



Bokashi Fermentation: Practice & Application to Urban Composting Operations

March 2023

WHO WE ARE



Who We Are



We are community composters working to build a zero-waste world.
We keep food waste out of landfills and use it to improve soil health and support resilient, and equitable food systems.





EPIC RENEWAL

**We do the dirty work,
you do good.**

Composting Services



Home



Business



Events



**Zero Waste
Consulting**



**Software for
Composters**

BOKASHI FERMENTATION



We're working to shape a new future for composting,
one that provides a local solution, tailored to an
urban environment.

To do that, we use bokashi fermentation.



Bokashi \neq Compost



Bokashi is a fermentation process, which allows food scraps to be turned into a ready-to-go soil amendment within about 10 days.

Traditional Composting

(Aerobic)



Bokashi

(Anaerobic Fermentation)



Aerobic Composting

(Aerobic)

Requires Outdoor Space

Limited Input Options
(Depending on scale)

Regular maintenance



Bokashi Composting

(Anaerobic Fermentation)

Indoor Processing

Requires Less Space

More Input Options

Faster Turnaround

Less Labor

No Pests or Smell



HOW IT WORKS





- **Lactic acid bacteria** : *Lactobacillus casei*
- **Photosynthetic Bacteria:** *Rhodospseudomonas palustris*
- **Yeast:** *Saccharomyces cerevisiae*
- **Others:** beneficial microorganisms that exist naturally in the environment may thrive in the mixture.

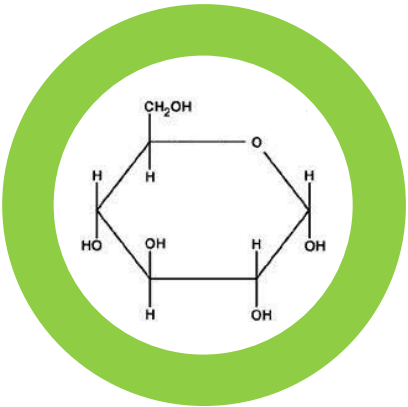


Chemical Process: Bokashi Fermentation



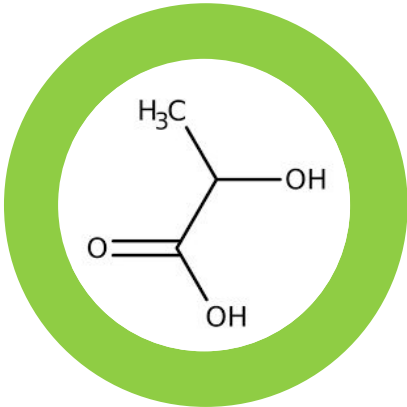
Bokashi

+



Carbohydrate

➤



Lactic Acid

Our Process



MAKING THE BRAN & TOOLS



Making Bokashi Bran



EM1

+



Sugar

+



Water

+



Substrate



Making Bokashi Bran



Making a Fermenter

Fermenter:

- 2 5-gallon buckets
- 1 airtight lid
- 1 spigot

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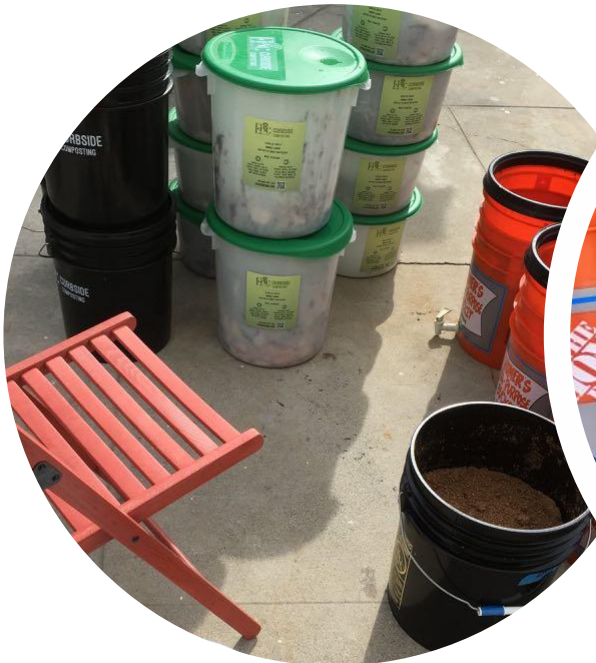
The Gear



EPIC'S COMPOSTING PROCESS



Step 1 - Fermentation



Step 2 - Mixing & Acclimation



Step 3 - Hot Composting



Step 4 - Sifting & Finished Product



Bokashi composting is perfectly suited to an urban environment, or anywhere with limited green space.

A huge perk that's especially useful in urban spaces is that since everything stays contained, vertical space becomes a whole new resource.



Japanese American
Cultural & Community
Center

Hiro's Bokashi Workshop



Thanks!



Epic Renewal | Urban Composting



epicrenewal.org



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