Building an Aerated Static Compost Pile

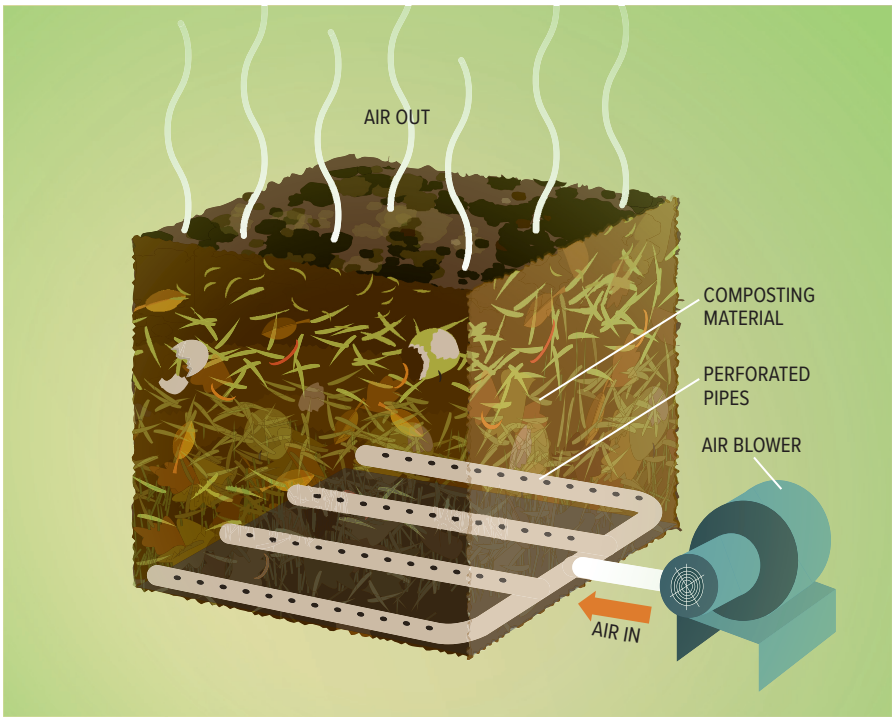
When performing hot (active) composting, temperature is a useful tool for reducing pathogens in the compost pile. For the compost to be considered treated, the process must be scientifically validated to control pathogens. Temperature is increased by microbial activity of thermophilic bacteria. For this microbial activity — and thus the temperature — to remain consistent, oxygen needs to be introduced to the compost pile. This can be done in two ways. The first is by turning the compost, which is known as turn composting. The second way of introducing oxygen is by inserting it via pipes under the compost pile. This is known as aerated static composting. The Environmental Protection Agency-validated method for pathogen reduction in an aerated static pile needs constant aeration and maintaining temperature at 131 degrees Fahrenheit (55 C) for three consecutive days and a curing process afterward.

Materials:

- Pump
- PVC pipes
- PVC cap
- Power drill
- Energy source
- Thermometer

Procedure:

1. Use the power drill to drill holes in the PVC pipe for the air to come out.
2. Connect the PVC cap to one end of the PVC pipe.
3. Connect the PVC pipe to the pump.
4. Connect the pump to the power source and constantly pump air into the compost pile.
5. Monitor temperature with a thermometer until the compost pile reaches 131 F (55 C) for three consecutive days.
6. Afterward, a process of curing is carried out. This can last for at least one month and up to a year. During this process compost should be moist and aerated.



Aerated compost pile

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