

BASICS OF COMPOSTING

Compost is decayed organic matter that is used to improve soil health and fertilize plants. It is produced in the natural process of decomposition through which decomposers (insects, bacteria, fungi, and worms), as well as naturally occurring chemicals, assist in breaking down organic material (anything from plants such as leaves, grass, etc) into basic elements, storing them in the finished compost. A vital resource for healthy soil and plants, compost is added to soil in organic farming and gardening.



BUILDING A COMPOST PILE

- Creating the ideal pile is about creating the most suitable conditions for decomposers to live. This environment is created by making a pile with a mixture of carbon and nitrogen materials (or brown and green respectively) and ensuring the resulting pile has moisture and airflow. Carbon (brown) is the woody, dry part of plants and trees and in the compost pile acts to absorb excess moisture and creates habitat on which many decomposers can live. Nitrogen (green) is the juicy, supple part of plants that provide the main food source for decomposers.
- To make your pile, start off by laying down a couple inches of carbon material covering at least a 3 ft by 3 ft area (as large as you want but no less than this) to build your pile on top of. This acts as a catchment for moisture and nutrients that flows out of the green materials above. Layer on greens and browns a couple inches at a time, ending with carbon on top (to hold in moisture and keep down smell). Add water as you go but do not drench it to the point water is running out the bottom of the pile. Do not compress the materials as its important to have space for air to flow through the pile.
- Once you make your pile, decomposers will move in and microscopic life in the pile will begin to thrive. Active compost piles give off energy and heat up, with temperatures rising to over 130 degrees Fahrenheit. After time the pile will cool down. To encourage faster decomposition, your pile should be watered and turned, breaking up materials that have compressed and allowing more airflow in to keep the pile active. This process can take 3-9 months.
- Once the compost is mostly broken down it's ready for use. Signs that your pile are ready are a smell like fresh earth, a light, fluffy texture and you shouldn't be able to recognize the materials that you originally added. The pile can be sifted through chicken wire to remove any large chunks, which can be tossed back into a compost pile. You now have compost to add to your garden. Enjoy!

TROUBLE SHOOTING

- Is there enough nitrogen in the pile? Carbon alone breaks down very slowly. Is there too much nitrogen? Too much nitrogen can choke out airflow and cause the pile to smell. An ideal balance is at least 1 part nitrogen for 3 parts carbon.
- Is there the right level of moisture and enough spaces for airflow? Your pile should have the moisture of a well rung-out sponge. If the pile is compact, it's time to turn it. Get out the pitchfork!
- Is it the middle of winter? It is difficult to start an active compost pile when its cold and most life is dormant.
- Does the pile have a smell of ammonia? This indicates there is a lot of nitrogen. The pile should be cooled down quickly as you are losing nutrients. The best and quickest way to do this is to spread it out and add more carbon to the mix.
- Pests such as rats, mice, possums and raccoons are a potential problem. Its easiest to avoid them by keeping out fats and sugars that smell real good, burying fresh foods in the pile and creating barriers to their access like wire mesh. If you do have problems with these pests the best solution is to trap them.
- Does your finished compost have weed seeds? This indicates your pile isn't getting hot enough to kill seeds. If you don't want to work to keep your pile hot, avoid adding weeds with seeds because you will just spread those weeds around the following year. A hot compost pile will kill the seeds.

WHAT CAN I COMPOST?

GREENS (Nitrogen)

- Grass Clippings
- Fruit and vegetable scraps
- Coffee grounds
- Brew waste (from making beer)
- Tea leaves and tea bags
- Manure
- Green leaves

BROWNS (Carbon)

- Pine needles
- Peat moss
- Weeds (without seeds)
- Compost
- Dried grass
- Cardboard
- Dried leaves

THINGS TO AVOID IN YOUR PILE

- Meat and animal products
- Oils and fats
- Thick branches or woody material (take a long time to break down)



This Resource Guide is prepared by Keep Growing Detroit for participants in the Garden Resource Program. For more info please contact 313-757-2635, keepgrowingdetroit@gmail.com or visit our website at WWW.DETROITAGRICULTURE.NET