In Oklahoma landfills, 20 percent of the waste is from yard debris that consists of grass clippings, leaves, and woody branches. To lower future garbage costs, we need to reduce yard waste going to the landfill. Some landfills may ban yard waste. Composting leaves is a good alternative to landfiling.

Leaves are best handled through composting. To eliminate grass clippings, check out the “Don’t Bag It” program through your local Oklahoma Cooperative Extension Service office.

How to Make Compost

A compost pile is built by layering organic materials. Compost piles should be 3 to 4 feet wide and 3 to 4 feet high. This volume allows the pile to heat as composting occurs.

- **First Layer:** 3 to 4 inches of dried organic matter, such as leaves or dried grass.
- **Second Layer:** 3 to 4 inches of green material, such as kitchen vegetable scraps, grass clippings, or green plant material.

Do not add pet manure, meat scraps, fat, bones, diseased plants, or noxious weeds to the compost pile.

Keys to Composting

- **Moisture.** Proper moisture is important to keep microorganisms active. Avoid over-watering the pile, as this excludes oxygen.
- **Aeration.** The microorganisms need oxygen to break down the organic debris. Regular turning of the compost pile insures aeration, speeding the composting.
- **Microorganisms.** Bacteria found in soil and on plant material compost are the primary microorganisms that break down organic matter. There is no advantage in adding compost starter or inoculum to the compost.
- **Volume.** A 3’ x 3’ pile is necessary to create enough volume for the pile to heat and hold an adequate temperature. Piles larger than 5’ x 5’ cannot be aerated properly.
- **Surface Area.** Smaller particle size increases the surface area for microorganisms to work on. Chopping or shredding reduces particle size.
- **Carbon/Nitrogen Ratio.** It is important to have a balanced carbon/nitrogen ratio. Materials high in carbon, such as straw, must be balanced with additional nitrogen. Green plant material has a higher nitrogen content, while dried plant debris is mainly carbon.

Compost Troubleshooting

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bad odor.</td>
<td>Not enough air.</td>
<td>Turn pile. Add dry material if it is too wet.</td>
</tr>
<tr>
<td>Pile center dry.</td>
<td>Not enough water.</td>
<td>Turn and moisten pile.</td>
</tr>
<tr>
<td>Only center of pile damp and warm.</td>
<td>Pile too small.</td>
<td>Collect more material and create new pile.</td>
</tr>
<tr>
<td>Pile will not heat.</td>
<td>Lack of nitrogen.</td>
<td>Mix in green plant material or nitrogen fertilizer.</td>
</tr>
<tr>
<td>Pile attracts pets, flies, or rodents.</td>
<td>Poor pile mixing.</td>
<td>Turn pile and mix. Do not add meat scraps to pile.</td>
</tr>
</tbody>
</table>

Using Compost

Compost improves soil tilth, especially for clay soils. Mixing compost into the soil improves aeration, water drainage, water retention, and overall plant health.

Mulching with two to three inches of compost reduces soil moisture loss, cools the soil, and reduces weed problems.
“Don’t Bag It”

Bagging or burning leaves are two methods of leaf disposal that no longer fit today’s environmental needs. Sending bagged leaves to the landfill uses precious space, and leaves can easily be composted at home. State air quality and fire control rules severely restrict backyard burning, and for most communities all burning is prohibited. Composting is the best way to deal with your fall tree leaves.

Making a Compost Bin

A wide variety of materials or manufactured kits can be used to make a compost bin. Hardware cloth can be used to create a round bin. Square bins can be built from wooden pallets, bricks, or hardware cloth on wood frames.

Where more room is available, a three compartment bin can be built. This allows turning material from one compartment to the next as it ages.

Compost your leaves to:

- Create a healthier soil
- Grow healthier plants
- Reduce yard waste

To Learn More About Recycling Yard Waste

- Contact your county Oklahoma Cooperative Extension Service office. The phone number is listed under County Government. Ask for:
  - L-251 Mulching with Wood Chips
  - L-253 Lawn Care Plan
- Watch “Oklahoma Gardening” on OETA Saturdays at 11:00 a.m. or Sundays at 3:30 p.m.
- Find more information, including OSU Extension Facts, at: http://www.oces.okstate.edu/
- This brochure and others may be found on the publications database at: osufacts.okstate.edu

For more information on composting, see BAE-1744.

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