# Envirocycle Composter / Composteamaker, FAQ & Information Copy

For the Love of the Earth,
Compost with the Envirocycle Composter/Composteamaker!

Compost is produced through the recycling of organic materials. Food scraps, leaves and yard trimmings, paper, wood, manures and the remains of agricultural crops can be transformed into compost through composting. Like painting, organic composting is more art than rigid science, and it can at times require a bit of finesse and skill. However, with patience and a little practice, you can have ready-to-use humus for your garden in 4-6 weeks, using the Envirocycle Composter/Composteamaker.

**2 in 1 Envirocycle Composter/Composteamaker Main Features**:

*Dimension: H 28.5" x W 24.5" x D 20" (H 72cm x W 62cm x D 51cm); Weight: 19LBs (9kg).
*Capacity of 1 Cycle of Composting: 7 Cubic Feet (0.2 Cubic Meter) of Compost; 19 Liters of Compostea. From 5 to 10 cycles of composting is possible per year, depending on how often the Envirocycle Composter is rotated and how small the ingredients are in the composter.
*Composting Ratio of the Ingredients: 50% Dry/Brown materials and 50% Wet/Green materials, and they must be kept moist, not wet, inside.

**Information Following Includes:**

## 1. What is Composting?

Composting is a process of transforming organic matter into humus under specific conditions. It speeds up the natural process by using a varied mixture of organic matter and providing ideal conditions, thus allowing large numbers of micro-organisms to thrive on and transform the organic matter into humus. Compost is the foundation of organic fertilization. It improves soil structure by making it light and porous.

It contributes some minerals but mainly releases the minerals that naturally occur in soil, making them more readily available to plants. Flowers and vegetables become stronger, more vigorous and more disease-resistant.

### Why Compost?

Compost provides an excellent alternative to commercial chemical fertilizers, which disturb the natural balance of the soil. By composting, we can reduce our volume of household waste by about 30% and make a responsible contribution to sound waste management.

## 2. Traditional Composting vs Rotating Composting with Envirocycle

Composting is sometimes described as an art or a science. In fact, to succeed in making good compost in a compost pile or a traditional container, you need a certain amount of practical experience.

Compost piles are generally used in rural areas, where there is a large amount of organic matter to be dealt with. Farmers have the necessary space and equipment, and can obtain good results with proper knowhow.

City dwellers, however, have neither the time, the space, nor the tools to practice this method. The Envirocycle Composter/Composteamaker was designed to facilitate the process. With its rotating design, the Envirocycle Composter/Composteamaker, composting is almost effortless in your backyard, balcony, terrace, or garden.

## 3. Composting Process

When a sufficient quantity of organic material has been collected, the composting process begins. It continues for a period that varies according to the nature of the materials used and the conditions created. The process can be divided into four phases, according to the temperature present at different times.

4 main stages in decomposition of compost:

FRESH: At this stage, the materials being composed are dark in color and still easily recognizable; micro-organisms are sparse and just beginning their activity; a rise in temperature can be observed: This is the heat phase.

PARTIALLY DECOMPOSED: At this stage the compost has a mild, not unpleasant odor; it contains many micro-organisms the materials being composted are very loose and brittle, and almost unrecognizable; mushroom may be present, aiding to decompose the most

resistant materials: cellulose, lignin, and wood; chemical exchange takes place during this stage: This is the gaseous and liquid phase.

MATURE: At this stage, recombination of decomposition products from preceding stages occurs: This is the humidification phase.

AGED COMPOST: At this stage, the compost looks almost like soil (loam); it resembles natural topsoil; its organic matter and nitrogen content are low: This is the mineralization phase.

In reality, the four phases overlap, but there is always one that predominates, depending on the length of time composting has been going on and the types of materials used.

-Source Quoted from R.J.A.E. "Le respect de l'_quilibre naturel" May 1989.

**4. Materials to Use**

Essentially the materials added in the composter will be two sorts: moist and dry. The composting process works best when the organic pieces are small.

Wet / GREEN: Moist composting materials include garden waste (non-perennials), fruit and vegetable peels, tea bags, coffee grinds (complete with filter papers), table waste, egg shells, peanut shells, plant trimmings, bird cage cleanings (chicken droppings), animal manures but only those from ruminants (not dog and cat excrement). All are high nitrogen materials that will feed the microbes a rich diet.

Dry / BROWN: Dry materials are things like hay, straw, fallen twigs, dry grass clippings, (Leave the mown grass on the lawn for a day before collecting to allow it to dry out enough - fresh grass added in the composter tends to compact and not rot as quickly as other materials.) sawdust, all kinds of tissue paper, newspaper (shredded), paper and cartons (shredded), egg cartons (shredded). Kitchen and garden wastes are excellent composting materials, with certain exceptions.

These two categories should be avoided:
• Paper and cardboard may be used in limited quantities, but it would be preferable to recycle them thru a selective collection program, if there is one in your neighborhood.
• Excrement may contain pathogens that are difficult to eliminate during domestic composting, therefore it is better not to add it to a composting container.

**5. Important Parameters**

Essentially the materials added in the composter will be two sorts: moist and dry. The composting process works best when the organic pieces are small. Composting is a natural process through which organic material is converted into a soil-like product called compost or humus. The process works with the help of micro-organisms such as bacteria and fungi combined with air and moisture.

AERATION, MOISTURE AND DRAINAGE

Moisture and aeration during composting are inversely proportional. The more water there is, the less air, and vice versa. There must be enough aeration to ensure aerobic decomposition. Many more micro-organisms flourish in the presence of air.
Proper aeration also eliminates the risk of unpleasant odors. Moisture content should be between 50% and 60%, about as damp as a sponge that has been wet and squeezed out.

TIME AND TEMPERATURE
The more heat a compost generates the faster it decomposes. If you use an equal blend of brown and green materials, reduce the size of materials to be composted and provide adequate moisture and air, you will then create a hot, fast compost.

C/N RATIO
Organic matter contains varying proportions of carbon and nitrogen. In general, dry materials such as dead leaves, straw, strips of cut newspaper, sawdust or earth are very rich in carbon, while moist materials such as kitchen wastes and grass clippings contain a fair amount of nitrogen.
The proportion of carbon and nitrogen is very important for proper composting. If there is too much material rich in carbon (dry), composting will take place very gradually. Conversely, if there is too much nitrogen-rich (moist) material, decomposition will be very rapid, but there is a risk of odor, since the excess nitrogen will be given off as ammonia.

The ideal C/N ratio is 30/1. However, it is not necessary to do any complicated calculations to come out the right proportion. What you need to know is that dry materials should always be mixed with moist materials. If the compost does not decompose, there is too much carbon; if there is an odor, add some dry materials.

## 6. C/N Ratio of Compostable Materials

Numbers represent Carbon parts for one part Nitrogen. */1

| | | | |
|---|---|---|---|
| Urine | 8 | Grass | 20 |
| Mixed abatoir waste | 2 | Water hyacinth | 20 |
| Liquid manure | 2-3 | Marsh cuttings | 20-30 |
| Blood peal | 3 | Garden wastes | 20-60 |
| Liquid pig manure | 5-7 | Potato vines | 25 |
| Fecal matter | 6-10 | Horse manure | 25 |
| Green vegetable matter | 7 | Manure with straw | 25-30 |
| Bone meal | 8 | Pine needles | 30 |
| Liquid cow manure | 8-13 | Farm manure with | |
| Humus, loam | 10 | large amount of straw | 30 |
| Aged composted manure | 10 | Black peat | 30 |
| Fresh chicken manure | 10 | Household waste | 30-40 |
| Aged composted manure | 10-15 | Brown or light peat | 30-50 |
| Household water | | Foliage | 30-60 |
| purification sediment | 11 | City compost | 34 |
| Kitchen wastes | 12-20 | Residue of mushroom- | |
| Grass clippings | 12-25 | growing medium | 40 |
| Vegetable peelings, etc. | 13 | Straw from | |
| Chicken manure | 13-18 | leguminous plants | 40-50 |

| | | | |
|---|---|---|---|
| Barnyard manure | 14 | Dead leaves | 45 |
| Brewery wastes | 15 | Oat straw | 50-60 |
| Domestic animal excrement | 15 | Rye straw | 65 |
| Farm manure | | Millet straw | 70 |
| after 3 months storage | 15 | Wheat straw | 70-150 |
| Vines of leguminous plants | 15 | Rice straw | 100 |
| Abattoir wastes (Stomach) | 15-18 | Bark | 100-130 |
| Alfalfa | 16-20 | Tree prunings | 100-150 |
| Fresh manure with | | Sugar cane waste | 150 |
| small amount of straw | 20 | Fresh sawdust | 100-500 |
| Coffee grounds | 20 | Decomposing sawdust | 200 |
| Cow manure | 20 | Cardboard | 200-500 |

-From J. Petit "Le compost th_orie et pratique" 1988.

## 7. How to Use Your Compost

Compost can be used throughout the garden, in the vegetable garden, in the flower beds, on the lawn (if it has been sifted), under trees and hedges, etc.
The lawn and most ornamental plants will benefit from mature compost that ressembles topsoil. In the vegetable garden, the needs of different vegetables vary a great deal. The table below summarizes the requirements of the most popular vegetables. The "compostea", also known as compost tea or liquid fertilizer, can be used for indoor plants, garden and lawn. The compostea is very concentrated and needs to be diluted 1/10 with water (1 part of compostea with 10 parts of water).

| WELL-ROTTED COMPOST | PARTIALLY-ROTTED COMPOST |
|---|---|
| Basil, Beans, Belgian Endive, Carrots, Celery, Chervil, Chives | Asparagus, Beets, Cabbage, Escarole, Horseradish, Jerusalem artichoke, Melons, Potatoes, Radish, Sorrel |

## 8. FAQ

### Q1. How exactly does the EnvirocycleComposter/Composteamaker work?

A. First, use any kind of plastic, sealable container for your household waste. When full, transfer the contents into your composter. All you have to do is open the lid, throw in the waste, close the lid and rotate the unit to mix the contents well (at least 3 times/week to maintain active composting) and there you have it. There is no back pain involved. The Envirocycle Composter/Composteamaker requires no mixing tools except your hands to rotate the drum…, without getting your hands dirty!
One cycle of the decomposition process takes a period of about 30 to 40 days, but the maturing time of a composting cycle varies depends on how often the composter is turned and how small the ingredients were put inside. In principal, the more often the composter is turned to mix the ingredients and the smaller the ingredients are, the faster the total composting time becomes.

**Q2. How do I know when the maturation period is completed so that I can empty my compost?**

A. At the end of the 5th week, stop adding waste to the composter for 5 days. During this final maturing period, accumulate new waste in a separate plastic container. At the end of the 6th week, it is now time to empty out your composter, as instructed below; once empty, you may begin to add new waste to the composter. Composting demands a minimum of 2 cubic feet of varied wastes (dry and humid). It is always important to keep the composting materials moist.

**Q3. How do I empty out my composter?**

A. To rapidly empty out your composter, you should:
a) remove the barrel from the base and place it on the ground. Roll the barrel to desired place, where you want to empty it out;
b) lift off the lid;
c) turn the barrel face down, to the ground;
d) shake the barrel and the compost will fall out.

**Q4. Should I use activated chemicals in order to accelerate the decomposition process?**

A. Activated chemicals are not necessary. Instead add a shovel full of earth or compost obtained from your first collection, to accelerate the decomposition process for the next use.

**Q5. What should I do when the compost barrel is hard to turn?**

A. If the barrel is hard to turn, this indicates that the composting cycle is at its mature state. Or, make sure that the material inside is moist but not wet. if it is wet it will be hard to turn.

**Q6. How do I make use of tea compost?**

A. The liquid (tea compost) that is collected in the seperate base constitutes an excellent source of (nutrient-enriched) elements for trees, flowers and indoor plants. However due to its high concentration, do not forget to mix this liquid with 10 parts of water (10/1).

**Q7. Should I add water to the compostable materials?**

A. The Envirocycle Composter/Composteamaker does not need to have water added because the interior level of humidity remains ideal.

**Q8. How does one equalize the carbon-nitrogen ratio required for composting?**

A. You may pile up your dead leaves in bags, where they will serve to equalize the carbon-nitrogen ratio when you add your household wastes. As an alternative black and white newspaper, cut into strips, will also work.

**Q9. Can I use the Envirocycle Composter/Composteamaker during the freezing months of winter?**

A. In winter the process is slowed down, but we may continue to add fresh material to compost. This will defrost in the spring and the process will resume. It is possible to place the unit on a balcony, in the garage, or close to the door.

**Q10. In looking at the picture in the magazine and comparing it to the one I received, I notice there is no venting on either side of my composter but there is in the picture. Why?**

A. The removal of the venting on each side is an improvement on the product, to keep rodents, as much as possible away from your composter.

**Q11. I'm experiencing bugs and the compost doesn't seem to be breaking down very quickly?**

A. Moisture and aeration during composting are inversely proportional. The more water there is, the less air, and vice versa. There must be enough aeration to ensure aerobic decomposition, Proper aeration and proper C/N ratio also help's eliminates the risk of unpleasant odors and bugs*.
*avoid dairy products.
*Paper and cardboard may be used in limited quantities, but it would be preferable to recycle them through a selective collection program, if there is one in your neighborhood.