



Shelf stable biology for all stages of plant growth.

*All Tainio products should be used in conjunction with PepzymeClear at a rate of 1ml/gal

1) Biogenesis

What is it? Biological plant enzymes/root dip/soil/seed transplant inoculant. Biogenesis contains beneficial microorganisms and humectants (preserves moisture). This will establish beneficial microbial populations needed for balanced soil biology to improve soil health, make essential nutrients available to plants and promote plant growth.

When is it to be used? As a soil treatment during the soil amending process, as part of our "Soil Activation" protocol. Optionally watered in as a broad spectrum inoculant.

Application rates:

- **Drench:** 0.33 - 1 mL/gal or 0.3 - 0.85 g/gal; 1 lb will treat 5-10k sq/ft of canopy
- **Amending Media:** 1 lb will treat 100 cubic yards of potting soil when amending

Cost: Tainio Biogenesis 454g - \$83.30

2) Rhizogenesis

What is it? A biological root/soil/seed inoculant that delivers billions of colonies of plant growth promoting rhizobacteria (PGPR) and mycorrhizal fungi right to the roots. Helps promote strong, healthy root growth and enhances soil microbe metabolism and reproduction by holding vital pockets of moisture around the plants' root zones. Beneficial soil-based microorganisms, root nourishing mycorrhizal fungi, and super absorbent polymers that serve as tiny moisture-holding sponges.

When is it to be used? Drench at transplant time, as part of our "Transplant Feed" protocol.

Application rates:

- **Drench:** 0.33 - 1 mL/gal or 0.3 - 0.85 g/gal; 1 lb will treat 5-10k sq/ft of canopy
- **Root Dip:** 45 g/gal

Cost: Tainio Rhizogenesis 454g - \$94.35

3) Mycogenesis

What is it? A dry biological inoculant containing an extraordinarily diverse population of bacteria plus mycorrhizal fungi. Beneficial bacteria and fungi in MycoGenesis will help free mineral nutrients from soils for a greater availability, colonize plant roots, and protect from pathogenic micro-organisms.

**OMRI-Certified

When is it to be used? Starting 10-12 days after transplant as a drench, or a slurry may be made for dipping rooted clones.

Application rates:

- **Drench:** 0.33 - 1 mL/gal or 0.3 - 0.85 g/gal; 1 lb will treat 5-10k sq/ft of canopy
- **Root Dip:** 45 g/gal

Cost: Tainio Mycogenesis 454g - \$94.35

4) Spectrum PSB

What is it? A phosphorus solubilizing biological soil inoculant. Phosphorus is necessary for vigorous root growth early on, and plant growth during the bloom cycle. The solubilizing bacteria in Spectrum PSB help to break down the phosphorus that may already be present in the soil in insoluble organic forms which are unable to be absorbed by the plant.

When is it to be used? During late vegetative and early flower cycle - after "flip". Do not mix with compost tea. Bacteria is aggressive + will out compete. Can be incorporated into the tea at the end of the brewing cycle.

Application rates:

- **Drench:** 0.055 - 0.15 mL/gal or 0.05 - 0.15 g/gal; 75g will treat 5-10k sq/ft of canopy

Cost: Tainio Spectrum PSB 75g - \$36.43 375g - \$157.20 750g - \$285.84

5A) Spectrum

What is it? A multiple species blend of plant growth promoting rhizobacteria (PGPR) and other beneficial plant growth promoting microorganisms (PGPs). These plant growth promoting microorganisms produce organic acids and amino acids to chelate vital mineral nutrients such as phosphorus, nitrogen, calcium, iron, and more.

When is it to be used? Throughout the growth cycle in replace of compost tea, or when soil is very sodic and needs to be flushed/leached.

Application rates:

- **Drench:** 0.035 - 0.1 mL/gal or 0.03 - 0.09 g/gal; 50g will treat 5-10k sq/ft of canopy

Cost: Tainio Spectrum 50g - \$19.11

5B) Spectrum DS

What is it? Utilized as a Sodium absorber with an emphasis on drought and salt tolerant microorganisms, Spectrum DS can help mitigate these damaging effects and allow crops to thrive in harsh environments. May reduce mineral salt contamination in soil.

When is it to be used? Throughout the growth cycle in replace of compost tea, or when soil is very sodic and needs to be flushed/leached.

Application rates:

- **Drench:** 0.035 - 0.1 mL/gal or 0.03 - 0.09 g/gal; 50g will treat 5-10k sq/ft of canopy

Cost: Spectrum DS 50g - \$24.27

5C) Spectrum + Myco

What is it? Broad Spectrum inoculant with the help of the Mycorrhizae, these fungi receive sugars from the plant, and in return, aid the plant in the uptake of water and nutrients in the soil.

When is it to be used? Throughout the growth cycle in replace of compost tea, or when soil is very sodic and needs to be flushed/leached.

Application rates:

- **Drench:** 0.11 - 0.33 mL/gal or 0.1 - 0.3 g/gal; 155g of Spectrum + Myco will treat 5-10k sq/ft of canopy

Cost: Spectrum + Myco 155g - \$30.37

6) Biodigester

What is it? A beneficial soil microorganism that will only digest dead cellulose material left in the field after harvest, breaking down debris into nutrient-rich soil. It will not harm living plants. Digests most annual crop debris into nutrient-rich soil, building humus. Digests most annual crop debris including: wheat, corn, soybean, sugarcane, rice straws, vegetables, manure, grass, and cannabis.

When is it to be used? Post harvest, or when cover crops are terminated in the spring.

Application rates:

- **Drench:** 0.035 - 0.1 mL/gal or 0.03 - 0.09 g/gal; 50g will treat 5-10k sq/ft of canopy

Cost: Tainio Biodigester 50g - \$31.48 250g - \$136.80

7) Pepzyme Clear

What is it? High quality, stable liquid enzyme biostimulant. Stimulates the growth and metabolism of plant growth promoting microbes to break down organic matter. Approved for use on certified organic crops and is listed by the WSDA (Washington state Department of Agriculture) Organic Program.

When is it to be used? Anytime using biological additives

Application rates:

- **Drench:** 1mL/gal

Cost: Tainio Pepzyme Clear 1gal - \$118.61 2.5gal - \$278.30