



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

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

March 11, 2022

Donna Bishel  
Director of Regulatory Affairs  
Biosafe Systems, LLC  
22 Meadow St.  
East Hartford, CT  
06108

Subject: Pesticide Registration Improvement Act (PRIA) Labeling Amendment – Remove bee toxicity label statement; add new pests and crops; reformat label  
Product Name: OxiDate 5.0  
EPA Registration Number: 70299-28  
EPA Receipt Date: 8/31/2021  
Action Case Number: 00315956

Dear Ms. Bishel:

The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

This approval does not affect any terms or conditions that were previously imposed on this registration. You continue to be subject to existing terms or conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release this product for shipment with the new labeling. In accordance with 40 CFR § 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 § CFR 152.3.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the U.S. Environmental Protection Agency (EPA). If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains or claims substantially differing from statements or claims made in connection with obtaining a FIFRA

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section 3 registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions, please contact Susannah Powell via email at [powell.susannah@epa.gov](mailto:powell.susannah@epa.gov).

Sincerely,

A handwritten signature in blue ink, reading "Andrew C. Bryceland". The signature is fluid and cursive, with the first name "Andrew" and last name "Bryceland" clearly legible.

Andrew Bryceland,  
Team Leader  
Biochemical Pesticides Branch  
Biopesticides and Pollution  
Prevention Division (7511P)  
Office of Pesticide Programs

Enclosure

# OxiDate<sup>®</sup> 5.0

**Sublabel A: Horticultural and Turf**  
**Sublabel B: Agricultural**

(Alternative Brand Names: OxiDate 5.0, OxiDate Tree and Vine, ZeroTol 5.0)

**ACTIVE INGREDIENTS:** Hydrogen Peroxide..... 27.00%  
Peroxyacetic Acid ..... 5.00%  
**OTHER INGREDIENTS:**..... 68.00%  
**TOTAL:** ..... 100.00%

**EPA Registration No.** 70299-28

**EPA Establishment No:** 082521-GA-001, 92957-MI-001, 067441-IL-001, 70299-NV-1,  
70299-NV-2, 70299-AZ-1

**Manufactured by:**

BioSafe Systems, LLC  
22 Meadow Street  
East Hartford, CT 06108  
(888) 273-3088

**Net Contents:** 1, 2.5, 5, 30, 55, 275, 330 gallons

[Note to Reviewer: Text in brackets [ ] is optional. "This product" can be substituted with actual product name.  
Commas and the words "and" "or" can be added to phrases to make text grammatically correct.]

**A C C E P T E D**

**Mar 11, 2022**

Under the Federal Insecticide, Fungicide  
and Rodenticide Act as amended, for the  
pesticide registered under  
EPA Reg. No. **70299-28**

## Sublabel A: Horticultural and Turf

# OxiDate<sup>®</sup> 5.0

## Broad Spectrum Bactericide, Fungicide Algacide FOR HORTICULTURAL AND TURF USE

**ACTIVE INGREDIENTS:** Hydrogen Peroxide..... 27.00%

Peroxyacetic Acid ..... 5.00%

**OTHER INGREDIENTS:**..... 68.00%

**TOTAL:** ..... 100.00%

**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	
<b>If in eyes</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If swallowed</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>If inhaled</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li><li>• Call a poison control center or doctor for further treatment advice</li></ul>
<b>HOTLINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information on OxiDate 5.0, call the National Pesticides Information Center at 1-800-858-7378, 6:30AM to 4:30 PM Pacific Time (PT), seven days a week. During other times, call the Poison Control Center at 1-800-222-1222.	
<b>NOTE TO PHYSICIAN</b>	
Probable mucosal damage may contraindicate the use of gastric lavage.	

See [back] [side] [inside] [panel] [label] [sticker] [booklet] for first aid, additional precautionary statements and directions for use.

**EPA Registration No.** 70299-28

**Net Contents:** 1, 2.5, 5, 30, 55, 275, 330 gallons

**EPA Establishment No.** 082521-GA-001, 92957-MI-001, 067441-IL-001, 70299-NV-1,  
70299-NV-2, 70299-AZ-1

**Batch Code** \_\_\_\_\_

**Manufactured by:**  
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**OxiDate 5.0; EPA Reg. No. 70299-28**

Clean Copy Label (V5) dated March 9, 2022

Amendment

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**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
DANGER**

**CORROSIVE:** Causes irreversible eye damage. Causes skin irritation or temporary discoloration on exposed skin. Harmful if absorbed through skin. May be fatal if swallowed. Do not breathe vapor. Do not get in eyes, on skin or on clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Handlers who may be exposed to the undiluted product through mixing, loading, application, or other tasks must wear: coveralls over long-sleeved shirt and long pants, rubber gloves, chemical resistant footwear plus socks, and protective eyewear (goggles or face shield). Handlers who may be exposed to the dilute through application or other tasks must wear: long-sleeved shirt and long pants, and shoes plus socks. Follow manufacturer's instructions for cleaning and maintaining PPE. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**ENGINEERING CONTROLS**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

**USER SAFETY RECOMMENDATIONS**

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**

This pesticide is toxic to birds. Treated seed exposed on soil surface may be hazardous to birds, wildlife, fish and aquatic invertebrates. Cover or collect seeds spilled during loading. 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 when disposing of equipment washwaters or rinsate. Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

**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 State or Tribal 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), notification to workers, 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.

Handlers who may be exposed to the undiluted product through mixing, loading, application, or other tasks must wear: coveralls over long-sleeved shirt and long pants, rubber gloves, chemical resistant footwear plus socks, and protective eyewear (goggles or face shield). Handlers who may be exposed to the dilute through application or other tasks must wear: long-sleeved shirt and long pants, and shoes plus socks.

For enclosed environments:

There is a Restricted Entry Interval (REI) of one (1) hour for this product when applied via spraying to growing plants, surfaces, equipment, structures and non-porous surfaces in enclosed environments such as glasshouses and greenhouses. 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 coveralls worn over long-sleeved shirt and pants, waterproof gloves and shoes plus socks.

There is a Restricted Entry Interval (REI) of zero (0) hours for pre-plant dip, seed treatment, soil drench, mop, sponge, dip, soak, rinse or other non-spraying 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.

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

**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.

**[INTRODUCTION] [PRODUCT INFORMATION]**

OxiDate 5.0 is a powerful broad-spectrum bactericide/fungicide formulated to treat and control plant pathogens on a wide variety of crops. OxiDate 5.0 utilizes a proprietary peroxyacetic acid (PAA) chemistry to eradicate plant pathogens on contact, with no residues and no known resistance. [OxiDate 5.0 is a keystone chemistry that strengthens spray programs by reducing disease pressure.]

[OxiDate 5.0 is a broad-spectrum bactericide/fungicide/algaecide used to treat and control pests in agricultural applications.]

[OxiDate 5.0 is a liquid bactericide/fungicide used to treat and control plant pathogens on indoor, greenhouse, and outdoor grown: ornamental plants, flowering plants, bedding plants, nursery stock, landscape plants, turf, and all agricultural crops including food crops.]

[OxiDate 5.0 is a liquid bactericide/fungicide used to treat and control plant pathogens on greenhouse grown vegetables, ornamental plants and turf.]

[OxiDate 5.0 can be used as a soil treatment product as a pre-plant application prior to or at seeding or transplanting, and as a periodic soil treatment throughout the plant's life up to the day of harvest.]

[OxiDate 5.0 controls the following soil borne pathogens when used as a soil treatment: Fusarium (root rot, leaf spot, Pink Snow Mold)-Phytophthora (blights, rots)-Pythium (root rot)-Rhizoctonia (blight, stem rot)-Verticillium (wilt).]

[OxiDate 5.0 works by surface contact with the soils being treated. It is important to ensure that all surfaces are thoroughly wetted and that sufficient quantities of the finished solution are applied to penetrate the soil being treated. Areas treated with OxiDate 5.0 do not need to be covered with tarps or protective plastic. OxiDate 5.0 is not a fumigant. The performance of OxiDate 5.0 is not affected by fumigation. Use OxiDate 5.0 on fumigated and unfumigated soil.]

[Use OxiDate 5.0 as a foliar treatment for suppressing the following plant pathogens and foliar diseases: Bacterial Leaf Spot/Blight caused by *Xanthomonas* and *Pseudomonas*, Fungal Leaf Spots/Blights, *Anthraxnose* Black Spot, Botrytis Blight, Downy Mildew, *Erwinia* Soft Rot, Powdery Mildew, Leaf Rust, Scab, White Mold.]

[Use OxiDate 5.0 as a soil/media drench to control soil borne pathogens such as *Fusarium* spp., *Phytophthora* spp., *Pythium* spp., *Rhizoctonia* spp., and *Thielaviopsis* spp., and *Ralstonia solanacearum* (causing Bacterial wilt).]

[Use OxiDate 5.0 to treat/control plant pathogens on bedding plants, flowering plants, roses, poinsettia, ornamentals, turf, synthetic/artificial turf, [cut flowers, bulbs, cuttings, seedlings, seeds and seedbeds.]

[Use OxiDate 5.0 to treat and control plant pathogens on trees and nursery stock.]

[OxiDate 5.0 is a liquid bactericide/fungicide used to treat and control plant pathogens on the following indoor and or field-grown crops, *including but not limited to*: tomato, cucumber, herbs, hops, peppers tobacco and other crops. Apply OxiDate 5.0 up to and including the day of harvest.

[Apply OxiDate 5.0 to treat/control bacteria, fungi and algae on greenhouse structures, benches, pots, watering systems, evaporative coolers, storage rooms, ventilation equipment, floors and other equipment (*optional text: turf equipment, irrigation systems and structures*).]

## APPLICATION METHODS

**Ground:** This product can be applied by commonly used ground equipment, such as hose-end, pressurized, greenhouse and handheld sprayers. Use proper spray pressure, gallonage per acre, nozzles, nozzle spacing and ground speed.

**Chemigation:** This product can be applied through sprinkler (center pivot, lateral move, end tow, side (wheel) roll, traveler, solid set or hand move) or drip-type irrigation systems. Refer to the **CHEMIGATION** section of this label for additional directions and precautions.

**Solution Preparation:** OxiDate 5.0 works best when diluted with water containing low levels of organic or inorganic materials. Measuring total suspended solids and electrical conductivity can help in determining concentration of organic and inorganic content in the water. Thoroughly rinse out mixing tank with clean water before mixing concentrate as to clean out residues from other substances. OxiDate 5.0 will readily mix with clean, neutral water. OxiDate 5.0 does not produce any visible residue, distinct odor or deleterious effects to plants when used in accordance with label directions.

OxiDate 5.0 works by surface contact with the plants and materials being treated. Coverage is critical to product performance. It is important to ensure that all plant surfaces are thoroughly wetted. It is recommended to use appropriate nozzles and solution volume (gallons per acre) based on crop and canopy density. For best performance, thoroughly apply solution to ensure full coverage of all plant tissue. OxiDate 5.0 is formulated with a minimal amount of surfactant. Other surfactants approved for such use can be added to the spray mix to enhance coverage of plants having difficult to reach or cover surfaces, such as waxy or hairy surfaces, as long as all label instructions are followed. To improve performance, it is recommended to use a non-ionic surfactant to increase contact time on the plant tissue.

**Note:** Use spray solution the same day it is prepared, do not store and reuse mixed spray solution.

Before mixing OxiDate 5.0 with other materials, conduct a jar test for compatibility in mixtures.

**Compatibility:** OxiDate 5.0 is compatible as a direct injection or tank-mix with many commonly used pesticides, fertilizers, and adjuvants. OxiDate 5.0 has not been tested with all potential tank-mix partner products, as such do not direct inject or tank mix OxiDate 5.0 into the irrigation system or in the spray tank with pesticides, adjuvants, or fertilizers before conducting a jar test to confirm it is physically compatible and poses no adverse tank-mixing reactions. Conduct a jar test before mixing OxiDate 5.0 with other pesticides, fertilizers, or adjuvants to determine compatibility before use. Mix each component in the correct proportions, and shake or stir vigorously. If any adverse reactions occur in the jar, products should be considered incompatible.

OxiDate 5.0 may have a deleterious effect on biological based biopesticides, especially those biopesticides containing living organisms. Be sure to consult all biopesticide product labels to ensure compatibility before tank-mixing these products with OxiDate 5.0.

Contact BioSafe Systems for more detailed tank-mix instructions and to learn more about product interactions prior to mixing and applying tank-mix solutions. Always read and follow label instructions for all products specific to additional information or restrictions concerning tank-mixing. Observe the most restrictive limitations and precautions of the labeling of all products used in mixtures.

**Plant Sensitivity Testing:** For foliar spray and foliar chemigation applications, only use OxiDate 5.0 at labeled dilution rates. This product has been tested for phytotoxicity and is safe to use on a variety of crops; however, it is not possible to test all crop varieties grown under all growing conditions or all growth stages with this product to ensure no phytotoxic effects to the target crop throughout its life cycle. Plants grown in greenhouses vary greatly from those grown under field conditions, and should be tested for phytotoxicity separate from field grown crops.

Periods of intense plant stress may increase phytotoxic sensitivity to pesticide applications. It is recommended to determine if OxiDate 5.0 can be used safely and non-injurious to target crop under your use conditions prior to application by conducting a phytotoxicity test.

Foliar spray applications: Before treating large numbers of plants, test OxiDate 5.0 or tank mixes of OxiDate 5.0 and other pesticides or fertilizers at labeled rates on a small number of plants and observe for symptoms of sensitivity prior to use. OxiDate 5.0 is a strong oxidizing agent and may react with residues of metal-based fungicides or supplements. Do not apply OxiDate 5.0 as a foliar spray immediately following foliar applications of metal-based products. Allow at least 48-72 hrs. after application of metal-based products before applying OxiDate 5.0 as a foliar spray. Check the label of the metal-based product prior to application for specific instructions for use with other fungicide products.

Foliar chemigation applications: Before treating several acres of plants, test OxiDate 5.0 by itself or in combination with other pesticides or fertilizers at labeled rates for chemigation on a small number of plants and observe for symptoms of plant sensitivity such as spotting/yellowing on the foliage prior to use.

Do not use at a higher concentration than labeled dilution rates, as leaf burn may result.

OxiDate 5.0 will oxidize parasitic organisms living in plant tissue that are not always visible to the naked eye. When using OxiDate 5.0 for control of organisms living on the plant tissue, such as Powdery Mildew, treatment may result in lesions on plant tissue. Resulting oxidative effects may include spotting or drying of the plant tissue where organisms inhabited tissue.

Read the entire label before using this product. Use this product only according to label directions. Contact BioSafe Systems with any questions or concerns regarding product applications on your crop.

### **USE RATES AND DIRECTIONS**

#### **INDOOR AND OUTDOOR-GROWN CROPS, ORNAMENTALS, BEDDING PLANTS, FLOWERING PLANTS, SHRUBS, AND TREES GROWN IN GREENHOUSES OR OUTDOORS**

**PREHARVEST INTERVAL: PHI = Zero (0) Days.** OxiDate 5.0 can be sprayed up to and including the day of harvest.

Use OxiDate 5.0 to treat plant diseases on indoor and outdoor grown crops through soil drench, irrigation, [fog] and foliar applications. OxiDate 5.0 may be used on the following indoor or field-grown crops, including but not limited to: tomato, cucumber, herbs, hops, tobacco and other crops. For specific foliar applications refer to **[Applications] Rates and Directions Chart**. If the application is to be made through irrigation or chemigation systems, refer to the **CHEMIGATION** section for further requirements and instructions.

#### **FOLIAR SPRAY TREATMENTS**

OxiDate 5.0 works immediately on contact for control of disease - see **Application Rates and Directions Chart**. Good coverage and wetting of the foliage are required. Apply OxiDate 5.0 in solution quantities (gallons per acre) great enough to ensure uniform coverage of upper and lower foliage, stems, branches and stalks. Final spray



solution volume will depend on crop type, canopy size and/or growth stage. For increased coverage and penetration of spray, use a compatible non-ionic wetting agent/surfactant. For drift reduction and to aid spray deposition, the use of a proper adjuvant is recommended. Do not spray OxiDate 5.0 during conditions of intense plant stress. Before widespread use, run a plant sensitivity test when considering use of spray concentrations greater than 0.39% v/v (1:256) by following instructions under “plant sensitivity testing.” Do not store and reuse mixed spray solution, prepare a fresh solution daily.

Begin applications of OxiDate 5.0 when conditions favor the development of disease and/or during growth stages most susceptible to infection, then continue use in 3-21 day intervals or as needed. Under moderate to severe disease pressure/conditions or at first sign/symptom of disease, reduce intervals and increase rates of application until control is achieved. OxiDate 5.0 can be applied at dilution rates of 1:500-1:100 (26-128 fl. oz. per 100 gallons of water) depending on the crop group. See ‘**Applications Rates and Directions Chart**’ for additional crop specific rates and instructions. Diluting OxiDate 5.0 in clean water by 75% before adding tank-mix partners and/or using a lower dilution rate, such as 1:500 (26 fl. oz. per 100 gallons of water), may improve compatibility with potential reactive tank-mix partners. See ‘**Solution Preparation, Compatibility, and Plant Sensitivity Testing**’ for additional information and instructions.

[Optional Language]

**Preventative Application Rates:**

1. Begin applications early when plants are small. Use OxiDate 5.0 at a dilution rate of 1:500 (26 fl. oz. per 100 gallons of water).
2. Apply OxiDate 5.0 in solution (gallons per acre) quantities great enough to ensure adequate coverage of upper and lower foliage, stems, branches and stalks. Final spray solution volume will depend on crop type, canopy size and/or growth stage.
3. Maintain a 5-10 day spray schedule.]

**Curative Application Rates:**

1. For best results, apply at first sign of disease. Use OxiDate 5.0 at a dilution rate of 1:256 (50 fl. oz. per 100 gallons of clean water). Do not store and reuse mixed spray solution, prepare a fresh solution daily.
2. Apply OxiDate 5.0 in solution (gallons per acre) quantities great enough to ensure coverage of upper and lower foliage, stems, branches and stalks. Final spray solution volume will depend on crop type, canopy size and/or growth stage.
3. Maintain a 3-10 day spray schedule until control is achieved. Under heavy disease pressure or when conditions are favorable for rapid disease development; spray intervals can be shortened to 3-5 days.]

**Rescue Treatment Rates:**

1. Concentrations up to 1:100 (1 gallon of OxiDate 5.0 per 100 gallons of water) can be used as a rescue treatment for severe infestations on certain crops. See **Application Rates and Directions Chart**.
2. Always test for phytotoxicity by spraying on a few plants before using this rate on a large scale.
3. Apply OxiDate 5.0 in solution (gallons per acre) quantities great enough to ensure adequate coverage of upper and lower foliage, stems, branches and stalks. Final spray solution volume will depend on crop type, canopy size and/or growth stage.
4. Maintain a 3-5 day spray schedule until control is achieved.]

**Electrostatic Spray Applications:**

For electrostatic sprayers, use associated rates from **Application Rates and Directions Chart**. Apply between 10-25 gallons of spray solution per treated acre. Follow spray equipment manufacturer’s instructions for final spray volume to obtain adequate coverage.

**Early And Late Dormant Sprays Application Instructions**

Use dormant sprays for early and late season applications on tree crops, small fruits, cane berries and vine crops to control dormant spores of bacterial and fungal pathogens.

1. Make applications after leaf drop in fall, after pruning and prior to bud swell in spring.
2. Use OxiDate 5.0 at a dilution rate of 1:500-1:100 (26-128 fl. oz. per 100 gallons of water).

Use up to 500 gallons of spray solution per acre. For the most effective results, use enough volume of spray solution to obtain complete and uniform coverage of all plant parts.

### **Aerosol/Fog Treatments for Control of Foliar Diseases in Crops (\*)**

OxiDate 5.0 can be applied as an aerosol/fog using approved commercial cold or thermo fogging equipment. Use OxiDate 5.0 at a dilution rate of 2.0-6.4 fl. oz. per 10,000 sq. ft. of greenhouse area mixed in a minimum of 1.0 gallon of water. Ensure even distribution of applied fog in the greenhouse to be treated. Always test by fogging a few plants first at these concentrations and ensure no injury to plants before using on a large scale. For crops that are in bloom and/or have naturally low tolerance to OxiDate 5.0, do not exceed solution concentration of 1:128 (1 fl. oz. of OxiDate 5.0 per 1.0 gallon of water per 10,000 sq. ft.). Repeat applications once every 5-7 days as needed until complete control of disease is achieved. Use an approved and compatible dispersal agent to minimize evaporation of applied aerosol and better deposition on plant surface.

### **For Mist Propagation of Cuttings and Plugs**

Inject OxiDate 5.0 into misting systems to control/suppress algae, fungi and bacterial disease from becoming established on plant material. Inject OxiDate 5.0 using a 1:12,500-1:2,500 dilution rate (1-5.1 fl. oz. per 100 gallons of water). Rates will depend on pathogens present, density of contamination and frequency of application. To prevent the establishment of disease or algae formation maintain continuous application throughout propagation cycle, adjust injection rates to achieve desired level of control. If the application is to be made through irrigation or chemigation systems, refer to the **CHEMIGATION** section for further requirements and instructions.

### **As a Pre-Plant Dip or Spray Treatment**

Use OxiDate 5.0 for the control/suppression of damping-off, root and stem rot diseases caused by pathogens such as *Pythium*, *Phytophthora*, *Rhizoctonia*, *Fusarium*, *Erwinia*(\*), or *Thielaviopsis* on ornamental and nursery plants, seed beds, seeds, seedlings, transplant slips, bulbs, or cuttings.

1. Use OxiDate 5.0 at a dilution rate of 1:256 (25 fl. oz. per 50 gallons of water).
2. Immerse plants or cuttings. Remove and allow to drain. Do not rinse.

### **For Bareroot Nursery Stock**

Use OxiDate 5.0 to prevent *Botrytis* on budwood and nursery stock in storage. Use a dilution rate of 1:256 (0.5 fl. oz. per gallon of water). Dip plants or spray until dripping wet. Repeat weekly if necessary.

### **Seed Treatments**

Use OxiDate 5.0 as a surface seed treatment to reduce disease causing fungi and bacterial pathogens on or in seeds.

1. Use OxiDate 5.0 at a dilution rate of 1:256 (25 fl. oz. per 50 gallons of water).
2. Immerse seeds and let soak for at least two minutes; remove and allow to drain. Do not rinse. Plant seed according to seed package directions.

### **For Cut Flowers**

Use OxiDate 5.0 to prevent *Botrytis*, Downy Mildew and Powdery Mildew on flowers in cold storage or in transit. Use a dilution rate of 1:1,280 (1.0 fl. oz. per 10 gallons of clean water). Spray flowers after grading and prior to storage or shipment. Repeat weekly for flowers in storage.

### **FOLIAR SPRAY TREATMENT IN FIELD NURSERIES**

OxiDate 5.0 works immediately on contact for control of disease - see **Application Rates and Directions Chart**. Apply OxiDate 5.0 to nursery stock such as: woody ornamentals, bedding plants, flowering plants, roses, container plants, azaleas, rhododendrons, conifers, and shade trees. Good coverage and wetting of the foliage are necessary and required. Apply OxiDate 5.0 in solution quantities (gallons per acre) great enough to ensure uniform coverage of upper and lower foliage, stems, branches and stalks. Final spray solution volume will depend on crop type, canopy size and/or growth stage. For increased coverage and penetration of spray, use a compatible non-ionic wetting agent/surfactant. For drift reduction and to aid spray deposition, the use of a proper adjuvant is recommended. Do not spray OxiDate 5.0 during conditions of intense plant stress. Before widespread use, run a plant sensitivity test when considering use of spray concentrations greater than 0.39% v/v (1:256) by following instructions under "plant sensitivity testing." Do not store and reuse mixed spray solution, prepare a fresh solution daily.

Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved. OxiDate 5.0 can be applied at dilution rates of 1:256-1:100 (50-128 fl. oz. per 100 gallons of water). Applications of OxiDate 5.0 may be used in a tank-mix application

containing at least one fungicide/bactericide at a dilution rate of 1:500-1:100 (26-128 fl. oz. per 100 gallons of water); See '**Applications Rates and Directions Chart**' for additional crop specific instructions.

[Optional Language]

**[Preventative Application Rates:**

1. Begin applications early in season. Use OxiDate 5.0 at a dilution rate of 1:500 (26 fl. oz. per 100 gallons of water).
2. Apply OxiDate 5.0 in solution (gallons per acre) quantities great enough to ensure uniform coverage of upper and lower foliage, stems, branches and stalks. Final spray solution volume will depend on crop type, canopy size and/or growth stage.
3. Maintain a 5-10 day spray schedule.]

**[Curative Application Rates:**

1. For best results, apply at first sign of disease. Use OxiDate 5.0 at a dilution rate of 1:256 (50 fl. oz. per 100 gallons of clean water). Do not store and reuse mixed spray solution, prepare a fresh solution daily.
2. Apply OxiDate 5.0 in solution (gallons per acre) quantities great enough to ensure uniform coverage of upper and lower foliage, stems, branches and stalks. Final spray solution volume will depend on crop type, canopy size and/or growth stage.
3. Maintain a 3-10 day spray schedule until control is achieved. Under heavy disease pressure or when conditions are favorable for rapid disease development; spray intervals can be shortened to 3-5 days.]

**[Rescue Treatment Rates:**

1. Concentrations up to 1:100 (1 gallon of OxiDate 5.0 per every 100 gallons of water) can be used as a rescue treatment for severe infestations.
2. Always test for phytotoxicity by spraying on few plants before using this rate on a large scale.
3. Apply OxiDate 5.0 in solution (gallons per acre) quantities great enough to ensure uniform coverage of upper and lower foliage, stems, branches and stalks. Final spray solution volume will depend on crop type, canopy size and/or growth stage.
4. Maintain a 3-5 day spray schedule until control is achieved.]

**[Optional Chart]**

Dilution Rate Chart						
Amount of OxiDate 5.0 per Acre						
Dilution Rate of OxiDate 5.0	Spray Volume (Gallons/Acre)					
	5	15	20	50	100	500
<b>1:100 (1.0% v/v)</b>	6.4 fl. oz.	19.2 fl. oz.	26 fl. oz.	64 fl. oz.	1.0 gal.	5.0 gal.
<b>1:256 (0.39% v/v)</b>	2.5 fl. oz.	7.5 fl. oz.	10 fl. oz.	25 fl. oz.	50 fl. oz.	250 fl. oz.
<b>1:500 (0.2% v/v)</b>	1.3 fl. oz.	3.8 fl. oz.	5.1 fl. oz.	12.8 fl. oz.	26 fl. oz.	1.0 gal.

**Application Rates and Directions Chart**

*[OxiDate 5.0] [This product] can be used on the following crops including but not limited to:*

Crop	Disease	Application Rates
<b>Bush &amp; Cane Berries</b> <i>Including, but not limited to:</i> Blackberries Blueberries Raspberries	Alternaria Anthracnose Bacterial Canker Botrytis Downy Mildew Mummy Berry Disease Cane Blight Leaf Rust Leaf Spot Powdery Mildew	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, see "Foliar Spray Treatments" directions.</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> See "Foliar Spray Treatments" directions.  <b>Preventative:</b> 1:500 dilution. Begin preventative sprays early in season, when new shoot growth appears. Maintain a 5-10 day spray schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p>

		<b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]
<b>Citrus Crops:</b> <b><i>Including, but not limited to:</i></b> Citrus Hybrids Grapefruit Kumquat Lemon Limes Orange Tangerine	Alternaria Anthracnose Greasy Spot Black Spot Rust Citrus Scab Citrus Canker	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, see "Foliar Spray Treatments" directions.</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> See "Foliar Spray Treatments" directions.]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule. Spray entire tree including trunk, branches, leaf canopy. Spray all areas where branches have been pruned, grafted or have become damaged or have apparent lesions or breaks in bark.]</p> <p><b>[Curative:</b> 1:256 dilution. Spray diseased plants using OxiDate 5.0 treatment solution for one to three consecutive days until control is achieved, then continue treatments on a 5-10 day spray schedule.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>
<b>Cole Crops:</b> <b><i>Including, but not limited to:</i></b> Broccoli Brussels Sprouts Cabbage Cauliflower Collards Kale	Alternaria Bacterial Leaf Spot Black Rot Downy Mildew Powdery Mildew	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:256. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, see "Foliar Spray Treatments" directions.</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> See "Foliar Spray Treatments" directions.]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p>
<b>Cucurbit Crops:</b> <b><i>Including, but not limited to:</i></b> Cucumber Melons Squash	Alternaria Anthracnose Downy Mildew Gummy Stem Blight Leaf Spot Powdery Mildew Phytophthora Blight/Fruit Rot	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, see "Foliar Spray Treatments" directions.</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> See "Foliar Spray Treatments" directions.]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>

<b>Fruiting Vegetables:</b> <i>Including, but not limited to:</i> Eggplant Peppers Tomatoes Tomatillos	Alternaria Anthracnose Downy Mildew Leaf Spot Powdery Mildew Early Blight Late Blight Leaf Mold Bacterial Wilt Bacterial Speck Bacterial Spot Botrytis-Gray Mold Cladosporium Mold	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, see "Foliar Spray Treatments" directions.</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> See "Foliar Spray Treatments" directions.  <b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>
<b>Herbs &amp; Spices:</b> <i>Including, but not limited to:</i> Basil Chives Cilantro Coriander Dill Medicinal Mint Oregano Parsley Rosemary Sage Other miscellaneous herbs	Anthracnose Downy Mildew Powdery Mildew Pythium Rot	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:256. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, see "Foliar Spray Treatments" directions.</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> See "Foliar Spray Treatments" directions.]</p> <p><b>[Preventative:</b> 1:500 dilution. Apply preventative sprays as new shoots emerge on a 5-10 day schedule with thorough coverage.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p>
<b>Leafy Vegetables:</b> <i>Including, but not limited to:</i> Lettuce Microgreens	Brown Rot Botrytis Downy Mildew Phytophthora Powdery Mildew Rust Leaf Spot	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:256. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, see "Foliar Spray Treatments" directions.</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> See "Foliar Spray Treatments" directions.]</p> <p><b>[Preventative:</b> 1:500 dilution. Apply preventative sprays as new shoots emerge on a 5-10 day schedule with thorough coverage.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p>
<b>Strawberries</b>	Alternaria Anthracnose Angular Leaf Spot Botrytis Leaf Blight Powdery Mildew Pestalotiopsis	<p><b>Foliar Applications Immediately Post Planting:</b> Apply at a 1:500-1:256 dilution. Make application immediately following planting. Apply in a sufficient amount of water to achieve runoff to soil or plastic, typically 30 to 100 gallons of spray solution per acre.</p> <p><b>Foliar applications to established plants:</b> When conditions favor development of disease, or at first sign/symptom of disease, apply at 1:500-1:256 dilution. Maintain a 3-10 day spray schedule until control is achieved.</p> <p>[Optional Language]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p>
	For control of soil-borne disease, including but not limited to: Anthracnose Crown Rot Botrytis Crown Rot Pestalotiopsis	<p><b>Pre-Plant Dip or Spray:</b> Dilute at a 1:256 rate (5.0 fl. oz. per every 10 gallons of water). Thoroughly wet transplants by dipping or spraying prior to planting. Excessive foaming or bubbling during the dipping process is an indication of high levels of disease contamination. Remove dead or dying foliage prior to dipping.</p>

	Phytophthora Crown Rot	<b>Setting Water Applications:</b> Apply at a 1:500-1:100 dilution rate (26-128 fl. oz. per 100 gallons of transplant water or starter fertilizer). Make in-furrow or dibble dribble application at the time of plant set. OxiDate 5.0 is chemically compatible with most water-soluble fertilizers but conduct a compatibility test prior to mixing.
<b>Tobacco (Float Beds)</b>	To control foliar diseases, such as, but not limited to, Blue Mold and Target Spot.  To control root rot diseases caused by pathogens, such as, but not limited to, Pythium spp.	<b>Foliar Treatment:</b> Apply OxiDate 5.0 as a foliar spray at 1:500-1:256 dilution rate once every week. Start with 1:500 dilution rate (0.26 fl. oz. per gallon of water) during first 4-8 weeks of the crop, then use a dilution rate of 1:256 (0.5 fl. oz. per gallon of water) at first sign of disease  <b>Water Treatment:</b> Initial float Bed Treatment: use a 1:12,500 dilution rate (1 fl. oz. per 100 gallons of water), as a water treatment, 24 hours prior to putting the trays in the float beds, followed by periodic treatment of the float bed water with 1:25,000 dilution rate (0.51 fl. oz. per 100 gallons of water)
<b>Other Miscellaneous Crops: Including, but not limited to:</b> Tobacco Hops	Anthrachnose Alternaria Leaf Spot- (Brown Mold) Angular Leaf Spot Frogeye Leaf Spot Late Blight Botrytis-Gray Mold Downy Mildew Powdery Mildew Blue Mold	Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.  For more directions, see " <b>Foliar Spray Treatments</b> " directions.  [Optional Language]  <b>[Foliar Applications:</b> See "Foliar Spray Treatments" directions. <b>Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]  <b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]  <b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]

## OTHER CROPS

### Application Rates and Directions Chart

Crop	Disease	Application Rates
<b>Hemp Industrial Hemp</b>	Anthrachnose Bacterial Leaf Spot Botrytis Blight/Gray Mold Downy Mildew Fungal Leaf Spot Powdery Mildew Rust	Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.  For more directions, see "Foliar Spray Treatments" directions.

### Chemigation for Controlling Plant Pathogenic Organisms

Apply OxiDate 5.0 at a rate of 1:2500-1:420 (equivalent to approximately 22-132 ppm of peroxyacetic acid) through one of the following types of irrigation systems: center pivot, lateral move, end tow, side wheel roll, traveler, solid set, and hand move, flood basin or drip trickle irrigation system to prevent, suppress, or eliminate fungi, bacteria and algae; Alternaria, Anthracnose, Aphanomyces, Black Spot, Botrytis (grey mold), Downy Mildew, Erwinia, Fusarium (root rot), Leaf Spot, Phytophthora (blights, rots), Penicillium molds, Plasmopara, Powdery Mildew, Pseudomonas, Pythium, Rhizoctonia, Rust, Scab, Smut, *Thielaviopsis*, Wilts and Blights, and Algae (Red, Blue Green, Black and Brown). If the application is to be made through irrigation or chemigation systems, refer to the **CHEMIGATION** section for further requirements and instructions.

### Boom Irrigation Treatments

When using boom irrigation inject OxiDate 5.0 as a periodic application at a rate of 1:800-1:256 (16-50 fl. oz. per 100 gallons of water). or as a continuous application at a rate of 1:12,500-1:6,256 (1-2 fl. oz. per 100 gallons of water). If the application is to be made through irrigation or chemigation systems, refer to the **CHEMIGATION** section for further requirements and instructions.

### HYDROPONIC APPLICATIONS (\*)

For control of root diseases: *Pythium* (Root Rot and Damping off), *Phytophthora* (Blight) *Fusarium* (Wilt), *Verticillium* (Wilt), *Rhizoctonia* (Root Rot/Bottom Rot), *Thielaviopsis* (Root Rot) in hydroponic systems.

### **Nutrient/Reservoir Tank**

Use OxiDate 5.0 at a dilution rate of 1:5,000-1:25,000 (2.56-0.5 fl. oz. per 100 gallons of water). Use lower rates (1:25,000 or less) for seedlings and/or plants with sensitive root systems. Recharge as needed when fresh water is added, or at least once every 5-7 days.

### **Media Drench**

Use OxiDate 5.0 at a dilution rate of 1:3,750-1:5,000 (3.4-2.56 fl. oz. per 100 gallons of water). Apply to soil or growing media to the point of saturation. Repeat once every 7-10 days as needed.

NOTE: When using OxiDate 5.0 on hydroponic growing systems as a foliar treatment, follow the label directions for foliar treatments. Use OxiDate 5.0 as a water treatment only after a water sample has been submitted to BioSafe Systems for analysis and special direction is provided for dosing recommendations. Inert growing media in a hydroponic growing system provides special conditions that the grower needs to adjust for due to the unbuffered water conditions. Water pH, EC and supplements such as fertilizer, biological loading and minor elements are factors that need to be considered before determining correct water treatment rates.

### **SOIL OR SOILLESS MEDIA DRENCH TREATMENTS**

OxiDate 5.0 is effective for the control of soil-borne plant diseases caused by pathogens such as *Pythium*, *Phytophthora*, *Rhizoctonia*, *Ralstonia*, *Thielaviopsis* or *Fusarium*. Drench OxiDate 5.0 prior to planting or seeding, at planting and periodically throughout plant's life. If the application is to be made through irrigation or chemigation systems, refer to the **CHEMIGATION** section for further requirements and instructions.

#### **Applications Prior to Seeding or Transplanting:**

1. Mix OxiDate 5.0 at a dilution rate of 1:256-1:100 (25-64 fl. oz. per 50 gallons of water).
2. Drench soil or growing mediums to the point of saturation. To increase soil penetration, consider using a compatible wetting agent/non-ionic surfactant.
3. Wait at least fifteen minutes before planting or watering.
4. Wait 24-48 hours following treatment before inoculating the soil with beneficial organisms.

#### **Applications to Existing Plantings-Post Seeding or Transplanting:**

1. Mix OxiDate 5.0 at a dilution rate of 1:800-1:256 (8-25 fl. oz. per 50 gallons of water). Drench soil or growing mediums to the point of saturation. To increase soil penetration, consider using a compatible wetting agent/non-ionic surfactant.
2. Wait 24-48 hours following treatment before inoculating the soil with beneficial organisms.

#### **Applications to Existing Plantings-Post Seeding or Transplanting for Rockwool and Other Soilless Media:**

1. Mix OxiDate 5.0 at a dilution rate of 1:1,000 (6.4 fl. oz. per 50 gallons of water). Do not use a dilution rate stronger than 1:1,000.
2. Drench growing media to the point of saturation. To increase media penetration, consider using a compatible wetting agent/non-ionic surfactant.
3. Wait 24-48 hours following treatment before inoculating the soil with beneficial organisms.

#### **For Seed Bed Treatment**

Use OxiDate 5.0 for the control/suppression of disease as follows:

1. Prior to sowing seed, use OxiDate 5.0 at a dilution rate of 1:500-1:256. Thoroughly wet or drench the seedbed, to the point of saturation, with 60-100 gallons of dilute solution per 1,000 square feet (sq. ft.). Let sit for one hour then immediately seed soil.
2. After seeds have germinated, use OxiDate 5.0 at a dilution rate of 1:500-1:256. 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 OxiDate 5.0 to reduce the number of plant pathogenic organisms in the soil. Use OxiDate 5.0 at a dilution rate of 1:500-1:256 (0.25-0.5 fl. oz. per gallon of clean water). Pre-treat soil by thoroughly wetting or drenching with OxiDate 5.0, wait one day following treatment before inoculating the soil with beneficial organisms.

### **PRE-PLANT SOIL TREATMENT PRIOR TO SEEDING OR TRANSPLANTING**

OxiDate 5.0 may be applied as a pre-plant soil treatment prior to seeding or transplanting, or in consecutive cropping applications. Ensure that soil moisture of the beds is at or near capacity prior to OxiDate 5.0 application.

If the application is to be made through irrigation or chemigation systems, refer to the **CHEMIGATION** section for further requirements and instructions.

**[TABLE 1.] PRE-PLANT SOIL APPLICATION INSTRUCTIONS**

TREATMENT SITE	APPLICATION INSTRUCTIONS
<b>Field Soils to be planted to the following crops, including but not limited to:</b> Asparagus, brassica vegetables (broccoli, cauliflower), cereal grains, cucurbit crops (cucumber, squash, melons), fruiting vegetables (e.g. eggplant, peppers, tomatoes), herbs and spices, hops, hemp, leek, leafy vegetables (lettuce), legume vegetables, pineapples, root and tuber vegetables (carrot, garlic, onion, potato, sweet potato), strawberries, berries (cane fruit), fruit and nut crops, citrus, pome fruit trees, stone fruit trees, tree nuts, tropical and subtropical fruits, vineyards.	<b>Pre-Plant Soil Treatment:</b> Prior to application of OxiDate 5.0, break up compacted soil and clods to loosen soil completely and pre-irrigate with water to 80-90% field capacity. Apply/inject OxiDate 5.0 at a dilution of 1:100-1:50 (1.0% v/v-2.0% v/v; 1.0-2.0 gallons per 100 gallons of water; Equivalent to approximately 553-1105 ppm peroxyacetic acid). Consider using the higher rate (1:50 dilution) when field/soil has history of high disease pressure. Based on soil type, apply approximately 3,000-6,000 gallons per treated acre (70-140 gallons per 1000 Square-Ft) of finished OxiDate 5.0 solution, as a direct drench or direct inject through irrigation systems such as but not limited to drip or sprinkler system. Refer to the Pre-Plant Application Chart below for application recommendations based on soil type. Applications should be made at a minimum of 48 hours prior to planting/transplanting to allow any residual OxiDate 5.0 to dissipate in the soil. If injected through irrigation system, run water to ensure OxiDate 5.0 has been flushed from system.
<b>Greenhouse Soils to be planted to the following, including but not limited to:</b> Food and Non-food crops, hemp, flowering plants.	
<b>Nursery, Turf, and Ornamental Soils to be planted to the following, including but not limited to:</b> Turf, lawns, parks, golf greens, athletic fields, recreational turf area, ornamentals, floral crops, forest tree seedlings.	
<b>Seed or Transplant beds to be planted to the following, including but not limited to:</b> Food and Non-food crops, flowering plants.	

Pre-Plant Application Chart						
Soil Type	Volume of OxiDate 5.0 Concentrate by Dilution Rate				Gallons of Water Required for Finished OxiDate 5.0 Solution	
	1:100		1:50		Per 1,000 sq. ft. (gallons)	Per Treated Acre (gallons)
	Gallons per 1,000 sq. ft.	Gallons per Treated Acre	Gallons per 1,000 sq. ft.	Gallons per Treated Acre		
Light (Sandy/Loam)	0.7	30	1.4	60	70	3,000
Medium (Loam)	1.0	45	2.1	90	100	4,500
Heavy (Loam Clay)	1.4	60	2.8	120	140	6,000

#### **SOIL TREATMENT WITH ESTABLISHED PLANTS OR SEEDLINGS**

Apply OxiDate 5.0 at any stage of plant growth as a soil treatment. Make applications using soil drench, flood or drip irrigation. Ensure that soil moisture of the beds is at or near capacity prior to OxiDate 5.0 application.

Following application, run irrigation system to ensure all solution has been flushed from the system into the soil. If the application is to be made through irrigation or chemigation systems, refer to the **CHEMIGATION** section for further requirements and instructions.

**[TABLE 2.] SOIL APPLICATION WITH ESTABLISHED PLANTS OR SEEDLINGS INSTRUCTIONS**

TREATMENT SITE	APPLICATION INSTRUCTIONS
<b>Field Soils to be planted to the following crops, including but not limited to:</b> Asparagus, brassica vegetables (broccoli, cauliflower),	<b>Soil Drench:</b> Apply 25 fl. oz. of OxiDate 5.0 per 200 gallons of water per 1,000 square feet (sq. ft.) of soil to be treated.



cereal grains, cucurbit crops (cucumber, squash, melons), fruiting vegetables (e.g. eggplant, peppers, tomatoes), herbs and spices, hops, hemp, leek, leafy vegetables (lettuce), legume vegetables, pineapples, root and tuber vegetables (carrot, garlic, onion, potato, sweet potato), strawberries, berries (cane fruit), fruit and nut crops, citrus, pome fruit trees, stone fruit trees, tree nuts, tropical and subtropical fruits, vineyards.	<p><b>Flood Irrigation:</b> Inject OxiDate 5.0 through a metered system using one gallon of OxiDate 5.0 per 1,000 gallons of water used.</p> <p><b>Drip Irrigation:</b> Apply OxiDate 5.0 through the drip tape at an injection rate of 1:1,000 (0.1% v/v), (equivalent to 1.0-3.0 gallons per acre in 1,000-3,000 gallons of water per acre respectively), and with a 45-90 minute run time.</p> <p>Apply first treatment during the first drip irrigation cycle. Make additional applications at 7-14 day interval depending on disease pressure. For fields with history of high disease pressure, consider using higher rate of 3.0 gallons per acre.</p>
<b>Greenhouse Soils to be planted to the following, including but not limited to:</b> Food and Non-food crops, hemp, flowering plants.	
<b>Nursery, Turf, and Ornamental Soils to be planted to the following, including but not limited to:</b> Turf, lawns, parks, golf greens, athletic fields, recreational turf area, ornamentals, floral crops, forest tree seedlings.	
<b>Seed or Transplant beds to be planted to the following, including but not limited to:</b> Food and Non-food crops, flowering plants.	

## **TURF TREATMENTS**

Use on well-established lawns, athletic fields, golf course fairways, greens and tees of Bentgrass, Bluegrass, Bermudagrass, Fescue, Ryegrass, St. Augustine grass, Zoysia and their mixtures to control/suppress algae, bacterial and fungal diseases, and the odors and conditions that these organisms may cause.

### **For Algae Control on Turf:**

Use OxiDate 5.0 to treat algae and algae crust:

1. Mix 5-12 fl. oz. of OxiDate 5.0 per 5 gallons of water. Apply in 5-10 gallons of water per 1,000 sq. ft. of turf.
2. Add a non-ionic surfactant to penetrate algae crust.
3. Under severe conditions use higher rate and increase volume of spray solution. Repeat application may be necessary for severe infestations.

### **For Turf Disease Control:**

Use OxiDate 5.0 to treat/prevent the bacterial/fungal turf diseases such as: Anthracnose, Brown Patch, Dollar Spot, Copper Spot, Summer Patch, Strip Smut, Take-All Patch, Leaf Spot, *Fusarium*, Fairy Ring, and Pink Snow Mold.

1. Use a dilution rate of 1:100-1:256 (1.3-0.5 fl. oz. per gallon of water). Apply up to 5 gallons of diluted solution per 1,000 sq. ft. of turf. Add a non-ionic drift control or wetting agent to increase canopy and thatch penetrations. Optimum treatment time is early morning or late afternoon.
2. For best results, apply immediately after grass has been cut. Applications can be made during wet or rainy weather.
3. Inject OxiDate 5.0 through automatic irrigation systems in turf areas. Refer to **CHEMIGATION** for specific instructions on using this product through irrigation systems.
4. Curative control will require consecutive treatments to eradicate disease. Reapply as disease pressure warrants.
5. **For Pink Snow Mold:** Spray in early fall to reduce the number of dormant spores. Treat every two weeks prior to first snow cover. May be applied to frozen ground. This product may be tank mixed with compatible residual fungicides.

### **Soil Drench Applications:**

Use OxiDate 5.0 to treat and prevent soil-borne diseases caused by: *Pythium*, *Phytophthora*, *Rhizoctonia*, plus control/suppress plant parasitic nematodes.

1. For best results pre-irrigate or water area to 80% of saturation.
2. Use OxiDate 5.0 at a dilution rate of 1:100- 1:256 (1.3-0.5 fl. oz. per gallon of water). Apply up to 10 gallons of dilution solution per 1,000 sq. ft. of turf. Add a non-ionic wetting agent to increase soil penetration.
3. If applying prior to seeding wait at least one hour before seeding area.
4. If using prior to inoculation with beneficial microorganisms wait at least 4 hours before inoculating the soil.

## Artificial Turf Treatment (\*)

Use OxiDate 5.0 for the prevention and control of algae, fungi, moss, slime molds and their spores.

### Application Directions:

1. Make a liquid solution of OxiDate 5.0 at dilution a rate of 1:256 (0.5 fl. oz. per gallon of water).
2. Spray evenly over area to be treated.
3. Allow treated area to remain wet for five minutes.
4. Allow to dry thoroughly before use.
5. Repeat treatment as needed.

## WATER TREATMENT

### Treatment Of Water Used For Pesticide Spray Solutions

Use OxiDate 5.0 as a bactericide/microbiocide to treat and suppress algae, bacteria and fungi in water collected from open or closed sources including but not limited to wells, ditches, canals, reservoirs, and ponds, used for pesticide spray solutions and mixtures. Add OxiDate 5.0 at a dilution rate of 1:700-1:2,500 (18.3-5.1 fl. oz. per 100 gallons of water) to water in spray or mix tank. Mix and allow a contact time of 3-5 minutes **before adding other pesticides to spray solution.**

### Tank Mixing Instructions

1. **Before adding other pesticides to the spray solution:** Mix OxiDate 5.0 first and allow a contact time of 3-5 minutes.
2. **When used with Conventional Bactericides/Fungicides/Insecticides/Miticides:** Use OxiDate 5.0 at a dilution rate of 1:2,500 to 1:1,250 (5.1 -10.2 fl. oz. per 100 gallons of water, equivalent to approximately 22-44 ppm of peroxyacetic acid). This rate range can be used with pesticides with or without metal ion(s).
3. **When used with Organic (Biorational/Botanical/Biological) Bactericides/Fungicides/Insecticides:** Use OxiDate 5.0 at a dilution rate of 1:2,500 (5.1 fl. oz. per 100 gallons of water, equivalent to approximately 22 ppm of peroxyacetic acid). The spray tank water treatment can be used on Biorational/Botanical based Bactericides/Fungicides/Insecticides/Miticides (Ex. Neem Oil, Sulfur, Plant Extracts etc.), *Bacillus* based Bio-Fungicides (spore containing or spent fermented media), Bt based Bio-Insecticides, Copper based Bactericides/Fungicides **Do not use OxiDate 5.0 with Mycoinsecticides (*Beauveria*, *Metarhizium*, *Isaria* based) or with other biological active ingredients not listed above.**
4. **When used with Micro-Foliar Fertilizers:** Use OxiDate 5.0 at a dilution rate of 1:2,500 (5.1 fl. oz. per 100 gallons of water, equivalent to approximately 22 ppm of peroxyacetic acid).

### [OPTIONAL SECTION:]

[As a preventative application for clean water (potable water, well water) used in pesticide spray solutions, use a 1:20,500 to 1:41,000 dilution rate of OxiDate 5.0. Product can be simply added to the body of water. Allow solution to disperse for 3-5 minutes before using the water.]

### Pre-Harvest Clean-Up Sprays For Spoilage And Decay Causing Organisms

Use OxiDate 5.0 as a foliar spray for control of spoilage and decay causing organisms prior to harvest. Use OxiDate 5.0 at a dilution rate of 1:500-1:256 and ensure good coverage and wetting of the food crop. For increased coverage and penetration of spray, use a compatible non-ionic wetting agent/surfactant.

### Treatment Of Water Drawn From Open And Closed Water Sources Used For Dust Abatement

Use OxiDate 5.0 at the following rates to suppress/control slime-forming bacteria, algae and fungi/oomycetes in water drawn from open and closed water sources such as wells, streams, ponds, reservoirs, irrigation canals, irrigation water and drainage ditches used to control dust on unpaved gravel and dirt roads.

- Bacteria: 8-309 fl. oz. per 1,000 gallons of water (1:16,592-1:415 dilution)
- Algae: 15-62 fl. oz. per 1,000 gallons of water (1:8,296-1:2,074 dilution)
- Fungi/oomycetes: 21-62 fl. oz. per 1,000 gallons of water (1:6,222-1:2,074 dilution)

Prepare the mixture at least 3-5 minutes prior to application for dust abatement. Apply to the road surface using a water truck (or tractor or spraying device) with equipped with a watering system.

### Treatment Of Water Used For Automated Harvesting Systems

Use OxiDate 5.0 as a microbiocide for the control of spoilage and decay causing organisms in water collected from open or closed sources including but not limited to wells, ditches, canals, reservoirs, and ponds, used in

automated harvesting systems. Add OxiDate 5.0 at a dilution rate of 1:2,500-1:700 (5.1-18.3 fl. oz. per 100 gallons of water) to the water to be used in the automated harvest system.

#### **Treatment Of Stock Tanks & Stock Waters**

Use OxiDate 5.0 to suppress/control algae, bacteria and fungi in stock tanks, stock watering ponds, tanks and troughs. Apply OxiDate 5.0 at a dilution rate 1 fl. oz. per 250 gallons of water for algae control. Do not exceed the label rate. Product can be simply added to the body of water. 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 OxiDate 5.0 over the algae mats. Apply OxiDate 5.0 as needed to control and prevent algae growth; make applications more often in times of higher water temperatures.

#### **FOR GREENHOUSE SURFACES AND EQUIPMENT**

Use OxiDate 5.0 to suppress and control algae, fungi, viruses\* [*(\*except in California)*] and bacterial growth on hard, non-porous surfaces such as glazing, plastic, pots, flats, trays, cutting tools, benches, work areas, walkways, floors, walls, fan blades, ventilation ducts, watering systems, coolers, storage rooms, structures and equipment.

1. Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt.
2. Use OxiDate 5.0 at a dilution rate of 1:256-1:50 (0.5-2.5 fl. oz. per gallon of water, equivalent to approximately 220-1,100 ppm of peroxyacetic acid) for all non-porous surfaces that have been pre-cleaned with water. Use OxiDate 5.0 at a dilution rate of 1:50 (2.5 fl. oz. per gallon of clean water) if surfaces have not been pre-cleaned with water to remove organic deposits. Additional surfactant may be used.
3. Apply solution with mop, sponge, or power sprayer to thoroughly wet all surfaces.
4. Scrub off heavy growths of algae and fungi following application. Use a solution of OxiDate 5.0 to wash away dead growth.
5. Reapply as often as needed for control.

Heavy growths of algae and fungi may have to be scrubbed off following application. Repeat treatment as required to maintain control.

#### **Foaming Treatment for Non-Spraying Applications (\*)**

Apply OxiDate 5.0 as a foam treatment in non-spraying applications to enhance contact on hard, non-porous surfaces, vertical surfaces and irregular surfaces where contact is difficult to maintain with spray treatments. Remove loose soil or organic matter with clean water and/or detergent rinse. Use OxiDate 5.0 at a dilution rate of 1:256-1:128 (0.5-1 fl. oz. per gallon of water). Add a surfactant foaming agent to the spray tank that contains the diluted OxiDate 5.0 solution. Apply foam until the surface treated is completely covered. Allow foam treated surface to air dry. Do not rinse.

#### **TREATMENT OF CLEAN, HARD, NON-POROUS SURFACES**

Use OxiDate 5.0 to suppress/control bacteria, fungi and slime forming algae on the following surfaces:

<b>SURFACE</b>	<b>USE RATE</b>	<b>INSTRUCTIONS</b>
<b>Pots, Flats, Trays</b>	1:50-1:256 (2.5-0.5 fl. oz. per gallon of clean water.	Spray until runoff. Add additional surfactant if needed. Allow surfaces to remain wet for 10 minutes.
<b>Cutting Tools</b>	1:50-1:256 (2.5-0.5 fl. oz. per gallon of clean water.  Tobacco Mosaic Virus control: 1:50-1:256 (2.5-0.5 fl. oz. per gallon of clean water.	Soak tools to ensure complete coverage. Add additional surfactant if needed. Allow surfaces to remain wet for 10 minutes.  Use OxiDate 5.0 to prevent the spread of Tobacco Mosaic Virus on cutting tools. Allow surfaces to remain wet for 1 minute.
<b>Benches and Work Areas</b>	Pre-cleaned surfaces: 1:256 (0.5 fl. oz. per gallon of clean water).	Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt. Add additional surfactant if needed. Allow surfaces to

	Unclean surfaces: 1:50 (2.5 fl. oz. per gallon of clean water) if surfaces have not been pre-cleaned with water to remove organic deposits.	remain wet for 10 minutes.
<b>Foot Bath Mats</b> Foot pads and walk-through trays	1:256 (0.5 fl. oz. per gallon of water).	Apply OxiDate 5.0 to prevent the tracking and spread of dirt and microorganisms. Make a solution of OxiDate 5.0 per gallon of water and fill foot bath mat, foot pad or walk-through tray to capacity. Allow treated surface to remain wet with solution for 10 minutes. Change solution as needed.
<b>Evaporative Coolers</b>	<p>Contaminated surfaces- 1:50-1:256 (2.5-0.5 fl. oz. per gallon of clean water). Add a foaming agent to the spray tank that contains the diluted solution.</p> <p>Cooler water shock treatment: 1:256 (0.5 fl. oz. for every gallon of cooler water).</p> <p>Cooler water continuous treatment: 1:800 (1.6 fl. oz. per 10 gallons of cooler water).</p>	<p>Apply foam solution until the surface treated is completely covered. Turn off coolers for 20 minutes to allow foam to work. Allow foam-treated surfaces to air dry. Do not rinse.</p> <p>Treat cooler water weekly as a preventative shock treatment.</p> <p>Continuously inject OxiDate 5.0 to prevent algae and slime contamination.</p>

## **CONTROL OF ALGAL, FUNGAL AND ODOR CAUSING BACTERIAL GROWTH ON NON FOOD CONTACT GREENHOUSE WATERING SYSTEMS**

### **Treatment Of Greenhouse Evaporative Coolers**

Treat contaminated surfaces with OxiDate 5.0 at a dilution rate of 1:50-1:256 (2.5-0.5 fl. oz. per gallon of water; equivalent to approximately 220-1100 ppm of peroxyacetic acid). For maintenance, treat cooler water once a week with a dilution of 1:800 (1.6 fl. oz. for every 10 gallons of cooling water).

### **Treatment Of Greenhouse Irrigation Water**

Use OxiDate 5.0 to treat irrigation water during all phases of greenhouse crop production to suppress/control algae, bacteria, and fungi, fungi like organisms (water molds) in irrigation water applied as flooded floors, flooded benches, recycled water systems, drip trickle, capillary mats, sprinkler systems, humidification and misting systems.

Apply the product at a dilution rate of 1:22,000-1:2,750 (5.8-46.5 fl. oz. per 1,000 gallons of water; equivalent to approximately 2.7-21 ppm of peroxyacetic acid). A water test is recommended to determine the proper rate of product. Product can be injected directly into the irrigation water at the point of intake from the source or directly to the water in the holding tank or inject into the water exiting the water holding tank preferably after fertilizer injection point. For best results, continuous injection into the water is recommended every time crop is irrigated.

### **Treatment Of Greenhouse Irrigation Systems**

Use OxiDate 5.0 to prevent/control algal and/or bacterial growth inside the greenhouse irrigation systems in between crop growing season. To control existing growth, fill irrigation lines with OxiDate 5.0 at a dilution rate of 1:100-1:50 (1.0-2.0 gallons per 100 gallons of water; equivalent to approximately 550-1,100 ppm of peroxyacetic acid) and allow a contact time of at least 60 minutes or overnight if possible. Lines should then be flushed with fresh irrigation water.

### **CHEMIGATION: General Requirements -**

1. Apply this product only through a drip system or sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, hand move, flood (basin), furrow, border or drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system.
2. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
3. If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.
4. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
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 necessary adjustments as needed.
6. 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.
7. Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign must 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.
8. All words shall consist of letters at least 2.5 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 sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

#### **Specific Requirements for Chemigation Systems Connected to Public Water Systems -**

1. 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.
2. 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 must 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.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
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 withdrawn 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. 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.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

#### **Specific Requirements for Sprinkler Chemigation -**

1. 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.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

3. 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.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. 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.
6. 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 filled with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

#### **Specific Requirements for Flood (Basin), Furrow and Border Chemigation -**

1. 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 backflow if water flow stops.
2. The systems utilizing a pressurized water and pesticide injection system must meet the following requirements:
  - a. 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.
  - b. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
  - c. 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.
  - d. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
  - e. 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.
  - f. 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 filled with a system interlock.

#### **Specific Requirements for Drip (Trickle) Chemigation -**

1. The system must contain a functional check valve, a vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. 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.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. 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.
6. 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 filled with a system interlock.

#### **Application Instructions -**

1. Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injection system. Flush with clean water until no scale or pesticide residues are present. Failure to provide a clean tank, void of scale or residues may cause product to lose effectiveness or strength.
2. Follow the application rates and frequency as indicated in the directions for use section of the label.

3. OxiDate 5.0 can be direct injected from the original container. Use only compatible injection equipment and materials when injecting OxiDate 5.0 into the irrigation system.
4. OxiDate 5.0 can be direct injected through a separate injection port in conjunction with other pesticides or fertilizers. Once properly diluted, OxiDate 5.0 will not interact with other commonly used pesticides or fertilizers at recommended rates. For injection of OxiDate 5.0 in conjunction with metal-based fungicides, biological based pesticides or organic fertilizers consult your BioSafe Systems technical representative for specific instructions.

#### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in original container in a cool, dry well-vented area, away from direct sunlight. Do not allow product to become overheated in storage. 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 directions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER HANDLING: (Non-refillable containers equal to or less than 5 gallons):** 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 ¼ 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. Do not burn, unless allowed by state and local ordinances. If burned, stay out of smoke.

**(Non-refillable containers greater than 5 gallons):** 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 ¼ 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. 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. Do not burn, unless allowed by state and local ordinances. If burned, stay out of smoke.

**For Refillable Containers:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

#### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of BIOSAFE SYSTEMS LLC or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold BIOSAFE SYSTEMS LLC and Seller harmless for any claims relating to such factors, to the extent consistent with applicable law.

BIOSAFE SYSTEMS LLC warrants that this product conforms to the *chemical* description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above when used in accordance with directions under normal use conditions. To the extent consistent with applicable law, this warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or BIOSAFE SYSTEMS LLC, and Buyer and User assume the risk of any such use TO THE EXTENT CONSISTENT WITH

APPLICABLE LAW, BIOSAFE SYSTEMS LLC MAKES NO WARRANTIES OF MERCHANTABILITY FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESSED OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, in no event shall BIOSAFE SYSTEMS LLC or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF BIOSAFE SYSTEMS LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF BIOSAFE SYSTEMS LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

BIOSAFE SYSTEMS LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of BIOSAFE SYSTEMS LLC.



## Sublabel B: Agriculture

# OxiDate<sup>®</sup> 5.0

## Broad Spectrum Bactericide, Fungicide Algaecide FOR AGRICULTURAL USE

**ACTIVE INGREDIENTS:** Hydrogen Peroxide..... 27.00%  
Peroxyacetic Acid ..... 5.00%

**OTHER INGREDIENTS:**..... 68.00%

**TOTAL:** ..... 100.00%

**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	
<b>If in eyes</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If swallowed</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>If inhaled</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li><li>• Call a poison control center or doctor for further treatment advice</li></ul>
<b>HOTLINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information on OxiDate 5.0, call the National Pesticides Information Center at 1-800-858-7378, 6:30AM to 4:30 PM Pacific Time (PT), seven days a week. During other times, call the Poison Control Center at 1-800-222-1222.	
<b>NOTE TO PHYSICIAN</b>	
Probable mucosal damage may contraindicate the use of gastric lavage.	

See [back] [side] [inside] [panel] [label] [sticker] [booklet] for first aid, additional precautionary statements and directions for use.

**EPA Registration No.** 70299-28

**Net Contents:** 1, 2.5, 5, 30, 55, 275, 330 gallons

**EPA Establishment No.** 082521-GA-001, 92957-MI-001, 067441-IL-001, 70299-NV-1,  
70299-NV-2, 70299-AZ-1

**Batch Code** \_\_\_\_\_

**Manufactured by:**  
**BioSafe Systems, LLC**  
22 Meadow Street  
East Hartford, CT 06108  
(888) 273-3088

[Note to Reviewer: Text in brackets [ ] is optional. "This product" can be substituted with actual product name. Commas and the words "and" "or" can be added to phrases to make text grammatically correct.]

**OxiDate 5.0; EPA Reg. No. 70299-28**

Clean Copy Label (V5) dated March 9, 2022

Amendment

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**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**DANGER**

**CORROSIVE:** Causes irreversible eye damage. Causes skin irritation or temporary discoloration on exposed skin. Harmful if absorbed through skin. May be fatal if swallowed. Do not breathe vapor. Do not get in eyes, on skin or on clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Handlers who may be exposed to the undiluted product through mixing, loading, application, or other tasks must wear: coveralls over long-sleeved shirt and long pants, rubber gloves, chemical resistant footwear plus socks, and protective eyewear (goggles or face shield). Handlers who may be exposed to the dilute through application or other tasks must wear: long-sleeved shirt and long pants, and shoes plus socks. Follow manufacturer's instructions for cleaning and maintaining PPE. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**ENGINEERING CONTROLS**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

**USER SAFETY RECOMMENDATIONS**

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**

This pesticide is toxic to birds. Treated seed exposed on soil surface may be hazardous to birds, wildlife, fish and aquatic invertebrates. Cover or collect seeds spilled during loading. 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 when disposing of equipment washwaters or rinsate. Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

**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 State or Tribal 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), notification to workers, 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.

Handlers who may be exposed to the undiluted product through mixing, loading, application, or other tasks must wear: coveralls over long-sleeved shirt and long pants, rubber gloves, chemical resistant footwear plus socks, and

protective eyewear (goggles or face shield). Handlers who may be exposed to the dilute through application or other tasks must wear: long-sleeved shirt and long pants, and shoes plus socks.

For enclosed environments:

There is a Restricted Entry Interval (REI) of one (1) hour for this product when applied via spraying to growing plants, surfaces, equipment, structures and non-porous surfaces in enclosed environments such as glasshouses and greenhouses. 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 coveralls worn over long-sleeved shirt and pants, waterproof gloves and shoes plus socks.

There is a Restricted Entry Interval (REI) of zero (0) hours for pre-plant dip, seed treatment, soil drench, mop, sponge, dip, soak, rinse or other non-spraying 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.

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

**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.

**[INTRODUCTION] [PRODUCT INFORMATION]**

OxiDate 5.0 is a powerful broad-spectrum bactericide/fungicide/microbiocide formulated to treat and control plant pathogens on a wide variety of crops. OxiDate 5.0 utilizes a proprietary peroxyacetic acid (PAA) chemistry to eradicate plant pathogens on contact, with no residues and no known resistance. [OxiDate 5.0 is a keystone chemistry that strengthens spray programs by reducing disease pressure.]

[OxiDate 5.0 is a broad-spectrum bactericide/fungicide/microbiocide/algaeicide used to treat and control pests in agricultural applications.]

[OxiDate 5.0 is a liquid bactericide/fungicide used to treat and control plant pathogens on field grown crops. Apply OxiDate 5.0 up to and including the day of harvest.. If the application is to be made through irrigation or chemigation systems, refer to the **CHEMIGATION** section for further requirements and instructions.]

[Use OxiDate 5.0 as a foliar spray for control of spoilage and decay causing organisms up to and including day of harvest.]

[Use OxiDate 5.0 as a bactericide/microbiocide to treat and suppress algae, bacteria and fungi in water collected from open or closed sources including but not limited to wells, ditches, canals, reservoirs, and ponds, used for pesticide spray solutions and mixtures.]

[OxiDate 5.0 can be used as a soil treatment product as a pre-plant application prior to or at seeding or transplanting, and as a periodic soil treatment throughout the plant's life up to the day of harvest.]

[OxiDate 5.0 controls the following soil borne pathogens when used as a soil treatment: Fusarium (root rot, leaf spot, Pink Snow Mold)-Phytophthora (blights, rots)-Pythium (root rot)-Rhizoctonia (blight, stem rot)-Verticillium (wilt).]

[OxiDate 5.0 works by surface contact with the soils being treated. It is important to ensure that all surfaces are thoroughly wetted and that sufficient quantities of the finished solution are applied to penetrate the soil being

treated. Areas treated with OxiDate 5.0 do not need to be covered with tarps or protective plastic. OxiDate 5.0 is not a fumigant. The performance of OxiDate 5.0 is not affected by fumigation. Use OxiDate 5.0 on fumigated and unfumigated soil.]

[Use OxiDate 5.0 at the following rates to suppress/control bacteria, algae and fungi/oomycetes in water drawn from open and closed water sources such as wells, streams, ponds, reservoirs, irrigation canals, irrigation water and drainage ditches used to control dust on unpaved gravel and dirt roads.]

[OxiDate 5.0 controls yeast which is a food source for spotted wing drosophila (SWD).] (\*)

[Use OxiDate 5.0 as a treatment for the prevention and control of plant pathogens on surfaces, equipment and structures used in processing post-harvest commodities.]

[Apply OxiDate 5.0 to treat/control bacteria, fungi and algae in greenhouse structures and equipment, storage sites and irrigation systems.]

## APPLICATION METHODS

**Ground:** This product can be applied by commonly used ground equipment, such as air blast, hose-end, hydraulic, pressurized, greenhouse and handheld sprayers. Use proper spray pressure, gallonage per acre, nozzles, nozzle spacing and ground speed.

**Chemigation:** This product can be applied through sprinkler (center pivot, lateral move, end tow, side (wheel) roll, traveler, solid set or hand move) or drip-type irrigation systems. If the application is to be made through irrigation or chemigation systems, refer to the **CHEMIGATION** section for further requirements and instructions.

**Aerial:** This product can be applied by aerial application. Refer to the **Aerial Spray Treatments** section of this label for additional directions and precautions. Use the application rate, indicated for the appropriate crop in the Application Rate tables of this label, in sufficient water to achieve thorough coverage, typically between 5-20 gallons of water per acre depending upon the crop.

**Solution Preparation:** OxiDate 5.0 works best when diluted with water containing low levels of organic or inorganic materials. Measuring total suspended solids and electrical conductivity can help in determining concentration of organic and inorganic content in the water. Thoroughly rinse out mixing tank with clean water before mixing concentrate as to clean out residues from other substances. OxiDate 5.0 will readily mix with clean, neutral water. OxiDate 5.0 does not produce any visible residue, distinct odor or deleterious effects to plants when used in accordance with label directions.

OxiDate 5.0 works by surface contact with the plants and materials being treated. Coverage is critical to product performance. It is important to ensure that all plant surfaces are thoroughly wetted. It is recommended to use appropriate nozzles and solution volume (gallons per acre) based on crop and canopy density. For best performance, thoroughly apply solution to ensure full coverage of all plant tissue. OxiDate 5.0 is formulated with a minimal amount of surfactant. Other surfactants approved for such use can be added to the spray mix to enhance coverage of plants having difficult to reach or cover surfaces, such as waxy or hairy surfaces, as long as all label instructions are followed. To improve performance, it is recommended to use a non-ionic surfactant to increase contact time on the plant tissue.

**Note:** Use spray solution the same day it is prepared, do not store and reuse mixed spray solution.

Before mixing OxiDate 5.0 with other materials, conduct a jar test for compatibility in mixtures.

**Compatibility:** OxiDate 5.0 is compatible as a direct injection or tank-mix with many commonly used pesticides, fertilizers, and adjuvants. OxiDate 5.0 has not been tested with all potential tank-mix partner products, as such do not direct inject or tank mix OxiDate 5.0 into the irrigation system or in the spray tank with pesticides, adjuvants, or fertilizers before conducting a jar test to confirm it is physically compatible and poses no adverse tank-mixing reactions. Conduct a jar test before mixing OxiDate 5.0 with other pesticides, fertilizers, or adjuvants to determine compatibility before use. Mix each component in the correct proportions, and shake or stir vigorously. If any adverse reactions occur in the jar, products should be considered incompatible.

OxiDate 5.0 may have a deleterious effect on biological based biopesticides, especially those biopesticides containing living organisms. Be sure to consult all biopesticide product labels to ensure compatibility before tank-mixing these products with OxiDate 5.0.

Contact BioSafe Systems for more detailed tank-mix instructions and to learn more about product interactions prior to mixing and applying tank-mix solutions. Always read and follow label instructions for all products specific to additional information or restrictions concerning tank-mixing. Observe the most restrictive limitations and precautions of the labeling of all products used in mixtures.

**Plant Sensitivity Testing:** For foliar spray and foliar chemigation applications, only use OxiDate 5.0 at labeled dilution rates. This product has been tested for phytotoxicity and is safe to use on a variety of crops; however, it is not possible to test all crop varieties grown under all growing conditions or all growth stages with this product to ensure no phytotoxic effects to the target crop throughout its life cycle. Plants grown in greenhouses vary greatly from those grown under field conditions, as such should be tested for phytotoxicity separate from field grown crops.

Periods of intense plant stress may increase phytotoxic sensitivity to pesticide applications. It is recommended to determine if OxiDate 5.0 can be used safely and non-injurious to target crop under your use conditions prior to application by conducting a phytotoxicity test.

Foliar spray applications: Before treating large numbers of plants, test OxiDate 5.0 or tank mixes of OxiDate 5.0 and other pesticides or fertilizers at labeled rates on a small number of plants and observe for symptoms of sensitivity prior to use. OxiDate 5.0 is a strong oxidizing agent and may react with residues of metal-based fungicides or supplements. Do not apply OxiDate 5.0 as a foliar spray immediately following foliar applications of metal-based products. Allow at least 48-72 hrs. after application of metal-based products before applying OxiDate 5.0 as a foliar spray. Check the label of the metal-based product prior to application for specific instructions for use with other fungicide products.

Foliar chemigation applications: Before treating several acres of plants, test OxiDate 5.0 by itself or in combination with other pesticides or fertilizers at labeled rates for chemigation on a small number of plants and observe for symptoms of plant sensitivity such as spotting/yellowing on the foliage prior to use.

Do not use at a higher concentration than labeled dilution rates, as leaf burn may result.

OxiDate 5.0 will oxidize parasitic organisms living in plant tissue that are not always visible to the naked eye. When using OxiDate 5.0 for control of organisms living on the plant tissue, such as Powdery Mildew, treatment may result in lesions on plant tissue. Resulting oxidative effects may include spotting or drying of the plant tissue where organisms inhabited tissue.

Read the entire label before using this product. Use this product only according to label directions. Contact BioSafe Systems with any questions or concerns regarding product applications on your crop.

## **FOLIAR APPLICATIONS**

Use ***Application Rates and Directions*** for Foliar Applications on [Fruit and Vegetables], [Tree], [Vine] [And All Other] [Field Grown] [Crops]

**PREHARVEST INTERVAL: PHI = Zero (0) Days.** OxiDate 5.0 can be sprayed up to and including the day of harvest.

## **Application Rates and Directions**

OxiDate 5.0 works immediately on contact for control of plant diseases-see **Application Rates and Directions Chart**. Good coverage and wetting of the foliage is required. Apply OxiDate 5.0 in solution quantities (gallons per acre) great enough to ensure uniform coverage of upper and lower foliage, stems, branches and stalks. Final spray solution volume will depend on crop type, canopy size and/or growth stage. For increased coverage and penetration of spray, use a compatible non-ionic wetting agent/surfactant. For drift reduction and to aid spray deposition, the use of a proper adjuvant is recommended. Do not spray OxiDate 5.0 during conditions of intense plant stress. Before widespread use, run a plant sensitivity test when considering use of spray concentrations greater than 0.39% v/v (1:256) by following instructions under "plant sensitivity testing."

See ***“Application Rates and Directions Chart”*** for Disease list and additional instructions.

Begin applications of OxiDate 5.0 when conditions favor the development of disease and/or during growth stages most susceptible to infection, then continue use in 3-21 day intervals or as needed. Under moderate to severe disease pressure/conditions or at first sign/symptom of disease, reduce intervals and increase rates of application until control is achieved. OxiDate 5.0 can be applied at dilution rates of 1:500-1:100 (26-128 fl. oz. per 100 gallons of water) depending on the crop group. See **‘Applications Rates and Directions Chart’** for additional crop specific rates and instructions. Diluting OxiDate 5.0 in clean water by 75% before adding tank-mix partners and/or using a lower dilution rate, such as 1:500 (26 fl. oz. per 100 gallons of water), may improve compatibility with potential reactive tank-mix partners. See **‘Solution Preparation, Compatibility, and Plant Sensitivity Testing’** for additional information and instructions.

[Optional Language]

**[Preventative Application Rates:**

1. Begin applications early in season. Use OxiDate 5.0 at a dilution rate of 1:500 (26 fl. oz. per 100 gallons of water).
2. Apply OxiDate 5.0 in solution quantities great enough to ensure uniform coverage of upper and lower foliage, stems, branches and stalks. Final spray solution volume will depend on crop type, canopy size and/or growth stage.
3. Maintain a 5-10 day spray schedule to prevent the establishment of disease inoculum.]

**[Curative Application Rates:**

1. For best results, apply at first sign of disease. Use OxiDate 5.0 at a dilution rate of 1:256 (50 fl. oz. per 100 gallons of clean water). Do not store and reuse mixed spray solution, prepare a fresh solution daily.
2. OxiDate 5.0 in solution quantities great enough to ensure uniform coverage of upper and lower foliage, stems, branches and stalks. Final spray solution volume will depend on crop type, canopy size and/or growth stage.
3. Maintain a 3-10 day spray schedule until control is achieved.]

**[Rescue Treatment Rates:** (See **Application Rates and Directions Chart** for more information.)

1. Concentrations up to 1:100 (1 gallon of OxiDate 5.0 for every 100 gallons of water) can be used as a rescue treatment for severe infestations.
2. Always test for phytotoxicity by spraying on few plants before using this rate on a large scale.
3. Apply OxiDate 5.0 in solution (gallons per acre) quantities great enough to ensure uniform coverage of upper and lower foliage, stems, branches and stalks. Final spray solution volume will depend on crop type, canopy size and/or growth stage.
4. Maintain a 3-5 day spray schedule until control is achieved.]

**Electrostatic Spray Applications:**

For electrostatic sprayers, use associated rates from **Applications Rates and Directions Chart**. Apply between 10-25 gallons of spray solution per treated acre. Follow spray equipment manufacturer's instructions for final spray volume to obtain adequate coverage.

**Early And Late Dormant Sprays Application Instructions**

Use dormant sprays for early and late season applications on tree crops, small fruits, cane berries and vine crops to control dormant spores of bacterial and fungal pathogens.

1. Make applications after leaf drop in fall, after pruning and prior to bud swell in spring.
2. Use OxiDate 5.0 at a dilution rate of 1:500-1:100.
3. Use up to 500 gallons of spray solution per acre. For the most effective results, use enough volume of spray solution to obtain complete and uniform coverage of all plant parts.

**Aerial Spray Treatments**

**Spray Drift Management-** Avoiding spray drift is the responsibility of the applicator.

Do not apply when wind conditions favor drift away from the intended area for treatment. Many factors including droplet size, equipment type and weather related factors determine the potential for spray drift.

To ensure optimum product performance, use at the foliar application rate indicated in sufficient water for adequate coverage of plant foliage. Apply between 5-20 gallons per acre of total spray solution. Do not make applications at a height greater than 10 ft. above the plant canopy, unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to wind and evaporation. Do not exceed the maximum application rate or apply more often than labeled in the Application Instructions for that crop.

### Seed Treatments

Use OxiDate 5.0 as a surface seed treatment to reduce disease causing fungi and bacterial pathogens on or in seeds.

1. Use OxiDate 5.0 at a dilution rate of 1:256 (25 fl. oz. per 50 gallons of water).
2. Immerse seeds and let soak for at least two minutes; remove and allow to drain. Do not rinse. Plant seed according to seed package directions.

### As a Pre-Plant Dip or Spray Treatment

Use OxiDate 5.0 for the control/suppression of damping-off, root and stem rot diseases caused by pathogens such as *Pythium*, *Phytophthora*, *Rhizoctonia*, *Fusarium*, *Erwinia* (\*), or *Thielaviopsis* on ornamental and nursery plants, seed beds, seeds, seedlings, transplant slips, bulbs, or cuttings.

1. Use OxiDate 5.0 at a dilution rate of 1:256 (25 fl. oz. per 50 gallons of water).
2. Immerse plants or cuttings. Remove and allow to drain. Do not rinse.

### [Optional Chart]

Dilution Rate Chart Amount of OxiDate 5.0 per Acre						
Dilution Rate of OxiDate 5.0	Spray Volume (Gallons/Acre)					
	5	15	20	50	100	500
1:100 (1.0% v/v)	6.4 fl. oz.	19.2 fl. oz.	26 fl. oz.	64 fl. oz.	1.0 gal.	5.0 gal.
1:256 (0.39% v/v)	2.5 fl. oz.	7.5 fl. oz.	10 fl. oz.	25 fl. oz.	50 fl. oz.	250 fl. oz.
1:500 (0.2% v/v)	1.3 fl. oz.	3.8 fl. oz.	5.1 fl. oz.	12.8 fl. oz.	26 fl. oz.	1.0 gal.

### [Optional Chart]

Dilution Rate Chart Amount of OxiDate 5.0 per Acre						
Dilution Rate Of OxiDate 5.0	Spray Volume (Gallons/Acre)					
	50	100	200	300	400	500
1:100 (1.0% v/v)	0.5 gal.	1.0 gal.	2.0 gal.	3.0 gal.	4.0 gal.	5.0 gal.
1:256 (0.39% v/v)	25 fl. oz.	50 fl. oz.	100 fl. oz.	150 fl. oz.	200 fl. oz.	250 fl. oz.
1:500 (0.20% v/v)	12.8 fl. oz.	26 fl. oz.	51 fl. oz.	77 fl. oz.	102 fl. oz.	128 fl. oz.

## Application Rates and Directions Chart

[OxiDate 5.0] [This product] can be used on the following crops: including, but not limited to:

Crop	Disease	Application Rates
Asparagus	Purple Spot (*) Rust (*)	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow "<b>Application Rates and Directions</b>".</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow: "<b>Application Rates and Directions</b>".]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray</p>

		schedule until control is achieved.]
	Fusarium (*) (Crown/Root Rot) Phytophthora (Crown/Root Rot)	<p><b><u>Pre-Plant Soil Treatment:</u></b> Prior to planting, treat the Phytophthora infested soil with 1:100-1:256 solution.</p> <p><b><u>Pre-Plant Dip:</u></b> Dip the Asparagus crowns prior to planting in 1:500 solution (0.25 fl. oz. per gallon) of OxiDate 5.0 for 3-5 minutes.</p> <p><b><u>Post Planting Soil Treatment:</u></b> Treat the soil as needed using a 1:500 solution of OxiDate 5.0.</p>
Avocado	Anthrachnose Blotch	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow “<b>Application Rates and Directions</b>”.</p> <p>[Optional Language]</p> <p><b><u>Foliar Applications:</u></b> Follow “<b>Application Rates and Directions</b>” .]</p> <p><b><u>Preventative:</u></b> 1:800-1:500 dilution. Apply preventative sprays when bloom buds swell and continue on a 5-10 day schedule through bloom.]</p> <p><b><u>Curative:</u></b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b><u>Rescue:</u></b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>
Bananas Plantains	Sigatoka	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow “<b>Application Rates and Directions</b>”.</p> <p>[Optional Language]</p> <p><b><u>Foliar Applications:</u></b> Follow “<b>Application Rates and Directions</b>”.]</p> <p><b><u>Preventative:</u></b> 1:500 dilution. Apply preventative sprays on a 5-10 day schedule with thorough coverage. Can be applied in combination or alternation with a protectant fungicide.]</p> <p><b><u>Curative:</u></b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b><u>Rescue:</u></b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>
<b>Bulb Vegetables</b> <b><i>Including, but not limited to:</i></b> Garlic Green Onions Leeks Onions Scallions Shallots	Alternaria Leaf Blight Bacterial Leaf Blight (*) Bacterial Soft Rot Basal Rot (*) Botrytis Downy Mildew Powdery Mildew Purple Blotch Neck Rot (*) Smut	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow “<b>Application Rates and Directions</b>”.</p> <p>[Optional Language]</p> <p><b><u>Foliar Applications:</u></b> Follow: “<b>Application Rates and Directions</b>”.]</p> <p><b><u>Preventative:</u></b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]</p> <p><b><u>Curative:</u></b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b><u>Rescue:</u></b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>
<b>Bush &amp; Cane Berries</b> <b><i>Including, but not limited to:</i></b> Blackberry Blueberry Raspberry	Alternaria Anthrachnose (*) Bacterial Canker (Pseudomonas) Botrytis Cane Blight (*) Crown Rot	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow “<b>Application Rates and Directions</b>”.</p>



	Downy Mildew Leaf Blight Leaf Rust (*) Leaf Spot (*) Powdery Mildew Mummy Berry Disease	<p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow “<b>Application Rates and Directions</b>”.]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season, when new shoot growth appears. Maintain a 5-10 day spray schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>
<b>Cereal Grains &amp; Commodities</b> <b>Including, but not limited to:</b> Barley Millet Oats Rice Rye Sorghum (Milo) Wheat Wild Rice Triticale Spelt Kamut Farro Bulgur Teff Quinoa Amaranth Buckwheat Chia	Anthracnose Bacterial Leaf Blight Brown Leaf Spot Downy Mildew Glume Blotch Leaf Blight Leaf Blotch Powdery Mildew Sheath Blight Smut Sorghum Downy Mildew Southern Blight Spot Blotch Stem Canker Tan Spot Rice Blast Rust  Suppression of: Fusarium Head Scab	<p>Apply OxiDate 5.0 at dilution rates of 1:256-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow “<b>Application Rates and Directions</b>”.</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow: “<b>Application Rates and Directions</b>”.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>
<b>Citrus Crops</b> <b>Including, but not limited to:</b> Citrus Hybrids Grapefruit Kumquat Lemon Limes Orange Tangerine	Alternaria Anthracnose Greasy Spot (*) Black Spot Brown Rot Phytophthora Powdery Mildew Rust Citrus Scab	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow “<b>Application Rates and Directions</b>”.</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow “<b>Application Rates and Directions</b>”.</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>
	Citrus Canker	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>Spray entire tree including trunk, branches, leaf canopy. Spray all areas where branches have been pruned, grafted or have become damaged or have apparent lesions or breaks in bark.</p> <p>For more directions on foliar and tree treatment applications: Follow “<b>Application Rates and Directions</b>”.</p> <p>[Optional Language]</p> <p><b>[Foliar and Tree Treatment Applications:</b> Follow “<b>Application Rates and Directions</b>”.]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule. Spray entire tree including trunk, branches, leaf canopy. Spray all areas where branches have been pruned, grafted or have become damaged or have apparent lesions or breaks in bark.</p> <p>In groves with a history of disease pressure use the 1:256 dilution rate on a 5-7 day spray</p>

		<p>schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Spray diseased plants using OxiDate 5.0 treatment solution for one to three consecutive days until control is achieved, then continue treatments on a 5 -7 day interval.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>
<b>Coffee</b>	Bacterial Blight Leaf Rust Coffee Berry Disease (*)	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow "<b>Application Rates and Directions</b>".</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow "<b>Application Rates and Directions</b>".]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early when conditions favor disease development. Maintain a 5-10 day spray schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>
<b>Cole Crops</b> <i>Including, but not limited to:</i> Broccoli Brussels Sprouts Cabbage Cauliflower Collards Kale	Alternaria Bacterial Leaf Spot (*) Black Rot (*) Downy Mildew Powdery Mildew Bacterial Blight	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:256. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow "<b>Application Rates and Directions</b>".</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow: "<b>Application Rates and Directions</b>".]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p>
<b>Corn</b> Field Pop Sweet Seed Corn (for all types)	Anthracnose Bacterial Leaf Blight Bacterial Leaf Streak Brown Leaf Spot Corn Leaf Blight (Northern & Southern) Downy Mildew Eyespot Goss's Wilt Gray Leaf Spot Holcus Leaf Spot Northern Corn Leaf Spot Rust(s) Smut(s)  Suppression of: Tar Spot Diplodia Ear Rot Fusarium Ear Rot Gibberella Ear Rot Penicillium Ear Rot Grain Molds	<p>Apply OxiDate 5.0 at dilution rates of 1:256-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow "<b>Application Rates and Directions</b>".</p>

Cotton Cottonseed	Ascochyta Blight Bacterial Blight Rust Leaf Spots Boll Rot	<p>Apply OxiDate 5.0 at dilution rates of 1:256-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow "<b>Application Rates and Directions</b>".</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow: "<b>Application Rates and Directions</b>".]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>
	Cotton Root Rot Fusarium Wilt Pythium Rhizoctonia Thielaviopsis Verticillium Wilt	<p><b>At Planting Applications:</b> Apply at a 1:100-1:1,000 dilution rate (1.28-0.128 fl. oz. per gallon). Apply 15-100 gallons of mixed solution per treated acre. Make in-furrow applications just before seed is covered. Use higher rates for fields with a history of disease pressure.</p>
		<p><b>Banded Applications:</b> Apply at a 1:400-1:80 dilution rate (.32-1.6 fl. oz. per gallon). Apply 15-100 gallons of mixed solution per treated acre. Make band applications to soil surface after seed is covered. Use higher rates in fields with a history of disease pressure.</p>
Cranberries	Fruit Rot Leaf Blight Leaf Spot Bacterial Stem Canker	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow "<b>Application Rates and Directions</b>".</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow: "<b>Application Rates and Directions</b>".]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>
Cucurbit Crops <i>Including, but not limited to:</i> Cucumber Melons Pumpkin Squash	Alternaria Anthracnose Downy Mildew Gummy Stem Blight Leaf Spot Powdery Mildew Phytophthora Blight/Fruit Rot	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow "<b>Application Rates and Directions</b>".</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow: "<b>Application Rates and Directions</b>".]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>
	Belly Rot Root Rots Fusarium Wilt Pythium Phytophthora Rhizoctonia	<p><b>At Planting Applications:</b> Apply at a 1:1,000-1:100 dilution rate (0.128-1.28 fl. oz. per gallon). Apply 15-100 gallons of mixed solution per treated acre. Make in-furrow applications just before seed is covered. Use higher rates for fields with a history of disease pressure.</p>
		<p><b>Banded Applications:</b> Apply at a 1:400-1:80 dilution rate (0.32-1.6 fl. oz. per gallon). Apply 15-100 gallons of mixed solution per treated acre. Make band applications to soil surface after seed is covered. Use higher rates in fields with a history of disease pressure.</p>

<b>Fruiting Vegetables</b> <i>Including, but not limited to:</i> Eggplant Peppers Tomatoes Tomatillos	Alternaria Anthracnose Early Blight Late Blight Bacterial Spot Bacterial Speck Botrytis-Gray Mold Leaf Mold Frog Eye Leaf Spot (*) Powdery Mildew Bacterial Wilt Cladosporium Mold Target Spot	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow “<b>Application Rates and Directions</b>”.</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow: “<b>Application Rates and Directions</b>”.]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>
<b>Forage, Fodder and Straw of Cereal Grains</b>	Anthracnose Bacterial Leaf Blight Bacterial Leaf Streak Brown Leaf Spot Downy Mildew Ergot Glume Blotch Gray Leaf Spot Leaf Blight Leaf Blotch Powdery Mildew Physoderma Brown Spot Septoria Leaf Spot Sheath Blight Smut(s) Sorghum Downy Mildew Southern Blight Spot Blotch Stem Canker Tan Spot Rice Blast Rust(s)	<p>Apply OxiDate 5.0 at dilution rates of 1:256-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow “<b>Application Rates and Directions</b>”.</p>
	Suppression of: Fusarium Head Scab	<p>To manage Fusarium Head Scab, begin applications at Feekes stage 10.5 or early flowering. Tank mixes with residual fungicides effective against Fusarium head scab are recommended. OxiDate 5.0 may be applied as frequently as needed to suppress Fusarium Head Scab.</p>
<b>Globe Artichokes</b>	Black Rot Botrytis Blight Crown Rot Gray Mold Powdery Mildew	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow “<b>Application Rates and Directions</b>”.</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow: “<b>Application Rates and Directions</b>”.]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p>
<b>Grapes</b>	Black Rot Botrytis Downy Mildew Phomopsis (*) Powdery Mildew Sour Rot	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow “<b>Application Rates and Directions</b>”.</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow “<b>Application Rates and Directions</b>”.]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray</p>

		<p>schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>
Grasses grown for seed or sod	Gray Leaf Spot Leaf Rust Leaf Spot Stem Rust	<p>Apply OxiDate 5.0 at dilution rates of 1:256-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow "<b>Application Rates and Directions</b>".</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow: "<b>Application Rates and Directions</b>".]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>
Grass Forage, Fodder, and Hay	Brown Stripe or Leaf Streak ( <i>Scolecotrichum graminis</i> ) Bacterial Leaf Streak Ergot Helminthosporium Leaf Spot Leaf Streak ( <i>Drechslera phlei</i> ) Powdery Mildew Purple Eyespot ( <i>Cladosporium phlei</i> ) Rhizoctonia Blight Rust(s) Septoria	<p>Apply OxiDate 5.0 at dilution rates of 1:256-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow "<b>Application Rates and Directions</b>".</p>
Nongrass Animal Feeds (Forage, Fodder, Straw, and Hay); including but not limited to:  Alfalfa Bean Clover	Anthracnose Bacterial Wilt Downy Mildew Powdery Mildew Sclerotinia Crown and Stem Rot  Leaf Spot Complex Cause(s): Stemphylium, Cercospora, Pseudopeziza, Phoma, Leptosphaerulina, (Lepto Leaf Spot and Spring Black Stem)  Crown Rot Complex Cause(s): Fusarium, Colletotrichum, Pythium, Phoma, Rhizoctonia, Mycoleptodiscus;  Seedling Diseases Cause: Pythium, Phytophthora, Aphanomyces, Rhizoctonia	<p>Apply OxiDate 5.0 at dilution rates of 1:256-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow "<b>Application Rates and Directions</b>".</p> <hr/> <p>For best management of disease complexes and seedling diseases, it is recommended to apply with overhead chemigation; see "<b>Chemigation for Controlling Plant Pathogenic Organisms</b>" instructions.</p>
Herbs and Spices Including, but not limited to: Basil Chives Cilantro Coriander Dill Mint Oregano Parsley Rosemary Sage	Anthracnose Downy Mildew Powdery Mildew Leaf Spot Pythium Rot	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:256. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow "<b>Application Rates and Directions</b>".</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow: "<b>Application Rates and Directions</b>".]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]</p>

		<b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]
<b>Hops</b>	Botrytis Downy Mildew Powdery Mildew	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow "<b>Application Rates and Directions</b>".</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow "<b>Application Rates and Directions</b>".]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>
<b>Leafy Vegetables</b> <i>including, but not limited to:</i> Arugula Celery Chicory Root Endive Fennel Frisee Lettuce Mizuna Spinach Rhubarb Radicchio Swiss Chard	Brown Rot Botrytis Downy Mildew Phytophthora Powdery Mildew Rust Leaf Spot Sclerotinia Rust White Mold	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:256. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow "<b>Application Rates and Directions</b>".</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow: "<b>Application Rates and Directions</b>".]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p>
<b>Legume Vegetables</b> <b>(succulent or dried)</b> <i>including, but not limited to:</i> Bean (Lupinus spp., Phaseolus spp., Vigna spp.) Broad Bean Chickpea Dry Beans Lima Beans Peas Edible Podded Legume Vegetables Lentil Pea (Pisum spp.)	Aerial Web Blight Anthracnose Aschochyta Bacterial Leaf Blight (*) Bacterial Wilt Bacterial Brown Spot Botrytis Blight Gray Mold Cercospora Common Blight Downy Mildew Halo Blight Mycosphaerella Blight Powdery Mildew Rust(s) Septoria Brown Spot	<p>Apply OxiDate 5.0 at dilution rates of 1:256-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow "<b>Application Rates and Directions</b>".</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow: "<b>Application Rates and Directions</b>".]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>
<b>Oilseed Crops,</b> <b>including but not limited to:</b> Borage Canola Crambe Flaxseed Jojoba Mustard Seed Safflower Sesame Sunflower	Alternaria Black Spot Bacterial Leaf Spot Blackleg/Phoma Cercospora Leaf Spot Downy Mildew Powdery Mildew Red Rust Sclerotinia White Mold Septoria Leaf Spot White Leaf Spot White Rust (Staghead)	<p>Apply OxiDate 5.0 at dilution rates of 1:256-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow "<b>Application Rates and Directions</b>".</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow: "<b>Application Rates and Directions</b>".]</p> <p><b>Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>

<b>Mushrooms</b>	Bacterial Blotch Mycogone Necrotic Spot Trichoderma Verticillium Spot	Spray mushrooms using a 1:800 dilution rate of OxiDate 5.0 on 5-7 day intervals. Begin at pinning stage and continue through harvest. For Bacterial Blotch control, spray surface of mushrooms.
<b>Papaya</b>	Anthrachnose Phytophthora	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow "<b>Application Rates and Directions</b>".</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow "<b>Application Rates and Directions</b>".]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>
<b>Peanuts</b>	Aerial Web Blight Early Leaf Spot Late Leaf Spot Rust Southern Stem Rot White Mold	<p>Apply OxiDate 5.0 at dilution rates of 1:256-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow "<b>Application Rates and Directions</b>".</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow: "<b>Application Rates and Directions</b>".]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>

<p><b>Pome Fruit</b>  <b><i>Including, but not limited to:</i></b>  Apples  Pears  Loquats  Mayhaws  Quince</p>	<p>Cedar Apple Rust  Fire Blight  Powdery Mildew  Rusts  Scab  Flyspeck  Sooty Blotch</p>	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For fire blight control, make 2-4 applications during bloom and petal fall stages.</p> <p>For more directions, follow "<b>Application Rates and Directions</b>".</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow "<b>Application Rates and Directions</b>".]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>
<p><b>Root &amp; Tuber Vegetables</b>  <b><i>Including, but not limited to:</i></b>  Artichokes  Beets  Carrots  Ginseng  Horseradish  Parsnip  Potatoes  Radish  Rutabaga  Sugar Beets  Sweet Potatoes  Taro  Turnips  Yams</p>	<p>Alternaria  Bacterial Leaf Spot Crown Rot  Early Blight  Late Blight  Leaf Blight  Cercospora Leaf Spot  Powdery Mildew  Rhizoctonia  Potato Brown Rot  Black Dot  Botrytis  Blackleg (Suppression)  White Mold</p>	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For control of white mold, start applications during early bloom and continue as needed.</p> <p>For more directions, follow "<b>Application Rates and Directions</b>".</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow: "<b>Application Rates and Directions</b>".]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>
<p><b>Soybean</b></p>	<p>Aerial Web Blight  Anthracnose  Bacterial Leaf Blight (*)  Bacterial Wilt  Botrytis Blight  Brown Spot  Cercospora Leaf Blight  Common Blight  Downy Mildew  Frogeye Leaf Spot  Halo Blight  Phomopsis/Diaporthe Pod &amp; Stem Blight  Powdery Mildew  Rust  Septoria Brown Spot  Target Spot  White Mold</p>	<p>Apply OxiDate 5.0 at dilution rates of 1:256-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For control of White Mold, start applications during early bloom and continue as needed.</p> <p>For more directions, follow "<b>Application Rates and Directions</b>".</p>
<p><b>Strawberries</b></p>	<p>For control of soil-borne disease, <i>including but not limited to:</i>  Anthracnose Crown Rot  Botrytis Crown Rot  Pestalotiopsis  Phytophthora Crown Rot</p> <p>Alternaria  Anthracnose  Pestalotiopsis  Powdery Mildew  Leaf Blight  Angular Leaf Spot  Botrytis</p>	<p><b>Pre-Plant Dip or Spray:</b> Dilute at a 1:256 rate (5.0 fl. oz. per every 10 gallons of water). Thoroughly wet transplants by dipping or spraying prior to planting. Excessive foaming or bubbling during the dipping process is an indication of high levels of disease contamination. Remove dead or dying foliage prior to dipping.</p> <p><b>Setting Water Applications:</b> Apply at a 1:100-1:500 dilution rate (128-26 fl. oz. per 100 gallons of transplant water or starter fertilizer). Make in-furrow or dibble application at the time of plant set. OxiDate 5.0 is chemically compatible with most water-soluble fertilizers, but conduct a compatibility test prior to mixing.</p> <p><b>Foliar applications immediately post planting:</b> Apply at a 1:256 dilution (50 fl. oz. for 100 gallons of water). Make application immediately following planting. Apply in a sufficient amount of water to achieve runoff to soil or plastic, typically 30 to 100 gallons of spray solution per acre.</p>



	<p>Alternaria Anthracnose Angular Leaf Spot Botrytis (Fruit Rot or Blight) Pestalotiopsis Powdery Mildew</p>	<p><b>Foliar applications to established plants:</b> Follow: “<b>Application Rates and Directions</b>”.</p> <p>When conditions favor development of disease, or at first sign/symptom of disease, apply at 1:500-1:256 dilution. Maintain a 3-10 day spray schedule until control is achieved.</p> <p>[Optional Language]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p>
<p><b>Stone Fruit</b> <b><i>Including, but not limited to:</i></b> Apricots Cherries Nectarines Peaches Plums Prunes</p>	<p>Brown Rot Powdery Mildew Bacterial Canker (<i>Pseudomonas</i>) Cherry Leaf Spot Peach Leaf Curl</p>	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow “<b>Application Rates and Directions</b>”.</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow “<b>Application Rates and Directions</b>”.]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved. It is recommended to use this rate outside of sensitive growth stages such as the bloom period.]</p>
<p><b>Sugarcane (*)</b></p>	<p>Eyespot Orange Rust Red Rot Smut</p>	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow “<b>Application Rates and Directions</b>”.</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow: “<b>Application Rates and Directions</b>”.]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>
<p><b>Tobacco</b></p>	<p>Blue Mold Alternaria Leaf Spot- (Brown Spot Mold) (*) Angular Leaf Spot (*) Frogeye Leaf Spot (*)</p>	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:256. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow “<b>Application Rates and Directions</b>”.</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow: “<b>Application Rates and Directions</b>”.]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]</p> <p>[For Blue Mold, start sprays early when conditions are favorable for disease development.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p>
	<p>To control foliar diseases, such as, but not limited to, Blue Mold and Target Spot.</p> <p>To control root rot diseases caused by pathogens, such as, but not limited to, Pythium spp.</p>	<p><b>Foliar Treatment:</b> Apply OxiDate 5.0 as a foliar spray at 1:500-1:256 dilution rate once every week. Start with 1:500 dilution rate (0.26 fl. oz. per 1 gal. of water) during first 4-8 weeks of the crop, then use a dilution rate of 1:256 (0.5 fl. oz. per gallon of water) at first sign of disease</p> <p><b>Water Treatment:</b> Initial float Bed Treatment: use a 1:12,500 dilution rate (1 fl. oz. per 100 gallons of water), as a water treatment, 24 hours prior to putting the trays in the float beds, followed by periodic treatment of the float bed water with 1:25,000 dilution rate (0.51 fl. oz. per 100 gallons of water).</p>

<b>Tree Nuts</b> <b>Including, but not limited to:</b> Almonds Brazil Nuts Cashews Filberts Macadamias Pecans Pistachios Walnuts	Alternaria Anthracnose Blossom Blight Botryosphaeria Brown Rot Bacterial Blight Bacterial Canker E. Filbert Blight Shot Hole Jacket Rot Almond Leaf Scorch (*) Hull Rot (*) Panicle & Shoot Blight Scab Walnut Blight	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow “<b>Application Rates and Directions</b>”.</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow “<b>Application Rates and Directions</b>”.]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>
<b>Tropical/Sub Tropical Fruit</b> <b>Including, but not limited to:</b> Casaba Coconut Dates Guava Kiwi Mango Olive Passion Fruit Pineapple Poi Star Fruit	Alternaria Anthracnose Botrytis Leaf Blight Leaf Spot Powdery Mildew Rhizoctonia Sooty Mold Stem Rot	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, follow “<b>Application Rates and Directions</b>”.</p> <p>[Optional Language]</p> <p><b>[Foliar Applications:</b> Follow “<b>Application Rates and Directions</b>”.]</p> <p><b>[Preventative:</b> 1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule.]</p> <p><b>[Curative:</b> 1:256 dilution. Apply at first sign/symptom of disease. Maintain a 3-10 day spray schedule until control is achieved.]</p> <p><b>[Rescue:</b> 1:100 dilution. Apply under severe disease conditions. Maintain a 3-5 day spray schedule until control is achieved.]</p>

## OTHER CROPS

### Application Rates and Directions Chart

Crop	Disease	Application Rates
<b>Hemp</b> <b>Industrial Hemp</b>	Anthracnose Bacterial Leaf Spot Botrytis Blight/Gray Mold Downy Mildew Fungal Leaf Spot Powdery Mildew Rust	<p>Apply OxiDate 5.0 at dilution rates of 1:500-1:100. Begin applications of OxiDate 5.0 when conditions favor the development of disease, or at first sign/symptom of disease, then continue use as needed. Under moderate to severe disease pressure/conditions, reduce intervals and increase rates of application until control is achieved.</p> <p>For more directions, see “Foliar Spray Treatments” directions.</p>

### SOIL OR SOILLESS MEDIA DRENCH TREATMENTS

OxiDate 5.0 is effective for the control of soil-borne plant diseases caused by pathogens such as *Pythium*, *Phytophthora*, *Rhizoctonia*, *Ralstonia*, *Thielaviopsis* or *Fusarium*. Drench OxiDate 5.0 prior to planting or seeding, at planting and periodically throughout plant’s life. If the application is to be made through irrigation or chemigation systems, refer to the **CHEMIGATION** section for further requirements and instructions.

#### Applications Prior to Seeding or Transplanting:

1. Mix OxiDate 5.0 at a dilution rate of 1:256-1:100 (25-64 fl. oz. per 50 gallons of water).
2. Drench soil or growing mediums to the point of saturation. To increase soil penetration, consider using a compatible wetting agent/non-ionic surfactant.
3. Wait at least fifteen minutes before planting or watering.
4. Wait 24-48 hours following treatment before inoculating the soil with beneficial organisms.

### Applications to Existing Plantings-Post Seeding or Transplanting:

1. Mix OxiDate 5.0 at a dilution rate of 1:800-1:256 (8-25 fl. oz. per 50 gallons of water). Drench soil or growing mediums to the point of saturation. To increase soil penetration, consider using a compatible wetting agent/non-ionic surfactant.
2. Wait 24-48 hours following treatment before inoculating the soil with beneficial organisms.

### Applications to Existing Plantings-Post Seeding or Transplanting for Rockwool and Other Soilless Media:

1. Mix OxiDate 5.0 at a dilution rate of 1:1,000 (6 fl. oz. per 50 gallons of water). Do not use a dilution rate stronger than 1:1,000.
2. Drench growing media to the point of saturation. To increase media penetration, consider using a compatible wetting agent/non-ionic surfactant.
3. Wait 24-48 hours following treatment before inoculating the soil with beneficial organisms.

### Chemigation for Controlling Plant Pathogenic Organisms

Apply OxiDate 5.0 at a rate of 1:2,500-1:420 (equivalent to approximately 22-132 ppm of peroxyacetic acid) through one of the following types of irrigation systems: center pivot, lateral move, end tow, side wheel roll, traveler, solid set, and hand move, flood basin or drip trickle irrigation system to prevent, suppress, or eliminate fungi, bacteria and algae; Alternaria, Anthracnose, Aphanomyces, Black Spot, Botrytis (grey mold), Downy Mildew, Erwinia, Fusarium (root rot), Leaf Spot, Phytophthora (blights, rots), Penicillium molds, Plasmopara, Powdery Mildew, Pseudomonas, Pythium, Rhizoctonia, Rust, Scab, Smut, *Thielaviopsis*, Wilts and Blights, and Algae (Red, Blue Green, Black and Brown). If the application is to be made through irrigation or chemigation systems, refer to the **CHEMIGATION** section for further requirements and instructions.

### PRE-PLANT SOIL TREATMENT PRIOR TO SEEDING OR TRANSPLANTING

OxiDate 5.0 may be applied as a pre-plant soil treatment prior to seeding or transplanting, or in consecutive cropping applications. Ensure that soil moisture of the beds is at or near capacity prior to OxiDate 5.0 application. If the application is to be made through irrigation or chemigation systems, refer to the **CHEMIGATION** section for further requirements and instructions.

**[TABLE 1.] PRE-PLANT SOIL APPLICATION INSTRUCTIONS**

TREATMENT SITE	APPLICATION INSTRUCTIONS
<b>Field Soils to be planted to the following crops, including but not limited to:</b> Asparagus, brassica vegetables (broccoli, cauliflower), cereal grains, cucurbit crops (cucumber, squash, melons), fruiting vegetables (e.g. eggplant, peppers, tomatoes), herbs and spices, hops, hemp, leek, leafy vegetables (lettuce), legume vegetables, pineapples, root and tuber vegetables (carrot, garlic, onion, potato, sweet potato), strawberries, berries (cane fruit), fruit and nut crops, citrus, pome fruit trees, stone fruit trees, tree nuts, tropical and subtropical fruits, vineyards.	<b>Pre-Plant Soil Treatment:</b> Prior to application of OxiDate 5.0, break up compacted soil and clods to loosen soil completely and pre-irrigate with water to 80-90% field capacity. Apply/inject OxiDate 5.0 at a dilution of 1:100-1:50 (1.0% v/v-2.0% v/v; 1.0-2.0 Gallons per 100 gallons of water; Equivalent to approximately 553-1105 ppm peroxyacetic acid). Consider using the higher rate (1:50 dilution) when field/soil has history of high disease pressure. Based on soil type, apply approximately 3,000-6,000 gallons per treated acre (70-140 gallons per 1000 Square-Ft) of finished OxiDate 5.0 solution, as a direct drench or direct inject through irrigation systems such as but not limited to drip or sprinkler system. Refer to the Pre-Plant Application Chart below for application recommendations based on soil type. Applications should be made at a minimum of 48 hours prior to planting/transplanting to allow any residual OxiDate 5.0 to dissipate in the soil. If injected through irrigation system, run water to ensure OxiDate 5.0 has been flushed from system.
<b>Greenhouse Soils to be planted to the following, including but not limited to:</b> Food and Non-food crops, hemp, flowering plants.	
<b>Nursery, Turf, and Ornamental Soils to be planted to the following, including but not limited to:</b> Turf, lawns, parks, golf greens, athletic fields, recreational turf area, ornamentals, floral crops, forest tree seedlings.	
<b>Seed or Transplant beds to be planted to the following, including but not limited to:</b> Food and Non-food crops, flowering plants.	

Pre-Plant Application Chart						
Soil Type	Volume of OxiDate 5.0 Concentrate by Dilution Rate				Gallons of Water Required for Finished OxiDate 5.0 Solution	
	1:100		1:50		Per 1,000 sq. ft. (gallons)	Per Treated Acre (gallons)
	Gallons per 1,000 sq. ft.	Gallons per Treated Acre	Gallons per 1,000 sq. ft.	Gallons per Treated Acre		
Light (Sandy/Loam)	0.7	30	1.4	60	70	3,000
Medium (Loam)	1.0	45	2.1	90	100	4,500
Heavy (Loam Clay)	1.4	60	2.8	120	140	6,000

### **SOIL TREATMENT WITH ESTABLISHED PLANTS OR SEEDLINGS**

Apply OxiDate 5.0 at any stage of plant growth as a soil treatment. Make applications using soil drench, flood or drip irrigation. Ensure that soil moisture of the beds is at or near capacity prior to OxiDate 5.0 application. Following application, run irrigation system to ensure all solution has been flushed from the system into the soil. If the application is to be made through irrigation or chemigation systems, refer to the **CHEMIGATION** section for further requirements and instructions.

**[TABLE 2.] SOIL APPLICATION WITH ESTABLISHED PLANTS OR SEEDLINGS INSTRUCTIONS**

TREATMENT SITE	APPLICATION INSTRUCTIONS
<b>Field Soils to be planted to the following crops, including, but not limited to:</b> Asparagus, brassica vegetables (broccoli, cauliflower), cereal grains, cucurbit crops (cucumber, squash, melons), fruiting vegetables (e.g. eggplant, peppers, tomatoes), herbs and spices, hops, hemp, leek, leafy vegetables (lettuce), legume vegetables, pineapples, root and tuber vegetables (carrot, garlic, onion, potato, sweet potato), strawberries, berries (cane fruit), fruit and nut crops, citrus, pome fruit trees, stone fruit trees, tree nuts, tropical and subtropical fruits, vineyards.	<b>Soil Drench:</b> Apply 25 fl. oz. of OxiDate 5.0 per 200 gallons of water per 1,000 square feet (sq. ft.) of soil to be treated.  <b>Flood Irrigation:</b> Inject OxiDate 5.0 through a metered system using one gallon of OxiDate 5.0 per 1,000 gallons of water used.  <b>Drip Irrigation:</b> Apply OxiDate 5.0 through the drip tape at an injection rate of 1:1,000 (0.1% v/v), (equivalent to 1.0-3.0 gallons per acre in 1,000-3,000 gallons of water per acre respectively), and with a 45-90 minute run time.  Apply first treatment during the first drip irrigation cycle. Make additional applications at 7-14 day interval depending on disease pressure. For fields with history of high disease pressure, consider using higher rate of 3.0 gallons per acre.
<b>Greenhouse Soils to be planted to the following, including, but not limited to:</b> Food and Non-food crops, hemp, flowering plants.	
<b>Nursery, Turf, and Ornamental Soils to be planted to the following, including, but not limited to:</b> Turf, lawns, parks, golf greens, athletic fields, recreational turf area, ornamentals, floral crops, forest tree seedlings.	
<b>Seed or Transplant beds to be planted to the following, including, but not limited to:</b> Food and Non-food crops, flowering plants.	

### **WATER TREATMENT**

#### **Treatment Of Water Used For Pesticide Spray Solutions**

Use OxiDate 5.0 as a bactericide/microbiocide to treat and suppress algae, bacteria and fungi in water collected from open or closed sources including but not limited to wells, ditches, canals, reservoirs, and ponds, used for pesticide spray solutions and mixtures. Add OxiDate 5.0 at a dilution rate of 1:700-1:2,500 (18.3-5.1 fl. oz. per 100 gallons of water) to water in spray or mix tank. Mix and allow a contact time of 3-5 minutes **before adding other pesticides to spray solution.**

#### **Tank Mixing Instructions**

1. **Before adding other pesticides to the spray solution:** Mix OxiDate 5.0 first and allow a contact time of 3-5 minutes.

2. **When used with Conventional Bactericides/Fungicides/Insecticides/Miticides:** Use OxiDate 5.0 at a dilution rate of 1:2,500 to 1:1,250 (5.1 -10.2 fl. oz. per 100 gallons of water, equivalent to approximately 22-44 ppm of peroxyacetic acid). This rate range can be used with pesticides with or without metal ion(s).
3. **When used with Organic (Biorational/Botanical/Biological) Bactericides/Fungicides/Insecticides:** Use OxiDate 5.0 at a dilution rate of 1:2,500 (5.1 fl. oz. per 100 gallons of water, equivalent to approximately 22 ppm of peroxyacetic acid). The spray tank water treatment can be used on Biorational/Botanical based Bactericides/Fungicides/Insecticides/Miticides (Ex. Neem Oil, Sulfur, Plant Extracts etc.), *Bacillus* based Bio-Fungicides (spore containing or spent fermented media), Bt based Bio-Insecticides, Copper based Bactericides/Fungicides **Do not use OxiDate 5.0 with Mycoinsecticides (*Beauveria*, *Metarhizium*, *Isaria* based) or with other biological active ingredients not listed above.**
4. **When used with Micro-Foliar Fertilizers:** Use OxiDate 5.0 at a dilution rate of 1:2,500 (5.1 fl. oz. per 100 gallons of water, equivalent to approximately 22 ppm of peroxyacetic acid).

**[OPTIONAL SECTION:]**[As a preventative application for clean water (potable water, well water) used in pesticide spray solutions, use a 1:20,500 to 1:41,000 dilution rate of OxiDate 5.0. Product can be simply added to the body of water. Allow solution to disperse for 3-5 minutes before using the water.]

#### **Treatment Of Water Drawn From Open And Closed Water Sources Used For Dust Abatement**

Use OxiDate 5.0 at the following rates to suppress/control slime-forming bacteria, algae and fungi/oomycetes in water drawn from open and closed water sources such as wells, streams, ponds, reservoirs, irrigation canals, irrigation water and drainage ditches used to control dust on unpaved gravel and dirt roads.

- Bacteria: 8-309 fl. oz. per 1,000 gallons of water (1:16,592-1:415 dilution)
- Algae: 15-62 fl. oz. per 1,000 gallons of water (1:8,296-1:2,074 dilution)
- Fungi/oomycetes: 21-62 fl. oz. per 1,000 gallons of water (1:6,222-1:2,074 dilution)

Prepare the mixture at least 3-5 minutes prior to application for dust abatement. Apply to the road surface using a water truck (or tractor or spraying device) with equipped with a watering system.

#### **Pre-harvest clean-up sprays for spoilage and decay causing organisms on crops**

Use OxiDate 5.0 as a foliar spray for control of spoilage and decay causing organisms up to and including day of harvest. Use a dilution rate of 1:500-1:256. Use adequate spray solution to ensure complete coverage of foliage and plant material. For increased coverage and penetration of spray, use a compatible non-ionic wetting agent/surfactant.

#### **Treatment of Water Used for Automated Harvesting Systems**

Use OxiDate 5.0 as a microbiocide for the control of spoilage and decay causing organisms in water collected from open or closed sources including but not limited to wells, ditches, canals, reservoirs, and ponds, used in automated harvesting systems. Add OxiDate 5.0 at a dilution rate of 1:700-1:2,500 (18.3-5.1 fl. oz. per 100 gallons of water) to the water to be used in the automated harvest system.

#### **Treatment of Stock Tanks & Stock Waters**

Use OxiDate 5.0 to suppress/control algae, bacteria and fungi in stock tanks, stock watering ponds, tanks and troughs. Apply 1 fl. oz. of OxiDate 5.0 per 250 gallons of water for algae control. Do not exceed the label rate. Product can be simply added to the body of water. 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 OxiDate 5.0 over the algae mats. Apply OxiDate 5.0 as needed to control and prevent algae growth; make applications more often in times of higher water temperatures.

#### **TREATMENT OF SPOTTED WING DROSOPHILA (SWD) (\*)**

OxiDate 5.0 controls yeast which is a food source for spotted wing drosophila (SWD), thereby significantly reducing populations of SWD.

1. Use OxiDate 5.0 at a dilution rate of 1:256-1:100 (2.5-6.4 fl. oz. per 5 gallons of clean water).
2. Do not reuse already mixed solution; make fresh daily. Spray or mist plants and trees including application through irrigation or chemigation systems. Refer to **CHEMIGATION** for specific instructions on using this product through irrigation systems.
3. Thoroughly wet all surfaces of plant, upper and lower foliage, including stems, branches and stalks to ensure full contact with plant tissue.
4. Apply as needed.

## **NON-PLANT USES**

### **For Clean, Hard, Non-Porous Surface Applications**

Use OxiDate 5.0 to suppress/control bacteria, fungi and slime-forming algae as follows:

<b>SURFACE</b>	<b>USE RATE</b>	<b>INSTRUCTIONS</b>
<b>Pots, Flats, Trays</b>	1:50-1:256 (2.5-0.5 fl. oz. per gallon of clean water).	Spray until runoff. Add additional surfactant if needed. Allow surfaces to remain wet for 10 minutes.
<b>Cutting Tools</b>	1:50-1:256 (2.5-0.5 fl. oz. per gallon of clean water).  Tobacco Mosaic Virus control: 1:50- 1:256 (2.5-0.5 fl. oz. per gallon of clean water).	Soak tools to ensure complete coverage. Add additional surfactant if needed. Allow surfaces to remain wet for 10 minutes. Use OxiDate 5.0 to prevent the spread of Tobacco Mosaic Virus on cutting tools. Allow surfaces to remain wet for 1 minute.
<b>Benches and Work Areas</b>	Pre-cleaned surfaces: 1:256 (0.5 fl. oz. per gallon of clean water).  Unclean surfaces: 1:50 (2.5 fl. oz. per gallon of clean water if surfaces have not been pre-cleaned with water to remove organic deposits.	Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt. Add additional surfactant if needed. Allow surfaces to remain wet for 10 minutes.
<b>Foot Bath Mats</b> Foot pads and walk-through trays	1:256 (0.5 fl. oz. per gallon of water).	Apply OxiDate 5.0 to prevent the tracking and spread of dirt and microorganisms. Make a solution of OxiDate 5.0 per gallon of water and fill foot bath mat, foot pad or walk-through tray to capacity. Allow treated surface to remain wet with solution for 10 minutes. Change solution as needed.

### **For Hard, Non-Porous Surfaces, Equipment and Structures**

Use OxiDate 5.0 to suppress/control bacteria, fungi and slime-forming algae on equipment, and structures: benches, walkways, floors, walls, fan blades, watering systems, vats, tanks, coolers, storage rooms, bins, elevators, storage areas, spray equipment, conveyors, irrigation systems, process equipment, process water systems, trucks, structures and related equipment.

1. Sweep and remove all loose soil or organic matter. Use power sprayer to wash all surfaces to remove loose dirt and/or organic material.
2. Use OxiDate 5.0 at a dilution rate of 1:256 (0.5 fl. oz. of per gallon of clean water) on pre-cleaned surfaces. Use a dilution of 1:128 (1.25 fl. oz. of per gallon of clean water) if surfaces have not been pre-cleaned with water to remove organic deposits. The use of additional surfactant is acceptable.
3. Apply solution with mop, sponge, or power sprayer to thoroughly wet all surfaces.
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 OxiDate 5.0 to wash away dead growth.
6. Allow surfaces to air dry, do not rinse.
7. Reapply often for control.

### **For Surfaces and Equipment Applications in Packing Houses**

Apply OxiDate 5.0 to suppress/control bacteria, fungi and slime forming algae on all surfaces and equipment found in packinghouses including, dump tanks, drenches, crates, containers, conveyors, storages, walls, floors, and process lines.

1. Remove loose soil or organic matter with clean water and/or detergent rinse.
2. Use OxiDate 5.0 at a dilution rate of 1:500-1:128 (2.5-10 fl. oz. per 10 gallons of water). Apply as a coarse spray until runoff.

3. Allow treated surfaces to air dry. Do not rinse.

### Foaming Treatment for Non-Spraying Applications (\*)

Apply OxiDate 5.0 as a foam treatment in non-spraying applications to enhance contact on hard, non-porous surfaces, vertical surfaces and irregular surfaces where contact is difficult to maintain with spray treatments. Remove loose soil or organic matter with clean water and/or detergent rinse. Use OxiDate 5.0 at a dilution rate of 1:500-1:128 (2.5-10 fl. oz. per 10 gallons of water). Add a surfactant foaming agent to the spray tank that contains the diluted OxiDate 5.0 solution. Apply foam until the surface treated is completely covered. Allow foam treated surface to air dry. Do not rinse.

### Surface Treatment - for Treatment of Citrus Canker on Vehicles, Field Equipment, Tools, Personnel Clothing.

Rate-Surface Treatment	Application	Notes
6.5-8.5 fl. oz. of OxiDate 5.0 per 100 gallons of water. Complete coverage is essential.	Apply 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 <i>Xanthomonas</i> bacterial species including citrus canker. Apply to equipment and surfaces found in commercial packing houses including dump tanks, drenches, crates, containers, conveyors, storages, walls, floors, and process lines.	Remove loose soil or organic matter with clean water or detergent/rinse. Use a power sprayer to remove loose dirt and organic matter. Apply solution as a coarse spray or by mop, sponge, power sprayer, or portable sprayer. Apply until run off. Allow surfaces to remain wet for 10 minutes. Allow treated surfaces to air dry, do not rinse.

### CHEMIGATION:

#### General Requirements -

1. Apply this product only through a drip system or sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, hand move, flood (basin), furrow, border or drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system.
2. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
3. If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.
4. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
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 necessary adjustments as needed.
6. 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.
7. Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign must 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.
8. All words shall consist of letters at least 2.5 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 sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

### **Specific Requirements for Chemigation Systems Connected to Public Water Systems -**

1. 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.
2. 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 must 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.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
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 withdrawn 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. 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.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

### **Specific Requirements for Sprinkler Chemigation -**

1. 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.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. 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.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. 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.
6. 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 filled with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

### **Specific Requirements for Flood (Basin), Furrow and Border Chemigation -**

1. 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 backflow if water flow stops.
2. The systems utilizing a pressurized water and pesticide injection system must meet the following requirements:
  - a. 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.
  - b. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
  - c. 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.
  - d. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.



- e. 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.
- f. 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 filled with a system interlock.

#### **Specific Requirements for Drip (Trickle) Chemigation -**

1. The system must contain a functional check valve, a vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. 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.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. 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.
6. 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 filled with a system interlock.

#### **Application Instructions -**

1. Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injection system. Flush with clean water until no scale or pesticide residues are present. Failure to provide a clean tank, void of scale or residues may cause product to lose effectiveness or strength.
2. Follow the application rates and frequency as indicated in the directions for use section of the label.
3. OxiDate 5.0 can be direct injected from the original container. Use only compatible injection equipment and materials when injecting OxiDate 5.0 into the irrigation system.
4. OxiDate 5.0 can be direct injected through a separate injection port in conjunction with other pesticides or fertilizers. Once properly diluted, OxiDate 5.0 will not interact with other commonly used pesticides or fertilizers at recommended rates. For injection of OxiDate 5.0 in conjunction with metal-based fungicides, biological based pesticides or organic fertilizers consult your BioSafe Systems technical representative for specific instructions.

#### **STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Store in original container in a cool, dry well-vented area, away from direct sunlight. Do not allow product to become overheated in storage. 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 directions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER HANDLING: (Non-refillable containers equal to or less than 5 gallons):** 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 ¼ 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. Do not burn, unless allowed by state and local ordinances. If burned, stay out of smoke.

**(Non-refillable containers greater than 5 gallons):** 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 ¼ 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. 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. Do not burn, unless allowed by state and local ordinances. If burned, stay out of smoke.

**For Refillable Containers:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of BIOSAFE SYSTEMS LLC or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold BIOSAFE SYSTEMS LLC and Seller harmless for any claims relating to such factors, to the extent consistent with applicable law.

BIOSAFE SYSTEMS LLC warrants that this product conforms to the *chemical* description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above when used in accordance with directions under normal use conditions. To the extent consistent with applicable law, this warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or BIOSAFE SYSTEMS LLC, and Buyer and User assume the risk of any such use TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BIOSAFE SYSTEMS LLC MAKES NO WARRANTIES OF MERCHANTABILITY FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESSED OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, in no event shall BIOSAFE SYSTEMS LLC or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF BIOSAFE SYSTEMS LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF BIOSAFE SYSTEMS LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

BIOSAFE SYSTEMS LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of BIOSAFE SYSTEMS LLC.

*[Note to Reviewer: The following marketing claims may be used with the prefix "This product" or "This product is [a] [an]". Marketing text is considered optional. Commas and the words "and" "or" can be added to phrases to make text grammatically correct.]*

## **Optional Claims For Sublabels A & B**

***The following claims may appear on any label panel:***

- [Broad Spectrum] [Bactericide] [Fungicide] [Algaecide]
- Preventative treatment for seeds, growing plants, fruits, nuts and vegetables.
- A treatment for the prevention and control of plant pathogenic diseases in field grown crops, greenhouses, and storage sites.
- A treatment for the prevention and control of plant pathogenic diseases on surfaces, equipment and structures used in processing post-harvest commodities.
- Activated peroxygen treatment.
- Virucide (Tobacco mosaic virus)
- Preventative treatment for ornamental plants and turf.
- A treatment for the prevention and suppression/control of horticultural diseases in Greenhouses, Garden Centers, Landscapes, and Nurseries.
- A treatment for the prevention and control of bacteria, algae and fungi on greenhouse surfaces, equipment and structures.
- Preventative treatment for ornamental plants, edible crops, and turf.
- For disease control on tree and vine crops
- For use in greenhouses and nurseries Bactericide/Fungicide for Greenhouses, Garden Centers, Landscapes, and Nurseries.
- For Fruit & Vegetable Crops
- For Hydroponic Crops (\*)
- For Ornamental Plants & Trees
- For Turf & Landscapes
- Treats & controls root diseases (Pythium, (Root Rot and Damping off), Phytophthora (Blight) Fusarium (Wilt), Verticillium (Wilt), Rhizoctonia (Root Rot/Bottom Rot), Thielaviopsis (Root Rot).
- Treats & controls *Alternaria-Anthrachnose-Aphanomyces-Black Spot-Botrytis* (grey mold) -Downy Mildew-*Erwinia*, *Fusarium* (root rot)-Leaf Spot-*Phytophthora* (blights, rots)-*Plasmopara*-Powdery Mildew-*Pseudomonas-Pythium-Rhizoctonia-Rust-Scab-Smut-Thielaviopsis-Uncinula* (powdery mildew)-*Xanthomonas*-Wilts & Blights-*Ralstonia solanacearum* (brown rot, bacterial wilt)-*Sclerotinia sclerotiorum* (white mold)-*Tobacco mosaic virus*.
- Treats & controls Late Blight, Bacterial Wilt, Botrytis, Downy Mildew, Powdery Mildew
- 0 hour REI for pre-plant dip, seed treatment, soil drench
- 1 hour REI for spray applications
- Made in the USA
- Formulated to enhance your plant's health, quality, and appearance
- Excellent Resistance Management Tool
- Foliar & Root Disease Control
- OxiDate 5.0 can be tank mixed with a compatible systemic chemistry or insecticide
- Chemistry for controlling a broad range of pathogens
- Activated peroxygen chemistry
- For Use on Flowering Plants
- For use on Green Plants
- For agricultural use
- For disease control on Field Grown Crops
- For disease control on Fruit and Vegetable Crops
- Contact your BioSafe Systems technical representative for specific applications.
- For more information <visit [webpage]><call [number]>
- For additional information on [PRODUCT NAME], call us toll-free at <call [number]>or visit <visit [webpage]>
- Optional language: (\*) (\* = Not for use in California)
- (Read full label before use)(see inside for full instructions)(always read and follow label directions)
- ©[YYYY] Copyright BioSafe Systems, LLC
- [product name] is a registered trademark of BioSafe Systems, LLC