



INSTRUCTIONS FOR USE WHEN USED FOR PET POO

Congratulations on the purchase of your Tumbleweed Pet Poo Converter. You have bought a quality product that will last you for a long time. Please take the time to sit down and read this information in order to ensure that you operate your Pet Poo Converter successfully.

Your Tumbleweed Pet Poo Converter is a worm farm and uses worms to convert the pet poo into worm castings and liquid fertiliser. It consists of two sturdy boxes that nest inside each other. The upper box has a perforated floor and a hinged lid and is called the working box. The lower box is fitted with a continuous drain spout and is called the collector box. The worms live, eat and breed in the working box. It is where the pet poo is added and is also where the worm castings collect. The collector box catches any liquid that is produced in the working box and this drains off via the spout.

Some worms venture down into the collector box and may get caught in the drainage spout, blocking it. If this happens just use a thin piece of wood or wire to unblock it. The collector box has very deliberately been fitted with a drainage spout and not a tap. The boxes nest quite deeply inside each other and if a tap were to be left closed the water level in the collector box could easily build up to the working box and drown the worms. The drainage spout allows the liquid to drain out and avoid this problem. The liquid that drains into the collector box is a valuable fertilizer. Simply dilute it with an equal amount of water and use it

around the garden. Every two months the collector box should be cleaned out. Separate the two boxes by lifting off the working box and placing it on a piece of plastic. Swill out the collector box with water and use this liquid to spot water your plants as it is a valuable fertilizer. Do not worry if some worms go out with the water. Check to see the drainage spout is clear. Replace the working box on top of the collector box.

WORM ENVIRONMENT

The aim is to provide the optimum conditions to breed "happy worms". They like cool dark and damp conditions and will eat the pet poo and breed better when these conditions are maintained. If the temperature gets too high in the box (over thirty five degrees) or it dries out then the worms will stop breeding and die off. Providing the right conditions for worm farming is not difficult and will be covered in detail later on. However it is important that you understand what makes the worms tick so that you are able to monitor the environment in the working box.

Worms are surface feeders and when the pet poo is added it is put on top of the worms in the working box and they will move up towards it. If you open the lid and lift the covering material you will see the worms working away in there, but in no time they will disappear as they dive for the comfort of the darkness below. This is because they are very sensitive to light and will move away from it. You will

make use of these two facts in removing the castings. Details of how to do this are covered later on.

PURCHASING WORMS

You may well have bought your Tumbleweed Worm Farm as a package including worms but if you haven't then you will need to purchase worms. There are many varieties of worms but the ones used in worm farms are called compost worms or more specifically "reds" "blues" and "tigers". The distinguishing factor of these worms is that they have a voracious appetite and they breed quickly. Both of these aspects are important in the worm farm. It is necessary that they eat the pet poo as quickly as possible and also that they will increase their numbers sufficiently to be able to consume the amount of pet poo that your pet produces.

It is possible to start your worm farm by buying 2,000 worms and this will ensure that you get off to a quick start. This number should be able to handle the scraps from an average household. However despite being quick it is also expensive. A better way is to start off with a smaller number. Whilst this means a slower start it also means that the worms that are raised in your worm farm are used to the food that you are feeding them and the particular environment of your worm farm. Tumbleweed recommends that you start off with 1500 to 2000 worms. Make sure that you purchase them from a reliable source e.g. Direct from a local worm farmer ensures that they are "fresh". Never purchase them in small plastic "take-away" containers as the worms are deprived of food and oxygen and will quickly die. When you buy them check that they come with an adequate amount of bedding mix or castings. Tumbleweed recommends at

least 10 litres. This information should be displayed on the packaging. You can contact Tumbleweed Europe on 01604 882442 or 0044 1604 882442 from outside the UK for advice on where to purchase worms.

WHERE TO PUT YOUR PET POO CONVERTER

Never set up the Tumbleweed Pet Poo Converter in direct sunlight as it will get too hot for the worms. Choose a shady place near where the dog produces his droppings. It can be under a bush or down the side of the house. A little morning sun will not be harmful but avoid the hot afternoon sun. It is wise to site the farm close to where the dog lives and plays so that it does not become a trial to collect the droppings and put them in the Pet Poo Converter. Your Pet Poo Converter will need protection from Frosts or the worms will die. Stand the farm on some timber or house bricks to elevate it off the ground and hang a small bucket from the spout or place a container underneath the spout to catch the liquid. It also helps if the farm is slightly angled down towards the spout to encourage the liquid to run out.

SETTING UP THE WORM FARM

Line the base of the working box (the top box) with two or three sheets of dampened newspaper. This is simply to prevent the bedding mix from falling through the holes in the initial setup. The worms will eventually work their way through the paper and it will disappear. Add your purchased worms and the 10 litres of castings and spread across the newspaper. This should cover the base of the box to a depth of about 6 cm. Check the moisture content - it should be like a damp sponge. If you think that it is too

dry add water with a spray bottle and ensure that it is damp all the way through. A piece of covering material cut to size is then put over this to help keep the environment in the box as constant as possible. The covering can be made of many things. It may be a few sheets of newspaper, moistened cardboard, a piece of Hessian, a piece of carpet, a specially purchased worm mat or a piece of thick plastic sheeting. With the carpet, cardboard, newspaper and Hessian the worms will eventually work their way through it to be replaced. Tests have indicated that surprisingly plastic may be the most effective material.

Now add approximately 2 - 3 pieces of dog droppings to the top of the worms and under the covering material. Please read the following paragraph on "Feeding" before adding the dog droppings. Check the worm farm every few days to see if the droppings are being consumed and when it is nearly gone add the same amount again. The process will be slow in the early stages so be patient. The worms will take a little time to adjust to a new environment and will be inclined to eat any food that comes with their bedding mix rather than the dog droppings. As the worms start to breed and increase in number so they will require more food. At this stage you can increase the amount of droppings going in. The unit will handle the droppings of two average sized dogs. It is hard to be specific as the amount of droppings a dog produces will vary with age, breed, diet and exercise. The population of the worms will increase according to the amount of food they are receiving (I.e, if you have a poodle, the population of worms will be smaller than if you have a German Shepherd).

FEEDING

The worms can consume pet poo easier

than vegetable scraps as the food is already partially broken down having already been through the dog's digestive system. However this also means that there is less liquid in the pet poo than in vegetable scraps as it has been removed during the digestive process. Unlike worm farms, which use Vegetable scraps as the food source, there is less liquid fertiliser produced and a larger quantity of castings. The most important point to note is that **YOU MUST ONLY FEED THE WORMS PET POO. DO NOT MIX PET POO AND VEGIE SCRAPS.** Where the sole diet of the worms is pet poo they consume it quickly and it is gone in less than 48 hours. Not only that but they take away the smell during the process.

WHAT KIND OF FOOD CAN I FEED THE WORMS?

Any kind of dog droppings can be added but **we do not recommend cat droppings.** Avoid adding dog droppings within 24 hours of worming the dog.

SEPARATING THE CASTINGS

Much of the liquid has been removed from dog droppings during its passage through the dog's digestive system. A Pet Poo Converter will produce more castings than a normal worm farm. If you have a small dog it may be up to 18 months before the box is filled. With a large dog it may be more like six months.

However it is quite possible to harvest small quantities of castings which can be used in potting mix or seed raising mix at any time.

Two main techniques are used which utilise the worms' fondness for food or their aversion to light.

In the first method the droppings are added to one side of the box only. Over a period of time the worms will move to the food and vacate the other half. The castings can then be dug out from the non-food side with a trowel. Some worms may go out with the castings but there is no need to be concerned about this as there will be plenty left

In the second method the working box is sat in the sun and the lid opened. The top layer of droppings is scraped away. The worms will move down away from the light and the top layer of exposed castings can be carefully scraped off. The procedure is then repeated as often as needed. Do not empty the box completely as the worms need some bedding material in the box (at least 10cm depth of castings). The worm castings are sometimes referred to as "vermicastings" and are an excellent soil conditioner.

TROUBLE SHOOTING

Sometimes things go wrong and you can ring Tumbleweed Europe on 01604 882442 or 0044 1604 882442 outside of the UK for advice. One of the most frequently asked questions is about other creatures inside the worm box e.g. Ants, maggots or vinegar flies. Your worm farm is home to many different organisms. They all live in harmony and are part of the breakdown process. For the most part these other creatures bother us humans more than the worms. Providing that the worms appear to be eating the food and doing what they are supposed to do, they are not a problem and should be left. However if any of these other creatures start to develop in plague proportions it may indicate that the environment in the box has moved away from one that favours worms. Check the moisture level. If it is too damp the spout


may be blocked and the water level rising. It may have got too dry in the box, in which case it should be sprayed with water.

If ants become a problem a proprietary ant killer can be put down in the path of the ants.

Look at the worms. Once your farm has been going for some time the worms should get bigger. A Thickened band around the larger worms indicates they have reached maturity and are ready for breeding. Worm farming is a satisfying and enjoyable activity for young and old alike. It is a positive way for anyone to contribute to the improvement of their environment. The byproducts of liquid fertiliser and worm castings are an added bonus for any gardener.

Happy Worm Farming!



 Part of Gardai Industrial Services Ltd

Web site: www.tumbleweed.eu.com

9, Kennel Terrace, Brixworth
Northampton. NN6 9DL
United Kingdom.

Telephone: +44 (0)1604 882442
Facsimile: +44 (0)1604 882880
E-mail: Sales@tumbleweed.co.uk