



**NEWSLETTER** Read on to find out how to look after your WormsWork worm box over the winter and keep your worms working through the coldest spells. Also, some timely reminders with some Do's and Don'ts.

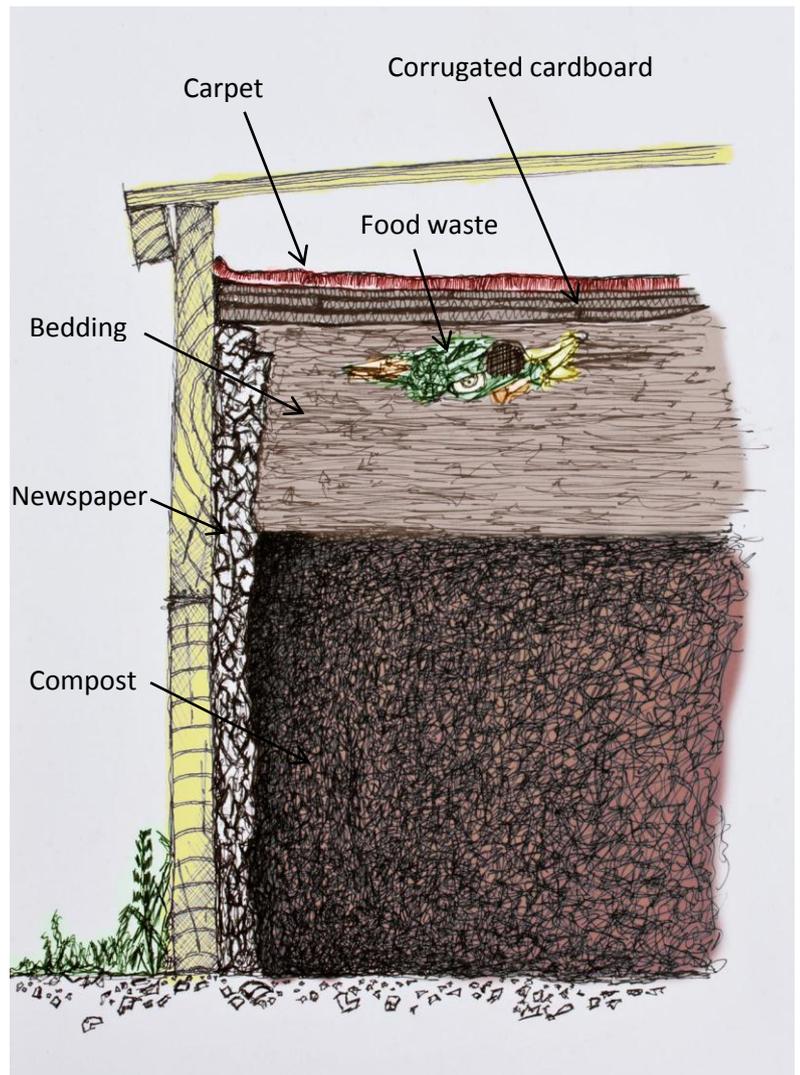
## Winter Care

Now that winter is well and truly here, it might be worth thinking about taking a few steps to protect your worms from the worst of the cold weather.

One of the most beneficial steps to take is to make sure there is plenty of bedding in your worm box. If the bedding is deep, then the worms have somewhere to retreat to, escaping the frost. Plenty of loose bedding traps air which acts as an insulator keeping the worms warm enough to stay active. Good bedding is: torn or shredded corrugated cardboard, partially rotted garden compost or well-rotted horse manure. Aim to have the box at least three quarters full and make sure the bedding has been well soaked and allowed to drain.

Another useful addition is layers on top of the bedding. An old piece of carpet and/or whole pieces of corrugated cardboard, fitted snugly against the walls of the box, will help to trap any warmth inside and maintain conditions which keep the worms active. The worms will gradually consume the paper and cardboard used as insulation, like all bedding, and turn it into compost which is why bedding needs to be topped up occasionally.

Two quick and easy steps to ensure your worms remain happy throughout any cold spells. One more extreme (and time consuming) measure would be to insulate the walls of the box with scrunched up sheets of newspaper. Rake back the bedding and push the paper balls down in between the bedding and the walls of the box, replace the bedding and the worms have a totally insulated home to see them through the winter.



This diagram shows the inside of a well-insulated worm box ready to protect the worms through the coldest spells of winter weather. The processed food waste and bedding material become mixed to form the rich dark compost found at the bottom. Fresh bedding is layered on top of this with the food waste buried inside to make it easily accessible for the worms. Full sheets of corrugated cardboard are on top of the bedding and carpet on top of this. Scrunched up balls of newspaper are placed around the walls to trap as much air as possible to keep any heat inside the box.

## Winter Food

As the worms slow down over the winter, it is worth remembering that they may consume less food. Keep an eye on the quantity of food waste you put into the box as you may be providing them with more than they can consume within a reasonable period of time. So, if you notice a lot of food is still present from the last feeding, hold back a little to give them time to finish off their last course.

Always pay attention to the moisture levels in your worm box. If you notice the edges of the bedding starting to dry out then you need to sprinkle some water to bring the moisture levels back up. Not too much as to make them think they are going to drown! A little on a regular basis is good.

## Good Practice

Remember to keep the area around your worm box free from leftover food. Whenever you add food to your worms, try to do it in a way that does not leave food waste lying around on the ground or dripping down the outside of the box. Having an organised routine should mean that you get all the food where it should be (in the worm box) and are left with a clean and empty container with which to collect more food waste. Leaving food lying around outside, especially at this time of year, is a sure way to attract vermin.

## General Care – Routine Reminders

Try to establish an easy routine for you and your family and you will find it easy to look after the worms and generate a plentiful supply of compost. Systems like this help to divert food waste from landfill.

Collect waste food scraps in a container like a plastic pail with a lid. This avoids liquid leaking out the bottom, is easy to clean out once the worms have been fed and the lid will keep the flies out. Any sign of maggots in the worm bin is not good and will have to be removed.

The worms will thrive on a varied diet. A plentiful supply of fruit and vegetables would be their first choice in the form of peelings, bruised and leftovers. Rice, pasta and bread, tea bags, coffee grounds and egg shells. Plate scrapings and leftovers that can't be re-created into another menu are generally fine. A small percentage of meat can be added but it must be well buried in the bedding and not be excessively greasy.

The worms will not thrive on a lot of fatty or greasy food. They will not do well on a dairy or meat rich diet as there is too much fat, grease and oil. Adding a lot of citrus fruit and peel can cause the bedding and compost to become too acidic which can be rectified by applying ground limestone but probably better to avoid creating the problem in the first place.

Once your wormery population has become established and you have provided them with a good habitat, you will soon learn how much to feed the worms without overloading the system. Feeding too much will mean that there is too high a proportion of food to bedding, the worms will not be able to process this amount of food before it becomes sour. Feed a little and often. A routine of feeding possibly once or twice a week will probably work. To add the food, create a shallow trench in the bedding with a small garden fork, tip the food in and replace the bedding to cover over the food. Gradually increasing the amount of food will push the number of worms up until you reach the maximum potential for the size of wormery. The more worms you have, the more food waste you can process. If you need to process more food waste than your wormery allows, then you simply need a bigger wormery.

Moisture is very important to the worms because if they dry out, they will die. Rather than live somewhere that is too dry, they will simply leave. The food waste that you feed the worms will contain water but it is important to keep an eye on the bedding and sprinkle water (rainwater is best but tap will do) if it looks like it is drying out around the edges.

If you don't think the worms are progressing as well as you would like and cannot work out what the problem is, then get in touch and I'll come along and see if I can suggest a remedy. Even if it is starting over again, we can make it work.

## Waste Not, Want Not

Feeding worms on our leftover food scraps is a good example of turning a waste product into something useful (as well as avoiding landfill).

All of our food waste contains energy and nutrition which can be wasted if it is discarded in wheelie bins. Making use of this resource means that, by turning the waste into compost, we can grow more food locally. All food that has to travel from where it is grown to get to us will have journeyed by road, rail, ship or air. All these methods consume carbon rich fuels to make their deliveries and require huge investment in our food distribution network.

So, it is not just the energy and nutrition within the food that can be wasted but also the embodied energy that has been used up to produce, process, package and deliver the food that can be wasted as well. **Reducing our food waste helps us reduce our hidden energy consumption.**

Shocking statistics have been widely reported recently in the media ([here on the BBC News website](#)) about the huge quantity of food that is wasted. Lots of scope here for creative approaches and solutions on a local, national and global scale I think.

You can read more and the '[Global Food – Waste Not Want Not](#)' report here.



If you would like information on or help to reduce your food waste and grow more food locally, you could try the [Sustaining Dunbar website](#) or get in touch with Sue Guy and learn about [The Household Canny Challenge](#).

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## WormsWork Projects

If you or anyone you know would like help with composting food waste in a worm box in the garden, then please get in touch with the [WormsWork](#) project. Contact details are [here](#).

The next steps for the project in the near future are to identify and assist organisations, charities, schools and community centres etc. to examine and address any food waste issues that could be tackled by firstly reducing waste and then using composting worms to deal with the remainder. If you know of any such organisations, then please let me know.

Work is well underway at Belhaven Hospital to establish a garden for hospital residents and the wider community. If you would like to get involved in this project then please contact Sustaining Dunbar. It is hoped that we will be able to use a sizeable wormery to turn any waste into valuable compost for the garden to grow food for the local community.

All Primary Schools in the area have been supplied with a wormery and there are plans to do the same for Dunbar Grammar School to provide the raised beds with compost.

Links used in this newsletter

<http://www.bbc.co.uk/news/uk-20968076>  
<http://www.imeche.org/knowledge/themes/environment/global-food>  
<http://sustainingdunbar.org/>  
<http://neighbourstogether.org.uk/welcome-to-neighbours-together/>  
<http://ourlocality.org/wormswork/>  
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