

The Story Behind ProBiotic Food for Plants

Help Your Soil Live Its Best Life!

Our small company: Impact Bioenergy has set out to prove that small and community-scale food waste digesters can be economical, which is contrary to conventional wisdom. We think the digested food waste plant food product is our secret sauce: it is made from food and goes back to the soil to grow more food without any chemicals. PBF for Plants Mix no 7 is our best formulation: composed of the most interesting and complimentary ingredients to make the best plant food possible. For more on the recipe keep reading.

The 40% of food that never gets eaten is our beginning point. Our aspiration is to practice zero waste. Wasted food can be digested by microbes and return to complete the miraculous circular economy of carbon, nitrogen, phosphorus, potassium, calcium, and more. This is the way the world can and should work.

Your soil has a hunger for organic matter which is the best slow-release nutrient engine you can use to power your garden. Using our Plant Food is like indulging your soil with self-care and wellness. It will give it a workout, improve its complexion, keep it hydrated, and provide all the supplements you can think of to make the earth beneath your feet porous, vibrant, alive, and fertile!

We start with food scraps, food and beverage waste (spent yeast, curds, whey, trub, weak wort, pomace, lees, and others), and create an emulsified smoothie that becomes the feedstock for our microbial digestion. We digest this mixture in a series of vessels that are mixed and kept warm without oxygen – taking 30 days to travel to completion as a probiotic plant food. It is no accident this sounds like a cow – biomimcry!

During this digestion period our microbes burp and bubble methane and carbon dioxide on an hourly basis which we collect and store for beneficial uses like heating water, making electricity, making propane substitute, making RNG vehicle fuel, and charging electric vehicles. It is no accident this sounds like a flux capacitor in a DeLorean time machine – except this is real!

We dry and pulverize the digested food waste to make PBF for Plants Mix no 7. Our latest analytical results show that digested food waste has N-P-K values of 2 to 5%, 1 to 5%, and 3 to 9% for N-P-K respectively. It also has 24-53% Organic Matter.

Then we formulate a unique and amazing plant food by adding fish bone meal, poultry feather meal, biochar, and mealworm frass to our digested food waste. Fish bone meal (4-16-0) is a rich source of calcium, trace minerals, and can strengthen cell walls and deepen root structures. Feather meal (13-0-0) works with bacteria and nematodes in the soil that breakdown nitrogen components that plants can more easily absorb, causing increased root growth and a stronger



overall root system. Biochar increases soil carbon, bacteria, fungi, and fertility. It has the ability to retain soil nutrients for long periods of time, reducing the need for more fertilizer. Mealworm frass (4-3-2) contains chitin as well as nutrients, which makes stronger cell walls to help plants fend off pests and disease. It also returns beneficial microbes back into the soil.

PBF for Plants Mix no 7 has a wonderful balance of organic matter, slow-release nutrients, and beneficial microbes. Using our plant food is a way to feed the soil so it can truly live its best life. Plants will be so happy they will exude sugars and amino acids into the soil to make a living rhizosphere of plants, microbes and fungi. This product has decades of thought, engineering, and effort in it to make you a better gardener.

We are located here: www.impactbioenergy.com and here www.vashonbio.energy

