



Composting 101

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What is composting?

Composting requires the primary ingredient: organic matter. Organic matter entails items such as food scraps and leaves. Add these to your soil, and the result is compost that can improve your plants' health and ability to grow.

Why is composting important?

- Composting acts as a natural fertilizer to your soil. It enhances the nutrients within while adding bacteria and fungi that aid in the growth of your plants.
- It is a way to reduce, reuse and recycle while also minimizing the amount of water needed for the crop. Instead of throwing away that fruit peel, you can place it in your plant pot. It will act as an organic nutrient booster, like a vitamin for your plant!
- Organic matter contains the three primary nutrients necessary for crop growth: nitrogen, phosphorus, and potassium. Nitrogen ensures that the plant receives the energy it needs while phosphorus is essential for plant growth and reproduction. Potassium allows for ATP production to occur, which in turn helps with photosynthesis.

Types of At-Home Composting

Cold/Slow

- The great part about cold/slow composting is that it requires little management once placed. The downside is it takes a long time to break down.
- Requires more carbon, or "brown" material (like dry leaves, newspaper, dead plant clippings, branches, hay, straw, sawdust, etc.).
- Includes *sheet composting*: top dressing soil with a layer of newspaper or cardboard, and then adding organic material such as leaves or wood chips on top of the paper.

- Includes *trench composting*: digging an 8-inch deep garden and composting kitchen scraps directly into it, then topping off the scraps with more soil.
- Includes *cold-bin composting*: filling compost bin with half kitchen scraps+browns with some soil. This kind of compost takes about a year to fully decompose.

Hot/Fast

- The best part about hot/fast composting is that it produces quick results. The downside is that it does require a bit of background knowledge.
- Requires 1 cubic yard of material to start a pile as well as a 30:1 carbon-to-nitrogen ratio, or "brown" to "green" ratio.
- Proper moisture content is around 40-60%, or damp like a sponge.
- Turning frequently is key to ensure adequate oxygen levels.
- Chip large materials into smaller pieces (2-3 inches) to aid in the breakdown process.

Vermicomposting

- Worms aid in the decomposition of organic materials and the enriching of soil.
- You will need a worm bin, as well as Red Wiggler worms or African nightcrawlers.
- Coffee grounds, cereal, bread, etc. can be used for worm-based composting as well as eggs, cheese, and meat.
- Add some water, but not so much that the mixture gets soggy.
- Temperature of the bin should be kept between 60 and 80 degrees fahrenheit.
- Bin should be covered with a lid once completed (product is usually ready 2-3 months).

Things to Keep in Mind

- If you are adding food scraps, pests are inevitable so purchasing a fly trap may be useful.
- Temperature, oxygen, moisture level, and materials used can affect the quality of your compost.

Sources

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