Bucket Composting with EM BOKASHI

Bernalillo County Extension
MASTER COMPOSTERS
COMPOST HAPPENS. WE CAN HELP!

NMCOMPOSTERS.ORG
“Bokashi”

A Japanese word that means:
“fermented organic matter”

First stage

Second stage
Bokashi Composting

- A two stage decomposition process that recycles organic material into humus - a soil amendment.

- First stage: anaerobic fermentation in a closed container with Effective Microorganisms (Bokashi Mix) added.

- Second stage: aerobic decomposition in the soil or in compost pile.
Organic Material:

- Anything that was once alive will decompose.
- This includes plant and animal material.
A mixture of Effective Microorganisms, wheat bran and molasses, which is combined with organic material in a bucket.

This begins the fermentation process.
Effective Microorganisms

Discovered and developed by a Japanese agronomist, Dr. Teruo Higa in 1968 are:

Selected species of microorganisms which are responsible for the anaerobic fermentation process in the closed container.
Bokashi Fermentation:

- An anaerobic process accomplished by the effective microorganisms which are a catalyst for fermentation.
- Added organic material will not change in appearance, but is structurally and chemically changed.
- The aerobic decomposition process is completed in the soil.
Fermentation

- Little odor will be produced. A sweet molasses smell is common.
- After 2 – 3 weeks of fermentation in the bucket, the contents are turned into garden soil or added to a composting bin.
- This begins the aerobic decomposition.
Bucket

- Any size with a lid.

Bucket in a bucket
Bucket to Soil
Chopped / Shredded Additions
Add & mix 1 heaping tbsp. of mix per cup of scraps – only to that addition.

Compact the addition to eliminate air.

Cover the addition with plastic, then a piece of cardboard, then a weight on top. Then cover the bucket.
Moisture in the Bucket

- Maintain at about 50%, similar to coffee grounds.
- Add dry shredded paper / cardboard to absorb excess moisture.
- Do not allow free standing liquid in the bucket.
- Spigots may get plugged with organics.
What stuff shall we add to the bucket

- Dried leaves, plants, grass trimmings, nut shells, pits, toothpicks, match sticks.

- Paper products: towels, napkins, tissue, shredded paper, cardboard.

- Avoid glossy & waxed papers.
Natural fibers: string, thread, rope

Natural textiles: cotton, wool, silk, felt, burlap.

Cork, saw dust,

Green leaves, grass, weeds without seeds, flowers
Bucket additions continued:

- Fruit / vegetable scraps & pulp, coffee & tea, with filters, grains, cereals
- Left over food, crushed egg shells, hair, whiskers, fur.
- Brewery / wine making leftovers, vegetarian animal manures, outdated dog/cat food.
- Meat, cheese, bones are OK in Bokashi
What shall we leave out:

- Metal, plastic, glass, aluminum
- Diseased plants
- Weeds with seeds
- Wood ash – small amounts OK
- Anything growing mold – *moldy food*
Leave out:

- Pesticides, herbicides, fungicides, etc...
- Glossy, slick colored paper, waxed paper
- Dog, cat, pig, pet bird manure
- *Fresh citrus – may cause odors. Dry it first.*
When the bucket is full and after about 2-3 weeks of fermentation, then add contents to the soil or an outdoor compost bin.
Bury in the soil

• Select a spot where you want amend the soil – 12” from plant roots. Bucket contents are acidic.

• Dig a hole 12” – 24” deep.

• Add bucket contents, mix with soil, then cover the hole. Water, then mulch on top.

• Decomposition in about 3 months – depends on soil temperature.
Select
Dig
Mix
Water
Bury
Mulch
Can’t use the contents at home:

- Donate to a community / school garden.
- Give it to a friend with a garden.
Bokashi Composting Tips:

- Chop / cut all scraps before adding.

- Use a heaping tablespoon of mix per cup of scraps. More is OK.

- Keep the bucket out of direct sun and away from heat sources.

- Optimum air temperature for bucket is 70-100 F.
Keep the lid tightly closed.

Save scraps for a few days, then add.

Do not add material that is growing mold.

Add right amount of mix, extra is OK

Compress scraps after each addition.
Add dry paper/leaves to absorb excess moisture and/or drain via spigot.

Some white mold/fungi may grow on top. It's OK.
Tips

- Read - learn more about method.
- It's experiential! Do it, you learn it.
Comments on the Bokashi Method:

- Urban settings - requires little space, little effort.
- Useful in desert - requires little water.
- Can be sized to individual / family needs.
- Convenient for those with physical limitations.
Closed system: no bugs, rodents, odors, cats or dogs.

Easy: no watching, turning, watering.

Can be done year round. Indoors in Winter.

Takes all food scraps.
Comments

- Recycling rather than landfilling or garbage disposal.
- End product improves garden soil.
- Does require Bokashi mix
- Does require 2 stages
Leachate from Bucket

- pH – *acidic*
- Dilute with 10 parts water to 1 part leachate
Composting Worms

- Acid develops in bucket….
- Not a hospitable environment for composting worms.
Bokashi Resources:

- www.teraganix.com
- www.amazon.com
- www.bokashicompostinghq.com
- www.bokashicycle.com
- SCDProbiotics.com

“An Earth Saving Revolution” 1998 by Dr. Teruo Higa

“Bokashi Composting: Scraps to Soil in Weeks” Jan. 2014 by Diego Adam