



Application	Products	Rate	Area/Acre	Frequency
Spring Soil Preparation With Biologicals	Spectrum+Myco™ NutraNeed™	155 grams 12.5 oz	Per surface acre (In furrow recommended)	Once in the Spring
Seed Treatment	Spectrum+Myco™	80 grams	Per acre of seed	Before planting
Root Dip	<sup>1</sup> RhizoGenesis™ NutraNeed™	1 lb 12.5 oz	Mix in 20 gallons of water	At planting
Soil Treatment After Planting	<sup>2</sup> Spectrum™ Product or OP-8™ NutraNeed™	At label rate 113 grams 12.5 oz	Side dress rows	After planting
Foliar Treatments	<sup>3</sup> Micro 5000™ <sup>3</sup> PZ 1000TM	75-150 grams 75-150 grams	Per surface acre as soon as true leaves emerge	Rotate foliar nutrition every 14-21 days throughout growing season
Fall Soil Preparation With Biologicals	<sup>4</sup> Spectrum™ Product NutraNeed™	At label rate 12.5 oz	Per surface acre	Post-harvest

1. Root dip seedlings before planting in the solution for every 20 gallons of water to be mixed for dipping. When container is 1/2 full, add 1/2 lb of MycoGenesis™ or RhizoGenesis™ and 6 oz of NutraNeed™ per 20 gallons, add water to 3/4 full, stir and continue dipping. We recommend soaking roots in solution for up to 12 hours before planting. Do not use mixed product after 24 hours.
2. Spectrum™ product (DS, NFB, PSB, or Spectrum™) or OP-8™ based on information from soil and plant sap report and plant need. Apply at label rate per acre and 12.5 oz. of NutraNeed™ per acre. Each application should be used with an enzyme product and a carbon-based product (i.e. fish hydrolysates, humates, kelp, or other carbon-based fertilizer).
3. Plant sap analysis is highly recommended with foliar nutrition. For organic use Micro 5000 Organic™ only.
4. For best first year results with a Spectrum™ product, fall application is recommended to give the microbes ample time to establish before planting.

#### BEST PRACTICES AND BASIC USAGE RECOMMENDATIONS:

- To avoid plugging: If agitation systems are not mechanical, premix products before adding to tank. 50-mesh screen is recommended.
- Apply foliar sprays in early morning or evening when temperature is below 80°F.
- Do not combine microbial products with antibiotics or materials that contain chlorides, bromine, fluorine, or elemental copper. Use in separate applications at least 2 days apart.
- These products are meant to be used together as a package application and are designed to work in conjunction with each other.
- Some growers have reported cutting back on their nitrogen inputs by 40% while using these products after achieving mineral balance.
- During times and stages of high plant stress (pest pressure, disease, etc.) the recommended rates can be doubled, but do NOT exceed a 2X increase as it may result in leaf burn.
- Non-chlorinated or R/O water is best with a pH between 6.0-6.4 if possible. Water over 105°F. can cause shock and harm to beneficial microbes and enzymes.
- Continuous agitation is recommended to keep materials suspended, vortex well and often when mixing and during use.
- Microbial products should be used within 24 hours after adding water.
- Always perform a jar test to ensure that there is no precipitant formation before the first application of any product or combination of products.
- Thoroughly clean and neutralize all tanks, lines, containers and sprayers prior to mixing products, especially after use of any toxic chemicals.

This protocol is intended as support for your fertility program and not as a replacement. It is designed for simplicity and compatibility with almost any fertilizer program. Our specific recommendations to you may vary depending on your unique situation.