# **JRM**

# **PLANT THRIVE**

## **APPLICATION RATES**

Plant Thrive is a microbial based product specifically formulated to improve soil conditions for plant growth and establishment. There are 18 strains of highly active beneficial bacteria with 4 strains of beneficial fungi. The bacteria contains only pure microbial cultures. All stages of fermentation use state of the art methodologies under highly controlled quality standards. Each ingredient in the formulation was chosen based on the benefits it provides to the plant as well as the synergies it provides to the system as a whole. Plant Thrive is for all plants, flowers, vegetables and ornamentals.

#### Compatibility

Plant Thrive is best when used by itself. Do not co-apply Plant Thrive with pesticides, fungicides, herbicides, insecticides, nematicides or fumigants. These can compromise the integrity of or kill the beneficial organisms. When applied in rotation with pesticides and other agents, allow 5-7 days between application of Plant Thrive and these agents. Never apply Plant Thrive just prior to a pesticide application. Do not mix the product and store in any tank or container, use all product within 4 hours of preparation. Agitate the tank while adding Plant Thrive and stir occasionally during the entire application process. A jar test should be performed when mixing with other inputs to test for physical compatibility. Plant Thrive can be mixed with other biostimulant inputs, sugars, humic acids and kelp.

#### **Directions For Use**

Each container contains a measuring scoop which is equivalent to 4 grams (0.15 oz.)

1 teaspoon = 0.1 oz. 3 tablespoons = 0.5oz.

1 scoop = 0.15 oz. 1 cup = 5.0 oz.

6 scoops = 1.0 oz.

**Note:** When mixing Plant Thrive in water to make either a solution or stock mix for greenhouse applications; make sure the product is slowly poured into water and agitated to go into complete solution. During the application process stir occasionally to keep it in solution.

# **Hydroponic rates -recirculating systems**

Plant Thrive can be used to stimulate and maintain root growth. For seedlings, cuttings and transplants add 2 scoops to the reservoir for every 10 gallons of water. Run the solution through the circulation system for complete mixing. The amount of product needed for a specific application can be made in a stock solution then slowly pour it in the reservoir that is full of water. This helps to ensure thorough mixing throughout the system. Add 0.1 to 0.3 oz per 10 gallons of water every 7-10 days or when water is added. Top the system off with fresh water between nutrient solutions.

- Monitor nutrient requirements with a conductivity or PPM meter
- Maintain reservoir pH levels between 5.5 and 6.5 for optimum results
- Keep reservoir aerated for optimum results

#### Soil-Less Media/Cuttings

For cuttings and cloning we recommend E-Z Root ™ which is specifically formulated for these applications. If using Plant Thrive, adjust the pH of the soil-less media to the range of 5.5 to 6.5 for optimum results. Slowly pour and mix 1 scoop per 1.0 gallon of water. Pour the solution slowly through the media (perlite, coco, rockwool). When grow plugs or rockwool cubes are used, allow them to soak for 10 minutes in the solution. If dipping cuttings, keep them in the mixture for 15 seconds. Make sure the product is in solution when using (no sediment on the bottom). Stir occasionally if planting several cuttings. Cuttings can be treated with dry Plant Thrive powder. Sprinkle a small amount of Plant Thrive on a clean non-porous surface. Moisten the cuttings, place in Plant Thrive then plant the cutting in media.

## **Greenhouse Application**

Make a stock solution by mixing 1.0 to 1.5 pounds in 8.0 gallons of water. Run the stock solution through the injector system at a 1:100 dilution. Apply Plant Thrive at the time of planting, seeding, sprigging or transplanting at the rate of 10.0 - 30.0 gallons per 1000

square feet of bench space. The volume of solution should be based on the plant type and growing media. Plant Thrive can be applied as a sprench to plants during their growing cycle. Sprench is a method of application of a fertilizer, inoculant/biostimulant to plants that is not quite a foliar spray yet not quite a soil drench. When applying by this method the product is applied to both the foliage and the growing media.

#### **Container Application**

When planting pots and containers mix 1 scoop with 2.0 gallons of water. Drench root ball at time of planting, allow to soak up to 10 minutes. When treating individual containers drench the containers with finished solution based on the container size

Pot/Container size	Amount of solution	Pot/Container Size	Amount of
	Solution		
1 gallon	1 Quart	10 gallon	1 gallon
5 gallon	2 Quarts	per caliper inch	1 gallon

#### **Soil Application**

Plant Thrive can be applied with soil prior to planting to improve the soil conditions and promote root morphogenesis. This is the process associated with increases in root initiation, root growth and root formation. Incorporate 3 scoops per 2.0 cubic feet of soil or 0.5 pounds per cubic yard. If amending individual containers mix Plant Thrive around the plant hole at a rate of 1.0 scoop for a 1-3 gallon container.

#### **Deep Root Feed Injections**

Apply as needed throughout the growing season to maintain plants and enhance the root system. Plant Thrive should be applied with a commercial grade injection system.

Slowly pour Plant Thrive at a rate of 1.0 to 1.5 pounds per 100 gallons of water. Stir and agitate the mixture to ensure that it is in solution. Stir occasionally while applying to keep the mixture in solution. Apply the higher rate for trees/shrubs under stress or less than 3 years old. Mix the required amount of Plant Thrive and inject using a grid system. Space holes on a 2 to 3 foot centers in a grid pattern. Extend the holes out to the drip line. For trees under 3" caliper inject at 2.0 foot intervals in the grid pattern. For every 6' of height or caliper inch of tree inject a total volume 1.5 to 2.0 gallons. Apply evenly between each hole. For shrubs inject at a depth of 3-5 inches. When finished, backflush and clean the equipment with water.

### **Turf Application**

We recommend Plant Thrive for all turf applications. It can be applied to all types of turf varieties during the season when the soil temperature is  $50^{\circ}$ F or higher. Mix 1.0 - 2.0 ounces of Plant Thrive in 3.0 - 4.0 gallons of water and apply with a chemical applicator on 1000 square feet. Plant Thrive can be reapplied every 2-3 weeks during the growing season.

## Ingredients

# CONTAINS NON PLANT FOOD INGREDIENTS

#### **Active Ingredients**

1.75 x 108 CFU/g each of: Bacillus subtilis, Bacillus amyloliquefaciens, Bacillus licheniformis, Bacillus megaterium

1.50 x 108 CFU/g each of: Pseudomonas fluorescens Pseudomonas putida

1.25 x 108 CFU/g each of: Azospirillum amazonense, Azospirillum lipoferum

 $6 \times 10^7$  CFU/g each of: Bacillus firmus, Bacillus pumilus, Bacillus azotoformans, Bacillus coagulans, Bacillus pasteurii Geobacillus stearothermophilus

1.5 x 107 CFU/g each of: Pseudomonas aureofaciens, Streptomyces coelicolor, Streptomyces lydicus, Streptomyces griseus, Trichoderma reesei, Trichoderma hamatum, Trichoderma harzianum, 7 spores per gram of Rhizophagus intraradices

#### **Inert Ingredients**

10.18 % Hydrated Sodium Calcium Aluminosilicate, 9.75 % Kelp (Ascophyllum nodosum), 5.13 % Hydrolyzed Soy Protein, 3.80 % Humic Acid (derived from leonardite), 2.85 % Brewer's Yeast Extract.

Other ingredients 65.8 %

Information regarding contents and levels of metals in this product is available on the internet at: http://www.aapfco.org/metals.html

#### Storage/Handling.

Do not store any mixed product in tanks/sprayers. Store any unused product in the original container securely closed in a cool dry location out of direct sunlight. **KEEP OUT OF REACH OF CHILDREN** 



4881 NEO Parkway Cleveland OH, 44128 800-962-4010 www.soilmoist.com OMRI LISTED For Organic Use · OMRI.org

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