



**Algaecide,  
Bactericide  
& Fungicide**  
**For Control of Plant Pathogens**

**ACTIVE INGREDIENTS**

Hydrogen Peroxide.....	6.9%
Peroxyacetic Acid.....	4.4%
Octanoic Acid.....	3.3%
<b>INERT INGREDIENTS.....</b>	<b>85.4%</b>
<b>Total.....</b>	<b>100.00%</b>



STATE OF HAWAII  
Department of Agriculture

**ACCEPTED**  
**LICENSE NO. 9713.6**

**KEEP OUT OF REACH OF CHILDREN**  
**DANGER PELIGRO**

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.)

SEE ATTACHED LABEL BROCHURE FOR DIRECTIONS  
FOR USE AND PRECAUTIONARY STATEMENTS.

**CONTENTS:** **96 Fl. Ounces**

U.S. Pat. Nos. 6,165,483; 6,024,986; 6,238,685  
E.P.A. REG. NO. 49538-4  
E.P.A. EST. NO. 60156-IL-1 (SI), 1677-IL-2 (J),  
1677-MN-1 (P), 1677-CA-2 (R)  
Superscript refers to first letter of date code.  
718683/5300/0508 **X096 - Series 001**

**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 the 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 Inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further 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.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**Note to Physician:** Probably mucosal damage may contraindicate the use of gastric lavage.



**Phyton Corporation**  
5608 International Parkway  
New Hope, MN 55428  
1-800-356-8733  
[www.phytoncorp.com](http://www.phytoncorp.com)



**PRECAUTIONARY STATEMENTS**  
**HAZARD TO HUMANS**  
**& DOMESTIC ANIMALS**

**DANGER:** Corrosive. Causes irreversible eye damage and skin burns. May be fatal if inhaled or absorbed through the skin. Harmful if swallowed. Do not get in eyes, on skin, or on clothing. Do not breathe vapor or spray mist.





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& Fungicide**  
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- 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 inhaled:**

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.
- Call a poison control center or doctor for further treatment advice.

**If Swallowed:**

- Call a poison control center or doctor immediately for treatment advice.
- Have a 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.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

**DIRECTIONS FOR USE**

It is a violation of 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. Do not apply when wind speed favors drift beyond the area intended for treatment. 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, 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 statements on this label about personal protective equipment (PPE) and restricted entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard. Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of two (2) hours for fogging applications only. There is a restricted entry interval (REI) of zero (0) hours for all other application methods. PPE Required for early entry to treated areas (that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water), is:-  
Chemical resistant suit-  
Chemical-resistance headgear (if applied by fogging); and-  
Dust/mist/filtering respirator (if applied by fogging).  
Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

**NON-AGRICULTURAL USE REQUIREMENT**

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

**Keep unprotected persons out of treated areas until sprays have dried.**

US0706

**PRECAUTIONARY STATEMENTS  
HAZARD TO HUMANS & DOMESTIC ANIMALS**

**DANGER:** Corrosive. Causes irreversible eye damage and skin burns. May be fatal if inhaled or absorbed through the skin. Harmful if swallowed. Do not get in eyes, on skin, or on clothing. Do not breathe the vapor or spray mist.

**Personal Protective Equipment (PPE)**

When handling concentrate, wear protective eyewear (goggles or face shield) and rubber gloves. Applicators and other handlers must wear:  
Coveralls over long-sleeved shirt and long pants and chemical resistant footwear plus socks.  
For handling activities during air blast, mist blower, fine droplets, mist, fog, or direct overhead, use either a respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N, R, P or HE prefilter.  
Follow 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.

**USER SAFETY RECOMMENDATIONS**

Users should:  
Wash hands thoroughly with soap and water 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.  
Remove PPE immediately after handling this product. Wash the outside of gloves before removing.  
As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

**FOR TERRESTRIAL USES:** Keep out of lakes, ponds and streams. This pesticide is toxic to birds and fish. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of washwater or rinsate.

This product is highly toxic to bees and other beneficial insects exposed to direct contact on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. Do not apply this product or allow it to drift to crops where beneficial insects are part of an integrated pest management strategy.

**PHYSICAL OR CHEMICAL HAZARDS**

Strong oxidizing agent. Corrosive. Do not use in concentrated form. Mix only with water according to label instructions. Never bring concentrate in contact with other pesticides, cleaners, or oxidative agents.

For spills, you may contact CHEMTREC at 1-800-424-9300.

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE**—Store in original container in a cool, well-ventilated area, away from direct sunlight. Do not allow product to become overheated in storage. This may cause degradation of the product, which will decrease product effectiveness. In case of spill, flood area with large quantities of water. Do not store in a manner where cross-contamination with other pesticides or fertilizers could occur.

**PESTICIDE DISPOSAL**—Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance

**CONTAINER DISPOSAL**—Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**X3™ treatment for prevention and control of diseases in Commercial Greenhouses, Garden Centers, Landscapes, Nurseries, and Interiorscapes.**

**FOR HORTICULTURAL AND COMMERCIAL USE ONLY – NOT FOR USE ON FOOD CROPS**

**GENERAL DIRECTIONS:**

X3™ may be used as a fungicide & bactericide on bedding plants, flowering plants, roses, poinsettia, ornamentals, nursery stock, trees, cut flowers, bulbs, cuttings, seedlings, seeds and seedbeds. X3™ may be used as a fungicide & algaecide on greenhouse structures, benches, pots, watering systems, evaporative coolers, storage rooms, ventilation equipment, floors and other equipment.

**Activity** Prevents and Controls algae, Alternaria, Anthracnose, Black Spot, Botrytis, Downy Mildew, Erwinia, Fusarium, Leaf Spot, Pseudomonas, Pythium, Phytophthora, Powdery Mildew, Rhizoctonia, Rust, Scab, Smut, Thielaviopsis, Xanthomonas, Wilts and Blights.

**Mixing** X3™ will readily mix with clean, neutral water and does not require agitation. For best results, use water with a neutral pH and with low levels of organic or inorganic materials. Rinse spray tank thoroughly before mixing concentrate. Add one-half of the desired volume of water to the mixing or spray tank. Add X3™ to water in tank and allow to stand for two minutes. Fill tank with the remaining half of water volume.

**Compatibility** Do not use higher than recommended dilution rates as leaf burn may result. X3™ has been designed to provide a balanced source of the active ingredients directly to the plant surface and has been shown not to cause adverse cosmetic effects on most plants when used at the recommended rates. Since testing has not been done on all plant species, it is advisable to test X3™ on a few plants before treating large numbers. X3™ is a strong oxidizing agent and may react with residues of metal-based fungicides or supplements. Care should be used when applying X3™ as a foliar spray immediately following foliar applications of metal-based products. Check all chemicals to be mixed for their physical compatibility with X3™ using a jar test.

1. Use desired dilution of X3™ with water in a sealable container.
2. Add other chemicals one at a time.
3. Shake container and observe for gas bubbles or foaming.
4. Do not mix X3™ with other products if gas bubbles develop or pressure is noticed in container.

**SPECIFIC DIRECTIONS AND RATES:**

**TREATING SURFACES**

X3™ can be used to control fungi and algae on greenhouse structures, glazing, plastic, benches, walkways, floors, walls, fan blades, ventilation ducts, watering systems, coolers, storage rooms and equipment.

1. Sweep and remove all plant debris. Use power washer to clean all surfaces and to remove loose debris.
2. Use a dilution of 1:1500 of clean water. Use a dilution of 1:250 of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits.
3. Apply with a mop, sponge, power sprayer or fogger to thoroughly wet and cover all surfaces. Allow solution to remain in contact with surfaces for a minimum of 10 minutes, allow to air dry.
4. Heavy algae and fungal growth may have to be removed by scrubbing, followed by a wash with X3™.
5. Reapply as often as needed for control.

**For Clean, Non-Porous Surfaces** - use a dilution of 1:500 to 1:1500 of clean water. Spray until run-off.

**For Uncleaned, Porous and Non-Porous Surfaces, and Benches** - Sweep and remove all plant debris. Use a power sprayer to wash all surfaces to remove loose dirt. Use a dilution of 1:150 of clean water if the surfaces have not been pre-cleaned.

**For Cutting Tools** - Use a dilution of 1:300 to 1:1000 of clean water. Soak tools to ensure complete coverage.

**For Foot Bath Mats** - Make a solution using 1/4 fl. oz. of X3 per gallon of water and fill foot bath mat to capacity. Change solution as needed.

**TREATING WATER**

**For Evaporative Coolers** - Treat existing algae contaminated surfaces with a 1:500 dilution of clean water. Treat cooler water every week with a dilution of 1:2500 of cooler water.

**For Irrigation Systems (flooded floors, flooded benches, recycled water systems, capillary mats, humidification and misting systems)** - Treat already contaminated water with a dilution of 1:2500 of water. Treat clean water with a dilution of 1:50,000 of water.

**For Mist Propagation of Cuttings and Plugs** - Inject X3™ into misting system using a 1:5000 dilution rate, for four to ten consecutive days. Increase dilution rate to 1:25,000 and maintain continuous application throughout the propagation cycle. At the first sign of disease, decrease the dilution of X3™ to 1:5000.

## TREATING PLANTS

**As a Pre-Plant Treatment** - Use X3™ to control/suppress damping off, root and stem rot diseases such as Pythium, Phytophthora, Rhizoctonia, Fusarium, and Thielaviopsis on ornamental and nursery plants, seeds, seedlings, bulbs, or cuttings. Use a dilution of 1:500 with clean water. Immerse plants or cuttings. Remove and allow to drain. Do not rinse.

**As a Soil or Media Drench** - X3™ controls/suppresses soil borne diseases such as Pythium, Phytophthora, Rhizoctonia, Thielaviopsis or Fusarium. Use a drench at the time of seeding or transplanting, as well as periodic drenches throughout the crop cycle. X3™ can also be used as a pre-plant treatment of potting soil or growing medium. For curative applications, use a dilution of 1:500 of clean water. Apply sufficient volume to saturate the growing media. Wait 15 minutes before planting, transplanting or watering. For preventive applications, use a 1:2500 dilution in clean water.

**As a Foliar Spray in Greenhouses** - X3™ works immediately on contact with any plant surface to control/suppress fungi and bacteria. Apply X3™ to ornamentals, bedding plants, flowering plants, shrubs, and trees. Thorough coverage and wetting of the foliage is needed for optimal efficacy. For curative applications, use a dilution of 1:500 of clean water. Do not reuse already mixed solution. Make a fresh solution for each application. Apply for one to three consecutive days and then follow directions for preventive treatment. For preventive applications, use a dilution of 1:1500 of clean water. Apply every five to seven days as a preventive treatment. At the first sign of disease, spray daily with 1:500 dilution for three consecutive days and then resume weekly preventive applications. Spray or mist plants in early morning or late evening for optimal plant safety. Thoroughly wet all plant surfaces including upper and lower foliage, stems, branches and stalks. Apply at a rate of 100 gallons of spray mixture per acre.

**As a Foliar Spray in the Field (Outdoor Nurseries)** - X3™ works immediately on contact with any plant surface to control/suppress fungi and bacteria. Apply X3™ to nursery stock such as woody ornamentals, bedding plants, flowering plants, roses, container plants, azaleas, rhododendrons, conifers, and shade trees. Good coverage and wetting is necessary. For curative applications, use a dilution of 1:500 of clean water. Do not reuse already mixed solution. Make a fresh solution for each application. Apply for one to three consecutive days and then follow directions for preventive treatment. For preventive applications, use a dilution of 1:1500 of clean water. Apply every five to seven days as a preventive treatment. At the first sign of disease, spray daily with 1:500 dilution for three consecutive days and then resume weekly preventive applications. Spray, mist or fog plants and trees, including applications through irrigation and chemigation systems. Thoroughly wet all plant surfaces including upper and lower foliage, stems, branches and stalks. Apply at a rate of 100 gallons of spray mixture per acre.

**For Cut Flowers** - X3™ prevents fungal diseases such as Botrytis and Powdery Mildew on flowers in cold storage or in transit. Apply as a post-harvest treatment. Use a dilution of 1:2500 with clean water. Spray flowers after grading and prior to storage or shipment. Repeat application weekly for flowers in storage.

**For Bareroot Nursery Stock** - X3™ prevents Botrytis on budwood and nursery stock in storage. Use a dilution of 1:500 with clean water. Dip plants or spray to drip. Repeat weekly if necessary.

## CHEMIGATION APPLICATION INSTRUCTIONS:

Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues may cause product to lose effectiveness or strength.

Determine treatment rates as indicated in the directions for use and make proper dilutions. Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. The product will immediately go into suspension without any required agitation.

Do not apply in conjunction with any other pesticides or fertilizers, as this may cause reduced performance of the product.

## USE DIRECTIONS FOR CHEMIGATION

The following precautions must be observed when using this product in any type of irrigation system:

Apply this product only through overhead sprinkler, including center pivot, lateral move, end tow, side (wheel) roll, big gun, solid set, or hand move; drip (trickle); or flood (basin) irrigation system(s). Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.

Ensure that the irrigation system used is properly calibrated. If you have questions about calibration, you should contact State Extension specialists, equipment manufacturers or other experts.

Do not connect an irrigation system, (including greenhouse system), used for pesticide application to a public water system unless the pesticide 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.

## REQUIREMENTS FOR SPRINKLER & DRIP CHEMIGATION

Observe all the requirements in the USE DIRECTIONS FOR CHEMIGATION section and the following additional requirements:

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 backflow.

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.

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.

## 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 out 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 system 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 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 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.

## POSTING

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes, or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corner of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

## REQUIREMENTS FOR FLOOD CHEMIGATION

Observe all the requirements in the USE DIRECTIONS FOR CHEMIGATION section and the following additional requirements:

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from back flow if water flow stops. Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

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 backflow.

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.

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.

## WARRANTY:

Our recommendations for use of this product are based upon tests believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice, including but not limited to over-fertilization or senescing plant tissue. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions, abnormal conditions, presence of other materials, the manner of application, or other factors, all of which are beyond the control of the manufacturer. All such risks shall be assumed by the buyer. The exclusive remedy is the product purchase price. The buyer must assume all responsibility, including injury or damage, resulting from its misuse as such or in combination with other materials as tank mix or applied separately.

52911  
4 gal



## Algaecide, Bactericide & Fungicide

### For Control of Plant Pathogens

#### Active Ingredients

Hydrogen Peroxide .....	6.9%
Peroxyacetic Acid .....	4.4%
Octanoic Acid .....	3.3%
<b>Inert Ingredients</b> .....	<b>85.4%</b>
<b>Total</b> .....	<b>100.00%</b>

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**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have a 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. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

**KEEP OUT OF REACH OF CHILDREN  
DANGER PELIGRO**

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## FOR HORTICULTURAL AND COMMERCIAL USE ONLY – NOT FOR USE ON FOOD CROPS

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**ENVIRONMENTAL HAZARDS:** FOR TERRESTRIAL USES: Keep out of lakes, ponds and streams. This pesticide is toxic to birds and fish. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of washwater or rinsate. This product is highly toxic to bees and other beneficial insects exposed to direct contact on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. Do not apply this product or allow it to drift to crops where beneficial insects are part of an integrated pest management strategy.

**PERSONAL PROTECTIVE EQUIPMENT (PPE):** When handling concentrate, wear protective eyewear (goggles or face shield) and rubber gloves. Applicators and other handlers must wear: Coveralls over long-sleeved shirt and long pants and chemical resistant footwear plus socks. For handling activities during air blast, mist blower, fine droplets, mist, fog, or direct overhead, use either a respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N, R, P or HE prefilter. Follow 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.

**USER SAFETY RECOMMENDATIONS:** Users should: Wash hands thoroughly with soap and water 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. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### 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 the 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 INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have a 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. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

### STORAGE AND DISPOSAL

DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL.

**PESTICIDE STORAGE:** Store in original container in a cool, well-ventilated area, away from direct sunlight. Do not allow product to become overheated in storage. This may cause degradation of the product, which will decrease product effectiveness. In case of spill, flood area with large quantities of water. Do not store in a manner where cross-contamination with other pesticides or fertilizers could occur.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning if burned, stay out of smoke.

SEE ATTACHED LABEL BROCHURE FOR DIRECTIONS FOR USE AND PRECAUTIONARY STATEMENTS.



## DIRECTIONS FOR USE

It is a violation of 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. Do not apply when wind speed favors drift beyond the area intended for treatment. 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, 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 statements on this label about personal protective equipment (PPE) and restricted entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard. Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of two (2) hours for fogging applications only. There is a restricted entry interval (REI) of zero (0) hours for all other application methods. PPE Required for early entry to treated areas (that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water), is:-

Chemical resistant suit;

Chemical-resistance headgear (if applied by fogging); and-

Dust/mist/filtering respirator (if applied by fogging).

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

**NON-AGRICULTURAL USE REQUIREMENT:** The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries and greenhouses.

## Keep unprotected persons out of treated areas until sprays have dried.

**GENERAL DIRECTIONS:** X3™ may be used as a fungicide & bactericide on bedding plants, flowering plants, roses, poinsettia, ornamentals, nursery stock, trees, cut flowers, bulbs, cuttings, seedlings, seeds and seedbuds. X3™ may be used as a fungicide & algacide on greenhouse structures, benches, pots, watering systems, evaporative coolers, storage rooms, ventilation equipment, floors and other equipment.

**ACTIVITY** Prevents and Controls algae, Alternaria, Anthracnose, Black Spot, Botrytis, Downy Mildew, Erwinia, Fusarium, Leaf Spot, Pseudomonas, Pythium, Phytophthora, Powdery Mildew, Rhizoctonia, Rust, Scab, Smut, Thielaviopsis, Xanthomonas, Wilts and Blights.

**MIXING** X3™ will readily mix with clean, neutral water and does not require agitation. For best results, use water with a neutral pH and with low levels of organic or inorganic materials. Rinse spray tank thoroughly before mixing concentrate. Add one-half of the desired volume of water to the mixing or spray tank. Add X3™ to water in tank and allow to stand for two minutes. Fill tank with the remaining half of water volume.

**COMPATIBILITY** Do not use higher than recommended dilution rates as leaf burn may result. X3™ has been designed to provide a balanced source of the active ingredients directly to the plant surface and has been shown not to cause adverse cosmetic effects on most plants when used at the recommended rates. Since testing has not been done on all plant species, it is advisable to test X3™ on a few plants before treating large numbers. X3™ is a strong oxidizing agent and may react with residues of metal-based fungicides or supplements. Care should be used when applying X3™ as a foliar spray immediately following foliar applications of metal-based products. Check all chemicals to be mixed for their physical compatibility with X3™ using a jar test.

1. Use desired dilution of X3™ with water in a sealable container.

2. Add other chemicals one at a time.

3. Shake container and observe for gas bubbles or foaming.

4. Do not mix X3™ with other products if gas bubbles develop or pressure is noticed in container.

## SPECIFIC DIRECTIONS AND RATES:

**TREATING SURFACES:** X3™ can be used to control fungi and algae on greenhouse structures, glazing, plastic, benches, walkways, floors, walls, fan blades, ventilation ducts, watering systems, coolers, storage rooms and equipment.

1. Sweep and remove all plant debris. Use power washer to clean all surfaces and to remove loose debris.

2. Use a dilution of 1:1500 of clean water. Use a dilution of 1:250 of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits.

3. Apply with a mop, sponge, power sprayer or fogger to thoroughly wet and cover all surfaces. Allow solution to remain in contact with surfaces for a minimum of 10 minutes, allow to air dry.

4. Heavy algae and fungal growth may have to be removed by scrubbing, followed by a wash with X3™.

5. Reapply as often as needed for control.

**For Clean, Non-Porous Surfaces** - use a dilution of 1:500 to 1:1500 of clean water. Spray until run-off.

**For Uncleaned, Porous and Non-Porous Surfaces, and Benches** - Sweep and remove all plant debris. Use a power sprayer to wash all surfaces to remove loose dirt. Use a dilution of 1:150 of clean water if the surfaces have not been pre-cleaned.

**For Cutting Tools** - Use a dilution of 1:300 to 1:1000 of clean water. Soak tools to ensure complete coverage.

**For Foot Bath Mats** - Make a solution using 1/4 fl. oz. of X3 per gallon of water and fill foot bath mat to capacity. Change solution as needed.

## TREATING WATER

**For Evaporative Coolers** - Treat existing algae contaminated surfaces with a 1:500 dilution of clean water. Treat cooler water every week with a dilution of 1:2500 of cooler water.

**For Irrigation Systems (flooded floors, flooded benches, recycled water systems, capillary mats, humidification and misting systems)** - Treat already contaminated water with a dilution of 1:2500 of water. Treat clean water with a dilution of 1:50,000 of water.

**For Mist Propagation of Cuttings and Plugs** - Inject X3™ into misting system using a 1:5000 dilution rate, for four to ten consecutive days. Increase dilution rate to 1:25,000 and maintain continuous application throughout the propagation cycle. At the first sign of disease, decrease the dilution of X3™ to 1:5000.

## TREATING PLANTS

**As a Pre-Plant Treatment** - Use X3™ to control/suppress damping off, root and stem rot diseases such as Pythium, Phytophthora, Rhizoctonia, Fusarium, and Thielaviopsis on ornamental and nursery plants, seeds, seedlings, bulbs, or cuttings. Use a dilution of 1:500 with clean water. Immerse plants or cuttings. Remove and allow to drain. Do not rinse.

**As a Soil or Media Drench** - X3™ controls/suppresses soil borne diseases such as Pythium, Phytophthora, Rhizoctonia, Thielaviopsis or Fusarium. Use a drench at the time of seeding or transplanting, as well as periodic drenches throughout the crop cycle. X3™ can also be used as a pre-plant treatment of potting soil or growing medium. For curative applications, use a dilution of 1:500 of clean water. Apply sufficient volume to saturate the growing media. Wait 15 minutes before planting, transplanting or watering. For preventive applications, use a 1:2500 dilution in clean water.

**As a Foliar Spray in Greenhouses** - X3™ works immediately on contact with any plant surface to control/suppress fungi and bacteria. Apply X3™ to ornamentals, bedding plants, flowering plants, shrubs, and trees. Thorough coverage and wetting of the foliage is needed for optimal efficacy. For curative applications, use a dilution of 1:500 of clean water. Do not reuse already mixed solution. Make a fresh solution for each application. Apply for one to three consecutive days and then follow directions for preventive treatment. For preventive applications, use a dilution of 1:1500 of clean water. Apply every five to seven days as a preventive treatment. At the first sign of disease, spray daily with 1:500 dilution for three consecutive days and then resume weekly preventive applications. Spray or mist plants in early morning or late evening for optimal plant safety. Thoroughly wet all plant surfaces including upper and lower foliage, stems, branches and stalks. Apply at a rate of 100 gallons of spray mixture per acre.

**As a Foliar Spray in the Field (Outdoor Nurseries)** - X3™ works immediately on contact with any plant surface to control/suppress fungi and bacteria. Apply X3™ to nursery stock such as woody ornamentals, bedding plants, flowering plants, roses, container plants, azaleas, rhododendrons, conifers, and shade trees. Good coverage and wetting is necessary. For curative applications, use a dilution of 1:500 of clean water. Do not reuse already mixed solution. Make a fresh solution for each application. Apply for one to three consecutive days and then follow directions for preventive treatment. For preventive applications, use a dilution of 1:1500 of clean water. Apply every five to seven days as a preventive treatment. At the first sign of disease, spray daily with 1:500 dilution for three consecutive days and then resume weekly preventive applications. Spray, mist or fog plants and trees, including applications through irrigation and chemigation systems. Thoroughly wet all plant surfaces including upper and lower foliage, stems, branches and stalks. Apply at a rate of 100 gallons of spray mixture per acre.

**For Cut Flowers** - X3™ prevents fungal diseases such as Botrytis and Powdery Mildew on flowers in cold storage or in transit. Apply as a post-harvest treatment. Use a dilution of 1:2500 with clean water. Spray flowers after grading and prior to storage or shipment. Repeat application weekly for flowers in storage.

**For Bareroot Nursery Stock** - X3™ prevents Botrytis on budwood and nursery stock in storage. Use a dilution of 1:500 with clean water. Dip plants or spray to drip. Repeat weekly if necessary.

**CHEMIGATION APPLICATION INSTRUCTIONS:** Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues may cause product to lose effectiveness or strength. Determine treatment rates as indicated in the directions for use and make proper dilutions. Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. The product will immediately go into suspension without any required agitation. Do not apply in conjunction with any other pesticides or fertilizers, as this may cause reduced performance of the product.

**USE DIRECTIONS FOR CHEMIGATION:** The following precautions must be observed when using this product in any type of irrigation system: Apply this product only through overhead sprinkler, including center pivot, lateral move, end tow, side (wheel) roll, big gun, solid set, or hand move; drip (trickle); or flood (basin) irrigation system(s). Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. Ensure that the irrigation system used is properly calibrated. If you have questions about calibration, you should contact State Extension specialists, equipment manufacturers or other experts. Do not connect an irrigation system, (including greenhouse system), used for pesticide application to a public water system unless the pesticide 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.

**REQUIREMENTS FOR SPRINKLER & DRIP CHEMIGATION:** Observe all the requirements in the USE DIRECTIONS FOR CHEMIGATION section and the following additional requirements: 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 backflow. 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. 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.

**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 out 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 system 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 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 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.

#### POSTING

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes, or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses. Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corner of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period. All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

#### REQUIREMENTS FOR FLOOD CHEMIGATION

Observe all the requirements in the USE DIRECTIONS FOR CHEMIGATION section and the following additional requirements: Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from back flow if water flow stops. Systems utilizing a pressurized water and pesticide injection system must meet the following requirements: 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 backflow. 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. 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.

**WARRANTY:** Our recommendations for use of this product are based upon tests believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice, including but not limited to over-fertilization or senescing plant tissue. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions, abnormal conditions, presence of other materials, the manner of application, or other factors, all of which are beyond the control of the manufacturer. All such risks shall be assumed by the buyer. The exclusive remedy is the product purchase price. The buyer must assume all responsibility, including injury or damage, resulting from its misuse as such or in combination with other materials as tank mix or applied separately.



U.S. Pat. Nos. 6,165,483;  
6,024,986; 6,238,685  
E.P.A. REG. NO. 49538-4  
E.P.A. EST. NO. 60156-IL-1 (SI),  
1677-IL-2 (J), 1677-MN-1 (P), 1677-CA-2 (R)  
Superscript refers to first letter of date code.

718693/5300/0508

X004 - Series 001

**Phyton Corporation**  
5608 International Parkway  
New Hope, MN 55428  
1-800-356-8733  
[www.phytoncorp.com](http://www.phytoncorp.com)

# 52912

12 gal



## Algaecide, Bactericide & Fungicide For Control of Plant Pathogens

### Active Ingredients

Hydrogen Peroxide.....	6.9%
Peroxyacetic Acid.....	4.4%
Octanoic Acid.....	3.3%

<b>Inert Ingredients</b> .....	<b>85.4%</b>
<b>Total</b> .....	<b>100.00%</b>

### 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 the 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 INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have a 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. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

**KEEP OUT OF REACH OF CHILDREN  
DANGER PELIGRO**

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.)

CONTENTS:  4 Gallons  12 Gallons  50 Gallons  300 Gallons

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# ALGAECIDE, BACTERICIDE & FUNGICIDE For Control of Plant Pathogens

**X3™ treatment for prevention and control of diseases in Commercial Greenhouses, Garden Centers, Landscapes, Nurseries, and Interiorscapes.**

## FOR HORTICULTURAL AND COMMERCIAL USE ONLY – NOT FOR USE ON FOOD CROPS

### PRECAUTIONARY STATEMENTS

#### HAZARD TO HUMANS AND DOMESTIC ANIMALS

**DANGER: CORROSIVE.** Causes irreversible eye damage and skin burns. May be fatal if inhaled or absorbed through the skin. Harmful if swallowed. Do not get in eyes, on skin, or on clothing. Do not breathe vapor or spray mist.

**PHYSICAL OR CHEMICAL HAZARDS:** Strong oxidizing agent. Corrosive. Do not use in concentrated form. Mix only with water according to label instructions. Never bring concentrate in contact with other pesticides, cleaners, or oxidative agents. For spills, you may contact CHEMTREC at 1-800-424-9300.

**ENVIRONMENTAL HAZARDS: FOR TERRESTRIAL USES:** Keep out of lakes, ponds and streams. This pesticide is toxic to birds and fish. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of washwater or rinsate. This product is highly toxic to bees and other beneficial insects exposed to direct contact on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. Do not apply this product or allow it to drift to crops where beneficial insects are part of an integrated pest management strategy.

**PERSONAL PROTECTIVE EQUIPMENT (PPE):** When handling concentrate, wear protective eyewear (goggles or face shield) and rubber gloves. Applicators and other handlers must wear: Coveralls over long-sleeved shirt and long pants and chemical resistant footwear plus socks. For handling activities during air blast, mist blower, fine droplets, mist, fog, or direct overhead, use either a respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N, R, P or HE prefilter. Follow 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.

**USER SAFETY RECOMMENDATIONS:** Users should: Wash hands thoroughly with soap and water 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. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### 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 the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

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**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have a 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. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

### STORAGE AND DISPOSAL

DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL.

**PESTICIDE STORAGE:** Store in original container in a cool, well-ventilated area, away from direct sunlight. Do not allow product to become overheated in storage. This may cause degradation of the product, which will decrease product effectiveness. In case of spill, flood area with large quantities of water. Do not store in a manner where cross-contamination with other pesticides or fertilizers could occur.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

SEE ATTACHED LABEL BROCHURE FOR DIRECTIONS FOR USE AND PRECAUTIONARY STATEMENTS.



## DIRECTIONS FOR USE

It is a violation of 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. Do not apply when wind speed favors drift beyond the area intended for treatment. 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, 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 statements on this label about personal protective equipment (PPE) and restricted entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard. Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of two (2) hours for fogging applications only. There is a restricted entry interval (REI) of zero (0) hours for all other application methods. PPE Required for early entry to treated areas (that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water), is:-

Chemical resistant suit;

Chemical-resistance headgear (if applied by fogging); and-

Dust/mist/filtering respirator (if applied by fogging).

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

**NON-AGRICULTURAL USE REQUIREMENT:** The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries and greenhouses.

## Keep unprotected persons out of treated areas until sprays have dried.

**GENERAL DIRECTIONS:** X3™ may be used as a fungicide & bactericide on bedding plants, flowering plants, roses, poinsettia, ornamentals, nursery stock, trees, cut flowers, bulbs, cuttings, seedlings, seeds and seedbeds. X3™ may be used as a fungicide & algacide on greenhouse structures, benches, pots, watering systems, evaporative coolers, storage rooms, ventilation equipment, floors and other equipment.

**ACTIVITY** Prevents and Controls algae, Alternaria, Anthracnose, Black Spot, Botrytis, Downy Mildew, Erwinia, Fusarium, Leaf Spot, Pseudomonas, Pythium, Phytophthora, Powdery Mildew, Rhizoctonia, Rust, Scab, Smut, Thielaviopsis, Xanthomonas, Wilts and Blights.

**MIXING** X3™ will readily mix with clean, neutral water and does not require agitation. For best results, use water with a neutral pH and with low levels of organic or inorganic materials. Rinse spray tank thoroughly before mixing concentrate. Add one-half of the desired volume of water to the mixing or spray tank. Add X3™ to water in tank and allow to stand for two minutes. Fill tank with the remaining half of water volume.

**COMPATIBILITY** Do not use higher than recommended dilution rates as leaf burn may result. X3™ has been designed to provide a balanced source of the active ingredients directly to the plant surface and has been shown not to cause adverse cosmetic effects on most plants when used at the recommended rates. Since testing has not been done on all plant species, it is advisable to test X3™ on a few plants before treating large numbers. X3™ is a strong oxidizing agent and may react with residues of metal-based fungicides or supplements. Care should be used when applying X3™ as a foliar spray immediately following foliar applications of metal-based products. Check all chemicals to be mixed for their physical compatibility with X3™ using a jar test.

1. Use desired dilution of X3™ with water in a sealable container.
2. Add other chemicals one at a time.
3. Shake container and observe for gas bubbles or foaming.
4. Do not mix X3™ with other products if gas bubbles develop or pressure is noticed in container.

## SPECIFIC DIRECTIONS AND RATES:

**TREATING SURFACES:** X3™ can be used to control fungi and algae on greenhouse structures, glazing, plastic, benches, walkways, floors, walls, fan blades, ventilation ducts, watering systems, coolers, storage rooms and equipment.

1. Sweep and remove all plant debris. Use power washer to clean all surfaces and to remove loose debris.
2. Use a dilution of 1:1500 of clean water. Use a dilution of 1:250 of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits.
3. Apply with a mop, sponge, power sprayer or fogger to thoroughly wet and cover all surfaces. Allow solution to remain in contact with surfaces for a minimum of 10 minutes, allow to air dry.
4. Heavy algae and fungal growth may have to be removed by scrubbing, followed by a wash with X3™.
5. Reapply as often as needed for control.

**For Clean, Non-Porous Surfaces** - use a dilution of 1:500 to 1:1500 of clean water. Spray until run-off.

**For Uncleaned, Porous and Non-Porous Surfaces, and Benches** - Sweep and remove all plant debris. Use a power sprayer to wash all surfaces to remove loose dirt. Use a dilution of 1:150 of clean water if the surfaces have not been pre-cleaned.

**For Cutting Tools** - Use a dilution of 1:300 to 1:1000 of clean water. Soak tools to ensure complete coverage.

**For Foot Bath Mats** - Make a solution using 1/4 fl. oz. of X3 per gallon of water and fill foot bath mat to capacity. Change solution as needed.

## TREATING WATER

**For Evaporative Coolers** - Treat existing algae contaminated surfaces with a 1:500 dilution of clean water. Treat cooler water every week with a dilution of 1:2500 of cooler water.

**For Irrigation Systems (flooded floors, flooded benches, recycled water systems, capillary mats, humidification and misting systems)** - Treat already contaminated water with a dilution of 1:2500 of water. Treat clean water with a dilution of 1:50,000 of water.

**For Mist Propagation of Cuttings and Plugs** - Inject X3™ into misting system using a 1:5000 dilution rate, for four to ten consecutive days. Increase dilution rate to 1:25,000 and maintain continuous application throughout the propagation cycle. At the first sign of disease, decrease the dilution of X3™ to 1:5000.

## TREATING PLANTS

**As a Pre-Plant Treatment** - Use X3™ to control/suppress damping off, root and stem rot diseases such as Pythium, Phytophthora, Rhizoctonia, Fusarium, and Thielaviopsis on ornamental and nursery plants, seeds, seedlings, bulbs, or cuttings. Use a dilution of 1:500 with clean water. Immerse plants or cuttings. Remove and allow to drain. Do not rinse.

**As a Soil or Media Drench** - X3™ controls/suppresses soil borne diseases such as Pythium, Phytophthora, Rhizoctonia, Thielaviopsis or Fusarium. Use a drench at the time of seeding or transplanting, as well as periodic drenches throughout the crop cycle. X3™ can also be used as a pre-plant treatment of potting soil or growing medium. For curative applications, use a dilution of 1:500 of clean water. Apply sufficient volume to saturate the growing media. Wait 15 minutes before planting, transplanting or watering. For preventive applications, use a 1:2500 dilution in clean water.

**As a Foliar Spray in Greenhouses** - X3™ works immediately on contact with any plant surface to control/suppress fungi and bacteria. Apply X3™ to ornamentals, bedding plants, flowering plants, shrubs, and trees. Thorough coverage and wetting of the foliage is needed for optimal efficacy. For curative applications, use a dilution of 1:500 of clean water. Do not reuse already mixed solution. Make a fresh solution for each application. Apply for one to three consecutive days and then follow directions for preventive treatment. For preventive applications, use a dilution of 1:1500 of clean water. Apply every five to seven days as a preventive treatment. Spray daily with 1:500 dilution for three consecutive days and then resume weekly preventive applications. Spray or mist plants in early morning or late evening for optimal plant safety. Thoroughly wet all plant surfaces including upper and lower foliage, stems, branches and stalks. Apply at a rate of 100 gallons of spray mixture per acre.

**As a Foliar Spray in the Field (Outdoor Nurseries)** - X3™ works immediately on contact with any plant surface to control/suppress fungi and bacteria. Apply X3™ to nursery stock such as woody ornamentals, bedding plants, flowering plants, roses, container plants, azaleas, rhododendrons, conifers, and shade trees. Good coverage and wetting is necessary. For curative applications, use a dilution of 1:500 of clean water. Do not reuse already mixed solution. Make a fresh solution for each application. Apply for one to three consecutive days and then follow directions for preventive treatment. For preventive applications, use a dilution of 1:1500 of clean water. Apply every five to seven days as a preventive treatment. At the first sign of disease, spray daily with 1:500 dilution for three consecutive days and then resume weekly preventive applications. Spray, mist or fog plants and trees, including applications through irrigation and chemigation systems. Thoroughly wet all plant surfaces including upper and lower foliage, stems, branches and stalks. Apply at a rate of 100 gallons of spray mixture per acre.

**For Cut Flowers** - X3™ prevents fungal diseases such as Botrytis and Powdery Mildew on flowers in cold storage or in transit. Apply as a post-harvest treatment. Use a dilution of 1:2500 with clean water. Spray flowers after grading and prior to storage or shipment. Repeat application weekly for flowers in storage.

**For Bareroot Nursery Stock** - X3™ prevents Botrytis on budwood and nursery stock in storage. Use a dilution of 1:500 with clean water. Dip plants or spray to drip. Repeat weekly if necessary.

**CHEMIGATION APPLICATION INSTRUCTIONS:** Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injection system. Flush with clean water. Failure to provide a clean tank, void of scale or residues may cause product to lose effectiveness or strength. Determine treatment rates as indicated in the directions for use and make proper dilutions. Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. The product will immediately go into suspension without any required agitation. Do not apply in conjunction with any other pesticides or fertilizers, as this may cause reduced performance of the product.

**USE DIRECTIONS FOR CHEMIGATION:** The following precautions must be observed when using this product in any type of irrigation system: Apply this product only through overhead sprinkler, including center pivot, lateral move, end tow, side (wheel) roll, big gun, solid set, or hand move; drip (trickle); or flood (basin) irrigation system(s). Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. Ensure that the irrigation system used is properly calibrated. If you have questions about calibration, you should contact State Extension specialists, equipment manufacturers or other experts. Do not connect an irrigation system, (including greenhouse system), used for pesticide application to a public water system unless the pesticide 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.

**REQUIREMENTS FOR SPRINKLER & DRIP CHEMIGATION:** Observe all the requirements in the USE DIRECTIONS FOR CHEMIGATION section and the following additional requirements: 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 backflow. 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. 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

**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 out 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 system 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 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 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.

#### POSTING

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes, or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses. Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corner of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should fade away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period. All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

#### REQUIREMENTS FOR FLOOD CHEMIGATION

Observe all the requirements in the USE DIRECTIONS FOR CHEMIGATION section and the following additional requirements: Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from back flow if water flow stops. Systems utilizing a pressurized water and pesticide injection system must meet the following requirements: 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 backflow. 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. 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.

**WARRANTY:** Our recommendations for use of this product are based upon tests believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice, including but not limited to over-fertilization or senescing plant tissue. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions, abnormal conditions, presence of other materials, the manner of application, or other factors, all of which are beyond the control of the manufacturer. All such risks shall be assumed by the buyer. The exclusive remedy is the product purchase price. The buyer must assume all responsibility, including injury or damage, resulting from its misuse as such or in combination with other materials as tank mix or applied separately.



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