

Home Composting

There are several methods of composting that are commonly used in the home setting. The most prevalent is container composting, and in this category, one has several choices: a wooden bin, simple plastic tubs, or a variety of rotating drums, some of which are quite elaborate and expensive.

First, the wooden bin: one can be constructed out of materials at hand, such as pallets, boards or saplings. Common dimensions are 3'X3'X3'. There is little agreement as to whether board spacing is necessary for ventilation, whether removable slats in the front are necessary, or whether some kind of insulation will retain heat and speed maturation. These are details. The basic principles, as outlined in a previous Reusable News, are to provide a good mix of high nitrogen (grass clippings, manure, coffee grounds, table scraps) and carbon (mulched autumn leaves, sawdust, straw, seaweed) with plenty of moisture and ventilation that allows aerobic bacteria to do their job.

My simple and effective system is three side-by-side bins, open on the top and front, a sturdy post at each corner, boards and saplings nailed to them. The first one contains mulched leaves and garden refuse. The middle one is the active one where contents of the first mixed with food scraps, heats up as worms and bacteria thrive. The third is where a pile from the middle one is transferred, where it reposes and matures. Oxygenation is done simply by stirring, levering a pitchfork in the pile every few days. There is no need to literally "turn over", just aerate. Within a few weeks after transferring it to the third bin, mature, sweet smelling compost is ready for use.

Plastic bins are available commercially and usually feature an opening at the bottom for harvesting mature compost. The basics of ingredient mix, aerating and moistening of course still apply. Such bins are available at the Plymouth transfer stations for \$32.50. Incidentally, a large scale composting operation is going on at Beaver Dam Road, and free compost is available for the public there and at the South Street station.

The rotating drums use a variety of mechanisms for turning and mixing the ingredients. One is a simple sphere you roll around on the ground. Some of the more elaborate ones are quite ingenious and expensive.

Worm composting, or vermicomposting, is suitable for apartment or home kitchen use, but can also be done on a large-scale commercial basis. A container can be as simple as a plastic or metal bucket, and commercial containers are available. The non-continuous system, basically a bucket containing the worms and ingredients, is more difficult to harvest as all the contents must be emptied and separated. The continuous system uses a series of trays, arranged either vertically or horizontally, the worms move toward added nutrients, and the mature compost is left behind for harvest.

The worms most often used are Brandling Worms or Red Wigglers, available from mail-order suppliers or from angling shops. They can consume half their weight of table

leftovers, leaving casts behind which include a rich mucus. The bucket or tray should be layered with moist bedding, which can consist of newspaper, sawdust, hay, burlap, peat moss, composted manure or dried leaves, to which is added a good supply of worms, and food scraps, which are best covered by more bedding to avoid attracting flies. Measures must be taken, as always, to allow aeration, especially in the non-continuous system, for example, by making holes in the container, and by removing the contents frequently.

Compost Tea can be made from both container and vermicompost, simply by adding water to compost at a 5:1 ratio, letting it sit for a few hours or a day with occasional stirring to keep it aerated. Pour off the liquid and you now have compost tea for watering and fertilizing your veggies or flowers.

Composting Toilets convert human waste into a fertilizer, "humanure", through the action of our familiar friends, the aerobic bacterium. They can be installed anywhere a toilet is needed, in a cabin, cottage, yurt, boat, cabana, barn, or even in your home. There are two basic types: the self-contained unit which has aerating and tumbling capabilities, and those that have a remote composting unit, somewhat similar to a septic tank, which may not have to be emptied for several years, and yield a rich, concentrated compost.

There is increasing interest and development of commercial toilet composting to replace conventional toilets in high-use public facilities. There is a school in Washington State that relies totally on composting toilets, and concerns about hygiene and odor have been dispelled. The concept of composting toilets is gaining acceptance in areas where water is scarce. It is interesting to note that suspicions about toilet composting are similar to those that were common when water-based toilets replaced the chamber pot.

All the above is merely an abbreviated scratch of the surface on this subject, as one will discover by Googling "compost" on the Internet.

The Reusable News is a monthly column by the Selectmen's Recycling Advisory Committee. This article was written by committee member, John Moran.