

55146-73

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Theodore D. Head  
Product Registration Manager  
Nufarm Agriculture USA  
1333 Burr Ridge Parkway, Suite 125A  
Burr Ridge, IL 60527-0866

SEP 23 2005

Subject: Ultra Flourish - Agricultural Fungicide  
EPA Reg. No. 55146-73  
Amendment dated July 23, 2003

Dear Mr. Head:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act as amended is acceptable provided the following changes are made:

1. Add the name "Mefenoxam" so that it precedes the chemical name in the ingredient statement.

One copy of the label stamped "Accepted with comments" is enclosed for your records. This label supercedes all labels previously accepted for this product. Please submit one copy of the final printed label that incorporates the required changes before the product is released for shipment.

If you have any questions, please contact Robert Westin by phone at (703) 305-5721 or via email at [westin.robert@epa.gov](mailto:westin.robert@epa.gov).

Sincerely,

A handwritten signature in cursive script that reads "Mary L. Waller".

Mary Waller  
Product Manager (21)  
Fungicide Branch  
Registration Division (7505C)

Enclosure

ACCEPTED  
with COMMENTS  
In EPA Letter Dated:

SEP 23 2005

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under EPA Reg. No.

55146



**AGRICULTURAL FUNGICIDE**

For the control of certain diseases in various crops caused by the Oomycete class of fungi:

**Active Ingredient:**

(R)-2-[(2,6-dimethylphenyl) methoxyacetyl amino] propionic acid methyl ester*	25.1%
Other Ingredients:	74.9%
Total	100.0%

Contains Petroleum Distillates

Net Contents – One Gallon

\*Contains 2 lbs. active ingredient (mefenoxam) per gallon

**KEEP OUT OF REACH OF CHILDREN  
WARNING – AVISO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

**FIRST AID**

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**NOTE TO PHYSICIAN:** If ULTRA FLOURISH is ingested, lavage stomach. A slurry of activated charcoal in water can be left in the stomach. Contains petroleum distillate - vomiting may cause aspiration pneumonia.

See Label for Additional Precautions and Directions for Use.

Nufarm Americas Inc – AGT Division  
EPA Reg. No. 55146-73

Sugar Land, Texas USA 77074  
EPA Est. No. 37429-GA-2

### DIRECTIONS FOR USE

It is a violation Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statement of this label about personal protective equipment (PPE) and restricted-entry interval (REI). The requirements in this box only apply to users of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the REI of 48 hours.

**Exception:** If the product is soil-injected or soil-incorporated, the WPS, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the WPS and that involves contact with anything that has been treated, such as plants, soil or water is:

- ◆ Coveralls
- ◆ Chemical-resistant gloves, such as barrier laminate or viton
- ◆ Shoes plus socks
- ◆ Protective eyewear

Failure to follow the directions for use and precautions on this label may result in crop injury, poor disease control, or illegal residues.

### NON AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are not within the scope of the WPS for agricultural pesticides (40 CFR part 170). The WPS applies when this product is used to produce agricultural crops on farms, forests, nurseries, or greenhouses.

Do not enter treated areas without PPE until sprays have dried.

## GENERAL INSTRUCTIONS

ULTRA FLOURISH is a systemic fungicide for use on selected crops to control certain disease caused by members of the Oomycete class of fungi. Other fungicides must be used to control diseases incited by other classes of fungi. This product is not to be used in foliar applications, unless specified on this label.

**NOTE:** ULTRA FLOURISH is a systemic fungicide having a specific mode of action and could be subject to development of insensitive strains of fungi. Development of insensitivity cannot be predicted. Therefore, Nufarm cannot assume liability for crop damage resulting from insensitive strains of fungi. If treatment is not effective following the use of ULTRA FLOURISH as recommended, an insensitive strain of fungi may be present. If the treatment is ineffective due to the presence of a mefenoxam insensitive strain of fungi, neither ULTRA FLOURISH nor any other fungicide with similar action will effectively control that disease. Consideration should then be given to the prompt use of other types of suitable fungicides. Do not make foliar applications to field grown tobacco, or other crops, unless specified since this practice may encourage more rapid development of insensitivity. Consult with your State Agricultural Experiment Station or Extension Service Specialist for guidance on your particular crop and disease control situation. Where rate ranges are specified on this label, use the higher rate when heavy disease pressure is expected and the lower rate when disease pressure is expected to be light unless otherwise noted.

To avoid spray drift, do not apply under windy conditions. Avoid spray overlap, as crop injury may result.

**MIXING PROCEDURES:** Add 1/4 to 1/2 of the required amount of water to the spray tank, add the proper amount of ULTRA FLOURISH, then add the rest of the water. When tank mixing other products with ULTRA FLOURISH, follow the proper sequence of adding products to the spray tank. Wettable powders or water dispersible granules should be added to the water in the tank first, followed by flowable products, with emusifiable concentrates, such as ULTRA FLOURISH, added last. Provide sufficient agitation during mixing and application to maintain a uniform emulsion.

ULTRA FLOURISH is usually compatible with Balan<sup>®</sup>, Bravo<sup>®</sup>, Dasanit<sup>®</sup> + Di-Syston<sup>®</sup>, Dithane<sup>®</sup> M-22, Dithane<sup>®</sup> M-45, Dasanit<sup>®</sup> + Nemacur<sup>®</sup>, Dasanit<sup>®</sup>, D.z.n<sup>®</sup>, Enide<sup>®</sup>, Furadan<sup>®</sup>, Lorsban<sup>®</sup>, Manzate<sup>®</sup>, Manzate<sup>®</sup> 200, Mocap<sup>®</sup>, Mocap<sup>®</sup> Plus 4-2EC, Paartan<sup>®</sup>, Terraclor<sup>®</sup> 2E, Terraclor<sup>®</sup> 75W, Terraclor<sup>®</sup> 400, Turfade<sup>®</sup>400, Terrazole<sup>®</sup> 35%WP, Terraguard<sup>®</sup> 50WP and Tillam<sup>®</sup>.

To assure the compatibility of ULTRA FLOURISH with these and other products, pour the products into a small container of water in the correct proportions. After thorough mixing, let stand for 5 minutes. If the combination remains mixed, or can be re-mixed readily, the mixture is compatible.

For banded applications, the area actually is the area covered by the band, not total cropland area planted. Some row-crop recommendations are based on treating in-the-row and these rates generally are specified as amounts (fl. oz.) of product per certain row length (often 1,000 ft.). Others express rates as amount per treated acre,

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which means the total area treated with the pesticide. If rates are expressed as amount per treated acre and banded applications are used, the amount of pesticide used per acre will be proportionately less. The following formula can be used to calculate the amount of ULTRA FLOURISH needed per acre of crop when banded applications are made.

Calculate the amount of ULTRA FLOURISH needed for band treatment by the formula:

$$\frac{\text{band width in inches}}{\text{row spacing in inches}} \times \text{broadcast rate per acre} = \text{amount needed per acre of field}$$

**GENERAL APPLICATION INSTRUCTIONS**

Apply ULTRA FLOURISH by ground or air in sufficient water or liquid fertilizer to provide uniform coverage of the soil surface. Apply in a minimum of 20 gallons per acre for ground applications and 5 gallons per acre by air. Refer to the specific crop directions for use for application recommendations.

**BEFORE TANK MIXING ULTRA FLOURISH WITH OTHER REGISTERED PRODUCTS FOR ANY USE ON THIS LABEL, READ THE LABEL OF THE TANK MIX PARTNER TO BE CERTAIN IT IS LABELED FOR USE ON THE PARTICULAR CROP AND THAT USE PATTERNS ARE COMPATIBLE WITH THOSE OF ULTRA FLOURISH .**

**APPLICATION THROUGH IRRIGATION SYSTEM**

ULTRA FLOURISH, alone or in combination with other pesticides, which are registered for application through irrigation systems, may be applied through irrigation systems. Apply this product only through center pivot, solid set, hand move, moving wheel, micro-sprinkler, pressurized drench (flood) or drip (trickle), micro-irrigation such as a spaghetti-tube or individual tube irrigation, hand-held calibrated irrigation equipment such as the hand-held wand with injector, calibrated overhead watering booms, ebb and flow or bench flooding sub-irrigation systems. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

ULTRA FLOURISH should be diluted with water on a 1/10 basis prior to injection into an irrigation system, proper tank-mix agitation is required during this mixing procedure.

If you have any questions about calibration, you should contact the State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide applications to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation, or under supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

## OPERATING INSTRUCTIONS

The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back-flow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

## APPLICATION INSTRUCTIONS

ULTRA FLOURISH must be applied on the schedule specified in the specific crop use recommendations, not according to the irrigation schedule.

With the exception of citrus, ULTRA FLOURISH has not been sufficiently tested when applied through irrigation systems to assure consistent product performance for all labeled uses. The following calibration and application techniques are provided for user reference, but do not constitute a warranty of fitness for application through sprinkler or drip irrigation equipment. Users must check with state and local regulatory agencies for potential use restrictions before applying any agricultural chemical through sprinkler or drip irrigation equipment.

**NOTE:** Do not inject ULTRA FLOURISH at full strength or deterioration of valves and seals may occur. Use a dilution ratio of at least 10 parts water to 1 part ULTRA FLOURISH in the mix tank. ULTRA FLOURISH is corrosive to many seal materials. Leather seals are best. EPDM or silicone rubber seals can be used, but should be replaced once a year. Do not use Viton, Buna-N, Neoprene or PVC seals.

## CENTER PIVOT IRRIGATION EQUIPMENT

**Use only with drive systems, which provide uniform water distribution**

Determine the size of the area to be treated. Determine the time required to apply 1/2 to 1 inch of water over the area to be treated when the system and injection equipment are operated at normal pressures recommended by the equipment manufacturer. Run the system at 80 to 95% of the manufacturer's rated capacity. Using water, determine the injection pump output when operated at normal line pressure. Determine the amount ULTRA FLOURISH required to treat the area

covered by the irrigation system. Add the required amount of ULTRA FLOURISH and sufficient water to the solution (mix) tank to meet the injection time requirements. Maintain constant solution tank agitation during the injection period. Continue to operate the system until all of the ULTRA FLOURISH solution has cleared the most distant sprinkler head.

#### **SOLID SET, HAND MOVE, AND MOVING WHEEL IRRIGATION EQUIPMENT**

Determine the acreage covered by the sprinklers. Fill injector solution tank with water and adjust flow rate to use the contents over a 20 to 30 minute interval. Determine the amount of ULTRA FLOURISH required to treat the area covered by the irrigation system. Add the required amount of ULTRA FLOURISH into the same quantity of water used to calibrate the injection period. Operate the system at the same pressure and time interval established during the calibration. Inject ULTRA FLOURISH at the end of the irrigation cycle in 1/2 to 1 inch of water or as separate application to maximize the effectiveness of the fungicide. Stop injection equipment after treatment is completed. Continue to operate the system until all of the ULTRA FLOURISH solution has cleared the last sprinkler head.

#### **MICRO SPRINKLER, DRIP IRRIGATION SYSTEMS, OVERHEAD WATERING BOOMS**

##### **General Instructions**

Each run of the irrigation system must be calibrated separately to determine the time it takes water to move through the system and to make sure all emitters in the system are putting out the same amount of water. Only pressure injection or venturi equipment is recommended. Determine the area to be treated in each irrigation run. Measure the output of each of the emitters or drip tubes closest to and farthest from the injector site. For calibration, substitute a concentrated detergent (such as Wisk) or a soluble fertilizer for the ULTRA FLOURISH in the injector tank. The detergent will bubble as it leaves the emitters. The time period over which bubbles occur should be checked for both the closest and farthest emitters. If these times are not within 2 minutes of each other, adjust the dilution ratio and/or the injection rate. If a soluble fertilizer is used, measure the time intervals with a salt bridge. If a drip system is being calibrated, substitute soluble fertilizer for the ULTRA FLOURISH in the injector and measure the time intervals with a salt bridge. (Step by step instructions) Before starting to calibrate, operate the system until all the emitters are putting out equal flow rates or until the system is operating at full pressure. Make up an indicator solution of detergent or fertilizer, using the same ratio to be used when mixing ULTRA FLOURISH. Set the injector to apply the indicator solution at the injection rate to be used in the actual ULTRA FLOURISH application. Attach a 5 inch length of flexible tubing over the emitter closest to the injection point, another length over the emitter farthest away. Both emitters should be monitored to determine the time intervals that the indicator solutions are observed. Begin injecting the indicator solution. Direct the flow from the tubes at the emitters into a small container. Begin timing when the indicator solution is first detected, stop timing when the indicator solutions are no longer detected. If the period of detection of the indicator solution between the 2 emitters is within 2 minutes of each other, comparable coverage will be obtained. If they are not, make adjustments by increasing the dilution ratio, using more water per part of ULTRA FLOURISH, or adjust the injector to a slower flow

rate. Once the system is calibrated, dilute the needed amount of ULTRA FLOURISH with water using a minimum of 10 part of water to 1 part ULTRA FLOURISH. Do not begin to inject ULTRA FLOURISH into the system until all emitters are producing equal flow rates, or until the system is at full pressure. Inject the ULTRA FLOURISH into the system at the end of the irrigation set in 1/2 to 1 inch of irrigation water.

#### **CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS**

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days of the year.

Chemigation systems connected to public water systems must contain a functional, reduced pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water systems should be discharged into a reservoir tank prior to pesticide introduction.

There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where the pesticide distribution is adversely affected.

Systems must use a metering pump, as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

#### **CROPS**

Use on the crops listed below is for field use only and is not intended for use on transplant trays, greenhouses, lath houses, float houses, hydroponic production, or in bedding plant structures.

#### **ASPARAGUS**

Ultra Flourish will control crown rot and spear rot caused by *Phytophthora* spp. Apply 2 pts. per acre as a broadcast spray in a minimum of 10 gallons of water over the beds.



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### **Cutting Beds**

Apply 30-60 days before first cutting. For additional control, make another application just before the beginning of harvest.

### **New Plantings**

Apply after planting seedlings or after covering one year old crowns.

Note: Do not apply Ultra Flourish within one day of harvest, or possible illegal residues may result.

### **CITRUS**

**(Includes Grapefruits, Lemons, Limes, Oranges, Tangelos, Tangerines, Citrus Citron, Kumquats And Hybrids Of These):** use ULTRA FLOURISH on citrus for control of *Citrus Foot Rot, Root Rot, and Trunk Cankers caused by Phytophthora spp.* ULTRA FLOURISH can be applied as a topical canker application and as a soil application, as a spray or through sprinkler or drip irrigation systems. If trees are on a drip irrigation system, distribute the amount of ULTRA FLOURISH needed per tree (see tables) to the soil directly under the drip emitters at each tree. If there is more than one emitter per tree, distribute the total amount of ULTRA FLOURISH needed among the emitters.

**NOTE:** Where nematodes are a problem, best results can be achieved if effective EPA registered nematicides are used. Nematicides can be used in combination or in sequence with ULTRA FLOURISH applications.

**Precaution:** For best *Phytophthora* control, a combination of cultural practices and resistant varieties is recommended. The use of ULTRA FLOURISH is not recommended in Florida for use on the highly susceptible sweet orange rootstock.

### **Citrus in Nurseries**

**(Arizona, California, Florida and Puerto Rico Only)** Make the first application of ULTRA FLOURISH at the time of planting. Make repeat applications at 3-month intervals during the period when trees are actively growing. For banded applications, use a band wide enough to cover the root systems of the plants. Do not apply ULTRA FLOURISH solutions to bare roots.

### **Soil Drench**

Apply 2 to 3 fl. oz./100 gallons of water as a drench over the row at a rate of 100 to 250 gallons/1000 ft. of row. The width of the drench treatment should be wide enough to cover the root systems of the plants. Follow with 1/2 to 1 inch irrigation over the treated area.

### **Soil Surface Spray**

Apply 2 to 4 quarts per treated acre in a broadcast or banded surface spray to seedbeds, liners, or bedded stock in sufficient water to obtain thorough coverage. If applications are banded, the treated area should be wide enough to cover the root systems of the plants. Follow the applications with 1/2 to 1 inch irrigation over the treated areas.

**NOTE:** Do not use ULTRA FLOURISH for disease control in greenhouse nurseries.

**Citrus Resets or New Planting**

**(Arizona, California, Florida or Puerto Rico Only)** Make the first application of ULTRA FLOURISH to citrus resets or new planting at the time of transplanting. Make up to 3 additional applications per year at 3-month intervals or when root growth flushes occur.

**Water Ring Drench**

Mix 2 to 3 fl. oz./100 gallons of water. Apply 5 gallons of the mix around the base of each tree within the watering ring.

**Soil Surface Spray**

**(Arizona and California Only)** Apply 2 to 4 quarts per treated acre (1.5 to 3 fl.oz./1,000 sq. ft.) in sufficient water to obtain uniform coverage of the soil surface. Apply spray to the soil surface beneath the tree canopy or apply through irrigation water. If natural rainfall is not expected within 3 days of a soil surface application, irrigate with 1/2 to 1-inch water over the treated area. See instructions below for application through irrigation water.

**Soil Surface Spray**

**(Florida and Puerto Rico Only)** Apply 2 quarts per treated acre (1.5 fl.oz./1000 sq. ft.) under the canopy of the tree. Applications may be made through low volume irrigation systems at the rate of 1 pint per grove acre for trees less than 5 years old. Two or three applications per year are recommended. Applications may be made on a Spring + Summer, Summer + Fall, or Spring + Summer + Fall schedule.

**Established Planting**

**Soil Application**

**(Florida and Puerto Rico Only)** Apply 1 quart per treated acre to groves that have a *Phytophthora* propagule count of 10 to 20 per cubic centimeter (cc) of soil as a feeder root rot disease maintenance treatment. Applications may be made through low volume irrigation for trees 5 years or older at the rate of 1 pint per grove acre. Two to three applications per year are recommended. Applications may be made on a Spring + Summer, Summer + Fall, or Spring + Summer + Fall schedule. For groves with extremely high propagule counts (above 20 per cc of soil), apply 2 quarts per treated acre (make 2 to 3 applications at this dosage per year) to reduce the population.

**Soil Surface Spray**

**(Arizona and California only)** For best results, begin ULTRA FLOURISH applications during the Spring root-flush period. One or two additional applications per year can be made at 3-month intervals or to coincide with flushes of root growth. Use the following table to determine the proper rate based on tree size and the number of applications per year. For applications based on broadcast rates, use ULTRA FLOURISH at 2 to 4 quarts per acre (1.5 to 3 fl. oz./1000 sq. ft.) when 3 applications are planned and at 6 quarts per acre (4.5 fl. oz./1000 sq. ft.) when 2 applications are planned. Apply sufficient water to provide uniform coverage or apply

through irrigation water. See following instructions for application through irrigation water.

Diameter of Tree Canopy (ft)	Fl. Oz. of ULTRA FLOURISH per Ten Trees	
	2 Applications/Year	3 Applications/Year
5	0.75	0.5
10	3.8	2.5
15	7.5	5
20	15	10

### Trunk spray

**(Arizona, California, and Texas Only)** For Control of *Gummosis* caused by *Phytophthora* spp.: add 2 quarts of ULTRA FLOURISH to 3 gallons of water and spray the surface of the trunks using enough spray to thoroughly wet the cankers. ULTRA FLOURISH may be applied up to 3 times per year.

**NOTES:** (1) To avoid possible illegal residues, do not make trunk and soil applications to the same tree in the same cropping season. (2) Do not apply more than 3 gallons of ULTRA FLOURISH per treated acre per year.

**NOTE:** Application Through Irrigation Water (Sprinkler or Drip Irrigation Only): see comments and precautions in the GENERAL INSTRUCTIONS section of this label. Inject ULTRA FLOURISH into the irrigation water at rates specified in the table above. ULTRA FLOURISH should be diluted with water on a 1/10 basis prior to injection into an irrigation system, proper tank-mix agitation is required during this mixing procedure.

### COLE CROPS

Ultra Flourish applied as a soil application at planting will control damping-off caused by *Pythium* spp. And basal stem rot caused by *Phytophthora* spp. Applications may be made preplant incorporated or as a soil surface spray after planting.

#### Preplant Incorporated Application

Apply 2 to 4 pints per treated acre as a broadcast soil application in sufficient water or liquid fertilizer to provide uniform coverage and incorporate into the top 2 inches of soil. For control of *Pythium* damping-off only use ½ to 1 pint per acre. For banded application, a seven-inch band is recommended. Use the formula in the General Instructions section of this label to calculate the amount of Ultra Flourish needed per acre.

#### Surface Application

Apply 2 to 4 pints per treated acre at planting in sufficient water or liquid fertilizer to provide uniform coverage. For banded application, a seven-inch band is recommended. Use the formula in the General Instructions section of this label to calculate the amount of Ultra Flourish needed per acre. If natural rainfall is not expected before the seeds start

to germinating, Ultra Flourish should be incorporated mechanically before planting or be moved into the seed zone after planting with ½ to 1 inch irrigation.

Note: (1) Do not use Ultra Flourish for disease control in greenhouse or field grown vegetable bedding plants. (2) Do not dip plants in solutions containing Ultra Flourish or crop injury may occur. (3) Do not use Ultra Flourish as a transplant water treatment.

### **Cotton**

*Seedling Diseases and Seed Rots of Cotton caused by Pythium spp.:* At planting time, apply an in-furrow spray of 2 to 4 fl. ozs. per 13,000 linear feet of row (0.15 to 0.3 fl.oz./1,000 linear feet) in 5 to 15 gallons of water or liquid fertilizer. Mount spray nozzles so the spray is directed into the furrow over the seed and adjacent soils just before the seeds are covered.

For broader spectrum seedling disease control, ULTRA FLOURISH can be tank mixed with 3 to 6 pints of Terraclor 2E® per acre or, as a unit pack alternative, use labeled rates of Terraclor Super X®EC, or Terraclor Super X 18.8 granule.

**NOTE:** When ULTRA FLOURISH is applied with Terraclor 2E or any other product, observe the most restrictive precautions and restrictions that appear on either of the products' label.

### **CUCURBIT VEGETABLES**

**Includes Bitter Pear (Bitter Melon), Chinese Waxgourd (Chinese Preserving Melon), Citron Melon, Cucumber, Gherkin, Edible Gourds, Cantaloupe, Casaba, Crenshaw, Honeydew Melon, Honey Balls, Mango Melon, Muskmelon, Persian Melon, Pumpkin, Summer Squash, Winter Squash, Watermelon, And Cucurbit Hybrids Only.** ULTRA FLOURISH applied at planting will provide control of *damping-off* and cottony leak caused by *Pythium ssp.* Applications may be made pre-plant incorporated or as a soil surface spray after planting.

#### **Pre-plant Incorporated Application**

Apply 2 to 4 pints per treated acre as a broadcast soil application in sufficient water or liquid fertilizer to provide uniform coverage and incorporate in the top 2 inches of soil. For banded applications, a 7-inch band is recommended. Use the formula in the GENERAL INSTRUCTIONS section of this label to calculate the amount of ULTRA FLOURISH needed per acre.

#### **Surface Application**

Apply 2 to 4 pints per treated acre at planting in sufficient water or liquid fertilizer to provide uniform coverage. For banded applications, a 7-inch band is recommended. Use the formula in the GENERAL INSTRUCTIONS section of this label to calculate the amount ULTRA FLOURISH needed per acre. If natural rainfall is not expected before the seeds start germinating, ULTRA FLOURISH should be incorporated mechanically before planting or be moved into the seed zone after planting with 1/2 to 1 inch sprinkler irrigation.

**NOTES:** (1) Do not use ULTRA FLOURISH for disease control in greenhouse crops (2) Do not dip plants in solutions containing ULTRA FLOURISH, or crop injury may occur.

## LEAFY VEGETABLES

Includes Celery, Garden Cress, Upland Cress, Endive, Fennel, Lettuce (Head And Leaf), Parsley, Rhubarb, Spinach And Swiss Chard. ULTRA FLOURISH when applied as a soil application will control *damping-off* caused by *Pythium spp.* in leafy vegetables and *white rust (Albugo occidentalis)* and *downy mildew* in spinach. Applications may be made banded over the row, preplant incorporated or injected with liquid fertilizer.

### Preplant Incorporated Applications

Apply 2 to 4 pints per treated acre as a soil application in sufficient water or liquid fertilizer to provide uniform coverage and incorporate in the top 2 inches of soil. For banded applications, a minimum of a 7-inch band is recommended. Use the formula in the GENERAL INSTRUCTIONS section of this label to calculate the amount of ULTRA FLOURISH needed per acre.

### Surface Application

Apply 2 to 4 pints per treated acre at planting in sufficient water or liquid fertilizer to provide uniform coverage. For banded applications, a minimum of a 7-inch band is recommended. Use the formula in the GENERAL INSTRUCTIONS section of this label to calculate the amount of ULTRA FLOURISH needed per acre. If natural rainfall is not expected before the seeds start germinating, ULTRA FLOURISH should be incorporated mechanically before planting or be moved into the seed zone after planting with 1/2 to 1 inch sprinkler irrigation.

*White Rust and Downy Mildew Control (Spinach Only):* in addition to the preplant incorporated or surface application described above, apply 8 fl. ozs. of ULTRA FLOURISH per acre shacked in 21 days after planting or after the first cutting. One other application may be shake in after the next cutting. If less that the full bed is treated, use the formula in the GENERAL INSTRUCTIONS section to determine the amount of ULTRA FLOURISH needed per acre. If ULTRA FLOURISH is injected into the beds with liquid fertilizer, base calculations on a 7-inch band. A total of 2 supplemental 8 fl. ozs. applications may be used on 21-day interval. Use sufficient mechanical or bypass agitation to keep the ULTRA FLOURISH mixed with the water or fertilizer.

**NOTE:** (1) The additional applications of ULTRA FLOURISH noted above and made after each cutting by shanking with fungicide into the beds along with liquid fertilizer provide continuing control of *white rust*. However white rust can only be controlled in a preventative disease control program that begins with an application of ULTRA FLOURISH to the soil at planting. If ULTRA FLOURISH is not used at planting, do not use ULTRA FLOURISH at any other time throughout the season. Do not apply ULTRA FLOURISH in foliar applications or in situations where *white rust* infections are already established. The use of ULTRA FLOURISH in curative applications greatly increases the risk of the fungus developing insensitivity to mefenoxam. The development of insensitivity will destroy the effectiveness of ULTRA FLOURISH in controlling *white rust*. (2) Do not harvest spinach within 21 days of an ULTRA FLOURISH application. (3) Do not use ULTRA FLOURISH for disease control in greenhouse crops. (4) Do not apply more than 5 1/2 pints of ULTRA FLOURISH per

growing season in spinach. (5) Do not exceed a total of 1.4 lbs. a.i. per acre of mefenoxam per growing season.

## ONIONS

### (Dry Bulb,\* Green\*\*, and Onions Grown for Seed)

\*Includes garlic, onions (dry bulb), and shallots (dry bulb).

\*\*Includes green onions, leeks, spring onions or scallions, Japanese bunching onions, green shallots, or green eschalots.

ULTRA FLOURISH applied at planting will control *damping-off* caused by *Pythium* spp. Applications may be made preplant incorporated or as a soil surface spray after planting.

### Preplant Incorporated Application

Apply 1 to 2 pints per treated acre as a broadcast soil application in sufficient water or liquid fertilizer to provide uniform coverage and incorporate in the top two inches of soil. For banded application, a seven inch band is recommended. Use the formula in the General Information section of this label to calculate the amount of ULTRA FLOURISH needed per acre.

### Surface Application

Apply 1 to 2 pints per treated acre at planting in sufficient water or liquid fertilizer to provide uniform coverage. For banded application, a seven inch band is recommended. Use the formula in the General Information section of this label to calculate the amount of ULTRA FLOURISH needed per acre. If natural rainfall is not expected before the seeds start germinating, ULTRA FLOURISH should be incorporated mechanically before planting or be moved to the seed zone after planting with 1/2 to 1-inch sprinkler irrigation.

**NOTE:** Do not use ULTRA FLOURISH for disease control in greenhouse or field-grown vegetable bedding plants.

## PEPPERS AND EGGPLANT

Soil applications of ULTRA FLOURISH will control *damping-off* caused by *Pythium* spp. and *crown rot* caused by *Phytophthora capsici*. ULTRA FLOURISH must be applied to the soil before the plants are infected with *Phytophthora* to obtain satisfactory disease control. Apply 1 quart per treated acre at the time of planting in sufficient water (20 to 50 gallons) or liquid fertilizer to provide uniform coverage. If rainfall is not expected before the plants begin growth, ULTRA FLOURISH should be incorporated mechanically before planting or be moved into the root zone after planting with 1/2 to 1 inch of sprinkler irrigation water. For banded applications, a 12 to 16-inch band is recommended. After the initial application, 2 supplemental post-directed applications at 1 quart per treated acre should be made at 30-day intervals. The spray should be directed at the base of the plants and cover 6 to 8 inches of soil on either side of the plants. Such applications must be incorporated mechanically or by sprinkler irrigation to move the ULTRA FLOURISH into the root zone. ULTRA

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FLOURISH may be applied with liquid fertilizer shanked in as a band treatment to either side of the plant. Use the formula in the GENERAL INSTRUCTIONS section of this label to calculate the amount of ULTRA FLOURISH needed per acre. If ULTRA FLOURISH is injected into the beds with liquid fertilizer, base calculations on a 7-inch band.

**Precautions:** (1) ULTRA FLOURISH may cause some yellowing of the pepper leaves. (2) Plants already infected with *Phytophthora* cannot be cured with ULTRA FLOURISH applications. (3) The foliar blight phase of *Phytophthora* cannot be controlled with foliar applications of ULTRA FLOURISH. (4) Do not use ULTRA FLOURISH for disease control in greenhouses. (5) In areas where there is a history of late *Phytophthora* infections, an application of another EPA-registered fungicide labeled for *Phytophthora* control is recommended 17 to 21 days following the last ULTRA FLOURISH application.

**NOTE:** To avoid possible illegal residues, (1) Do not apply within 7 days of harvest, and (2) Do not apply more than 6 pints of ULTRA FLOURISH per acre of crop per season.

**POTATOES**

ULTRA FLOURISH will provide effective control of Pythium leak caused by *Pythium spp.*, pink rot caused by *Phytophthora erythroseptica*, and seedling disease caused by *Pythium spp.*

Apply up to 0.84 ounces of product per 1,000 linear feet of row on a 6" to 8" band at planting in a minimum of 3 gallons of water per acre. Make application directly over the seed piece(s) prior to row closure.

See chart below for use rates:

**Suggested Use Rates Per Acre According to Row Spacing**

Row Spacing	Linear ft./acre	Fl. oz. per acre
38 in.	13,756	11.6
36 in.	14,520	12.2
34 in.	15,374	13

A foliar application of Flouronil™ at tuber initiation may be warranted:

- When conditions are conducive for disease development.
- When variety planted is susceptible or moderately susceptible (pink rot/Pythium leak).
- In areas with a long growing season.

ULTRA FLOURISH may be impregnated on dry fertilizer provided the 0.84 ounces per 1,000 linear feet of row is not exceeded and placement is in a 6 " to 8" band incorporated within the planted hill. ULTRA FLOURISH may be applied with Admire®. ULTRA FLOURISH may be applied in combination with liquid fertilizers.

**PRECAUTIONS:** (1) Do not use the "dribble" application method with Admire<sup>®</sup>, (2) Apply mixture through approved pumping systems only, and (3) Do not combine ULTRA FLOURISH with other chemistry or modify application directions. (4) To avoid development of insensitivity in the pathogen population, do not apply ULTRA FLOURISH to potatoes beyond the at-planting growth stage.

#### **ROOT AND TUBER VEGETABLES\***

Includes artichoke (Jerusalem), beet (sugar\*\* and table), carrot, cassava, chicory, dasheen (taro), ginger, horseradish, parsnip, radish, rutabaga, salsify, sweet potato, tanager, turnip, and jams.

\*See Note at end of section.

\*\*See separate section for **Sugar Beets**.

ULTRA FLOURISH applied to the soil at planting will provide control of diseases caused by *Pythium* and *Phytophthora* spp. Applications may be made preplant incorporated or as a soil surface spray after planting.

#### **Preplant Incorporated Application**

Apply 2 to 4 pints ULTRA FLOURISH per treated acre as a broadcast soil application in sufficient water or liquid fertilizer to provide uniform coverage and incorporate in the top 2 inches of soil. For banded applications, a 7-inch band is recommended. Use the formula in the GENERAL INSTRUCTIONS section of this label to calculate the amount of ULTRA FLOURISH needed per dose.

#### **Surface Application**

Apply 2 to 4 pints ULTRA FLOURISH per treated acre at planting in sufficient water or liquid fertilizer to provide uniform coverage. For banded applications, a 7-inch band is recommended. Use the formula in the GENERAL INSTRUCTIONS section of this label to calculate the amount of ULTRA FLOURISH needed per acre. If natural rainfall is not expected before the seeds start germinating, ULTRA FLOURISH should be incorporated mechanically before planting or be moved into the seed zone after planting with ½ to 1-inch sprinkler irrigation.

**NOTE:** Do not use ULTRA FLOURISH for disease control in greenhouse or field-grown vegetable bedding plants.



## SUGAR BEETS

ULTRA FLOURISH will provide control of diseases caused by *Pythium* spp. Applications may be preplant incorporated or as a surface spray at planting.

### Preplant Incorporated Application

Apply 2 to 4 pts. per treated acre as a broadcast soil application in sufficient water or liquid fertilizer and incorporate in the top two inches of soil. For banded applications, a 7 inch band is recommended. Use the formula in the GENERAL INSTRUCTIONS section of this label to calculate the amount of ULTRA FLOURISH needed per acre.

### Surface Application

Apply 2 to 4 pts. per treated acre at planting in sufficient water or liquid fertilizer to provide uniform coverage. For banded applications, a 7 inch band is recommended. Use the formula in the GENERAL INSTRUCTIONS section of this label to calculate the amount of ULTRA FLOURISH needed per acre. If natural rainfall is not expected before the seeds begin germinating, ULTRA FLOURISH should be incorporated mechanically before planting or be moved into the seed zone after planting with 1/2 to 1-inch sprinkler irrigation.

## TOBACCO

ULTRA FLOURISH is a soil-applied systemic fungicide for use in the field before transplanting for control of *black shank* (*Phytophthora parasitica*, var. *Nicotianae*) and *blue mold* (*Peronospora tabacina*) on all types of tobacco. For control of *Anthraco*se and other tobacco diseases, use fungicides that control those diseases.

**NOTES:** (1) Do not use ULTRA FLOURISH for disease control in greenhouse crops. (2) Do not dip plants in solutions containing ULTRA FLOURISH, or crop injury may occur. (3) Do not use ULTRA FLOURISH for disease control in floathouse, floatbed production facilities, hydroponic production, or greenhouse facility. (4) Do not use ULTRA FLOURISH as a transplant water treatment.

### Field Planted Tobacco

*Blue Mold:* apply ULTRA FLOURISH as a broadcast soil application prior to transplanting and incorporate in the top 2 to 4 inches of soil before forming beds. For flue-cured tobacco, use 1 to 2 pints per treated acre, depending on disease pressure and length of control desired. Under low disease pressure or for early season control, use 1 pint per treated acre. For burley and other tobacco types, use 1 quart per treated acre.

For prolonged control of *blue mold:* in field planted tobacco, make a supplemental application of 1 pint per acre of crop as a soil application at lay-by or the last cultivation. Position the nozzles so that the spray is deposited under the plants and is covered by soil by the cultivator. Do not make this application if more than 1 quart per acre of ULTRA FLOURISH was applied prior to transplanting or if no ULTRA FLOURISH was applied prior to transplanting.

**NOTE:** For best control of *blue mold*, Use ULTRA FLOURISH in the field plant bed and follow with an application in the field prior to transplanting. Do not use ULTRA FLOURISH in transplant water or in foliar applications on field tobacco because of the potential for the development of insensitivity in the *blue mold* fungus, crop injury, or potential excessive residues in the crop.

**Black Shank:** use ULTRA FLOURISH as a broadcast soil application prior to transplanting and incorporate in the top 2 to 4 inches of soil before forming beds. Apply ULTRA FLOURISH using conventional ground application equipment in sufficient water or liquid/dry fertilizer to provide uniform coverage. Use the following table to determine the amount of ULTRA FLOURISH needed per acre depending on the *black shank* severity.

Type of Tobacco	Disease Level in Field	Rate of ULTRA FLOURISH per Acre
Flue-Cured	Low to Moderate (Less than 6% Disease)	1 qt.
	High (More than 6% Disease)	2 qts.*
Burley and Other**	Low to Moderate (Less than 6% Disease)	2 qts.
	High (More than 6% Disease)	3 qts.

\*FL and GA-Use 3 qts. per treated acre of ULTRA FLOURISH in fields with heavy black shank levels (greater than 6%).

\*\* PA-Do not use ULTRA FLOURISH for black shank control.

For prolonged control of *black shank* in field planted tobacco, one of the following is recommended: (1) Make a preplant incorporated and a supplemental lay-by application (last cultivation). Apply the supplemental application at last cultivation at the rate of 1 to 2 pints per acre as a soil treatment. Position the nozzles so that the spray is deposited under the plants and is covered with soil by the cultivator. Do not make this application if more than 1 quart per acre of ULTRA FLOURISH was applied at transplanting; or (2) Make a preplant incorporated plus 2 supplemental applications at first cultivation and last cultivation (lay-by). Apply ULTRA FLOURISH at 1 quart per acre just prior to transplanting followed by a second application of 1 quart per acre at the first cultivation followed by a third application of 1 quart per acre at lay-by or the last cultivation.

**Precautions:** (1) For best results against black shank, use ULTRA FLOURISH with tobacco varieties that have high resistance to *black shank* and use crop rotation. In fields where there is a history of severe *black shank*, use the highest rate and plant a variety that is resistant to the race of *Phytophthora* present in the field. (Burley L8 hybrids are only resistant to *Phytophthora* Race O.) (2) ULTRA FLOURISH is not recommended for use in high black shank areas on highly susceptible flue-cured varieties. (3) Failure to adequately control nematodes in fields treated with ULTRA FLOURISH may result in poor control of black shank.

#### No Till Tobacco

Apply ULTRA FLOURISH to the field prior to transplanting for control of black shank and blue mold on all types of tobacco. Apply 1 to 2 pints per treated acre as a pre-plant, broadcast, or banded soil application. For banded applications, use the

formula in the GENERAL INSTRUCTIONS section of this label to calculate the amount of ULTRA FLOURISH needed per acre. A supplemental lay-by application may be made 30 to 35 days after planting at 1 pint per acre. Do not make the lay-by application if more than 1 quart per acre of ULTRA FLOURISH was applied at transplanting or if no ULTRA FLOURISH was applied at transplanting.

## TOMATOES

Soil applications of ULTRA FLOURISH at planting will provide control of *damping-off* caused by *Pythium spp.* Soil applications applied 4 to 12 weeks before harvest under the vines will control fruit and root rot caused by *Pythium spp.* and *Phytophthora spp.*

*Damping-off (Pythium spp.):* apply 1 to 2 quarts per treated acre in sufficient water or liquid fertilizer to provide uniform coverage at the time of planting. If rainfall is not expected before the seeds start to germinate, ULTRA FLOURISH should be incorporated mechanically before planting, during the planting operation, or be moved into the seed zone after planting with 1/2 to 1 inch sprinkler irrigation. For banded applications, a 7-inch band is recommended. Use the formula in the GENERAL INSTRUCTIONS section of this label to calculate the amount of ULTRA FLOURISH needed per acre.

*Root and Fruit Rot (Phytophthora spp. and Pythium spp.):* to aid in the control of *root and fruit rot*, 1 to 2 additional applications may be made during the growing season, depending on the severity of the conditions for disease infection. Apply 1 quart per treated acre beginning 4 to 6 weeks after planting. A second application of 1 quart may be made as needed up to 4 weeks before harvest, but before the last irrigation. ULTRA FLOURISH may be applied as a directed soil surface spray under the vines or it may be injected into the beds with liquid fertilizer. If less than the full bed is treated, use the formula in the GENERAL INSTRUCTIONS section to determine the amount of ULTRA FLOURISH needed per acre. If ULTRA FLOURISH is injected into the beds with liquid fertilizer, base calculations on a 7-inch band.

If soil surface sprays are used, ULTRA FLOURISH must be incorporated into the soil with 1/2 to 1 inch of rainfall or sprinkler irrigation.

ULTRA FLOURISH may be applied with water or liquid fertilizer. Use the test in the GENERAL INSTRUCTIONS section to check for compatibility with various fertilizers.

**NOTES:** (1) To avoid possible illegal residues, do not apply more than 3 quarts per treated acre per season. (2) Keep ULTRA FLOURISH suspended in the fertilizer solution with bypass or mechanical agitation. Refer to the GENERAL INSTRUCTIONS section for drip irrigation instructions. (3) Do not use ULTRA FLOURISH for disease control in greenhouse crops. (4) Do not use ULTRA FLOURISH as a transplant water treatment.

## REPLANTING

If replanting is necessary, additional applications of ULTRA FLOURISH may be made, provided that the total amount of mefenoxam applied does not exceed the maximum allowed for the specific crop.

**ROTATION (PLANTBACK) RESTRICTIONS**

Do not plant any crop that is not registered for use with mefenoxam in mefenoxam-treated soil for a period of 12 months unless a shorter interval is specified on the following list.

<b>Rotation Crop</b>	<b>Planting Time from Last ULTRA FLOURISH Application</b>
Alfalfa (including birdsfoot trefoil), Almonds,	0 days
Apples, Asparagus, Avocados	0 days
Blueberries	0 days
Citrus, Clover, Cole Crops, Cotton, Cranberries,	0 days
Cucurbit Vegetables.	0 days
Deciduous Fruits and Nuts*	0 days
Eggplant	0 days
Garlic, Ginseng, Grapes, Grasses**	0 days
Hops	0 days
Head Lettuce	0 days
Leafy Vegetable (excluding Brassica), Legume	0 days
Vegetables (beans and peas – succulent and	0 days
dried)	0 days
Onions (dry bulb , green, and seed)	0 days
Papaya, Peanuts, Peppers, Pineapples, Potatoes	0 days
Raspberries, Root and Tuber Vegetables	0 days
Soybeans, Spinach, Stone Fruits, Strawberries,	0 days
Sugar Beets	0 days
Tobacco, Tomatoes	0 days
Walnuts	0 days
Cereal Grains (other than Corn)	14 days
Corn	9 months
Crops Not Intended for Food or Feed	0 days
All Other Crops Intended for Food or Feed	12 months

\*

These crops and other perennial crops may be planted immediately following last application of Ultra Flourish provided they will not bear harvestable fruit within 12 months.

\*\* Any grass, Gramineae family (either green or cured), except the following. Do not apply to sugarcane; to any of the following that will be fed to or grazed by livestock: barley, buckwheat, corn, millet (pearl or proso), oats, popcorn, rice, rye, sorghum, teosinte, triticale, wheat, or wild rice; or to any enclosed pasture grasses or grasses grown for hay or silage, such as bermudagrass, bluegrass, bromegrass, or fescue.

## ORNAMENTALS

ULTRA FLOURISH controls *water mold, damping off, root rot, stem rot* and *crown rot* diseases caused by *Pythium spp.* and *Phytophthora spp.* ULTRA FLOURISH can be used on a wide variety of container, bed and bench grown ornamental plants in greenhouses, shadehouses, nurseries, fields, landscapes and interior scapes.

ULTRA FLOURISH can be applied to the soil through irrigation systems, as a soil drench, as a soil surface spray, or as a soil incorporated mix prior to or at seeding or transplanting according to the guidelines below. When a rate range and application interval is recommended, use the lower rates for the shortest application intervals listed and higher rates for longer application intervals. ULTRA FLOURISH can be tank mixed with other ornamental fungicides, however, do not mix with other products unless prior use has proven compatibility.

For soil drench applications, use enough of the specified ULTRA FLOURISH water solution to wet the root zone of the plants. In general, 1 pt. (16 fl. ozs.) per sq. ft. of this solution is sufficient for ornamentals growing in containers or benches with 4 inches of growth media or less. Containers or benches with growing media greater than 4 inches generally require 1 ½ to 2 pts. (24 to 32 fl. ozs.) of solution per sq. ft. Where soil surface applications are made, irrigate with at least 1/2 inch of water if rainfall does not occur within seven days of the application.

**FOLIAGE PLANTS:** aglaonema, aphelandra, dieffenbachia, peperomia, philodendron\*, pothos\*\*, schefflera, sedum, sempervivum, zygocactus.

**Drench:** Mix 0.12 - 0.6 fl. oz. with 100 gals. of water. Apply 1 pt. of solution per sq. ft. For growth media depth greater than 4 inches, apply 1 ½ -2 pts. of solution per sq. ft. Repeat applications at 2 to 3-month intervals, if necessary. \*On Philodendron, use 0.2-1.0 fl. oz./100 gals. *Precaution: To minimize the potential for injury to Pothos, do not use more than 0.38 fl. oz./100 gals. and do not apply more frequently than once every 3 months.*

**Soil Mix:** Thoroughly mix 0.06-0.26 fl. oz. with each cu. yd. of soil mixture.

**Soil Surface Spray:** Apply 1.0 fl. oz./1,000 sq. ft. to the soil surface in a broadcast or banded spray in sufficient water to obtain thorough coverage of the plant root zone. After application, irrigate with a minimum of ½ inch of water if rainfall does not occur within 7 days.

**BEDDING PLANTS:** ageratum, algerian ivy, artemisia, aster, begonia, caladium, carnation, chrysanthemum, coleus, daisy, english ivy, foxglove, gailardia, Geranium, Impatiens, marigold, pansy, petunia, phlox, pinks, primrose, prostrate rosemary, salvia, snapdragon, verbena, vinca, zinnia. Do not apply to English ivy more than once every 6 months.

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**Drench At Seeding** (Soil 2-3 inches deep): Mix 0.26-0.5 fl. oz. with 100 gals. of water and apply 1 pt. of solution per sq. ft.

**Drench At Transplanting** (Soil 2-3 inches deep): Mix 0.2-1.0 fl. oz. with 100 gals. of water and apply 1 pt. of solution per sq. ft. Repeat applications at 1 to 2-month intervals, if necessary. Do not apply rates of 0.75-1 Fl. oz./100 gals. more often than once every 6 weeks.

**Soil Mix At Seeding and At Transplanting:** Thoroughly mix 0.26 fl. oz. with each cu. Yd. Of soil mixture.

**Soil Surface Spray:** Apply 1.0 fl. oz./1,000 sq. ft. to the soil surface in a broadcast or banded spray in sufficient water to obtain thorough coverage of the plant root zone. After application, irrigate with a minimum of ½ inch of water if rainfall does not occur within 7 days.

**FLOWERS:** african violet, anthurium, baby's breath, carnation, chrysanthemum, columbine, delphinium, easter lily, geranium, gloxinia, poinsettia, rose, Do not apply more than .5 fl. oz. per 100 gallons to Easter Lilies and only make a single application at the time of planting.

**Drench:** Mix 0.2- 1 fl. oz. with 100 gals. of water and apply 1 pt. of solution per sq. ft. For growth media depth greater than 4 inches, apply 1 ½-2 pts. Of solution per sq. ft. Repeat applications at 1 to 2-month intervals, if necessary. Do not apply rates of 0.76-1.0 fl. oz./100 gals. more often than every 6 weeks.

**Soil drench applications at the time of transplanting:** Mix 0.25 – 1 fl. oz. of Ultra Flourish EC in 100 gals. of water. For media with a depth of less than 4 inches, apply at a volume of 16 fl. ozs. per sq. ft. For media with a depth of 4 inches or more, apply at a volume of 24-32 fl. ozs. per sq. ft. Repeat applications at 4-12 week intervals as needed. Do not apply rates greater than 0.75 fl. ozs. per 100 gals. more than once every 6 weeks. Do not exceed rates of 0.75 fl. ozs. per 100 gallons on foliage plants.

#### **Soil surface spray applications in the landscape**

Apply 1 fl. ozs./1000 sq. ft. to the soil surface in a broadcast or banded spray in sufficient water to obtain thorough distribution of the plant root zone. After application, irrigate with a minimum of a 1/2 inch of water if rainfall does not occur within 7 days. Repeat applications at 2 to 3 month intervals as needed.

#### **Soil media incorporation**

Thoroughly mix 0.13 to 0.25 fl. oz. of ULTRA FLOURISH into each cubic yard of soil media. Do not exceed .13 fl. oz./cu. yard in medias to be used for bedding plants.

## **Plant Tolerance**

Plant tolerance to ULTRA FLOURISH has been shown to be acceptable on a wide variety of bedding, flowering, and foliage plants, as well as trees and shrubs. But due to the large number of species and varieties, neither the manufacturer nor the seller has determined whether or not ULTRA FLOURISH can be used safely on all ornamental plants. Prior to any large-scale application on such plants, the user must determine the safety of ULTRA FLOURISH by testing a small number of the type of plants to be treated at the recommended rates and under the desired growing conditions. The user assumes all risks arising out of application to untested plants.

## **AZALEAS**

### **Soil drench applications**

Mix 0.26 to 1.25 fl. ozs. of ULTRA FLOURISH in 100 gallons of water. For media with a depth of less than 4 inches, apply at a volume of 16 fl. ozs. per sq. ft. For media with a depth of 4 inches or more, apply at a volume of 24 to 32 fl. ozs. per sq. ft. Repeat applications at two to four month intervals as needed.

Do not apply rates greater than 1.25 fl. oz. per 100 gallons more than once every three months, and do not exceed a total of 2.5 fl. ozs. in six months. Use only the lower rate for azalea variety "Coral Bell".

### **Foliar spray applications for control of *Phytophthora shoot blight*:**

Mix 0.6 to 1.25 fl. ozs. of ULTRA FLOURISH in 100 gallons of water and spray to runoff. Repeat at 2 to 3 month intervals as needed.

## **WOODY ORNAMENTALS OTHER THAN AZALEAS**

*Aucuba japonica*, Arborvitae, Boxwood, Ceanothus, Cotoneaster, Dogwood, Ficus, "Halls" Honeysuckle, Ilex, *Juniperus spp.*, Photinia, *Pieris japonica*, *Pinus spp.*, Pittosporum, Rhododendron, White Cedar, White Pine, Yew.

**Drench:** Mix 0.4-2.0 fl. oz. with 100 gals. of water and apply 1 pt. of solution per sq. ft. For growth media depth greater than 4 inches, apply 1 ½-2 pts. of solution per sq. ft. Repeat applications at 2 to 3-month intervals, if necessary. Do not apply rates of 4 fl. oz./100 gals. more often than every 10 weeks.

**Soil Surface Spray:** Apply 0.5-2.5 fl. oz./1,000 sq. ft. to the soil surface in a broadcast or banded spray in sufficient water to obtain thorough coverage of the plant root zone. After application, irrigate with a minimum of ½ inch of water if rainfall does not occur within 7 days.

## INTERIOR SCAPE AND INDIVIDUAL PLANT USE

In situations where water volumes used are much less than 100 gals. and the area to be treated is small, the following table provides the ULTRA FLOURISH rates to make small quantities of the solution. Refer to the plant type for the correct fl. ozs. of product to use when utilizing this table.

Rate of ULTRA FLOURISH (fl. ozs./100 gals.)	Amount of ULTRA FLOURISH to add to water to make the following quantities			
	1 gallon	5 gallons	10 gallons	25 gallons
0.25	1 drop	5 drops	9 drops	22 drops 1.9 mls. 3/8 tsp.
0.5	2 drops	9 drops	18 drops 1/3 tsp.	44 drops 3.7 mls. 3/4 tsp.
1.0	4 drops	18 drops 1/3 tsp.	36 drops 2/3 tsp.	88 drops 7.5 mls 1 1/2 tsp.
2.0	7 drops	36 drops 2/3 tsp.	72 drops 6 mls. 1 1/4 tsp.	1/2 fl. oz. 15 mls. 3 tsp.

## CITRUS IN NURSERIES AND LANDSCAPES (NONBEARING)

For control of *citrus foot rot*, *root rot* and *trunk canker* caused by *Phytophthora spp.*: ULTRA FLOURISH can be applied to non-bearing citrus grown in nurseries and landscape plantings. Applications should be made to the soil as a drench or as a banded spray, with initial applications made at the time of planting. Repeat applications can be made at three month intervals during periods of active growth.

### Soil drench applications

Mix 2 to 3 fl. ozs. of ULTRA FLOURISH in 100 gallons of water. Apply as a drench over the row using a volume of 100 to 250 gallons per 1000 ft. of row. The width of the application should be wide enough to cover the root system of the plants.

### Soil surface spray applications

Apply 1 gallon per acre of treated soil in a broadcast or banded surface spray to seedbeds, liners, or bedded stock in sufficient water to obtain thorough coverage. For banded treatments, the treated area should be wide enough to cover the root system of the plants. Application should be followed by a minimum of 1/2 inch of irrigation.

**Note:** Do not use in greenhouse citrus nursery stock intended for commercial fruit production.



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## CONIFERS/CHRISTMAS TREES IN NURSERIES AND PLANTATIONS

For control of *Phytophthora root rot* in conifers.

### Seedbeds and Plugs

Apply 1.25 pints of ULTRA FLOURISH in a minimum of 50 gallons of water per acre in the Spring and again in the Fall.

### 2-0 Transplants

Apply 2.5 pints of ULTRA FLOURISH in a minimum of 50 gallons of water per acre in the Spring and again in the Fall.

### Plantations

ULTRA FLOURISH will aid in the control of *Phytophthora root rot* when used in conjunction with good cultural practices, but will not overcome poor practices such as planting on flood prone or poor draining sites.

Apply 0.6 to 1.25 gallons of ULTRA FLOURISH in a minimum of 50 gallons of water per acre as a directed soil spray. Do not apply to the foliage. Make applications in the early Spring before active growth begins and again in the Fall before the ground freezes. For best results, apply 1/2 to 1-inch of irrigation if rain does not occur within three days of application.

## DECIDUOUS NONBEARING FRUIT AND NUT TREES

ULTRA FLOURISH is effective in the control of *Pythium root rot* and *Phytophthora root rot*, *crown rot* and *collar rot* of nonbearing deciduous fruit and nut trees. Apply 3 fl. ozs. of ULTRA FLOURISH per 1000 sq. ft. in sufficient water to obtain thorough coverage of the soil underneath the canopy of the trees. Treat enough area to cover the root zones of the plants. Repeat applications may be made at three month intervals as needed during the growing season.

Do not apply to trees that will bear harvestable fruit or nuts within 12 months of the last application.

Do not apply more than 8.8 fluid ozs. per 1000 square feet (or 3 gallons per acre) of ULTRA FLOURISH in any one year.

## LAWNS AND TURF

ULTRA FLOURISH is effective for the control of *pythium blight* (*cottony blight*, *grease spot*, *spot blight*, *root rot*, *crown rot*) and *damping off* caused by *Pythium spp.*: ULTRA FLOURISH is also effective in controlling *yellow tuft* (*downy mildew*) in bluegrass and *downy mildew* in St. Augustine grass.

ULTRA FLOURISH can be applied to the turf through irrigation systems or as a surface spray. When a rate range and application interval is recommended, use the lower rates for the shortest application intervals listed, and higher rates for longer application intervals. For broad spectrum disease control, ULTRA FLOURISH can be

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tank mixed with other turf fungicides, however, do not mix with other products unless prior use has proven compatibility.

#### **ESTABLISHED LAWNS AND TURF**

Apply 0.5 to 1 fl. oz. of ULTRA FLOURISH in 1 to 5 gallons of water per 1000 sq. ft. as a preventative treatment. Retreat at 10 to 21 day intervals as needed. During conditions favorable to disease development, apply the 1 fl. oz. rate on a 14 day schedule.

#### **NEWLY SEEDED LAWNS AND TURF**

Apply 0.5 to 1 fl. oz. of ULTRA FLOURISH in 1 to 5 gallons of water per sq. ft. immediately after seeding and irrigate with 1/4 to 1/2 inch of water. During conditions favorable to disease development, retreat at 7 to 14 day intervals.

**NOTE:** For long term control of *Pythium* in areas when using seed treated with the active ingredient contained in ULTRA FLOURISH, make an application of ULTRA FLOURISH 7 to 10 days after seeding.

**Precautions:** To minimize the potential for resistance, it is recommended that no more than three applications of the active ingredient mefenoxam may be made per season. It is also recommended that fungicides of a different chemical class be applied in rotation between applications of ULTRA FLOURISH .

### **PRECAUTIONARY STATEMENTS**

#### **HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

#### **WARNING/AVISO**

Causes substantial, but temporary eye injury. Do not get in eyes or on clothing. Avoid contact with skin. Harmful if swallowed, or absorbed through the skin. Wash thoroughly with soap and water after handling.

#### **PERSONAL PROTECTIVE EQUIPMENT**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category G on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear long-sleeved shirt and long pants, chemical-resistant gloves, such as barrier laminate or viton, shoes plus socks and protective eyewear. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **ENGINEERING CONTROL STATEMENTS**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for

agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### USER SAFETY RECOMMENDATIONS

**Users Should:**

Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.  
Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

#### ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Apply only as specified on this label. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment wash water or rinsate.

#### PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

#### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

**PESTICIDE STORAGE:** Store at temperatures above 40°F. Crystals may form at lower storage temperatures. If this occurs, place the product in a warm room (68°F or above) and roll or shake the container at frequent intervals until all crystals are dissolved.

**PESTICIDE DISPOSAL:** Open dumping is prohibited. Wastes resulting from the use of this product are acutely toxic. Improper disposal of unused pesticide, spray mixture, or rinsate is a violation of federal law. Pesticide, spray mixture, or rinsate that cannot be used according to the label instruction must be disposed of according to federal, state, or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office.

**CONTAINER DISPOSAL:** Do not reuse empty container. Triple rinse (or equivalent) and offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration or by open burning, if allowed by state and local authorities. If burned, keep out of smoke. For minor spills, leaks, etc. follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call (800) 424-9300, day or night.

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**WARRANTY STATEMENT**

**Nufarm Americas Inc** warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth on the label when used according to directions under normal use conditions. **THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.** This warranty does not extend to the handling or use of this product contrary to label instructions or under abnormal conditions or under conditions not reasonably foreseeable to seller and buyer assumes all risk of any such use.

Nufarm Americas Inc – AGT Division

SugarLand, Texas

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