Advanced Composting for Beginners

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Why Compost?

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

Successful Composting

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

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Organic Matter Improves Soil Quality

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

Compost: A Three-legged Stool

- Air
- C:N
- Water

AIR: Why

- Manage odor, heat, moisture, biology
AIR: How

- Porosity: heterogeneous texture
- Turning: how long does the O₂ last?

WATER: Just right

- #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 wet

- Compost Moisture Squeeze Test
- Squeeze Test part II

WATER: Too dry

- 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

What is Brown Stuff?
- Carbohydrates: energy
- Absorbency
- Dried brown plant materials
- Paper, cardboard
- Wood working hobbyists

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

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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

Methane Digestion

- No fuss, low work
- waste disposal
- Converts solids to
  CO₂, CH₄ and water
- May produce plant-
  toxic by products

Turning Compost

Use the fork to break up clumps as you go.

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

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

Gedye: there are many brands
Alfalfa pellets - a good source of N when grass clippings are not available.

Important Points
- Tool choice is personal.
- Compost method choice is personal.

Pop Quiz: Food Waste
What kinds of food scraps can be composted?

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

Pop Quiz: Compost Maturity
When is compost finished?
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.

Wood Ash

Manure as a Soil Amendment

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.

Well Rotted Manure
- Pile
- Water
- Heat
- Turn

Manure in the Home Landscape

Common Manures: Hot to Cold
- Poultry
- Rabbit
- Sheep
- Goat
- Llama
- Beef
- Dairy
- Home
- But Also:
  - Feed
  - Storage conditions
  - Age
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

Vermicomposting

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

Select Bedding

Shredded paper
Newspaper
Leaf mold
Manure
Commercial mix

Assemble Worm Bin

Locate Red Wigglers

Add Food and Manage

Monitor moisture levels
Monitor odor
Monitor egg laying
Monitor other insects

Manage the Bedding