



Landscaping for
Water Quality



Composting Basics

Homeowners & Stormwater Public Workshop

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What is Compost?

Decomposed organic matter

Used to amend soil



How to Compost?

Speed up natural decay processes

Compost pile or bin
allows control of:

- Food
- Water
- Air
- Temperature



Managing these factors speeds up an otherwise slow natural decay process

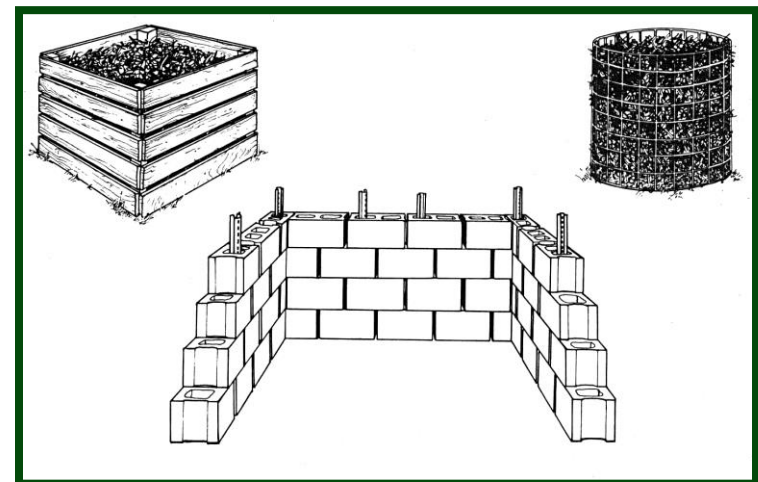
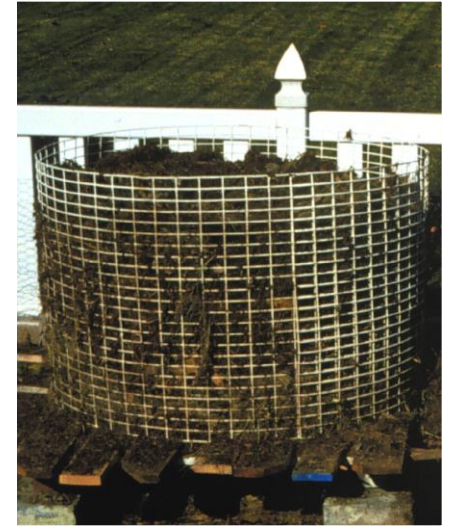
Where to put your compost pile

- Shaded area reduces drying out in summer; but sun creates heat!
- Avoid interfering with lawn/garden activities
- Provide adequate pile work area
- Away from the house
- Area for storage
- Water available



Bin/pile construction

- Ideal size: 3 foot cube (27 cubic ft. = 1 cubic yard)
 - Promotes sufficient aeration
 - Retains enough heat for warm temps
 - Piles over 5 x 5 x 5 feet are
 - difficult to turn
 - tend to become anaerobic



Best foods for decomposers

All organic materials will compost, but not all should be

Organic wastes that should be composted include:



Also

- Used potting soil
- Manure
- Sawdust
- Shredded paper

More about decomposer foods

Compost workers thrive on a balanced diet.

- Compost fastest with a mix of **carbon rich** and **nitrogen** rich materials.
- Carbon-rich organic wastes are the “**browns**”
- Nitrogen-rich wastes are called the “**greens**”

Water

- **Rapid decomposition requires optimum water content**
 - **Too DRY:** bacterial activity slows or stops
 - **Too WET:** loss of air leads to stinky anaerobic conditions

- **Pile water content should be 40-60% - that's wet!**
- **As wet as a squeezed out sponge**
- **Too DRY? Add water as you TURN THE PILE**
- **Too WET? Add browns and TURN THE PILE**



Is shredding necessary?



Smaller particles decompose faster

Have greater surface area per unit volume

Allow microbes to get at more of the food

Chipping or shredding coarse materials (twigs, stems) will speed up the rate at which they decompose

Making compost the fast way

(Instructions for active composters)

- **TURN THE PILE** every 5 to 7 days,
 - move outer material to the pile center
 - add water when needed
- In first few weeks temp should reach **140°F**
 - Get a soil thermometer (they're not expensive)
- After 4 weeks less heat is produced and compost will maintain lower temp (100°F)

Taking care of your compost pile

- The most rapid composting is achieved by
 - Adding mixed browns + greens; or layers of these
 - Regularly turning (mixing) the compost pile
 - Controlling water content
- When pile no longer heats after mixing, allow it to stand without mixing for at a month



Compost Troubleshooting

Odors

One of the most frequent but easily avoided problems

- Rotten odor
 - Putrid or rotten egg smell
 - Usually results from anaerobic conditions
 - Excess moisture, compaction
 - **TURN THE PILE**, add dry porous material (browns), cover kitchen scraps
- Ammonia odor
 - Too much nitrogen (greens)
 - Add high carbon material (browns), **TURN THE PILE**

More Compost Troubleshooting

Low pile temperature

- Pile too small, cold weather, too dry, poor aeration, or lacks nitrogen
- Make pile bigger or insulate sides, add water, **TURN THE PILE**, add greens or manure

High pile temperature

- Pile too large, insufficient ventilation
- Reduce pile size, **TURN THE PILE**

Screen When Pile is Ready

- ½" Hardware cloth on 1X1 frame; wear gloves
- Start storing for next pile; NOTE hose & nozzle



When is compost finished?

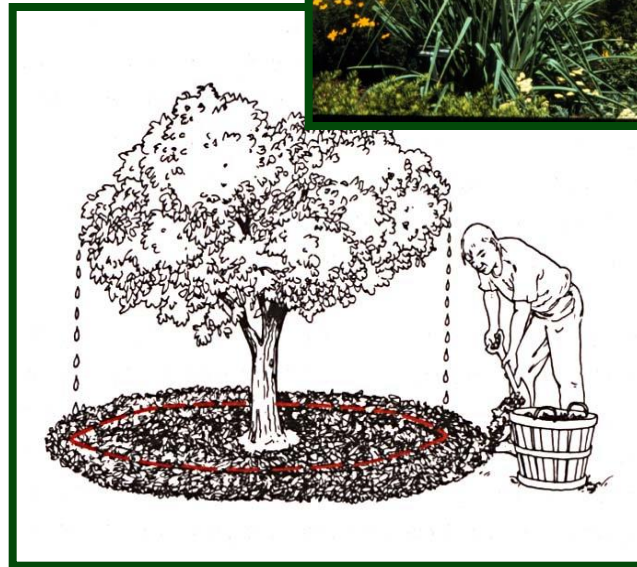
Compost is mature when:

- Dark brown
- Crumbly, loose
- Humus-like
- Earthy smell
- Contains no readily recognizable feedstock
- Pile shrunk to about 1/3 of original volume



Using finished compost

- Surface mulch in the garden/landscape
 - Maximum 3" depth
 - Start 3-4" from trunk
 - Extend out to dripline
- Mulch provides
 - Protection from temp extremes
 - Slows moisture loss from soil
 - Provides some slow release nutrients



Using finished compost

- Lawn topdressing

- Be sure compost is **very mature** to avoid harming the lawn
- Use fine (screened) compost, ¼” depth raked over lawn
- Best if lawn is cored before applying compost
- Retains moisture, supplies slow of release nutrients
- Prevents soil compaction

- Potting mix

- Compost must be **very mature** to avoid injury to plants
- Use fine textured compost (screened through ¼ inch hardware cloth)
- No more than 50% compost with soil by volume

Thank you. Any Questions??



**We are STREAM-Wise
to be BAY-Wise**



Consistent Composting Theme?