



# Natural Growing Through Biology

A Biological Farm Management System (BMFS®) Guide For:  
**Row Crops**

Application	Products	Rate	Area/Acre	Frequency
Seed Treatment	MycoGenesis™ or Spectrum+Myco™	80 grams  155 grams  (Recommendation may vary)	Per acre of seed	Before planting
Soil Planting With Biologicals	<sup>1</sup> Spectrum™ Product or OP-8™  NutraNeed™	At label rate  113 grams  12.5 oz	Per surface acre (in furrow recommended)	At planting
Soil Treatment After Planting	<sup>1</sup> Spectrum™ Product or OP-8™  NutraNeed™	At label rate  113 grams  12.5 oz	Side dress rows	Monthly
Foliar Treatments	<sup>2</sup> Micro 5000™  <sup>2</sup> PZ1000™	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>3</sup> Spectrum™  NutraNeed™	50 grams  12.5 oz	Per surface acre	Post-harvest

1. 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).
2. Plant sap analysis is highly recommended with foliar nutrition. For organic use Micro 5000 Organic only.
3. For best first year results with a Spectrum™ product, fall application is recommended to give the microbes ample time to establish before planting. 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).

#### 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.