



## Vermicast / Worm Castings ( "VC" )

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Hi !

Thanks for buying Vermicast from me.

To use the correct term, the material from a worm farm should be called "Vermicast", or "VC" for short.

## Application Rates

Generally, VC should be used at a **maximum** application of 20% to 25% of the volume of the soil media.

The ideal rate seems to be between 10 and 20%.

If you add a lot more, it will do LESS good than at the ideal application rate.

*Remember, you must ALWAYS water in VC and if possible cover it with mulch.*

## To Put The Application Rates Simply . . .

For potting media, mix one part VC to 5 parts of other potting media/"soil". This makes the VC rate 20%.

For garden beds, to get the same 20% rate, you would mix 20 litres of VC into each square metre of garden.

Remember, even a 1% application will have SOME benefit.

<b>VC Broadcast Rate Or For Mixing Into New Beds</b>		
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(Per square metre of garden)		
% VC in top 10cm of soil	VC Depth (cm)	VC Volume (litre)
1%	0.1	1
5%	0.5	5
10%	1	10
15%	1.5	15
20%	2	20

<b>VC Media Mixing Rate (For Potted Plants)</b>		
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VC (litre)	Other Media (litre)	VC Rate (%)
1	4	25%
1	5	20%
1	6	17%
1	7	14%
1	8	13%

# Using The VC Itself, In Gardens, Plants In Pots Etc:

- VC may be applied to the soil around existing plants at a rough rate of a handful per plant, agitated into the soil then watered in.
- VC may be used to mix up soil for a garden, plant pots or seed germination/cuttings.

***Remember the value is in the MICROBIAL content of the material and its inherent properties as a soil CONDITIONER – NOT the value of its N-P-K.***

## Storage

VC MUST be kept in a cool shady spot, preferably out of the sun, or heavily protected from the sun by more layers of bags, cardboard etc.

It must be kept moist and have access to air. Keep the lid cracked open and the newspaper sheets moist on top of the bucket.

## Screening

The VC is (usually) screened by me in a rotating trommel type harvester with a 4mm hole wire mesh. The screening takes out any unprocessed material and makes a VC that is fine and fluffy.

## A Note About Pathogens

**The caution is that if there are pathogens in the VC, especially from un-composted animal manure inputs, or uneaten foods, that there could be pathogens in the VC. I do not use any animal manures in my worm farms.**

Do not apply on leafy greens/ vegetables you're going to harvest to eat.

## The VC Can Be Used To Make

### “Actively Aerated Castings Tea” AKA “AACT”

It may be steeped in water, in a particular fashion, adding air to the "brew".

This is a system called “Actively Aerated Castings Tea” (See notes on website) – where water, a little VC and at your choice other additives, are aerated by, most commonly, an aquarium pump and air stone.

The resulting liquid is diluted with between 1 and 10 parts water, and may be used as a foliar spray or a soil drench.

Dilute 1:1 to use on the soil or 1:4 to spray on foliage. It can be diluted up to 1:10 for either soil or foliage if you need it to go a lot further (i.e. you have a lot of land/garden and too few castings)

(For Instructions On This Click Here)

# **The “Leachate”** **AKA “Worm Wee” AKA “Worm Tea” IN Worm Farms**

The leachate is the liquid that drains from some worm farms.

This is a contentious issue.

Some believe it to be bad for plants, some swear by it.

Perhaps those who had bad experiences with it may have not used it in the best way.

Personally I’ve never found any issues using it as directed.

## **How To Best Use Leachate:**

(Leachate is the excess liquid that drains from a worm farm)

- use FRESH – do not allow it to build up for months – use it weekly. It spoils / goes anaerobic
- do not store it in a closed container. It spoils/goes anaerobic
- dilute with 10 parts water
- do not use ON plants, but as a soil drench

## **Vermicompost Extract**

You can also make an "extract" by placing some VC in a bucket and adding water; stir it around and apply immediately as a soil drench.

Apply it from a watering can with no rose; or directly from the bucket. Water it in well too.

You can place the VC in a stocking or paint strainer, or use a sieve; this may help remove seeds, cocoons or worms from the VC, which can be placed back in the worm farm after making the extract.

## **What makes VC better than traditional compost?**

While both break down organic materials, the worms impart extra things to the VC as noted in the material above.

VC may bring enzymes, micro organisms, microbes and humus, the worms mucus, and the bacteria and microbes from the worms’ gut and the from the process of converting materials while in contact with the worms, their secretions and bacteria.

## **What IS Vermicompost – and why isn’t the term “Worm Castings” completely accurate:**

Basically, VC is the resulting finished material, from a composting worm farm.

VC consists of the manure OF worms – “castings” (or “worm poo”); and any other material that may not have actually been EATEN by the worms, but has decomposed WITH the castings of the worms. This unfinished material could be some fine leaf or bedding, or some unprocessed food.

You would need to examine each piece under a microscope to call it ALL “castings”

## **What are some of the things the worms are fed (briefly):**

- “bedding materials” – AKA “browns” (usually materials high in carbon, eg cardboard, newspaper, old leaves)
- “food” – AKA “greens” (such as kitchen scraps)

Some materials are considered both food and bedding, such as aged or semi composted grass clippings.

My worms are not fed any manure (ever) - they are fed cardboard, newspaper, aged grass & leaves, and kitchen waste (fruit/vege scraps).

## **Benefits of VC:**

### **Benefits For The Soil:**

- contains water soluble nutrients (is a “low value” of N-P-K – the benefit is not in the NPK value alone)
- it may hold moisture better than “plain soil”
- may improve soils ability to hold water
- may improve structural properties, aeration and porosity
- may reduce the level of some contaminants in the materials “input” into the farm
- it contains worm “mucus”, which may help keep nutrients from washing away
- may be considered an excellent, nutrient rich soil conditioner
- may have a higher saturation of nutrients than the material input into the farm
- it may enrich the soil with micro organisms, bacteria and fungi
- may increase the microbial activity in some soils by as much as 10 to 20 times
- will also help attract deeper dwelling “garden worms” to the garden ( endogeic/epeceic worms)

### **Benefits For Plant Growth:**

- may improve root structure and growth
- may enhance crop yields, germination and plant growth
- may be a slow release material, and be available for a longer time

### **Benefits For the Environment:**

- domestic worm farming helps reduce materials sent to landfills, saving the earth, and also saving the community money by reducing landfill need and garbage collection services.
- It helps to divert, in particular, material sealed in plastic bags which when sent to landfill do not decompose back to the earth, but make methane gas, which adds to the greenhouse effect
- Domestic worm farms use other common materials from the house and yard such as paper, cardboard, leaves, grass

Households with worm farms seem MUCH more in tune to recycling in general.

Thanks and happy gardening !!!

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