



# OxiDate® 5.0

## SPECIMEN LABEL

**EPA REGISTRATION NO.** 70299-28

**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

**If in eyes**

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

**If on skin or clothing**

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15–20 minutes.
- Call a poison control center or doctor for treatment advice.

**If swallowed**

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

**If inhaled**

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

#### HOTLINE NUMBER

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, 6:30 AM to 4:30 PM Pacific Time (PT), seven days a week. During other times, call the Poison Control Center at 1-800-222-1222.

#### NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

#### 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.

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

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.

### 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.

### PRODUCT INFORMATION

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. See the label for a complete list of plant pathogens.

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 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 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.

**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 3-20 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 EC (Electrical Conductivity) can help in determining concentration of organic and inorganic content in the water. Thoroughly rinse out mixing tank with water before mixing. OxiDate 5.0 will readily mix with clean water and does not require agitation. OxiDate 5.0 is formulated with minimal surfactant for plants having waxy or hairy surfaces. In order to increase the effectiveness of OxiDate 5.0, additional non-ionic surfactant may be added, for treatment of plants with difficult to reach surfaces, or for plants having waxy or hairy surfaces. Only non-ionic surfactants are compatible with OxiDate 5.0.

OxiDate 5.0 works by surface contact with the plants and materials being treated. It is important to ensure that all surfaces are thoroughly wetted. 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 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.

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

### Compatibility:

OxiDate 5.0 is compatible as a direct injection or tank-mix with many commonly used pesticides, fertilizers, adjuvants and non-ionic surfactants but has not been fully evaluated with all of these. Do not direct inject or tank mix OxiDate 5.0 in to the irrigation system or in the spray tank with pesticides, surfactants or fertilizers before conducting a compatibility test to show it is physically compatible, effective and non-injurious under your use conditions. Do not tank mix OxiDate 5.0 with copper or other pesticide containing metals at a dilution rate stronger than 1:256-1:500. Consult your BioSafe Systems technical representative for specific instructions.

To ensure compatibility, evaluate them prior to use as follows: Using a suitable container, add proportional amounts of product to water. Add wettable powders first, followed by water dispersible granules, then by liquid flowables and lastly, emulsifiable concentrates. Mix thoroughly and let stand for at least five minutes. If the combination stays mixed or can be remixed, it is physically compatible. Test the combination on a small portion of the crop to be treated to ensure that a phytotoxic response will not occur as a result of application.

Consult specific product labels for 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 applications, only use OxiDate 5.0 at labeled dilutions. Solutions more concentrated than prescribed on this label may result in leaf necrosis for some plants. OxiDate 5.0 has been designed to provide a balanced source of the active ingredient directly to the plant surface. OxiDate 5.0 has been used and tested on many varieties of plant material; however, the nature of the target plant, environmental conditions, plant vigor, and the use of other pesticides can all affect plant sensitivity

to OxiDate 5.0. The safety of OxiDate 5.0 has not been determined on all plants and crops. Plants grown in greenhouses vary greatly from those grown under field conditions. Determine if OxiDate 5.0 can be safely used prior to application. 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 separate set of plants and observe for symptoms of sensitivity prior to use. Symptoms on foliage include yellow or brown spotting, "burned" tips and/or yellow or brown scorching along the leaf edges.

When using OxiDate 5.0 for control of organisms living on the plant tissue (such as Downy and Powdery Mildew), treatment may result in lesions on plant tissue. OxiDate 5.0 will oxidize parasitic organisms living in plant tissue that are not always visible to the naked eye. 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 only according to label directions. Do not use OxiDate 5.0 above labeled rates.

### FOLIAR APPLICATIONS

Use Rates and Directions for Foliar Applications on Field Grown, 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 with any plant surface for control of plant diseases – see **Application Rates and Directions Chart**. Good coverage and wetting of the foliage is required. For increased coverage and penetration of spray, use a compatible non-ionic wetting agent/surfactant. For drift reduction and to aid spray deposition. Do not spray OxiDate 5.0 during conditions of intense heat, drought or poor plant vigor.

Run a plant sensitivity test when considering using higher spray concentrations greater than 0.39% v/v (1:256) by following instructions under "plant sensitivity testing". If plants show symptoms of phytotoxicity, decrease the spray solution concentration to a level that does not demonstrate symptoms.

See **Application Rates and Directions Chart** for Disease list and Additional Instructions.

#### Preventative Application Rates:

1. Begin applications early in season. Use OxiDate 5.0 at a dilution rate of 1:800-1:500 (16-26 fl. oz. per 100 gallons of water).
2. Spray plants in morning or evening. Apply in 10-500 gallons of water per acre, ensuring 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 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. Spray plants in morning or evening. Apply in 10-500 gallons of water per acre, ensuring 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 3-10 day spray schedule until control is achieved.

#### Rescue Treatment Rates: (See **Application Rates and Directions Chart** for complete list.)

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. It is recommended to use this rate outside of sensitive growth stages such as the bloom period.
3. Spray plants in morning or evening. Apply in 10-500 gallons of water per acre, ensuring 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 **Applications Rates and Directions Chart**. Apply between 10-25 gallons of spray solution per treated acre.

#### 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 3-20 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.

#### 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).
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 foliage and stems.

**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
<b>1:100 (1.0% v/v)</b>	0.5 gal.	1.0 gal.	2.0 gal.	3.0 gal.	4.0 gal.	5.0 gal.
<b>1:256 (0.39% v/v)</b>	26 fl. oz.	50 fl. oz.	100 fl. oz.	150 fl. oz.	200 fl. oz.	250 fl. oz.
<b>1:500 (0.20% v/v)</b>	12.8 fl. oz.	26 fl. oz.	51 fl. oz.	77 fl. oz.	102 fl. oz.	128 fl. oz.
<b>1:800 (0.125% v/v)</b>	8 fl. oz.	16 fl. oz.	32 fl. oz.	48 fl. oz.	64 fl. oz.	80 fl. oz.

## Application Rates and Directions Chart

*OxiDate 5.0 can be used on the following crops: including, but not limited to:*

Crops	Disease	Application Rates
<b>Alfalfa</b>	Cercospora Leaf Spot Common Leaf Spot*	<p><b>Foliar Applications:</b> Follow: <b>"Application Rates and Directions"</b></p> <p><b>Preventative:</b> 1:800-1:500 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>
<b>Asparagus</b>	Purple Spot* Rust*	<p><b>Foliar Applications:</b> Follow: <b>"Application Rates and Directions"</b></p> <p><b>Preventative:</b> 1:800-1:500 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>
	Fusarium* (Crown/Root Rot) Phytophthora (Crown/Root Rot)	<p><b>Pre-Plant Soil Treatment:</b> Prior to planting, treat the Phytophthora infested soil with 1:100-1:256 solution.</p> <p><b>Pre-Plant Dip:</b> Dip the Asparagus crowns prior to planting in 1:500 solution of OxiDate 5.0 for 3-5 minutes.</p> <p><b>Post Planting Soil Treatment:</b> Treat the soil as needed using a 1:800-1:500 solution of OxiDate 5.0.</p>
<b>Avocado</b>	Anthrachnose Blotch	<p><b>Foliar Applications:</b> Follow <b>"Application Rates and Directions"</b></p> <p><b>Preventative:</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>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 this rate to be used outside of bloom period.</p>
<b>Bananas</b> Plantains	Sigatoka	<p><b>Foliar Applications:</b> Follow <b>"Application Rates and Directions"</b></p> <p><b>Preventative:</b> 1:800-1:500 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>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>
<b>Bulb Vegetables</b> <i>Including, but not limited to:</i> Garlic Green Onions Leeks Onions Scallions Shallots	Bacterial Leaf Blight* Bacterial Soft Rot Basal Rot* Botrytis Downy Mildew Powdery Mildew Neck Rot*	<p><b>Foliar Applications:</b> Follow <b>"Application Rates and Directions"</b></p> <p><b>Preventative:</b> 1:800-1:500 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>

<b>Cane Berries</b> <i>Including, but not limited to:</i> Blackberry, Blueberry, Raspberry	Alternaria Angular Leaf Spot Anthracnose* Bacterial Canker ( <i>Pseudomonas</i> ) Botrytis (fruit rot or blight) Cane Blight* Crown Rot Downy Mildew Leaf Blight Leaf Rust* Leaf Spot* Powdery Mildew	<b>Foliar Applications:</b> Follow “ <b>Application Rates and Directions</b> ” <b>Preventative:</b> 1:800-1:500 dilution. Begin sprays early in season, when new shoot growth appears. 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. It is recommended to use this rate outside of sensitive growth stages such as the bloom period.
	Mummy Berry Disease	Start sprays at green tip and continue until fruit. Use curative rate at first sign/symptom of disease.
	Botrytis Blight	Start sprays at pre-bloom and continue until end of bloom. Use curative rate at first sign/symptom of disease.
<b>Cereal Grains &amp; Commodities</b> <i>Including, but not limited to:</i> Barley, Corn (field) Millet Oats Popcorn Rice Rye Sorghum (Milo) Sweet Corn Wheat Wild Rice	Anthracnose Bacterial Blight Bacterial Leaf Blight Blast Brown Leaf Spot Common Rust Common Smut Downy Mildew Head Smut Leaf Smut Sheath Blight Sorghum Downy Mildew Southern Blight Stem Canker Stem Rot Goss’s Wilt	<b>Foliar Applications:</b> Follow “ <b>Application Rates and Directions</b> ” <b>Preventative:</b> 1:800-1:500 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. It is recommended to use this rate outside of sensitive growth stages such as the bloom period.
<b>Citrus Crops</b> <i>Including, but not limited to:</i> Citrus Hybrids Grapefruit Kumquat Lemon Limes Orange Tangerine	Alternaria (leaf spot/blight) Anthracnose Greasy Spot* Black Spot Brown Rot Phytophthora Powdery Mildew Rust Citrus Scab	<b>Foliar Applications:</b> Follow “ <b>Application Rates and Directions</b> ” <b>Preventative:</b> 1:800-1:500 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. It is recommended to use this rate outside of sensitive growth stages such as the bloom period.
	Citrus Canker	<b>Foliar and Tree Treatment Applications:</b> Follow “ <b>Application Rates and Directions</b> ” <b>Preventative:</b> 1:800-1:500 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. In groves with a history of disease pressure use the 1:256 dilution rate on a 5-7 day spray schedule. <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. <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.
<b>Coffee</b>	Bacterial Blight Leaf Rust Coffee Berry Disease*	<b>Foliar Applications:</b> Follow “ <b>Application Rates and Directions</b> ” <b>Preventative:</b> 1:800-1:500 dilution. Begin sprays early when conditions favor disease development. 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. It is recommended to use this rate outside of sensitive growth stages such as the bloom period.

<p><b>Cole Crops</b>  <i>Including, but not limited to:</i>          Broccoli          Brussels Sprouts          Cabbage          Cauliflower          Collards          Kale</p>	<p>Alternaria Leaf Spot          Bacterial Leaf Spot*          Black Rot*          Downy Mildew          Early Blight          Late Blight          Powdery Mildew</p>	<p><b>Foliar Applications:</b> Follow "<b>Application Rates and Directions</b>"</p> <p><b>Preventative:</b> 1:800-1:500 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>Cotton</b></p>	<p>Bacterial Blight</p>	<p><b>Foliar Applications:</b> Follow "<b>Application Rates and Directions</b>"</p> <p><b>Preventative:</b> 1:800-1:500 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>Cotton Root Rot          Fusarium Wilt          Pythium          Rhizoctonia          Thielaviopsis</p>	<p><b>Foliar Irrigation (Chemigation) Applications:</b> Apply as a preventative treatment through center pivot, lateral move, end tow, side-wheel roll, traveler, solid set, hand move or flood basin irrigation systems. Inject at a dilution of 1:2,000-1:400 (¼-1.25 gallons per 500 gallons of water). Apply continuously or during the last 30-120 minutes of the irrigation cycle.</p> <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 (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>
<p><b>Cranberries</b></p>	<p>Fruit Rot          Leaf Blight          Bacterial Stem Canker</p>	<p><b>Foliar Applications:</b> Follow "<b>Application Rates and Directions</b>"</p> <p><b>Preventative:</b> 1:800-1:500 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>Cucurbit Crops</b>  <i>Including, but not limited to:</i>          Cucumber          Melons          Pumpkin          Squash</p>	<p>Alternaria          Anthracnose          Downy Mildew          Gummy Stem Blight          Leaf Spot          Powdery Mildew          Phytophthora blight/fruit rot</p>	<p><b>Foliar Applications:</b> Follow "<b>Application Rates and Directions</b>"</p> <p><b>Preventative:</b> 1:800-1:500 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>Foliar Irrigation (Chemigation) Applications:</b> Apply through center pivot, lateral move, end tow, side-wheel roll, traveler, solid set, hand move or flood basin irrigation systems. Inject at a dilution of 1:2,000-1:400 (¼-1.25 gallons per 500 gallons of water). Apply continuously or during the last 30-120 minutes of the irrigation cycle.</p>
	<p>Belly Rot          Root Rots          Fusarium Wilt          Pythium          Phytophthora          Rhizoctonia</p>	<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 (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	Anthracnose Early Blight Late Blight Bacterial Spot Bacterial Speck Botrytis-Gray Mold Leaf Mold Frog Eye Leaf Spot* Powdery Mildew Bacterial Wilt Cladosporium Mold	<p><b>Foliar Applications:</b> Follow "<b>Application Rates and Directions</b>"</p> <p><b>Preventative:</b> 1:800-1:500 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>Foliar Irrigation (Chemigation) Applications:</b> Apply through center pivot, lateral move, end tow, side-wheel roll, traveler, solid set, hand move or flood basin irrigation systems. Inject at a dilution of 1:2,000-1:400 (¼-1.25 gallons per 500 gallons of water). Apply continuously or during the last 30-120 minutes of the irrigation cycle.</p>
	To reduce disease causing fungi and bacterial pathogens on or in seed	<p><b>Seed Treatment:</b> Apply at a 1:256-1:128 dilution (0.39-0.78 gallons per 100 gallons of water). If the seed company has not treated seed, immerse seed in the OxiDate 5.0 solution for one minute (up to ten minutes), remove seed and allow to drain. Rinsing of the seed after application is not required.</p>
	For control of seedling diseases (pre and post emergence damping off) caused by: Pythium, Phytophthora, Rhizoctonia, & Fusarium.	<p><b>Rate at Seeding or Transplanting:</b> Apply at a 1:512-1:256 dilution (2.5-5.0 fl. oz. per 10 gallons of water). Apply to point of saturation on newly seeded plugs trays, seed flats or bets with the initial watering. Add OxiDate 5.0 to transplant water or starter fertilizer and make in-furrow or dibble application just prior to plant set.</p> <p><b>Rate For Post Emergence Treatment:</b> Apply at a 1:512 dilution (2.5 fl. oz. per 10 gallons of water). Apply OxiDate 5.0 at the 2-4 true leaf stage as a foliar spray with sufficient water to achieve complete coverage, or to the soil directly via drip trickle, in furrow or flood basin. Repeat at 5-7 day intervals.</p>
<b>Globe Artichokes*</b>	Black Rot Botrytis Blight Crown Rot Grey Mold Powdery Mildew	<p><b>Foliar Applications:</b> Follow "<b>Application Rates and Directions</b>"</p> <p><b>Preventative:</b> 1:800-1:500 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 Blight* Powdery Mildew Sour Rot	<p><b>Foliar Applications:</b> Follow "<b>Application Rates and Directions</b>"</p> <p><b>Preventative:</b> 1:800-1:500 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>
	Botrytis Blight	Start sprays at pre-bloom and continue until end of bloom. Use curative rate at first sign/symptom of disease.
<b>Grasses grown for seed or sod</b>	Grey Leaf Spot Leaf Rust Leaf Spot Stem Rust	<p><b>Foliar Applications:</b> Follow "<b>Application Rates and Directions</b>"</p> <p><b>Preventative:</b> 1:800-1:500 dilution. Begin sprays early in season. Repeat weekly or as needed. Livestock can graze treated areas.</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>Herbs and Spices</b> <i>Including, but not limited to:</i> Basil Chives Cilantro Coriander Dill Mint Oregano* Parsley Rosemary Sage	Anthracnose Downy Mildew Powdery Mildew Pythium Rot	<p><b>Foliar Applications:</b> Follow "<b>Application Rates and Directions</b>"</p> <p><b>Preventative:</b> 1:800-1:500 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>Hops</b></p>	<p>Downy Mildew Powdery Mildew</p>	<p><b>Foliar Applications:</b> Follow "<b>Application Rates and Directions</b>"</p> <p><b>Preventative:</b> 1:800-1:500 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>Leafy Vegetables</b> <i>Including, but not limited to:</i> Arugula Celery Chicory Root Endive Fennel Frisee Lettuce Mizuna* Spinach Rhubarb Radicchio Swiss Chard</p>	<p>Brown Rot Botrytis Downy Mildew Early Blight Late Blight Phytophthora Powdery Mildew Rust</p>	<p><b>Foliar Applications:</b> Follow "<b>Application Rates and Directions</b>"</p> <p><b>Preventative:</b> 1:800-1:500 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>Legumes</b> <i>Including, but not limited to:</i> Chick Peas Dry Beans Lima Beans Peas Snap Bean Soy Beans*</p>	<p>White Mold</p>	<p>For control of White Mold, make 2-3 Curative Foliar Applications during bloom time.</p>
	<p>Anthraxnose Bacterial Leaf Blight* Botrytis Blight Downy Mildew Early &amp; Late Blight Powdery Mildew Rust</p>	<p><b>Foliar Applications:</b> Follow "<b>Application Rates and Directions</b>"</p> <p><b>Preventative:</b> 1:800-1:500 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>Early Blight Late Blight Phytophthora Pythium Rhizoctonia Fusarium Root-Rot* Sclerotinia</p>	<p><b>Foliar Irrigation (Chemigation) Applications:</b> Apply through, center pivot, lateral move, end tow, side-wheel roll, traveler, solid set, hand move or flood basin irrigation systems. Inject at a dilution of 1:2,000-1:400 (¼-1.25 gallons per 500 gallons of water). Apply continuously or during the last 30-120 minutes of the irrigation cycle.</p> <p><b>At Planting Applications:</b> Apply at a 1:100-1:1,000 dilution rate (1.28-128 fl. oz. per gallon). Apply 15-100 gallons of mixed solution per treated acre. Add OxiDate 5.0 to setting water or starter fertilizer and make in-furrow application just prior to seed drop.</p>
<p><b>Mushrooms</b></p>	<p>Bacterial Blotch Mycogone Necrotic Spot Trichoderma Verticillium Spot</p>	<p>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.</p>
<p><b>Papaya</b></p>	<p>Anthraxnose Phytophthora</p>	<p><b>Foliar Applications:</b> Follow "<b>Application Rates and Directions</b>"</p> <p><b>Preventative:</b> 1:800-1:500 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>



<b>Peanuts</b>	Early Blight Late Blight Rust Leaf Spot	<p><b>Foliar Applications:</b> Follow “<b>Application Rates and Directions</b>”</p> <p><b>Preventative:</b> 1:800-1:500 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>
<b>Pome Fruit</b> <i>Including, but not limited to:</i> Apples Pears Loquats Mayhaws Quince	Fire Blight Powdery Mildew Rusts Scab Flayspeck Sooty Blotch	<p><b>Foliar Applications:</b> Follow “<b>Application Rates and Directions</b>”</p> <p><b>Preventative:</b> 1:800-1:500 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>
	Fire Blight	<p><b>Curative:</b> 1:256 dilution. For Fire Blight control, make 2–4 applications during Bloom and Petal Fall stages.</p>
<b>Root &amp; Tuber Vegetables</b> <i>Including, but not limited to:</i> Artichokes Beets Carrots Ginseng Horseradish Parsnip Potatoes Radish Rutabaga Sugar Beets Sweet Potatoes Taro Turnips Yams	Alternaria Bacterial Leaf Spot Crown Rot Early Blight Late Blight Leaf Blight Leaf Spot Powdery Mildew Rhizoctonia Potato Brown Rot	<p><b>Foliar Applications:</b> Follow “<b>Application Rates and Directions</b>”</p> <p><b>Preventative:</b> 1:800-1:500 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>
	White Mold*	For control of White Mold, make 2-3 spray applications during bloom time using the 1:256 curative rate.
<b>Strawberries</b>	Botrytis Crown Rot Powdery Mildew	<p><b>Pre-Plant Dip or Spray:</b> Dilute at a 1:500-1:256 rate (2.6-5.0 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>
	Botrytis	<p><b>Setting Water Applications:</b> Apply at a 1:100-1:1,000 dilution rate (¼-1¼ gallons in 50-200 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>Control on Existing Plantings:</b> Remove dead plant growth from the beds immediately prior to making a OxiDate 5.0 application. Apply at a 1:800-1:256 dilution rate (16-50 fl. oz. for 100 gallons of water). Typical applications use 30-100 gallons of spray solution per treated acre. Use sufficient water to obtain complete coverage. Use additional sprays in late winter just after plant bed cleaning.</p>
	Powdery Mildew Leaf Blight Angular Leaf Spot Botrytis	<p><b>At Planting Foliar Applications:</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. Or apply to the soil directly via drip, trickle, in furrow or flood applications.</p>
	Anthracnose Angular Leaf Spot Botrytis (fruit rot or blight) Powdery Mildew	<p><b>Foliar Applications to Existing Plants:</b> Follow “<b>Application Rates and Directions</b>”</p> <p><b>Preventative:</b> 1:800-1:500 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> <i>Including, but not limited to:</i> Apricots Cherries Nectarines Peaches Plums Prunes</p>	<p>Brown Rot Downy Mildew Powdery Mildew Bacterial Canker (<i>Pseudomonas</i>)</p>	<p><b>Foliar Applications:</b> Follow “<b>Application Rates and Directions</b>” <b>Preventative:</b> 1:800-1:500 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. 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><b>Foliar Applications:</b> Follow “<b>Application Rates and Directions</b>” <b>Preventative:</b> 1:800-1:500 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. It is recommended to use this rate outside of sensitive growth stages such as the bloom period.</p>
<p><b>Tobacco (Field)</b></p>	<p>Blue Mold Alternaria Leaf Spot – (Brown Mold)* Angular Leaf Spot* Frogeye Leaf Spot*</p>	<p><b>Foliar Applications:</b> Follow “<b>Application Rates and Directions</b>” <b>Preventative:</b> 1:800-1:500 dilution. Begin sprays early in season. Maintain a 5-10 day spray schedule. For Blue Mold, start sprays early when conditions are favorable for disease development. <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>Tobacco Mosaic Virus</p>	<p>To prevent Tobacco Mosaic Virus, thorough sanitation of tools and implements is necessary. Treat seed by soaking in 1:50-1:100 solution for 10-15 minutes.</p>
<p><b>Tobacco (Float Beds)</b></p>	<p>Blue Mold Fusarium Pythium Phytophthora</p>	<p><b>Pre-Plant Dip or Spray Application:</b> <b>Initial float Bed Treatment:</b> Use a 1:2,500-1:1,250 dilution or 0.5-1 fl. oz. of OxiDate 5.0 per 10 gallons of water. <b>Preventative:</b> Use a 1:25,000-1:12,500 dilution (5.1-10.2 fl. oz. OxiDate 5.0 for every 1,000 gallons of water). Treat water on a regular basis or maintain a residual 100 ppm concentration.</p>
<p><b>Tree Nuts</b> <i>Including, but not limited to:</i> Almonds Brazil Nuts Cashews Filberts Macadamias Pecans Pistachios Walnuts</p>	<p>Alternaria Anthracnose Brown Rot Bacterial Blight Bacterial Canker E. Filbert Blight Jacket Rot Almond Leaf Scorch* Hull Rot*</p>	<p><b>Foliar Applications:</b> Follow “<b>Application Rates and Directions</b>” <b>Preventative:</b> 1:800-1:500 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. It is recommended to use this rate outside of sensitive growth stages such as the bloom period.</p>
<p><b>Tropical/Sub Tropical Fruit</b> <i>Including, but not limited to:</i> Casaba Coconut Dates Guava Kiwi Mango Olive* Passion Fruit Pineapple Poi Star Fruit</p>	<p>Alternaria Anthracnose Leaf Blight Powdery Mildew Rhizoctonia Sooty Mold Stem Rot</p>	<p><b>Foliar Applications:</b> Follow “<b>Application Rates and Directions</b>” <b>Preventative:</b> 1:800-1:500 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. It is recommended to use this rate outside of sensitive growth stages such as the bloom period.</p>

**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 0.39% v/v (1:256) solution. 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 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 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 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 22 ppm of peroxyacetic acid).

**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 SPOTTED WING DROSPHILA (SWD)\***

OxiDate 5.0 controls yeast which is a food source for spotted wing drospohila (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.

**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 injector 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. Determine the treatment rates as indicated in the directions for use and make proper dilutions.
3. Prepare a solution in the chemical tank by filling the tank with the required amount of water and then adding product as required. OxiDate 5.0 may be direct injected from the original container. The product will immediately go into solution without any agitation.
4. OxiDate 5.0 may be applied in conjunction with other pesticides or fertilizers. For injection of OxiDate 5.0 with metal-based fungicides and biological based pesticides 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 be

come 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.

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For additional information on OxiDate® 5.0, call us toll-free at 1.888.273.3088 or visit [www.biosafesystems.com](http://www.biosafesystems.com).

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**V3-121719** 1.20