



### MycorrPlusтм is the new name for *GroPal* Balanceтм

To prevent the build-up of pressure, please loosen the lid of MycorrPlus right away to allow it to vent.

Do not store in direct sunlight. Store below 120° F., and preferably below 100° F.

# Application Instructions

MycorrPlus-A and MycorrPlus-O (for organic use) are for the soil, not the leaf. Their strength lies in their ability to transform the soil. For best results, don't consider MycorrPlus™ foliar until you have utilized a full 64 ounces of MycorrPlus-A or MycorrPlus-O.

Apply MycorrPlus™ <u>by itself</u>, or with fish, kelp, 28% or 32%. Add MycorrPlus™ to your tank first. Add water before adding fish or kelp. Always jar test. If for 2 years no chemical application has been made, the third year you can switch to MycorrPlus-B in place of A or O.

MycorrPlus™ A or O may be applied spring, summer, fall or winter

- An early or late spring application can help improve that year's crop. Apply ASAP to get it started
- A summer application can raise nutrients in the plant, but results might not be seen until the fall or spring.
- A fall application will allow MycorrPlusTM to improve the soil throughout the fall and early spring.
- A winter application works well as long as moisture is able to soak into the ground.
   An advantage for a winter application is that most all of the ultraviolet rays of the sun are blocked by the atmosphere.

It is almost impossible to hurt the soil by over-applying MycorrPlus<sub>TM</sub>. However, applying more than a gallon/acre in one application might burn the leaves of the plant.

# Overcoming Application Difficulties

### 1. Ultra-violet rays of the sun

Although MycorrPlus™ contains zinc that acts like a sunscreen to protect its microbes from the sun, precautions should still be put into place. Here are ways to protect the microbes.

- If you will be plowing no deeper than 6 inches or discing the soil, apply
  MycorrPlus™, then work it in just before the final time you work the soil. You may
  also chisel it to help it interact with the soil.
- If cultivating, apply MycorrPlusTM, then cultivate.
- Applying in-the-row, on-the-seed/in furrow will hide MycorrPlus™ from the sun. Use the tank mix you normally use for in furrow applications.
- If you are only set up to side dress, you can add 2 qt./acre MycorrPlus-A in with your 28% or 32%.

#### 2. Getting it off the leaf, down to the soil

Although MycorrPlus™ contains zinc that acts like a sunscreen to protect its microbes from the sun, precautions should still be put into place. Here are ways to protect our microbes.

- If no rain is predicted within a week, use a 40 or more gallon/acre tank mix to get it out of the sun and down to the soil. If watered in within a few days, you can use 20 gallons/acre. If watered in right away, a 3 gallon per acre with the plane or 10 gallon per acre with the spray rig will do.
- May be applied with irrigation. Can be put through a drip line if any fungus is screened off first.
- Add to manure or lagoon water and allow it to work then spread manure or apply lagoon water.
  - To treat lagoon water, apply at the rate of 5 gallons for every 250,000 gallons. To compost manure, use 12 oz. for every cubic yard
- 3. Bare ground dries out the soil, exposes microbes to the sun It really helps to keep the soil covered. For exposed soil, the sun dries out the soil, plus it kills microbes that are closer to the surface.
  - Crop litter and trampled forage work well to help protect the soil from the sun.
  - Cover crops not only shelter the soil, but with MycorrPlus™, they sequester sugars, building organic matter in the soil.

## Phosphorus, potassium and MycorrPlus™

The average acre of farmland has 4,500 lbs. of tied up phosphorus, plus a major component of clay is potassium. The microbes in MycorrPlus™ help to make these available to the plant, which can save farmers a LOT on fertilizer. Potash may be

needed for some vegetables, or for other crops where potassium levels are low in the region.

In most cases, when MycorrPlus™ is active in the soil, no additional phosphorus should be needed, even for corn.

Normally phosphorus is not mobile in the soil, but mycorrhizal fungi in MycorrPlus™ are able to transport phosphorus from deep in the soil back to the roots. Soil tests are normally only done for the top layer of the soil, but for most soils, mycorrhizae are bringing nutrients from far deeper than 6". Therefore, a tissue analysis is the best way to verify that the plant has plenty of phosphorus, potassium and other nutrients.

### Nitrogen applications

MycorrPlus™ contains nitrogen fixing bacteria, but it takes 4 to 5 months for them to really start working. If you normally apply nitrogen, some N may be needed until the nitrogen fixing bacteria have a chance to really kick in.

For corn and other crops that require a lot of N, you may need some nitrogen each year. MycorrPlus<sub>TM</sub> helps to hold nitrogen and keep it from wicking off, leaching out or getting tied up.

When a fall, winter or early spring application of MycorrPlus™ has been put out, or when it is mixed in with 28% or 32%, most farmers can cut back on nitrogen 30% the first year, and more the second year.

<u>Anhydrous ammonia</u> is very hard on the soil. To help overcome this, apply a quart of MycorrPlus-A two weeks or more after applying anhydrous ammonia.

### Herbicides and MycorrPlus™

- Herbicides damage soil life and soil balance. However, you can easily overcome
  this damage and still get great results. Just apply 16 to 32 oz./acre of MycorrPlusA a few days or more after a herbicide application to break down the herbicide and
  help restore balance to the soil. For pre-emergent herbicides, apply MycorrPlus-A
  2 to 3 weeks after the application to give the herbicide more time to work before
  MycorrPlus<sub>TM</sub> breaks it down.
- Why wait 2 to 3 weeks? MycorrPlus™ will quickly break down the herbicide, so we want to give the herbicide the time it needs to work. For knock-down herbicide applications (including glyphosates), apply the herbicide, then wait 3 or more days and apply a 16 to 32 oz. application of MycorrPlus A to help restore soil balance.

# Timing of applications

Most of the time, when putting out the first ever application of MycorrPlus™, it is best to apply it as soon as possible so that it can start its work of transforming the soil. Here are a couple of exceptions:

- If you will be sowing seed in less than a month, it is probably best to wait and apply over the seed. MycorrPlus™ is a great germinator, so we want to take advantage of this strength.
- If in a month or less you will be tilling (6" or less) or discing the soil, you may want to wait and apply it right before working the soil. Always apply just before the last time you work the soil before planting.
- If you will be applying an herbicide within a few weeks, you might want to wait until 3 days or more after that application to help break down the herbicide. For residuals, allow 2 or 3 weeks after application to give the herbicide time to work before applying MycorrPlus<sub>TM</sub>.

## MycorrPlus<sub>TM</sub> Foliar Application Rate Guidelines

MycorrPlus™ F and O-F Foliar / Top Dress Fertilizer

Two quarts/acre of F is \$18/acre, 3 quarts/acre of OF is \$23.10/acre at the bucket size

- One or more applications of MycorrPlus™ foliar may help increase yields, plus help to increase protein, test weights and relative feed value. Try to apply MycorrPlus™ foliar mornings or evenings when the temperature is below 80 to 85 degrees so that plant stomata are open.
- These foliar applications may be helpful for hay, row crops, fruits, vegetables or fruit or nut trees. MycorrPlus™ F (not MycorrPlus™ A) may be applied with herbicides, but consider cutting herbicides back 15%.
- Use a 10 gal./acre tank mix, or use 3+ gal./acre with a plane.
- MycorrPlus-O-F may be put on with the sprinkler by running it fast enough to keep most of the water on the leaf. MycorrPlus-F has a surfactant that is simply thinned down too much to use with the sprinkler.
- MycorrPlus™ is best applied at the following 3 times:
  - 1. Two to four weeks post-emergence
  - 2. At flowering
  - 3. Most effectively, when plant begins to fruit

MycorrPlus<sub>TM</sub> A or O applications for areas smaller than an acre

One teaspoon of MycorrPlus<sub>TM</sub> is perfect for 100 square feet. An ounce treats 600 square feet. May be applied with a watering can or a hose end sprayer. For a pump-up sprayer, add 1 tsp. per quart of water.

Click here to see applications for specific crops.

## Links to more MycorrPlus™ (GroPal Balance) information

- 1. Soil Balance results
- 2. Photo gallery of side by side fields where half was treated with Soil Balance and the other half was not
- 3. Lab test results, before and after MycorrPlus™
- 4. Soil pH balanced without lime
- 5. <u>An authoritative article</u> that will help you to gain a more indepth understanding of how MycorrPlus transforms the soil
- 6. Helpful FAQs about MycorrPlus™
- 7. Application guidelines
- 8. GroPal Balance (MycorrPlus<sub>TM</sub>) for organic use

Some may choose to further boost the process by adding a natural product like fish or kelp. However, though these are great products, you will probably find yourself producing amazing pastures without them!