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# WHAT ARE THE EFFECTIVE MICROORGANISMS?

In order to understand the importance of the category of Bokashi composting, we need to start with the effective microorganisms that play the most important role in the whole process.

Effective microorganisms (EM) are a mixture of different microorganisms that are compatible and beneficial from the human's point of view. They are lactic acid bacteria, yeasts, photosynthetic bacteria, actinomycetes, enzymatically active fungi, etc.

# THE HISTORY OF EFFECTIVE MICROORGANISMS

In 1982, Dr. Higa from the University of Ryukyus, Okinawa, Japan, started to study the influence of the specific group of naturally occurring beneficial microorganisms with a fantastic ability to revive, restore, and preserve. He managed to create a way they can coexist in the same medium.

## THE USE OF EFFECTIVE MICROORGANISMS

There are many beneficial impacts of effective microorganisms on plants, animals, and humans.

Besides, they carry out chemical processes that make it possible for all of us to live. But let us concentrate on just a few of them, so you will better understand the importance of these tiny units that maintain the ecological balance and inspire our creativity while thinking and designing new products.

## **EM AS A PLANT WATERING LIQUID**

EM is a liquid concentrate, a side product of using the EM, and in this form, the microorganisms are alive but dormant. This dark brown liquid has a pleasant vinegary yeasty type of smell, and its pH is approx. 3.5. Diluted with water, EM liquid can be used for watering plants, and thus ensuring wetting. The weekly application will give plants beneficial nutrition



and help them grow. Consider it a valuable planting treatment as a foliar spray or for actively growing fruit and veggie crops and all ornamental plants.

### **EM AS A TREATMENT FOR SOIL**

Most organics, including animal manures and composts, have populations of microorganisms beneficial to the soil; however, they are soon overwhelmed by the existing soil microorganisms and are often shortlived. But the advantage of EM is that beneficial microorganisms are in much greater numbers and optimally-balanced populations when introduced, so they remain dominant in the soil for a much longer time and improve soil condition. In other words, EM is an additive that helps shift the balance of micro-organisms into the beneficial. If appropriately used, EM enhances soil fertility and promotes growth, flowering, fruit development, and ripening in crops. It can increase crop yields, improve crop quality and accelerate the breakdown of organic matter from crop residues.

### **EM AS A COMPOST APPLICATION**

Apply it to the compost heap to reduce troublesome odors and flies as well as improving the compost process and quality. Preferably spray on with a hand sprayer to prevent overwetting the compost heap and apply at each addition of fresh material if possible.

## WHAT IS BOKASHI BRAN?

Bokashi bran is a mixture of effective microorganisms, water, sugar, and wheat/rice bran. Each of these ingredients has a vital role in the entire fermentation process that happens during Bokashi composting. When you add it to the biological waste inside Bokashi Organko composters, it starts working fast. In a short time, the bran triggers the fermentation process and helps create a natural fertilizer, Bokashi liquid, which is a superfood for your plants.

EM in the Bokashi bran and in a perfect environment thrive and multiply, especially in combination with water, sugar, and wheat/rice bran. The humidity must be just right, so microbiologists estimate that it should be at least 60%. Sugar is, in addition to water, the essential food for microorganisms. Any simple form of carbohydrate can work - molasses, syrup, sugar, etc. Wheat or rice bran is the medium where effective microorganisms live. Simply said it is a home for the bacteria, yeasts and molds that are needed in the fermentation process, during which, EM simply waits for the perfect conditions to be able to show some quality and beneficial results.





## GANISMS IN THE AGRI-CULTURE INDUSTRY

An ideal agriculture system is sustainable agriculture that combines people, the planet, and profit to maintain and improve our planet's health. It's a sustainable way that meets society's present food and textile needs without compromising current or future generations' ability to meet their needs. By developing sustainable food systems, we contribute to the sustainability of the human population.

Sustainable agriculture improves quality crops and covers sufficient quantities that preserve and protect nature. It's resource-efficient and economically acceptable for both producers (farmers) and consumers. Besides, it improves the quality of life of farmers and society as a whole.

An essential part of the sustainable industry is also bio-waste management and a bio-waste recycling rate.

## BIO-WASTE RECYCLING IN 32 EUROPEAN COUNTRIES AS A PERCENTAGE OF TOTAL MUNICIPAL WASTE GENERATED IN 2001 AND 2010

(Source: https://www.eea.europa.eu/data-and-maps/figures/bio-waste-recycling-as-a)



Bio-waste includes kitchen waste (food, scraps, peels) and green garden waste (flowers, weeds, grass, leaves, etc.). In 2017, bio-waste presented 34% of all municipal waste in the European Union, but unfortunately, almost 57% of bio-waste still ends up in mixed municipal waste.

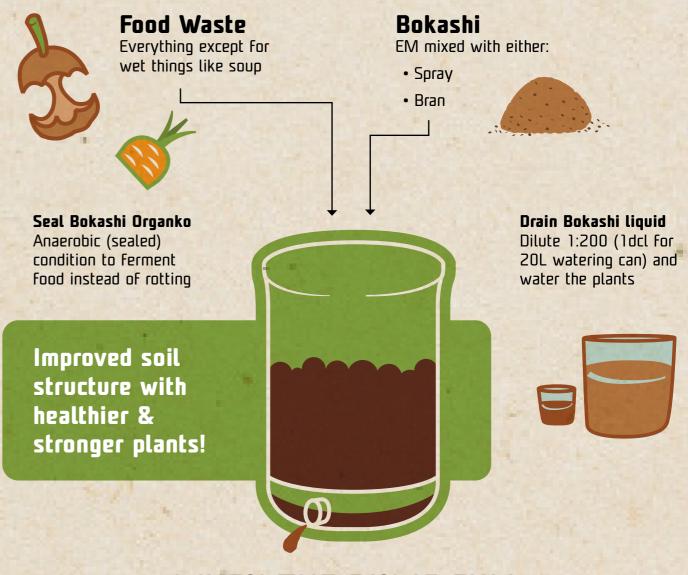
In 2015, the Sustainable Development Goals (SDGs) were set by the international community as part of the UN 2030 Agenda for Sustainable Development. Through this, countries of the world collectively pledged to eradicate poverty, find sustainable and inclusive development solutions,

ensure everyone's human rights, and generally make sure that no one is left behind by 2030.

One of the essential sustainable goals is to halve food waste by 2035 and recycle 65% of mixed municipal waste.

**HOW? CONTINUE READING.** 





## WHEN THE BIN IS FULL

## Leave for 2 weeks to ferment then...

Do not Forget to drain Bokashi liquid every 2-3 days.



Food will turn into bokashi soil in 2-6 weeks (if condition is wet and cold the food will take a little bit longer)

Speed up your composting process

## Put in a large pot

- Mix 1/3 bokashi & 1/3 soil
- Top up with soil



You can plant in 2 weeks (but for Bokashi to turn into bokashi soil you may need longer) Now you know the basics, and you are ready for the next capture. In previous chapters, we've already mentioned how EM helps during the whole Bokashi composting process; therefore, let us write some words about this process in general.

Bokashi composting is the most sustainable and the most circular solution to the bio-waste problem. It takes from the soil and gives back to it in a way to improve its quality and fertility.

Bokashi composting is the composting process with EM additives (Bokashi bran, fermentation/Bokashi liquid, etc.).

In Bokashi composters, biowaste is fermented with the help of the EM. Because the fermentation process is anaerobic, it is important to prevent air supply. Besides, the suitable temperature for the process is about 20°C.

Final products of the fermentation process are fermented organic waste that can be buried in soil and give it vital nutrients, and fermentation liquid (Bokashi liquid), that undiluted can be used as a drain cleaner, but diluted with water serves for watering your plants.

# WHY BOKASHI COMPOSTING IS BETTER THAN THE TRADITIONAL ONE

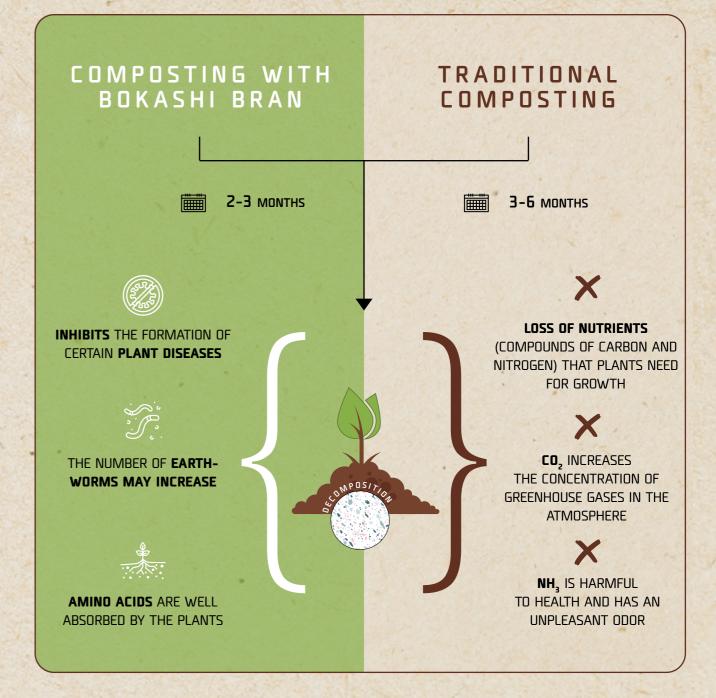
The EM, the main ingredient of Bokashi bran, prevents bio-waste from rotting during the composting process. Thanks to them, the process in the Bokashi Organko does not emit an unpleasant smell.

While composting by traditional methods takes 3-6 months, using Bokashi Organko takes only 2-3 months. While composting traditionally, the decomposition of biowaste causes the formation of ammonia (NH<sub>3</sub>). Another gas produced in a large amount by traditional composting is carbon dioxide (CO<sub>2</sub>), and they both are, as we already know, dangerous for the environment.

On the other hand, composting with Bokashi Organko and the effective microorganisms is more nature- and environmentally-friendly. It prevents the formation of ammonia and instead produces amino acids, which plants directly absorb. This way, the plants can save on energy and can thus use it for a better quality

of the food they produce. The compost-base produced is also rich in polysaccharides, which play a dual role for plants.

READ MORE ON OUR BLOG ABOUT TRENDS IN BOKASHI COMPOSTING



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## INNOVATIVE BOKASHI ORGANKO COMPOSTERS

With our innovative plastic products, we support responsible ways of living on our planet. By connecting people and nature with our clear vision, which is reflected in the development of our innovative prod-



ucts, we want to build a base for responsible lives on our planet. Driven by our values, which are the source of reliable fulfillment of given promises, we set high goals, show courage in finding inspiring solutions and sustainable attitude, which is proven by our respect towards natural resources.

When possible, we produce environmentally-friendly products and use recycled or bio-based materials.

By spinning the plastics that already exist on the planet, we give them a new purpose and care for the Earth. The results of our care for the environment are our innovative Bokashi Organko composters with great potential.

The Bokashi Organko composters are a convenient solution for everyone who wants to preserve a healthy and green environment by acting responsibly. For many years now, Skaza's sustainable composters have been a superstar among people who live a zero-waste lifestyle and responsibly treat organic waste. They want only the best for their urban ecological gardens.

Bokashi Organko composters are the ultimate design with their purpose, functionality, customer experience and appearance. They help users reduce the amount of organic waste by up to 25%, thus reducing the carbon footprint, including a decrease in the amount of bio-waste that generates savings in collecting and managing this waste.

### **BOKASHI ORGANKO 1**

Our 16-liter kitchen composter made from recycled materials gives users a simple solution for their biowaste and their garden. With a first-class compost base, their blooming garden will make them speechless and will offer them home-made food without insects. Healthy, easy, and environmentally-friendlier than traditional composting.

**READ MORE ON OUR WEBSITE** 





### **BOKASHI ORGANKO 2**

Red-Dot Design

Award-winning kitchen

composter with the perfect design that fits every
kitchen counter is made
from recycled plastics.

It is for gardeners and those who want to express their eco-lifestyle and care about our homes. With Bokashi composting, users will get organic fertilizer for watering their garden and a natural effective cleaner for their drains.

### **READ MORE ON OUR WEBSITE**

### **BOKASHI ORGANKO 2 OCEAN**

"Ghost gear" or fishing nets are deadly for our oceans and sea animals. That's why we present you with a new wave of solutions.

We innovated a first-ever kitchen composter made from at least 30% of hand-picked and recycled fishing nets.

We kept all the functionalities as its forerunners, but we added even more care for the environment. Also, for every product sold, we donate 2 € for cleaning our oceans from drowning plastics.

### **READ MORE ON OUR WEBSITE**

ABOUT OUR BOKASHI ORGANKO COMPOSTERS?

## **EASY AS PIE USE**

These kitchen composters are more than just another kitchen utensil. Even more, they allow sustainable behavior in every household. The rotting process is the most common cause for the formation of unpleasant odors in our waste. But with Bokashi Organko composters, the biowaste doesn't rot, as by adding the Bokashi bran, we ensure that waste is fermented without any unpleasant odors. By adding the bran, we prevent the formation of unpleasant odors, the decaying process, and, consequently, insects' attraction. The Bokashi Organko composters help you establish beneficial fermentation to obtain the basis for a first-class

compost and a high-quality Bokashi liquid or manure. You can collect the bio-waste in your kitchen for several weeks without taking the waste to the composter outside or external waste units for bio-waste.

Every Bokashi Organko composter is designed for the optimal fermentation process, but it is necessary to respect the user manual.

## WANT TO KNOW MORE ABOUT BOKASHI COMPOSTING?

**DOWNLOAD USER MANUAL** 

# ADVANTAGES OF USING BOKASHI OR-GANKO COMPOSTERS

We have already found that using Bokashi Organko composters has many advantages that are beneficial to both the user and our planet Earth. Let's sum all the advantages and put them into a clear picture below.



- REDUCTION OF BIO-WASTE BY 25%
- FASTER COMPOSTING OF BIO-WASTE
- CIRCULAR ECONOMY OF BIO-WASTE
- HEALTHIER CROP (UP TO 60% MORE SUBSTANCES ARE PRE-SERVED THAN NORMALLY)
- SIGNIFICANTLY LESS BIO-WASTE IN LANDFILLS
- 10X LOWER GREENHOUSE GAS EMISSIONS COMPARED TO TRADI-TIONAL COMPOSTING
- CONDITIONS FOR PLANT GROWTH
- MADE FROM ECO-FRIENDLY MATERIALS: RECYCLED PP, FISHING NETS
- BOKASHI LIQUID
- FIRST-CLASS COMPOST BASE



### SOURCES AND LITERATURE

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JOIN THE BOKASHI COMMUNITY AND BECOME A VITAL PART

OF A BETTER AND HEALTHIER ENVIRONMENT.

## ACT RESPONSIBLY. COMPOST.

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