

Natural farming with Indigenous Microorganisms has been practiced for forty years and has spread to over thirty countries including Japan, the Philippines, Mongolia, China and more. The army in 17 of China's 33 provinces is changing over to Natural Farming.

You can grow and eat healthy, high quality, nutritious food using these steps to make your own Natural Farming inputs.



(IMO #1)

Fermented Plant Juice:

Identify plants that are vigorous, healthy, and fast growing, such as sweet potato, mugwort, comfrey, grasses, or noni leaf. Banana flower also works well. Before dawn, pick a basket full of growing tips of the plants. Shake of any dirt, don't wash. Mix this plant material with equal parts brown sugar. Leave it to sit for an hour or so then place into a crock and cover. Put a weight on it to force airspaces out. A heavy duty trash bag filled with water works well as a weight. Take the weight off after 24 hours and leave covered with a cloth tied snugly around the top. Pour off the plant juice in 2-5 days and store in a dark, cool place, or in a refrigerator. Pour in a bit of vodka as a preservative if storing at room temperature.

Natural Farming with Indigenous Microorganisms



Here are the five simple steps:

1. Look around your land for pockets of naturally occurring mycorrhizae. Mycorrhizae means “roots of fungus” and look like silky white strands, which connect the roots of the crops to the soil. They help break down organic compounds and can be found under rocks, piles of leaves and other organic matter. They form a symbiotic relationship between the plants and soil, benefiting both. They provide nutrients and water from the soil to the plant, and they take waste products from the plant to the soil, sequestering carbon in the soil humus. Mycorrhizae growing in dry, sunny conditions will have different attributes than mycorrhizae growing in wet, shady conditions. Thus it is good to collect some from different areas to get a more robust culture. Collect these and save in a dark place.
2. Cook three cups of rice dryly so there is air space for the mycorrhizae to culture in. Place rice in a cedar box approximately 4”x12”x12”. The rice should fill the box about half full. Tie a cloth tightly around the top of the box and place the box in a deeply shaded, mycorrhizae-rich spot. Cover with leaves, leaving air space

between the cloth and the rice. A wire cage or basket and tarp should be put over it to keep weather and critters out. Avoid using anything that will create condensation, this needs to stay dry. In 4-7 days the rice will be filled with mycorrhizae and have the texture of tempeh, with mostly white, some pink, green, and black filaments.

3. Mix this mycorrhizae-cultured rice with equal parts brown sugar (in weight), knead together well, place in a crock and cover tightly with a cloth. There should be several inches of airspace between the top of the rice and the top of the crock.

4. In one week this mixture will have fermented slightly and have a sweet, slightly yeasty, not alcoholic smell.

Take four tablespoons of this mixture and mix into a five gallon bucket of water.



(naturally occurring mycorrhizae)

Add four tablespoons of fermented plant juice* (see back for instructions) to the water, mix evenly into 60lbs of wheat mill run or rice bran.

The mixture should have 70% moisture content. That is, it should hold together when squeezed in the palm of your hand, but crumble apart when touched gently. This mixture should be under a roof, directly touching the ground, 8-12” deep. Cover with a cloth: natural fibers are preferable; condensation from plastic is undesirable and can turn your pile anaerobic. A simple beach mat of lauhala works well. This pile will heat up and need to be turned twice a day, or when the middle is too hot to leave your hand in it (over 130 degrees F). It should turn white with fresh mycorrhizae and is finished when it cools down.

5. Mix this with equal parts soil from your land. Mix in more fermented plant juice and water so that the moisture content is 70% again. The pile should be the same depth as before and covered with a mat. It will heat up and need to be turned and will turn whitish with mycorrhizae. It will be down in about a week when it cools down. It can be used to top dress soil, in potting soil, or mixed into compost. It should be mulched if placed on garden beds; direct sunlight kills the microorganisms.