm Inn Mega.

Fabric - Cordura backpack cloth. Good abrasion and microbial resistant.

Volume – these are approximations since Worm Inns are not rigid structures, so they don't fit into any particular 3D geometric shape category.

Regular Worm Inn: ~ 2 cu ft Worm Inn Mega: ~ 4 cu ft

Dimensions of Stands – We'll talk more about the stands in a minute, but here are the approximate dimensions.

Regular Worm Inn pvc Stand: 18" x 18" x 36" Wooden Stand: 22.5" x 18.5" x 36" (<u>highly</u> recommend using wooden stand)

Worm Inn Mega pvc Stand: 20" x 20" x 36" Wooden Stand: 23.5" x 21.5" x 42" (<u>HIGHLY</u> recommend using wooden stand).

Support Options

As you can tell, I highly recommend the use of a stand with a Worm Inn (and wooden stands are definitely the best option), but that's not the *only* way to support the Inn.

No Support – Technically, a Worm Inn *could* sit on the ground and still function as a worm composting system. This is not recommended AT ALL, however, since it may impede the performances of your system – and may also decrease the life of the Inn.

It is also very challenging to hang up an Inn once you've filled it (especially a Mega) – so if at all possible, avoid setting it up before building your stand and attaching it (or hanging it up etc).

If for some reason you end up with the worms *before* the Inn (we always stagger shipments so as to hopefully avoid this), simply set everything up in some sort of plastic tub. This actually isn't a bad idea when waiting for the Inn to arrive anyway, since it allows

time for the waste materials to start breaking down – so they will probably be more worm-friendly by the time you set everything up with the worms.

Hanging Apparatus - Some people may prefer to hang their Worm Inn(s). If you are a handy DIYer perhaps you can even envision some sort of fancy pulley system that lets you raise and lower your system (my friend – and RWC Facebook group leader - Larry Shier, had something like this planned at one point. I'll be sure to add an update here if he decides to go ahead with it). I did hang one of my earliest Worm Inns from my basement rafters, but found it didn't offer the same sort of tension on the straps as a stand – this made the system a lot more difficult to work with, and also didn't encourage the same sort of air flow.



As you can see in the image (to right), Robyn Crispe suggested an interesting bungee cord set-up (hanging from a shelf) as one possibility.

PVC Stand – The pvc stand is what you might call the "official" option for supporting a Worm Inn. Often included in the purchase is a "kit" with special pvc corner pieces (and zip ties) designed to connect 3/4" schedule 40 pvc pipe. These corner pieces are NOT readily available in stores, so Jerry thought it would make sense to include them (again, in cases when the kit is part of the purchase). Since the pvc pipe itself IS readily available – and since shipping lengths of it would likely add a lot to the cost, he felt it made more sense for the customer to take care of this.

Here's my take on these stands – I have been perfectly happy with the pvc stands I've used for my standard Worm Inns over the years, and – as touched on earlier - was actually pleasantly surprised by how well the pvc stand worked for supporting the Mega (I was VERY concerned about this, to be totally honest). But after building and using wooden stands for both models, my perspective has changed dramatically.

The wooden stands are very easy to build (plans are available for customers) – and you might even have an easier time getting the pieces cut than is the case with the lengths of pvc (I ended up purchasing a special pvc pipe cutter). Even more importantly, the wood is incredibly sturdy. I feel this is especially important in the case of the Worm Inn Mega. I now feel totally comfortable harvesting/digging etc as vigorously as I want – and I'm no longer nervous in the least about accidentally bumping into the stand and knocking it down (that <u>never</u> happened with *any* of my pvc stands – but it was always something I was a bit worried about with the Mega).

One other simple – yet surprisingly appealing – feature of the wooden stand is that you are not relying on zip ties, which need to be cut in order to remove the Inn. With quick links (or carbiners etc) you can easily take off the Inn and put it back on the stand over and over again.

Wooden Stand – I don't really need to say much else about the wooden stands here, since I provided a pretty good overview (of why I like them) in the last section. I do however want to once again give a "shout out" to my friend Blake Ketchum (of "<u>Seed</u> <u>Balls</u>" fame) for getting me on the wooden stand path in the first place. She helped me realize that building a high quality wooden stand is a LOT easier than I thought (what's funny is that I *had* previously made a wooden stand for one of my Worm Inns – and it was so lousy I switched back to pvc stands! LOL).

It is her plans for the Mega stand (plus my own modifications for the regular model) that I've made available to all RWC Worm Inn customers.

If you want to learn more about my transition from the pvc stand to wooden stand (Worm Inn Mega), these blog posts may be of interest:

<u>Worm Inn Mega Re-Boot – Part I</u> <u>Worm Inn Mega Re-Boot – Part II</u> <u>Worm Inn Mega Re-Boot – Part III</u>

Other Stand Options – I wanted to quickly point out that you absolutely <u>DON'T</u> need to follow my advice as far as building a stand goes. Feel free to experiment with various other options. One of the very first stands I used was from a laundry hamper (I got the idea from Worm Inn creator Robin Crispe – see her first stand over to the right) – so I know there are a variety of possibilities, some available "ready-made" while others can be easily built from various materials.

All I ask is that you make absolutely sure that your stand will support the weight of a full Worm Inn. I've never done any official weighing of my full systems – but I'm guessing a full Regular model will easily get up towards 75 lb (if not more), while a full Mega could be twice that.



SETTING UP A WORM INN

This section assumes that the Worm Inn has been secured to some sort of stand (or other semi-permanent form of support)

~ The Hillbilly Hitch ~

Step #1 – The very first time you set up your Worm Inn, you *may* want to tie off the bottom to provide an extra level of constriction down there. I'll be honest – Jerry Gach does NOT like this approach! I seem to recall him referring to it as my "Hillbilly Hitch" (LOL), and he's made it clear that he doesn't feel it's needed.



Out of respect for Jerry, please let me be clear on the fact that the Worm Inn tightening apparatus (toggles + cord) *does* in fact tighten sufficiently. I simply prefer to go the extra mile by using my "Hillbilly Hitch" during the first phase of vermicomposting (we'll talk more about this later).

~ The False Bottom ~

Step #2 – Add a few big handfuls of dry, absorbent (ideally bulky) bedding material. Some examples include shredded corrugated (or drink tray) cardboard, and shredded newsprint.

Step #3 – Lay down multiple layers (say 5-10) of newsprint and fold them up the sides of the Inn. This basically creates a "container within a container" and helps to discourage

downward worm migration early on when it is most likely (due to the close proximity of the composting zone to the bottom). Spray lightly with water to help it adhere to the sides a bit better.





~ The Worm Zone ~

Step #4 – Mix up some moistened shredded cardboard or newsprint with some wellchopped (and ideally, frozen-then-thawed) food waste at a ratio of about 3:1 (bedding:food volume). If you have some form of "<u>living material</u>" on hand (eg. some habitat material from an active worm bin, or really well-aged, earthy-smelling horse

manure etc) this would also be a helpful addition. <mark>I recommend creating enough of this</mark> (worm zone) mix so as to fill the Inn *at least* half way (not quite as important – or realistic – with a Mega, though).



If you have the opportunity to let this mix age for a little while (say 3-7 days) – maybe, for example, while you are waiting for your worms to arrive – that's never a bad idea since it allows the microbe community to become well-established. But if high quality "living material" has been added, this aging period is far less important (and even without "living material", worms are likely to settle in more quickly than would be the case with a newly set up plastic, enclosed bin.

As touched on earlier, even if the Inn isn't ready to receive the contents, you can create and age your mix in a regular tub bin ahead of time.

~ The Bedding Cover ~

Step #5 - Over top of the composting zone I highly recommend adding a *very* thick layer of dry bedding. This helps to keep moisture in, but it's also an easy way to make sure you always have a supply of bedding that can be mixed with your food.

You might even think about adding a square of corrugated cardboard (or something similar) directly over top of the composting zone (shredded stuff could sit over top of that). My friend John While (Mr. Vermi-Romance! lol) reports good results from doing so. It is yet another way to help keep things moist up top while still allowing for air flow. Burlap, or even an old towel (or something similar) could also work.

A WORD OR TWO ABOUT WORM SPECIES

It is beyond the scope of this report to get into all the ins and outs of different composting worm species – but I do at least want to touch on some of the more important info as it relates to this system.

Red Worms (*Eisenia fetida/andrei*) – This is my "go-to" species for pretty well all worm composting systems. No worm compares in terms of versatility and tolerance. Needless to say, it is very well suited for the Worm Inn. Just make sure you get your Reds from a <u>reputable</u> worm composting supplier – or from another vermicomposter (has the added advantage of likely being free, plus you'll get some highly valuable "living material" from the other person's worm bin).

European Nightcrawlers (*Eisenia hortensis***)** – I've been a bit back and forth on the topic of using Euros in Worm Inns. Early on I was very much against the idea because I had tried them out with very poor results. Euros are known to dive down in worm bins, and I found this to be the case in my Inn. They all ended up down at the bottom. Not exactly ideal when working with a flow-through system!

I gave them another chance in a Worm Inn Mega system more recently, and the results were a bit more promising. They seemed to stay up near the top and to happily process food wastes. But the problem was that I also had a very healthy population of Reds in the same system. Over time the Reds seems to gain the upper-hand (which seems to be common in mixed systems with these worms) and the Euro population didn't really thrive.

I would definitely like to test these worms again – this time on their own. I'd also be interested in hearing from anyone else who has tried Euros in a Worm Inn!

Blue Worms (*Perionyx excavatus*) – Under the right circumstances, I think Blue Worms could be a *fantastic* worm for the Worm Inn. They often have the tendency to roam up and out of regular bins (one of the reasons I'm not a fan of working with them), but the extreme air flow and zippered lid would discourage this (I have yet to hear of ANY worms trying to escape from the top of a Worm Inn)

My friend (RWC Facebook Group admin) Larry Shier is currently testing this species in his Worm Inn – so far things are going great! Hopefully I'll be able to add some updates here over time.

African Nightcrawlers (*Eudrilus eugeniae*) – I only know of one person trying out ANCs in a Worm Inn and at the time of this writing I am still waiting for an update. I think they could do very well – my only potential concern would be the consistency of the vermicompost. I received information from a VermBin Series (plans package) customer saying they ran into issues with the castings falling down through the bottom of their VermBin too easily. The Worm Inn doesn't have an open (with bars) bottom like a VermBin, so it likely wouldn't be a "falling out" issue but if there is no solidity of the lower material there would be a greater tendency for the upper composting zone to sink down into the harvesting zone any time you attempted to harvest.

IMPORTANT: Blues and Africans will require temperatures between 68 and 86 F (20 and 30 C) in order to thrive (and they will actually typically die if temps drop below 50 F – although it's worth mentioning that Larry Shier has observed some pretty amazing cold tolerance in his Blues!).

How Many Worms to Add?

I'm not a "gobs of worms" kinda guy, I'll be honest. If I am stocking a new system, 99 times out of 100 I will be using worm-rich material from an existing vermicomposting system. I really like the idea of adding worms with a lot of their existing habitat material (great form of "<u>living material</u>") since it helps to inoculate the new system with beneficial microbes and critters – and just generally helps to make the new environment feel more like home.

I also like the idea of encouraging "natural" worm population growth. Composting worms are "designed" to rapidly take advantage of (often short-lived) habitats, rich in organic wastes – so when they have plenty of food and room to spread out in (and their other requirements are being met), you'll be amazed how quickly they can increase in number.

When you add tons of worms early on, it not only costs you a lot more money, but the irony is that your population can actually *decrease* before you see any further growth (*if* you see any further growth).

That being said...

It's important to note that I *do* tend to be pretty patient with my new systems. A lot of the time (especially when I'm busy...or feeling lazy! lol), it's nice just to add a bunch of bedding, a bunch of food, and some worm rich material – and then to simply let nature take over for a while.

I guess my take-away here is don't feel pressured to add pounds of worms to your Worm Inns. The environment in these systems tends to be very favorable for the worms (with a little attention of course), and before you know it you should have loads of them anyway!

HOWEVER...if you *do* want to hit the ground running, my recommendation would be to start with 1-2 lb of worms in a Regular Worm Inn, and maybe 2-3 lb in a Mega. Just make sure to make the initial habitat as "worm-friendly" as you can.

NOTE: My suggestion is to keep your Inns dry enough that they won't drip any liquid out the bottom, but it is still HIGHLY recommended that you set up some form of bucket or bin catch system down below your Worm Inn.



Early on – since the active composting zone is much closer to the bottom - there is a greater likelihood of worms crawling, or liquid dripping out. I like to keep an actual opentub worm composting system down below, but even a tub with some moistened cardboard should be totally fine.

ONGOING USE

As touched on, the Worm Inn is not best suited for those who are neglectful with vermicomposting systems. If no kitchen scraps and/or water are added, the contents of the system will definitely dry out much more quickly than would be the case with an enclosed plastic bin. It just so happens that I am neglectful from time to time (yep, a bit of an understatement), so I've had this happen.

BUT if this happens to you, <u>DON'T</u> give up!

Assuming the system is indoors and the time left alone doesn't add up to months, there is a reasonable chance you'll be able to nurture the system back to life with a little TLC. Even if you've managed to kill off the worms, there may be quite a few viable cocoons left. Again, remember that these worms are well adapted for life in rapidly-changing habitats, so they definitely have some strategies for increasing the chances of their long-term survival.

As you might imagine, the Mega will probably be a bit more forgiving simply due to the additional volume.

Feeding Your Worm Inn

The best approach is to add water-rich food materials on a fairly regular basis. I recommend chopping up kitchen scraps as much as possible and (ideally) freezing-then-thawing them before adding them. This helps with the physical break down of the wastes, as well as helping to ensure that you won't end up with viable fruit fly eggs hitching a ride in fruit feels (etc).

If you have access to some form of "<u>living material</u>", I highly recommend mixing it with your food wastes to help accelerate the colonization of beneficial decomposer microbes. My personal favorite is really well-aged (earthy smelling) horse manure, but there are a variety of possibilities to chose from.



This image shows well-chopped (frozen-then-thawed) food wastes mixed with aged horse manure

Speaking of "manures", what's nice about the Worm Inn, as compared to something like an enclosed plastic bin, is that you don't need to be *quite* as careful with newer manures as a food source since the air flow is so phenomenal (in an enclosed bin, ammonia gas released from manure can be very harmful or even fatal for your worms). That said, I still highly recommend that you only add thin layers, up at the surface, and that you never cover the entire surface with a single feeding. Definitely avoid mixing newer manures directly into the composting zone – especially larger quantities in a Mega. Apart from the potential ammonia issue, manure can also stimulate over-heating.

Getting back to regular food scraps...

With my Worm Inns I tend to add a lot of scraps at once, on more of a periodic basis, so I always want to make sure they are as "optimized" as possible. I will usually create a shallow depression over to one side, drop in the wastes, mix with "living material" (if I haven't done so already), cover with the excavated material, and then make sure there is a really thick layer of bedding over top.

If the scraps are really wet (thawing frozen wastes tends to release a lot of water) it is a good idea to put some bedding down in the bottom of the depression first – and it's also not a bad idea to mix some absorbent, bulky bedding in with the food itself.

NOTE: When adding *really* big feedings, it is not uncommon for me to simply use the upper bedding layer as my new "bottom" - adding all my wastes directly on top. This is a case where it will be even more important to mix in plenty of "living material", and to add another thick layer of cover bedding over top.

Frequency of Feeding - There are no hard and fast rules as far as how often you should feed goes. It really will depend on the environment where your Inn is sitting (temperatures, humidity etc), the density of worms, and how well you optimize the waste materials. So, I'll stick to my usual "let the worms be your guide" advice. In other words, monitor how the worms are doing with the food – and don't continue adding more if they are not keeping up.

The good news (as touched on earlier) is that Worm Inns are very forgiving in comparison to most other home systems – so even if you go overboard, especially if you are using "living materials" and bulky absorbent bedding, you should still be fine!

IMPORTANT: I want to make it clear that my "optimized" approach is <u>NOT</u> the only way to get good results from this system. If you'd prefer to take a more laid back vermicomposting approach, by all means do so (you'll be in good company – since plenty of Worm Inn users are in this boat). In all honesty, it's not as though I myself am always a master of optimization (although I do tend to be pretty consistent with the freezing-then-thawing).

Of course, this is not to say that you can get away with just dumping a bunch of food waste in the system without any consideration for the basic requirements of the worms. You will still need to include plenty of decent habitat material (eg absorbent, bulky bedding) as well.

Harvesting From Your Worm Inn

You should expect to wait at least 2-3 months before your Worm Inn is ready for its first harvest (but be sure to check out my "<u>Worm Inn Acceleration Method</u>" a bit further along for some ideas on ramping things up even faster).

A pretty good rule of thumb for knowing when the system is "ready" is to wait until the upper level of the composting zone (where the worms reside and food is added) is consistently 2-3 inches from the mesh lid. The term "consistently" is important – since the level can easily extend up that far temporarily after adding a lot of food/bedding. But early on, the level should drop down again fairly quickly.

It should almost get to the point where it feels like you don't have much room for adding more food.

IMPORTANT: I am assuming here that ambient temperatures are up above 68 F (and ideally below 86 F). Cool temps can slow down progress *considerably* – even in a Worm Inn! So if the Inn is sitting in a cool location, you may need to be a bit more patient.

An Interesting Twist on Harvesting Prep - Usually, my harvest-preparation recommendations (for a typical worm bin) would include the suggestion to stop feeding a system for a week or so. With a Worm Inn, I'm going to give you the *opposite* advice!

You should actually feed a few days before you plan to harvest – ideally with some nicely optimized, really tempting foods, such as cantaloup, aged manure.

Hopefully you can see why I'm suggestion this...yep, it's because we are trying to get as many worms up near the top as we can, so there is less chance of ending up with some in our vermicompost.

The Harvesting Process

Handy tool – I highly recommend using some sort of sturdy hand rake to scrape out vermicompost from the bottom of your Worm Inn



False Bottom Misconception - Many people seem to expect that the

false bottom should be completely rotted out by the time the first harvest rolls around – as would usually be the case with a typical flow-through bed. This is not actually the case with a Worm Inn. When you loosen the toggles at the bottom for the first time, you should expect to see all the loose false bottom material fall right out



You will almost certainly need to dig out a lot of your newsprint as well.

All in all – the first batch of material that comes out from your Inn may NOT look all that impressive. LoL



BUT don't be tempted into thinking you've done something wrong. Much of this coarse material will be pure gold as a future bedding / "living material".

If you have not already done so, I highly recommend creating some sort of screener for yourself – this will really help when it comes to separating "the wheat from the chaff", so to speak. I typically use my "<u>Super Simple Vermicompost Screener</u>", but an actual <u>DIY</u> rotating screener would be even better!

These screening devices are often not all that useful for screening material that comes from enclosed plastic bins, but the vermicompost that comes from a Worm Inn tends to be dry enough to allow for this (if not, simply leave it to sit in an open tub for a while).

IMPORTANT: If you are seeing lots of worms in your vermicompost and/or it is fairly wet, you may want to close up the bottom and postpone your harvesting



session. This is part of the reason I recommend keeping the lower sections of the Inn as dry as you can – worms love moisture, so they will definitely be more likely to linger further down if it remains wet in the lower reaches of the Inn.

Again, make sure the overall level of material is consistently up near the mesh lid, and try to provide a sort of "ultimate" food buffet up there if you can. Then simply give it more time.

All that said, it is NOT the end of the world if you end up with worms in the harvested material or if it is still fairly moist. Even if you can't screen it at all, it will still likely be great stuff - and more than likely higher quality than you'd get from a typical plastic enclosed bin. So put it to good use!

How Much to Harvest – It's hard to say for sure exactly how much material you should remove the first time you harvest. If you are seeing LOTS of worms, it will make sense to limit the amount you take initially – but all in all you should be able to get a decent amount, especially with the Mega.

If you want something more concrete, I'll at least say that the amount should never exceed 1/3 of the total volume – if you start seeing decomposing food wastes in the material, obviously you've gone too far!

When To Harvest Again – After your first harvest, the level of material in the Inn should drop down quite a bit over the next few days. Now you basically just go back to adding food/bedding as described earlier – and then harvest again once the level of material stays consistently up near the mesh lid.

NOTE: I should touch on some differences in consistency between the material in a Regular Worm Inn vs the stuff in a Mega. With the Regular model you may find that an outer "shell" of hardened compost/bedding forms all the way around the inner walls of the system.



If you completely empty out a Regular Worm Inn you may find a solid outer shell like this

Don't let this phase you! This stuff can still be scraped out, broken down and recycled

through the system again as a great "living material". In the middle of the system you should find what Jerry Gach refers to as the "sweet spot", where moisture levels are higher and most of your fantastic vermicompost will be found.

In my experience, the Mega does not form the same sort of shell (although I'm sure it would if conditions were dry enough). Presumably this is because the system is able to retain a lot more moisture than the Regular model.

The Worm Inn Acceleration Method

If you want to make your Worm Inn work even faster, I have a step by step approach that should do the trick.

But there *are* some requirements:

- You'll need some form of aged manure ideally aged, bedded horse manure (or something comparable).
- You'll need to optimize your food wastes (chop them up really well or even grind them, ideally with some cooking or freezing/thawing)
- You won't be able to use as much bedding material.
- Ambient temperatures will need to be between 68F and 86F (20 C and 30 C)

Obviously, some variations will work fine as well. I'm just offering what I consider to be the "perfect" scenario.

Setting Up The System

Step #1 – Tie your "Hillbilly Hitch"

Step #2 – Set up the false bottom system as described earlier.

Step #3 – Fill the Inn about 1/2 way with some really nice well-aged (earthy smelling) farmyard manure. It should be moist but not wet.

Step #4 – Mix in some optimized food waste (but hard and fast rules here, but make sure it's no more than 1/8-1/4 the volume of manure already added)

Step #5 – Add your worms. I myself would still lean towards using a high-density wormrich material (discussed earlier), but you might not get quite the same "acceleration" out of the gates as you would with 2-3 lb of worms. **Step #6** – Lay an old towel or moistened square of corrugated cardboard over the composting zone, with a thick layer of newsprint strips over top of that (this is mostly for moisture retention, rather than or mixing into the composting zone).

Step #7 – Leave the worms alone (you can check on them but don't feed) for 3-5 days.

If the level of manure (etc) has settled down, the material looks well worked and the worms seem to be doing well, you can start adding thin layers of aged manure + optimized food waste (at ratio of say 2:1, manure:food) every few days. Periodically add layers of *only* the aged manure.

<u>NOTE</u>: The aged manure being added as "food" (i.e. once the initial habitat zone is established) can be *somewhat* newer than the first batch you added when setting up. But it still shouldn't ever have a strong manure odor to it.

Similar to the "normal" Worm Inn use guidelines, with the "Acceleration Method" I recommend waiting until the level of the composting zone is consistently up near the mesh lid. This should happen quite a bit more quickly. Apart from the fact that composting worms will thrive in aged manure (reproduce more quickly etc), it also has a higher waste-to-castings conversion percentage. In plain english, this means that more of the manure will end up as castings than would be the case with something like food waste alone (since it is mostly water).

NOTE: This method is primarily recommended for those with some vermicomposting experience (especially those who have worked with manures) under their belts. If you are completely new to vermicomposting, it is probably better to first get a feel for things with a typical food waste + LOTS of bedding (and hopefully some "living material") approach.

Complete System Overhaul

Some people wonder if the Worm Inn ever needs to be completely cleaned out and started over again. In my view, this is largely a personal preference. As touched on earlier (and assuming you take decent care of the system), you should be able to keep your Inn going indefinitely if you are continuing to add food materials up top, and periodically removing vermicompost from the bottom.

I like performing periodic over-hauls, but it is usually brought on by some set of circumstances requiring that I dismantle one of my Worm Inn. I'm sure if I had a larger, out of the way, space to keep these systems I'd be more inclined to keep them running for years on end!

The KEY, though, is that unlike a plastic tub system, these sorts of overhauls shouldn't

ever be mandatory (unless you have done something really wrong! Lol)

Final Thoughts

This brings us to the end of the guide (be sure to check out the <u>additional resources</u> at the end, though) – I hope you found it interesting and educational!

My hunch is that I will continue tweak and add-to the contents over time – so please don't hesitate to <u>let me know</u> if you have any questions, comments or suggestions relating to the information I have provided.

All the best to you!

Bentley "Compost Guy" Christie

ADDITIONAL RESOURCES

Worm Inn Related

<u>Worm Inn Category on RWC Blog</u> – Peruse all the various blog posts about Worm Inns on the Red Worm Composting blog.

<u>Worm Inn Mega vs VermBin24</u> – A comparison of two large single-compartment home flow-through systems.

<u>Worm Inn Q&A</u> – Definitely some overlap with information found in this guide, but still worth reading.

Worm Inn Mega Harvesting – In this post I discuss one of my Mega harvesting sessions. And here are a couple of the screening tools mentioned...

<u>Super Simple Vermicompost Screener</u> – Information about the basic tube screener I created for myself.

<u>DIY Rotating Screener</u> – This is definitely a much more serious screening machine, if you want to get more serious about this.

<u>Mystery Mega Man</u> – Learn about a gentleman (who prefers to remain anonymous) who has his own mini army of Worm Inns!

Compost Guy Guides, Courses & Memberships

<u>RWC Guides Page</u> – A hub for helpful Red Worm Composting guides/reports

Easy Vermicomposting Course - In-depth audio (primarily) course, exploring all the ins and outs of effective vermicomposting.

<u>VermBin Series Plans Package</u> - This package includes plans for the VermBin DIY flowthrough beds (VB24, VB48, VB96) + a separate DIY Compost Tumbler building package.

<u>Worm Farming Alliance</u> - Originally started as a community and educational resource for entrepreneurial vermicomposters, it is now on its way to becoming a major networking & education hub for serious vermicomposters (amateurs and pros alike).