

Perox-Cide

Broad Spectrum Bactericide / Fungicide

Preventative treatment for growing plants, fruits, nuts and vegetables and for postharvest fruits, vegetables and other agricultural crops. A treatment for the prevention and control of plant pathogenic diseases in field grown crops, commercial greenhouses, storage sites and control of plant pathogenic diseases on crops after harvest. A treatment for the prevention and suppression/control of horticultural diseases in Commercial Greenhouses, Garden Centers, Landscapes, Nurseries, and Interiorscapes. A treatment for the prevention and control of plant pathogenic diseases on surfaces, equipment and structures used in processing postharvest commodities.

FOR AGRICULTURAL AND COMMERCIAL USE ONLY

ACTIVE INGREDIENT:

Hydrogen Dioxide 27.0%

OTHER INGREDIENTS:73.0%

TOTAL100.0%

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 this label, find someone to explain it to you in detail.)

FIRST AID

If in eyes	<ol style="list-style-type: none"> 1. Hold eye open and rinse gently with water for 15-20 minutes. 2. Remove contact lenses, if present after the first 5 minutes, then continue rinsing eye. 3. Call a poison control center or doctor for treatment advice.
If on skin or clothing	<ol style="list-style-type: none"> 1. Take off contaminated clothing. 2. Rinse skin immediately with plenty of water for 15-20 minutes. 3. Call a poison control center or doctor for treatment advice.
If swallowed	<ol style="list-style-type: none"> 1. Call a poison control center or doctor immediately for treatment advice. 2. Have person sip a glass of water if able to swallow. 3. Do not induce vomiting unless told to do so by the poison control center. 4. Do not give anything by mouth to an unconscious person.
If inhaled	<ol style="list-style-type: none"> 1. Move person to fresh air. 2. If person is not breathing, Call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. 3. Call a poison control center or doctor for further treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. National Poison Control Center Hot line 1-800-222-1222.	
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.	

 **CH₂O, Inc.**

Sold by:

Tumwater, WA 98501 / 360-943-6063

PRECAUTIONARY STATEMENTS

DANGER: HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CORROSIVE: Concentrate causes irreversible eye damage. Concentrate may be fatal if swallowed or absorbed through skin. Concentrate causes skin irritation or temporary discoloration on exposed skin. Do not breathe vapor of concentrate. Do not get concentrate in eyes, on skin or on clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

When handling concentrate wear protective eyewear (goggles or face shield) and rubber gloves. Applicators and handlers must wear coveralls over long-sleeved shirt, long pants, and chemical resistant footwear plus socks. If no such instructions exist for washables, use detergent and hot water. Follow manufacturer's instructions for cleaning/maintaining PPE.

USER SAFETY RECOMMENDATIONS

Users should wash hands thoroughly with soap and water before eating, drinking, chewing gum, using tobacco or using the toilet. Users should 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 inter-tidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of wash waters. 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 beneficials are part of an Integrated Pest Management strategy.

PHYSICAL AND CHEMICAL HAZARDS

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

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. 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 Interval (REI). The requirements in this box only apply to the uses of this product that are covered by the Worker Protection Standard.

For enclosed environments:

There is a restricted entry of one (1) hour for this product when applied via fogging or spraying to growing plants, surfaces, equipment, structures and non-porous surfaces in enclosed environments such as glasshouses and greenhouses. PPE requirement 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 coveralls, waterproof gloves and shoes plus socks.

There is a restricted entry of zero (0) hours for pre-plant dip, soil drench, mop, sponge, dip, soak, rinse or other non-spraying or fogging application. methods when used in enclosed environments such as glasshouses and greenhouses.

For field applications:

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

Non-Agricultural Use Requirements

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 or greenhouses.

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

NOP: Ingredients in this product meet the requirements of the USDA National Organic Program.

DIRECTIONS FOR USE:

Perox-Cide works best when diluted with water containing low levels of organic or inorganic materials, and with water having a neutral pH. Thoroughly rinse out tank with water before mixing concentrate. Perox-Cide will readily mix with clean, neutral water and does not require agitation. Do not combine with any other pesticide or fertilizer. Perox-Cide is formulated with a minimal amount of surfactant for plants having waxy or hairy surfaces. Additional surfactant may be added, if needed. The use of additional surfactant is acceptable.

Perox-Cide works by surface contact with the plants and materials being treated. It is important to ensure that all surfaces are thoroughly wetted. Perox-Cide does not produce any visible residue, distinct odor or deleterious effects to plants or to postharvest commodities when used in accordance with label directions. Do not use at higher than recommended dilution rates as leaf burn may result. Do not apply this product through any irrigation system unless directed by the label; refer to Chemigation Directions for Use.

APPLICATION DIRECTIONS:

Ornamentals, Nursery Stock, Trees and Cut Flowers

Perox-Cide may be used as a fungicide on bedding plants, flowering plants, roses, poinsettia, ornamentals, nursery stock, trees, cut flowers, bulbs, seedlings, seeds, seedbeds and cuttings.

For mist propagation of cuttings and plugs (NOT FOR USE IN CALIFORNIA): Inject Perox-Cide into misting system to control/suppress algae, fungi and bacteria disease from becoming established on plant material. Inject Perox-Cide using a 1:1000 dilution rate, for four to ten days consecutively. Reduce concentration to 1:5000 and maintain continuous application throughout the propagation cycle. At the first sign of disease, increase the concentration of Perox-Cide to 1:1000.

Pre-Plant Dip Treatment -

Use Perox-Cide for the control of damping-off, root disease and stem rot disease caused by *Pythium*, *Phytophthora*, *Rhizoctonia*, *Fusarium* or *Thielaviopsis*, on seeds, seedlings, bulbs, or cuttings.

- 1) Mix 64 fl. oz. per 50 gallons of water.
- 2) Immerse plants or cuttings; remove and allow to drain. Do not rinse.

Seed Treatment -

Use Perox-Cide for the control of damping-off, root disease and stem rot disease caused by *Pythium*, *Phytophthora*, *Rhizoctonia*, *Fusarium* or *Thielaviopsis*, on seeds of seed sprout crops such as mung bean, red clover, soybeans and alfalfa, and on crops grown exclusively for seed for planting.

- 1) Mix 64 fl. oz. Perox-Cide per 50 gallons of water.
- 2) Immerse seeds and let soak for two minutes; remove and allow to drain. Do not rinse.

Do not use treated seed for food or feed purposes or process for oil. Treat only those seeds needed for immediate use, minimizing the interval between treatments at planting. Do not store excess treated seeds beyond planting time.

Seed treatments on agricultural establishments in hopper-box, planter-box, or other seed treatment application or immediately before planting is within the scope of WPS, while commercial treatment of seeds is not within the scope.

Soil or Media Drench - NOT FOR USE IN CALIFORNIA

Perox-Cide is effective for the control of soil-borne plant diseases such as *Pythium*, *Phytophthora*, *Rhizoctonia*, *Fusarium* or *Thielaviopsis*. Use as a soil drench at the time of seeding or transplanting, as well as a periodic drench throughout the plant's life. Perox-Cide can also be used on potting soil and growing mediums prior to planting.

- 1) Mix 1.28 fl. oz. Perox-Cide per gallon of clean water.
- 2) Apply to soil or growing media to the point of saturation..
- 3) Wait 15 minutes before planting or watering.

Foliar Spray Treatments for field grown crops, crops grown in commercial greenhouses or crops grown in other similar sites -

Perox-Cide works immediately on contact with any plant surface for control. Good coverage and wetting of the foliage is necessary. Apply Perox-Cide to ornamentals, bedding plants, container plants, flowering plants, shrubs and trees.

Initial (Curative) Application:

1. Use a dilution of 1:100 or 1.28 fl. oz. per gallon of clean water. Make fresh dilution daily.
2. Spray, mist, or fog plants, or apply through irrigation or Chemigation systems. For spray mist or fog applications, apply in the early morning or late evening.
3. Thoroughly wet all surfaces of plant, upper and lower foliage, including stems, branches, and stalks to ensure full contact with plant and flower tissue.
4. Apply for one to three consecutive days and then following directions for preventative treatment after the initial application.

Weekly Preventative Treatment:

1. Use a dilution of 1:300 or 0.5 fl. oz. per gallon of clean water.
2. Spray, mist, or fog plants or trees, or apply through irrigation or Chemigation system.
3. Thoroughly wet all surfaces of plant, upper and lower foliage, including stems, branches, and stalks.
4. Apply every five days as a preventative treatment.
5. At the first sign of disease apply daily with a 1:100 or 1.28 fl. oz. per gallon of clean water for three consecutive days and then resume weekly preventative treatments.

For Cut Flowers: - NOT FOR USE IN CALIFORNIA

Use Perox-Cide to prevent fungal diseases such as *Botrytis*, *Downy Mildew*, and *Powdery Mildew* on flowers in cold storage or in transit. Apply as a post harvest treatment, use a dilution of 1:500 or 0.25 fl. oz. per gallon of water. Spray flowers after grading and prior to storage or shipment. Repeat weekly for flowers in storage.

For bareroot nursery stock: - NOT FOR USE IN CALIFORNIA

Use Perox-Cide to prevent *Botrytis* on budwood and nursery stock in storage. Use a dilution of 1:100 or 1.28 fl. oz. per gallon of water. Dip plants or spray until dripping wet. Repeat weekly if necessary.

For Greenhouse Irrigation Systems (Flooded floors, flooded benches, recycled water systems, capillary mats, humidification and misting systems): - NOT FOR USE IN CALIFORNIA

Use Perox-Cide to treat already contaminated water with a dilution of 1:500 or 0.25 fl. oz. for every gallon of water. Treat clean water with a dilution of 1:10,000 or one gallon of Perox-Cide per 10,000 gallons of water.

Evaporative Coolers: - NOT FOR USE IN CALIFORNIA

Treat existing algae and slime contaminated surfaces with a 1:100 dilution of 1.28 fl. oz. per gallon of water. Treat cooler water every week with a dilution of 1:500 or 0.25 fl. oz. for every gallon of cooler water.

Foliar Applications: Plant Sensitivity Testing:

For foliar application be sure to use Perox-Cide at labeled dilutions as solutions more concentrated can result in leaf necrosis for some crops (i.e., do not use dilutions less than 1:100 for foliar treatments). Perox-Cide has been designed to provide a balanced source of the active ingredient directly to the plant surface. Perox-Cide has been used and tested on many varieties of plant material; however, the nature of the target plant, environmental conditions, plant vigor and the use of other pesticides can all affect plant sensitivity to Perox-Cide. Therefore, before treating large numbers of plants, test Perox-Cide on a few plants for sensitivity. Application of Perox-Cide for curative control of obligate organisms living in the plant tissue (such as Downy or Powdery Mildew) can result in lesions on plant tissue. Perox-Cide will oxidize parasitic organisms living in plant tissue that are not always visible to the naked eye. Resulting oxidative effects can include spotting, or drying of the plant tissue where organisms inhabited tissue.

For surfaces, equipment and structures-

Perox-Cide can be used to suppress / control bacteria, fungi and slime forming algae on surfaces, equipment, and structures such as: plastic, benches, walkways, floors, walls, fan blades, watering systems, vats, tanks, coolers, storage rooms, spray equipment, conveyors, irrigation systems, process equipment, process water systems, trucks, structures and related equipment. Treatment of any food contact surfaces, equipment or structures must be followed with a potable water rinse.

1. Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt and/or organic material.
2. Use a dilution of 1:100, or (1.28 fluid ounces), per gallon of clean water. Use a dilution of 1:50 or 2.5 fl. oz. per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits. The use of additional surfactant is acceptable.
3. Apply solution with mop, sponge, power sprayer or fogger to thoroughly wet all surfaces. Fog enclosed as an adjunct to manual surface application. Wear protective eyewear (goggles or face shield) when fogging. Prior to fogging, pre-clean surfaces with water to remove any organic deposits. Fog the desired areas using dilution rates of 1:50, or 2.5 fl. oz. per gallon of clean water, using any type of fogging equipment including but not limited to cold foggers, thermal foggers, low pressure air assisted and high pressure fog systems. Solutions may be corrosive to materials that are easily oxidized such as natural rubber, copper, galvanized and black iron pipe. Test solutions on surfaces prior to use.
4. Follow treatment of any food contact surfaces, equipment or structures with a potable water rinse.
5. Scrub off heavy growths of algae and fungi following application. Use a solution of Perox-Cide to wash away dead growth.

For clean, non-porous surfaces -

Pots, Flats, Trays: Use a dilution of 1:100 or 1.28 fl. oz. per gallon of clean water. Spray until runoff. The use of additional surfactant is acceptable.

Cutting Tools: Use a dilution of 1.28 fl. oz. per gallon of clean water. Soak tools to ensure complete coverage. The use of additional surfactant is acceptable.

Benches and Work Area: Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt. Use a dilution of 1:100 or 1.28 fl. oz. per gallon of clean water. Use a dilution of 1:50 or 2.5 fl. oz. per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits. The use of additional surfactant is acceptable.

(3) 9/3/2010

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Surface Treatment for the control of Citrus Canker -

Use Perox-Cide to control and prevent the transfer of *Xanthomonas* bacterial species including Citrus Canker on field equipment and surfaces in packinghouses.

Field Equipment: Apply Perox-Cide to field equipment such as pickers, trailers, trucks (including truck body parts and tires), bins, packing crates, ladders, power tools, pruning shears, gloves, rubber boots, Tyvek suits, or other equipment that can transfer *Xanthomonas* bacterial species including Citrus Canker.

1. Remove loose soil or organic matter with clean water and/or detergent rinse.
2. Use Perox-Cide at a dilution ratio of 1:200, 64 fluid ounces of Perox-Cide per 100 gallons of water. Apply as a coarse spray until run-off.
3. Allow Perox-Cide treated equipment to air dry. Do not rinse.

Packinghouses: Apply Perox-Cide to all surfaces and equipment found in commercial packinghouses including dump tanks, drenchers, crates, containers, conveyors, storage rooms, walls, floors, and process lines.

1. Remove loose soil or organic matter with clean water and/or detergent rinse.
2. Use Perox-Cide at a dilution ratio of 1:600 or 21.3 fl. oz. of Perox-Cide per 100 gallons of water. Apply as a coarse spray until run-off.
3. Allow Perox-Cide treated equipment to air dry. Do not rinse.

Foaming Applications: Apply Perox-Cide as a foam treatment to enhance contact on porous surfaces, vertical surfaces and irregular surfaces such as metal grating and structural steel where contact is difficult to maintain with coarse spray treatments. Add a foaming agent to the spray tank that contains the diluted Perox-Cide solution. Apply foam until the surface treated is completely covered. Allow foam treated surface to air dry. Do not rinse.

For agricultural irrigation and drainage water and ditches - NOT FOR USE IN CALIFORNIA

Use Perox-Cide to suppress/control algae, bacteria and fungi in agricultural irrigation and drainage water and ditches. For irrigation water, apply 1 to 2 fluid ounces of Perox-Cide per 250 gallons of water. Product can be simply added to the body of water, as the residual control will allow for even distribution throughout the water column. Where existing algae mats are present at time of treatment, the most effective control will be obtained by breaking up mats and/or evenly dispersing diluted Perox-Cide over the algae mats. Apply Perox-Cide as needed to control and prevent algae growth; apply more frequently in times of higher temperatures.

Treatment for non-potable water systems (wash tanks, dip tanks, drench tanks, evaporators, humidification systems and/or storage tanks) - NOT FOR USE IN CALIFORNIA

Treat water containing plant pathogens with 1.5 fl. oz. of product for every 10 gallons of water or use a dilution rate of 1:2000.

For direct injection into spray waters used on process lines - NOT FOR USE IN CALIFORNIA

Treat water containing plant pathogens by injecting Perox-Cide directly into spray system water with 12.8 fl. oz. of Perox-Cide for every 100 gallons of water (a dilution rate of 1:1000). Applicable for use on all types of postharvest commodities.

For post-harvest spray treatments on process and packing lines -

Inject Perox-Cide directly into spray system water on process and packing lines to prevent bacterial and fungal diseases on postharvest fruits and vegetables. Inject at 1:100 (128 fl. oz. per 100 gallons), Perox-Cide to clean water. For best results, where dump tanks are used, make postharvest spray treatment as fruit is leaving dump tanks. Applicable for use on all types of postharvest commodities.

For post-harvest spray treatment-

Use Perox-Cide to prevent bacterial and fungal diseases on postharvest fruits and vegetables. Mix 1.28 fl. oz. Perox-Cide per gallon of clean water. Spray fruit or vegetables to runoff using hydraulic backpack, air assisted or other similar sprayer or foamer.

For direct injection into dump tanks, hydro coolers and process waters - NOT FOR USE IN CALIFORNIA

For treatment of water containing plant pathogens, inject Perox-Cide and maintain a predetermined residual level by using metering equipment, coupled with ORP measuring probes.

- 1) Determine biological organic loading prior to treatment if possible.
- 2) For waters that contain low levels of biological and organic loading inject Product at 2.6 fl. oz. of Perox-Cide for every 100 gallons of water or at a dilution rate of 1:5000,
- 3) For clean water inject Product at 1.3 fl. oz. of Perox-Cide for every 100 gallons of water or a dilution rate of 1:10,000 to prevent the formation of algae, bacteria and fungi.

For water filter treatment - NOT FOR USE IN CALIFORNIA

To suppress, control and prevent clogging of filters from growth of plant pathogenic algae, bacteria or fungi, as well as the oxidation of iron deposits.

- 1) Apply 1:50 or 2.5 fl. oz. per gallon of water.
- 2) Soak filters in solution for time period of not less than 5 minutes
- 3) Drain and then rinse with clean water.

For Agricultural Crops

Prepare product to the appropriate dilution and apply as directed for specific crops. Use the Table below to determine the correct amount of Perox-Cide to use for a given dilution rate.

Dilution Rate Quantity Product to use

1:27	1 Gallon of Perox-Cide per 27 gallons
1:50	1 Gallon of Perox-Cide per 50 gallons

For the following dilution rates use the indicated Fluid ounces of Perox-Cide per 100 Gallons.

1:100	128 fluid ounces	1:1,000	12.8 fluid ounces
1:200	64 fluid ounces	1:5,000	2.6 fluid ounces
1:300	42.6 fluid ounces	1:10,000	1.3 fluid ounces
1:500	25.6 fluid ounces		

Asparagus (*Phytophthora*): Curative: Spray diseased plants with a 1:100 dilution at the rate of 50 to 100 gallons per acre for three (3) consecutive days and continue treatments at five to seven day intervals.

Preventative: Begin when plants are small. Apply first three treatments at the rate of 50-100 gallons per acre at 1:100, for 5- day intervals. Reduce rate to 1:300 after the completion of third treatment and maintain 5- day interval spray cycle until harvest.

Beans – Snap & Dry (*Anthraxnose*, Downey Mildew, Powdery Mildew, *Sclerotinia*, Rust): Curative: Spray diseased plants with a 1:100 dilution at the rate of 50 to 100 gallons per acre for three (3) consecutive days and continue treatments at five to seven day intervals.

Preventative: Begin when plants are small. Apply first three treatments at the rate of 50-100 gallons per acre at 1:100, for 5- day intervals. Reduce rate to 1:300 after the completion of third treatment and maintain 5- day interval spray cycle until harvest.

Berries, including but not limited to Cranberry, Strawberry, Blackberry, Blueberry, Raspberry. (*Botrytis*, Downy Mildew, Fruit Rot, Leaf Blight, Powdery Mildew): Curative: Spray diseased plants with a 1:100 dilution at the rate of 50 to 100 gallons per acre, for three (3) consecutive days and continue treatments at five to seven day intervals.

Preventative: Begin when plants are small. Apply first three treatments at the rate of 50-100 gallons per acre at 1:100, for 5- day intervals. Reduce rate to 1:300 after the completion of third treatment and maintain 5- day interval spray cycle until harvest.

Cole Crops, including but not limited to: Broccoli, Cauliflower, Cabbage, Brussels Sprouts, Collards. (*Alternaria* Leaf Spot, Downy Mildew, Powdery Mildew, Early Blight, Late Blight): Curative: Spray diseased plants with a 1:100 dilution at the rate of 50 to 100 gallons per acre, for three (3) consecutive days and continue treatments at five to seven day intervals.

Preventative: Begin when plants are small. Apply first three treatments at the rate of 50-100 gallons per acre at 1:100, for 5- day intervals. Reduce rate to 1:300 after the completion of third treatment and maintain 5- day interval spray cycle until harvest.

Root Crops, including but not limited to: Beets, Carrots, Ginseng, Sweet Potato, Yams. (*Alternaria*, Crown Rot, Early Blight, Late Blight): Curative: Spray diseased plants with a 1:100 dilution at the rate of 50 to 100 gallons per acre, for three (3) consecutive days and continue treatments at five to seven day intervals.

Preventative: Begin when plants are small. Apply first three treatments at the rate of 50-100 gallons per acre at 1:100, for 5- day intervals. Reduce rate to 1:300 after the completion of third treatment and maintain 5- day interval spray cycle until harvest.

Sugar Beets. (*Alternaria*, Bacterial Leaf Spot, Crown Rot, Leaf Blight, Leaf Spot, Rhizoctonia): Curative: Spray diseased plants with a 1:100 dilution at the rate of 50 to 100 gallons per acre, for three (3) consecutive days and continue treatments at five to seven day intervals.

Preventative: Begin when plants are small. Apply first three treatments at the curative rate at 5- day intervals. Reduce rate to 1:300 after the completion of third treatment and maintain 5- day interval spray cycle until harvest.

Curcubit Crops, including but not limited to: Cucumber, Squash, Pumpkin, Melons. (*Alternaria*, *Anthraxnose*, Downy Mildew, Powdery Mildew, Pythium Rot, Gummy Stem Rot): Curative: Spray diseased plants with a 1:100 dilution at the rate of 50 to 100 gallons per acre, for three (3) consecutive days and continue treatments at five to seven day intervals.

Preventative: Begin when plants are small. Apply first three treatments at the rate of 50-100 gallons per acre at 1:100, for 5- day intervals. Reduce rate to 1:300 after the completion of third treatment and maintain 5- day interval spray cycle until harvest.

Grasses, grown for seed. (Stem Rust, Leaf Rust, Leaf Spot): Spray a 1:100 dilution (128 fl. oz. per 100 gallons) solution of product at the rate of 50-100 gallons per acre. Begin Applications during stem elongations. Repeat weekly or as needed. Livestock can graze treated areas.

Leafy Vegetables. (Rust, Brown Rot, *Phytophthora*, *Botrytis*, Downy Mildew, Powdery Mildew, Early Blight, Late Blight): Curative: Spray diseased plants with a 1:100 dilution at the rate of 50 to 100 gallons per acre, for three (3) consecutive days and continue treatments at five to seven day intervals.

Preventative: Begin when plants are small. Apply first three treatments at the rate of 50-100 gallons per acre at 1:100, for 5- day intervals. Reduce rate to 1:300 after the completion of third treatment and maintain 5- day interval spray cycle until harvest.

Mushrooms. (*Verticillium* Spot, *Trichoderma*, Bacterial Blotch, *Mycogone*, Necrotic Spot): Curative: Spray diseased mushrooms with a 1:100 dilution at the rate of 6 gallons per 1000 sq. ft., for one to three consecutive days.

Preventative: Spray mushrooms with a 1:300 dilution at the rate of 6 gallons per 1000 sq. ft., at five to seven day intervals. Begin at pinning stage and continue through harvest.

Onions, Leeks Shallots, Garlic. (Botrytis, Downey Mildew, Powdery Mildew) **Curative:** Spray diseased plants with a 1:100 dilution at the rate of 50 to 100 gallons per acre, for three (3) consecutive days and continue treatments at five to seven day intervals.

Preventative: Begin when plants are small. Apply first three treatments at the rate of 50-100 gallons per acre at 1:100, for 5- day intervals. Reduce rate to 1:300 after the completion of third treatment and maintain 5- day interval spray cycle until harvest.

Peppers (Alternaria, Anthracnose, Bacterial Speck, Bacterial Spot, Botrytis, Cladosporium mold, Early Blight, Late Blight, Leaf Spot, Phytophthora, Powdery Mildew, Pythium, Rhizoctonia) **Curative:** Spray diseased plants with a 1:100 dilution at the rate of 50 to 100 gallons per acre, for three (3) consecutive days and continue treatments at five to seven day intervals.

Preventative: Begin when plants are small. Apply first three treatments at the rate of 50-100 gallons per acre at 1:100, for 5- day intervals. Reduce rate to 1:300 after the completion of third treatment and maintain 5- day interval spray cycle until harvest.

POTATOES NOTE: Do not treat seed potatoes in storage if sprouting has begun (“Peeps”).

Potatoes (Early Blight, Late Blight) **Curative:** Spray diseased plants with a 1:100 dilution at the rate of 50 to 100 gallons per acre, for three (3) consecutive days and continue treatments at five to seven day intervals.

Preventative: Begin when plants are small. Apply first three treatments at the rate of 50-100 gallons per acre at 1:100, for 5- day intervals. Reduce rate to 1:300 after the completion of third treatment and maintain 5- day interval spray cycle until harvest.

Seed Potatoes. (*Fusarium*): Dip whole or cut tubers into a tank containing a 1:50 solution of Product. Let soak for five minutes before removing. NOTE: Do not treat seed potatoes if sprouting has begun.

Potatoes, spray treatments for newly harvested potatoes before storage. (*Fusarium* Tuber Rot, Bacterial Soft Rot, Silver Scurf, Early Blight, Late Blight): Use a 1:25 dilution (1 gallon per 25 gallons). Spray diluted solution to runoff to achieve full and even coverage. Additional surfactant can be added as needed to aid in coverage. Use 1 to 2 gallons per ton of potatoes.

Potatoes, direct injection into humidification water for postharvest potatoes in storage. (*Fusarium* Tuber Rot, Bacterial Soft Rot, Silver Scurf, Early Blight, Late Blight): Inject concentrate into makeup water used in humidification of postharvest potatoes in storage at the rate of 1:100. NOTE: Do not treat seed potatoes if sprouting has begun.

Potatoes, treatment of rinses for postharvest potatoes; prior to, during, or after storage. (Odor-causing and/or slime forming bacteria): Inject concentrate into process water, at the rate of 1:1,000 (12.8 fluid ounces per 100 gallons), used in potato rinses and associated tanks, flumes, and lines.

Tomatoes. (Alternaria, Anthracnose, Bacterial Speck, Bacterial Spot, Botrytis, Cladosporium mold, Early Blight, Late Blight, Leaf Spot, Phytophthora, Powdery Mildew, Pythium, Rhizoctonia) **Curative:** Spray diseased plants with a 1:100 dilution at the rate of 50 to 100 gallons per acre, for three (3) consecutive days and continue treatments at five to seven day intervals.

Preventative: Begin when plants are small. Apply first three treatments at the rate of 50-100 gallons per acre at 1:100, for 5- day intervals. Reduce rate to 1:300 after the completion of third treatment and maintain 5- day interval spray cycle until harvest.

Pome Fruit, including but not limited to: Apples, Pears. (Rusts, Scab, Powdery Mildew): **Pre-Bloom:** Begin applying 1:100 dilution at the rate of 50- 100 gallons per acre, at 1/4 –1/2 inch green tip and continue on a five to seven day schedule through bloom.

Curative: Spray diseased trees with a 1:100 dilution at the rate of 50 to 100 gallons per acre, for three (3) consecutive days and continue treatments at five to seven day intervals.

Preventative: Begin when plants are small. Apply first three treatments at the rate of 50-100 gallons per acre at a 1:100 dilution (128 fluid ounces per 100 gallons), for 5- day intervals. Reduce rate to a 1:300 dilution (42.6 fluid ounces per 100 gallons) after the completion of third treatment and maintain 5- day interval spray cycle until harvest.

Filberts. (Early Filbert Blight, Bacterial Blight): **Pre-Bloom:** Begin applying 1:100 dilution at the rate of 50- 100 gallons per acre, at 1/4 – 1/2 inch green tip and continue on a five to seven day schedule through bloom.

Curative: Spray diseased trees with a 1:100 dilution at the rate of 50 to 100 gallons per acre, for three (3) consecutive days and continue treatments at five to seven day intervals.

Grapes. (Black Rot, Botrytis, Downey Mildew, Powdery Mildew, Sour Rot) **Curative:** Spray diseased plants with a 1:100 dilution at the rate of 50 to 100 gallons per acre, for three (3) consecutive days and continue treatments at five to seven day intervals.

Preventative: Begin when plants are small. Apply first three treatments at the rate of 50-100 gallons per acre at 1:100, for 5- day intervals. Reduce rate to 1:300 after the completion of third treatment and maintain 5- day interval spray cycle until harvest.

Stone Fruits, including but not limited to: Peaches, Plums, Cherries, Nectarines, Prunes. (Downy Mildew, Powdery Mildew, Brown Rot): **Pre-Bloom:** Begin applying 1:100 dilution at the rate of 50- 100 gallons per acre, at 1/4 –1/2 inch green tip and continue on a five to seven day schedule through bloom.

Curative: Spray diseased trees with a 1:100 dilution at the rate of 50 to 100 gallons per acre, for three (3) consecutive days and continue treatments at five to seven day intervals.

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FOR TURF APPLICATIONS

Broad spectrum treatment for control of algae, fungi and bacteria on turf.

For use on all turf types such as commercial turf, lawns, athletic fields and golf course fairways, greens and tees.

Use Perox-Cide to control fungi such as *Anthracnose*, Brown Spot, Dollar Spot, Copper Spot, Fairy Ring, Pink Snow Mold, *Pythium*, *Phytophthora*, Summer Patch, *Rhizoctonia*, Scum, Take All Patch, *Fusarium* Blight, Stripe Smut, Leaf Spot, Algae, Slime Molds and their spores.

Perox-Cide Acts on Contact

For treatment of turf, use on golf course fairways greens and tees to control/suppress algae, bacterial and fungal diseases and the odors and conditions that these organisms may cause.

Typical treatment rates involve treating approximately 1000 square feet of lawn area with 3 to 10 gallons of diluted solution. Add a surfactant for best results.

Turf Diseases: *Anthracnose*, Brown Spot, Dollar Spot, Copper Spot, Summer Patch, Stripe Smut, Take All Patch, Leaf Spot, *Fusarium* Blight —

Curative - Apply a dilution of 12 fl. oz. Perox-Cide in 3 to 5 gallons of water per 1000 sq. ft.

Preventative - Apply a dilution of 6 fl. oz. Perox-Cide in 3 to 5 gallons of water per 1000 sq. ft. Apply at 7 day intervals.

NOTE: Curative control may require 2 to 3 consecutive treatments to eradicate disease. Once control is achieved, follow with a 7-day prevention cycle. Combine with a systemic fungicide for residual suppression.

Algae and Slime Molds, Scum: Curative - Apply a dilution of 12 fl. oz. Perox-Cide in 3 to 5 gallons of water per 1000 sq. ft. For Heavy Algae use 25 fl. oz Perox-Cide per 3-5 gallons of water.

Preventative - Apply a dilution of 6 fl. oz. Perox-Cide in 3 to 5 gallons of water per 1000 sq. ft. Apply at 7 day intervals.

NOTE: Curative control may require 2 to 3 consecutive treatments to eradicate disease. Drench the soil to saturate the root systems in areas affected. Use 5-10 gallons per 1000 sq. ft.

Root Dysfunctions, Declines and Rots: Curative - Apply a dilution of 12 fl. oz. Perox-Cide in 3 to 5 gallons of water per 1000 sq. ft.

Preventative - Apply a dilution of 6 fl. oz. Perox-Cide in 3 to 5 gallons of water per 1000 sq. ft. Apply at 7 day intervals.

NOTE: Curative control may require 2 to 3 consecutive treatments to eradicate disease. Drench the soil to saturate the root systems in areas affected. Use 5-10 gallons per 1000 sq. ft.

Pink Snow Mold: Curative - Apply a dilution of 12 fl. oz. Perox-Cide in 3 to 5 gallons of water per 1000 sq. ft.

Preventative - Apply a dilution of 6 fl. oz. Perox-Cide in 3 to 5 gallons of water per 1000 sq. ft. Apply at 7 day intervals.

NOTE: Spray in early fall to reduce the number of dormant spores. Treat throughout winter. May be applied to frozen ground.

1. Optimum treatment time is early morning or late afternoon.
2. For best results, apply immediately after grass has been cut.
3. Applications can be made during wet or rainy weather.
4. Use spray solution the same day it is prepared, do not store and reuse mixed spray solution.
5. Perox-Cide can be inject through automatic irrigation systems in turf areas. Refer to Chemigation Directions for Use for specific instructions on using this product through irrigation systems.

For seed bed treatment: Prior to sowing seed, use a dilution of 1:50 or 2.5 fl. oz. gallon of clean water. Thoroughly wet or drench the seedbed, to the point of saturation, with 60 to 100 gallons of dilute solution per 1000 sq. ft. Let sit for one hour then immediately seed soil. After seeds have germinated, use a dilution of 1:100 or 1.28 fl. oz. per gallon of clean water. Lightly spray or irrigate the soil and seedlings until thoroughly wetted. Retreat once per week until seed is well established.

For soil treatment, pre-inoculation with beneficial organisms: Use Perox-Cide to reduce the number of potentially plant pathogenic organisms in the soil that will prevent beneficials from becoming established. Use a dilution of 1:50 or 2.5 fl. oz. per gallon of clean water. Thoroughly wet or drench the soil to be inoculated. Wait one day before inoculating soil.

CHEMIGATION

General Requirements:

- 1) Apply this product only through a sprinkler including a center pivot, lateral move, end tow, side wheel roll, traveler, solid set, hand move, flood basin or drip trickle irrigation system. Do not apply this product through any other type of irrigation system.
- 2) Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.
- 3) Ensure that the irrigation system used is properly calibrated and if you have questions, call the state extension service or the equipment manufacturer.
- 4) Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless proper safety devices for public water systems are in place. Read label for instructions.
- 5) A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make any necessary adjustments should the need arise.

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Specific Requirements:

- 1) Public water supply 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 25 individuals daily for at least 60 days throughout the year.
- 2) Chemigation systems connected to the public water system must contain a functional, reduced-pressure zone (RPZ), backflow preventer or the functional equivalent in the water supply 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 of the overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- 3) The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of liquid back toward the injector.
- 4) 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 drawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 5) 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.
- 6) System must use a metering pump, such as a positive displacement injection pump, or equivalent, effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7) Do not apply when wind speed favors drift beyond the area intended for treatment.

Application Instructions:

- 1) 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.
- 2) Determine the treatment rates as indicated in the directions for use and make proper dilutions.
- 3) Prepare a solution in the chemical tank by filling the tank with the required water and then adding the Perox-Cide required. The product will immediately go into suspension without any required agitation.
- 4) Perox-Cide should not be applied in conjunction with any other pesticides or fertilizers; this may reduce performance of the product and should be avoided.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in original containers in a cool, well-vented area, away from direct sunlight. Do not allow product to become overheated in storage. This may cause increased 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: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Open dumping is prohibited. If wastes cannot be disposed of according to label directions, 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 this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Offer for recycling if available.

EPA Reg. No. 83103-1-43553

WARRANTY – This material conforms to the description on the label and is reasonably fit for the purpose referred to in the directions for use. Timing, method of application, weather, watering practices, nature of soil, potting medium, disease problem, condition of crop incompatibility with other chemicals, pre-existing conditions and other conditions influencing the use of this product are beyond the control of the seller. Buyer assumes all risks associated with the use, storage, or handling of this material not in strict accordance with directions given herewith. NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY IS MADE.

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