


Advanced Composting for Beginners

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Successful Composting

- Blend the materials
- Manage to suit your style
- Recognize when it's finished



Why Compost?


- Manage yard debris
- Manage domestic waste
- Generate soil conditioner

Compost: A Three-legged Stool



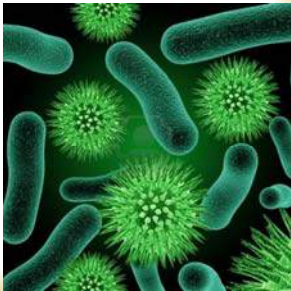
Organic Matter Improves Soil Quality

- Soil moisture
- Nutrient cycling
- Nutrient holding capacity
- Disease, weed suppression
- Erosion reduction



AIR: Why

- Manage odor, heat, moisture, biology



AIR: How

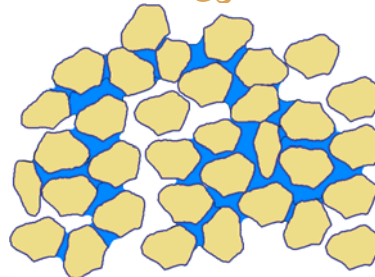


☞ Porosity: heterogeneous texture

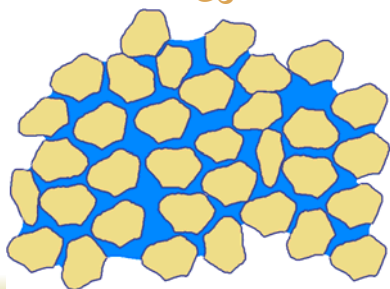
☞ Turning: how long does the O₂ last?



WATER: Just right



WATER: Too wet

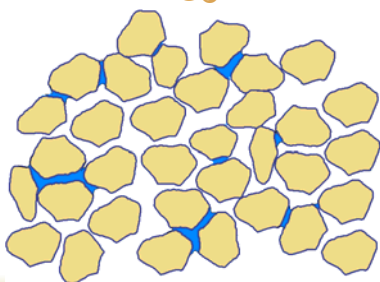


Compost Moisture Squeeze Test



- ☞ #1 reason for failure: not enough water.
- ☞ Good moisture content is 45% to 65%; 55% is ideal for most materials.
- ☞ Squeeze a handful, hard - check for drips, look at your hand.

WATER: Too dry



Squeeze Test part II

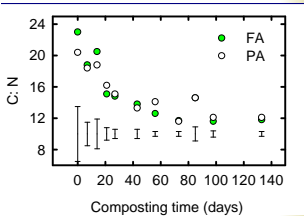


- ☞ Does not feel moist, <40%
- ☞ Feels moist, 43% to 50%
- ☞ Sheen on your hand, 50 - 55%
- ☞ 1 - 2 drops of water, 55- 60%
- ☞ Many drops, 60 - 65%
- ☞ Stream of water, >65%

Courtesy Compost Design Services

C:N RATIO: Why

- ☞ Efficient composting
- ☞ Odor control
- ☞ Balanced diet for microbes



Y-axis: C:N (8 to 24)
X-axis: Composting time (days) (0 to 140)

Legend: FA (filled green circles), PA (open circles)

What is Brown Stuff?

- ☞ Carbohydrates: energy
- ☞ Absorbency
- ☞ Dried brown plant materials
- ☞ Paper, cardboard
- ☞ Wood working hobbyists




Photo Credit: Best of OSU Archives

C:N RATIO: How

- ☞ Green stuff and brown stuff
- ☞ Who's doing the composting?
- ☞ Temperature, composting speed
- ☞ Final compost nutrient value


Basic Compost Recipe

- ☞ One part green stuff
- ☞ Four parts brown stuff
- ☞ Air and water as desired

1 + 4 = COMPOST

What is Green Stuff?

- ☞ Nitrogen sources: protein
- ☞ Fresh green plant materials
- ☞ Manures; meat; bone-, blood-, hoof-meal
- ☞ Bagged fertilizer
- ☞ Alfalfa pellets



Water that stays in place

Speed Survey:

What is the right way to compost?

Some are More Right than Others



- ☞ Effort, time, personal preference
- ☞ Weeds, insects, disease problems
- ☞ Speed, space
- ☞ Nuisance value
- ☞ Compost quality



Lift composter from the compost. Place on chicken wire or hardware cloth. Begin forking the compost into the composter.

Methane Digestion

- ☞ No fuss, low work waste disposal
- ☞ Converts solids to CO_2 , CH_4 and water
- ☞ May produce plant-toxic by products



Gedye: there are many brands



Layer in food waste, fresh grass clippings and other fresh materials as you move compost.

Turning Compost



Use the fork to break up clumps as you go.



Alfalfa pellets - a good source of N when grass clippings are not available.

Special Topics



Important Points



- ☞ Tool choice is personal.
- ☞ Compost method choice is personal.

Pop Quiz: Food Waste



What kinds of food scraps can be composted?

Pop Quiz: Compost Maturity



When is compost finished?

Six Rules for Safe Food Waste Composting.



- ☞ Never put in direct contact with soil
- ☞ Never have food as top layer
- ☞ Layer in absorbent carbon sources
- ☞ Compost aerobically in hot, active pile
- ☞ Turn the whole pile when you add food waste
- ☞ Turn frequently

Wood Ash

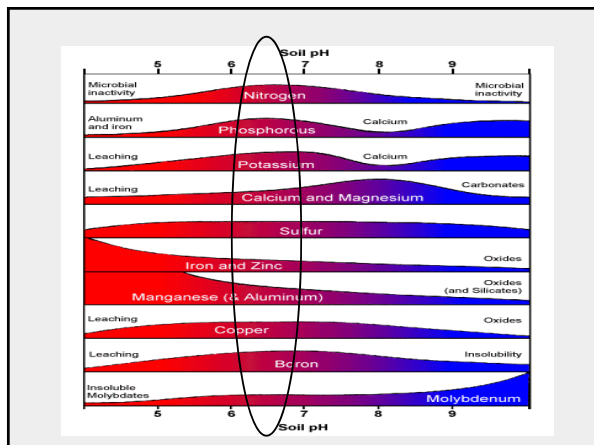
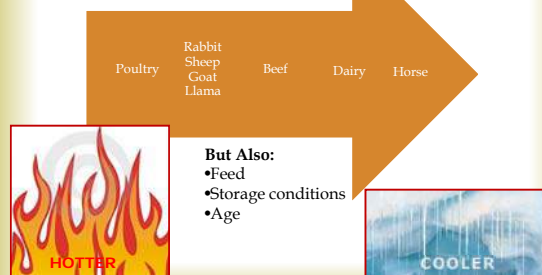


- ☞ Soluble K and P
- ☞ Readily available
- ☞ Raises soil pH
- ☞ Not for acid-lovers
- ☞ 5-10 pounds per 100 square feet per year - *no more!*
- ☞ Annual soil testing



Common Manures: Hot to Cold

Hot & cold refer to total nitrogen.



Manure in the Home Landscape

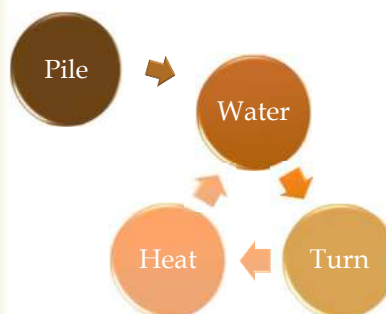


- ☞ Apply during the growing season *or*
- ☞ Apply in late summer with a cover crop.
- ☞ *Don't apply* in the autumn or early spring.
- ☞ Which part of the crop do you eat?
- ☞ Never use raw hog manure; dog, cat, or human waste.

Manure as a Soil Amendment



Well Rotted Manure



Keep your compost pile covered during the rainy season




Success with Vermicomposting

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And during the dry season.




First Read the BOOK

Worms Eat My Garbage
by Mary Appelhof

Many editions and revisions

Wormwoman.com



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Vermicomposting

- ☞ Select container
- ☞ Select bedding
- ☞ Locate red wigglers
- ☞ Assemble worm bin
- ☞ Add food and manage

Select Container



Assemble Worm Bin



Select Bedding

- Shredded paper
- Newsprint
- Leaf mold
- Manure
- Commercial mix



Add Food and Manage

- Monitor moisture levels
- Monitor odor
- Monitor egg laying
- Monitor other insects

Locate Red Wigglers



Manage the Bedding



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