

## **Omni-Max Fertilizer**

Omni-Max liquid organic fertilizer is a powerful fish-based hydrolysate liquid fertilizer that delivers a comprehensive and potent nutrient package to benefit crops and the soil. Omni-Max is produced from an advanced cold enzymatic digestion process that preserves the beneficial microbes and enzymes of the fish. The resulting liquid fish hydrolysate is a concentrated amino-acid formulation that efficiently delivers both macro and micro nutrients in a sustained release formulation that provides balanced nutrient delivery for up to 4 months. Unlike chemical fertilizers that are often packaged in salt-based carriers that result in heavy losses and low nutrient uptake, Omni-Max has a near 100% absorption rate. The beneficial microbes and enzymes efficiently penetrate depleted soils to help reduce soil compaction and increase moisture retention. Used season-to-season, Omni-Max will stimulate soil activity and help replenish depleted soils. The beneficial microbes and enzymes in Omni-Max along with the amino acid content will also help release bound nutrients already in the soil.

The following guide will help you maximize your investment in Omni-Max by demonstrating application techniques and best practices, tips for storage and handling, and frequently asked questions.

## Properly storing Omni-Max Fertilizer.

Omni-Max is prepared and packaged to ensure it stays fresh and has a long shelf life. When you receive your product, it is important to follow the following handling and storage tips:

1. Store in a shaded location. Avoid storing your fertilizer in direct sunlight. Sunlight itself can stimulate the fertilizer and reduce shelf life.
2. Keep fertilizer container tightly closed when not in use. Adding water or allowing water to get in your fertilizer will “activate” the fertilizer. Only add water (described later) when you are about to apply your fertilizer, otherwise keep the container tightly closed. Only add water to fertilizer you are about to apply – never store fertilizer that has been mixed with water.

## Preparing to use Omni-Max fertilizer and Sanitation / First Aid Tips

Omni-Max an organic fertilizer that is relatively harmless. If fertilizer comes in contact with skin, simply wash it off with soap and water. If it gets in your eyes, flush with water. Do not drink the fertilizer. If spilled, simply wash down with water. A Safety Data Sheet is available for Omni-Max with specific safety precautions.

When preparing to use the fertilizer, first determine how much fertilizer you will be using. Use your Application Rate as a guideline for the crop you are fertilizing. Your fertilizer is delivered in concentrated form – it is designed to be diluted in water before application and should never be applied without first adding water. A typical dilution rate is four parts water to 1 part Omni-Max. It is permissible to use additional water if desired but remember your application rates specify how much fertilizer should be applied and does not count water that is added.

### Tips for Pre-Mixing GROW-MAX with Water

Before mixing Omni-Max with water, it is critical that the undiluted Omni-Max container be mixed or agitated prior to dispensing. This is because natural settling of dissolved solids will occur with the fertilizer. If the container of Omni-Max small, such as a bottle or bucket, simply shake or turn over a few times then proceed with mixing. If stored in a larger container such as a tote or tank, use a water pump to recirculate the fertilizer from the bottom to the top for a couple of minutes prior to dispensing.

Whether applying Omni-Max with a commercial sprayer, pump up sprayer, or even a simple watering can, it is important that your fertilizer be evenly mixed with water before beginning your application. One proven method for ensuring even mixing is to first add 25% of the total water, followed by all of the fertilizer, then add the remaining 75% of water to evenly mix the fertilizer with the water. Adding a small amount of water first ensures that lines and hoses don't first fill with pure fertilizer before water is added.

If mixing in larger containers such as totes or tanks, a recirculation pump can be used. Add the correct amounts of water and fertilizer to the tank, then pump from the bottom of the tank and place the discharge hose back into the top of the tank to allow recirculation. If possible aim the discharge around to ensure all areas of the tank are mixed. Usually only a few minutes of mixing is required before your fertilizer/water mix is ready for application. It is fine to mix up a larger amount than will be applied at one time, but all premixed water/fertilizer should be applied the same day it is mixed.

Example: You have a 250 gallon mix tank. You add 50 gallons of Omni-Max and 200 gallons of water (1:4 ratio) and recirculate with a pump. Your spray tank is only 25 gallons, so you fill your spray tank and apply the mixture. You refill your 25-gallon tank nine more times to use up all 250 gallons.

When finished, simply rinse your mix tank and sprayer with clean water.

## Methods for Applying GGRO-Max

Omni-Max can be applied in many different methods. It can be broadcast sprayed with boom sprayers or boomless nozzles. It can be banded or applied next to the plant. It can be foliar applied to the leaves and stems/stalks of the plant. And finally, it can be applied directly to the soil as a pre-plant fertilizer. Or it can be applied using any combination of these methods.

Before choosing the method of application, first consider how much Omni-Max you need to apply during the growing season. You may need to apply multiple applications. Also consider the type of plants you will be growing. Leafy plants and vegetables as well as grasses benefit greatly from foliar applications. Others that have high growth rates for stems/stalks respond better to ground applications.

General guidelines for different application methods:

1. Pre-plant applications. Often it is a good idea to fertilize the soil prior to planting, since most nutrient uptake comes from the soil. Because Omni-Max has a long nutrient release cycle, it is often possible to apply all the fertilizer needed prior to planting. The most common application method for pre-plant application is broadcast spraying, since exact plant locations are not known. In this case use the application rate guide for Liters per acre and mix and apply accordingly. In pots or raised beds Omni-Max can be turned into the soil using hand tools. Always pre-mix GGRO-Max with water before pre-plant application.
2. Banding or Side-Dressing. Banding is where fertilizer pre-mixed with water is applied to the side, or around, an existing plant. This type of ground application can be done by hand or using a mix tank and wand or hose. Often times a hose is used to apply a larger amount to each plant more quickly than a spray wand would allow. Banding is often used as a 2<sup>nd</sup> or subsequent application following a pre-plant fertilization where additional fertilizer is needed. For trees or shrubs it is best to evenly apply a soaking application under the drip base of the tree/shrub, no closer than 12 inches from the trunk.
3. Broadcast Spraying. Broadcast spraying is any method where a pressurized spray nozzle is used to apply a mist application. This can be either a large commercial sprayer with many nozzles on a boom, or a simple hand held pump up sprayer that one can use in a home garden. The benefit of broadcast spraying is that a broad coverage area is achieved. It can be used for pre-plant ground applications or foliar applications.
4. Foliar applications. Foliar application is a type of broadcast spraying where the target of the application is the plant itself. Not all fertilizers are effective foliar fertilizers, but Omni-Max excels at foliar feeding plants. The reason for this is the extremely high nutrient uptake (nearly 100%). It is particularly effective for leafy vegetables and fruits such as tomatoes, strawberries, peppers, lettuce/kale and many more. It is best to foliar apply fertilizer early in the morning or late in the afternoon but can be done most anytime. Simply spray fertilizer diluted in water to the entire plant. Although foliar feeding is an excellent method for feeding, remember most nutrient uptake occurs through the soil. A common guideline is to apply 80-90% of the fertilizer needed through ground application, and 10-20% via foliar feeding. Refer to specific application rates for each crop.
5. Fertigation. Fertigation is a method where fertilizer is delivered through drip lines or hoses from a central watering station out to plants in the field or in green houses. Omni-Max is fully compatible with drip line systems because it is filtered before bottling so there are no solid particles to stop up the small orifices common to fertigation systems. Fertigation systems can have manual or automatic methods for injecting liquid fertilizer into the water stream. Whichever method is used, the operator simply needs to keep track of how much fertilizer is applied to a given number of plants to ensure the correct amount is applied. It is acceptable to meter very small amounts of fertilizer more frequently to plants are constantly receiving very small amounts of fertilizer with each watering cycle. Because fertigation by its very nature involves mixing water with fertilizer, it is not necessary to pre-mix Omni-Max prior to use in fertigation systems. However, it is critical than any tank containing Omni-Max concentrate that is being pulled from have some form of constant recirculation to ensure it is evenly mixed before metering into water.

## Frequently Asked Questions

**1. Can I use Omni-Max as a complete replacement for chemical fertilizers I previously used?**

Yes you can. Omni-Max provides Nitrogen, Phosphorus, and Potassium as well as micronutrients so it can be replace chemical fertilizers.

**2. I have seen other products that claim to stimulate soil and microbial activity but contain no N,P, or K. How is Omni-Max different from these products?**

Omni-Max stimulates soil and microbial activity AND delivers N,P, and K where other soil amendments do not. Using Omni-Max achieves both fertilization and building up the soil structure simultaneously.

**3. Can Omni-Max be used to rehabilitate depleted soils?**

Yes. Omni-Max is used successfully to replenish depleted soils. Whether depleted due to lack of fertilization or soil has problems with bound nutrients not available to plants due to repeated use of chemical fertilizers, Omni-Max can successfully treat damaged and depleted soils. Its beneficial microbes and enzymes stimulate the soil structure by reducing compaction and improving water retention as well as promoting generation of organic matter.

**4. Is it necessary to only apply Omni-Max right before a rain to prevent burning?**

No. Omni-Max is an organic fertilizer and if properly applied will not burn your plants or crops and does not require rain after an application. Rain is generally helpful in further diluting Omni-Max into the soil but rain is not required prior to application.

**5. I have heard that Omni-Max can help reduce the impact of some funguses and also with pests – is this true?**

University studies have shown that fish hydrolysate fertilizers such as Omni-Max have shown to reduce plant funguses and the impact of some pests when applied in a foliar manner. We do not claim Omni-Max to be a fungicide or pesticide but it can help with both.

**6. Before I plant my crops I spray herbicides and/or pesticides in my fields. Since Omni-Max can also be broadcast sprayed as a pre-plant fertilizer, can I combine my herbicide and/or pesticide in the same mix tank with Omni-Max and water so I can get everything done in one application?**

Yes you can combine Omni-Max with herbicides and pesticides and apply everything at once, however a precautionary note. Perform a mix test in a small container using representative ratios of Omni-Max, water, and your other additives to make sure there is no clumping or inconsistencies in the combined mixture. To date we have not observed any problems with commonly used herbicides and pesticides but test to be certain.

**7. With Omni-Max's has a long nutrient release of 12-16 weeks, can I overlap applications to get additional nutrients to my plants by fertilizing every 30 or 45 days?**

Yes you can overlap applications. Overlapping applications are frequently performed to get additional nutrients to crops in later stages of growth or fruit development. Just take into account how much Omni-Max is needed for the entire growth cycle, then break down your applications as needed. For example a crop that requires 6 gallons per acre total, you could apply 3 gallons per acre as a pre-plant application, another 2 gallons per acre after 30 days, then a 1 gallon per acre foliar application 30 days before harvest. Refer to crop-specific application rates as a guide.