



OxiDate® 5.0

SPECIMEN LABEL

CALIFORNIA

FOR AGRICULTURAL USE | 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 a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by 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.

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.

PRODUCT INFORMATION

OxiDate 5.0 is a powerful broad-spectrum bactericide/fungicide/microbicide 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 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.

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 direc-

tions 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.

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.

Dilution Rate Chart

Dilution Rate of OxiDate 5.0	Amount of OxiDate 5.0 per Acre					
	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 (0.20% v/v)	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 can be used on the following crops: including, but not limited to:

Crops	Disease	Application Rates
Asparagus	<i>Phytophthora</i> (Crown/Root Rot)	<p>Pre-Plant Soil Treatment: Prior to planting, treat the <i>Phytophthora</i> infested soil with 1:100-1:256 solution.</p> <p>Pre-Plant Dip: Dip the Asparagus crowns prior to planting in 1:500 (0.25 fl. oz. per gallon) solution of OxiDate 5.0 for 3-5 minutes.</p> <p>Post Planting Soil Treatment: 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 Application Rates and Directions.</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 Application Rates and Directions.</p>
Bulb Vegetables <i>Including, but not limited to:</i> Garlic, Green Onions, Leeks, Onions, Scallions, Shallots	<i>Alternaria</i> Leaf Blight, Bacterial Leaf Blight, Bacterial Soft Rot, <i>Botrytis</i> , Downy Mildew, Powdery Mildew, 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 Application Rates and Directions.</p>
Bush & Cane Berries <i>Including, but not limited to:</i> Blackberry, Blueberry, Raspberry	<i>Alternaria</i> , Angular Leaf Spot, Anthracnose, Bacterial Canker (<i>Pseudomonas</i>), <i>Botrytis</i> , Crown Rot, Downy Mildew, Leaf Blight, Rust, Powdery Mildew, Mummy 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 Application Rates and Directions.</p>
Cereal Grains & Commodities <i>Including, but not limited to:</i> Barley, Millet, Oats, Rice, Rye, Sorghum (Milo), Wheat, Wild Rice, Triticale, Spelt, Kamut, Farro, Bulgur, Teff, Quinoa, Amaranth, Buckwheat, Chia	Anthrachnose, Bacterial Leaf Blight, Blast, Brown Leaf Spot, Downy Mildew, Powdery Mildew, Sheath Blight, Smut, Sorghum Downy Mildew, Southern Blight, Stem Canker, 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 Application Rates and Directions.</p>
Citrus Crops <i>Including, but not limited to:</i> Citrus Hybrids, Grapefruit, Kumquat, Lemon, Limes, Orange, Tangerine	<i>Alternaria</i> , Anthracnose, Black Spot, Brown Rot, <i>Phytophthora</i> , 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 Application Rates and Directions.</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, follow Application Rates and Directions.</p>

Coffee	Bacterial Blight, Leaf 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, follow Application Rates and Directions .
Cole Crops <i>Including, but not limited to:</i> Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Collards, Kale	<i>Alternaria</i> , Bacterial Leaf Spot, Black Rot, Downy Mildew, Early Blight, Late Blight, Powdery Mildew, Bacterial Blight	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. For more directions, follow Application Rates and Directions .
Corn Field, Pop, Sweet	Anthrachnose, Bacterial Leaf Blight, Brown Leaf Spot, Downy Mildew, Rust(s), Smut(s)	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. For more directions, follow Application Rates and Directions .
Cotton	Bacterial Blight, Rust, Leaf Spots	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. For more directions, follow Application Rates and Directions .
	Cotton Root Rot, Fusarium Wilt, <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> , Verticillium Wilt	At Planting Applications: 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. Banded Applications: 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.
Cranberries	Fruit Rot, Leaf Blight, Leaf Spot, Bacterial Stem Canker	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, follow Application Rates and Directions .
Cucurbit Crops <i>Including, but not limited to:</i> Cucumber, Melons, Pumpkin, Squash	<i>Alternaria</i> , Anthracnose, Downy Mildew, Gummy Stem Blight, Leaf Spot, Powdery Mildew, Phytophthora Blight/Fruit Rot	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, follow Application Rates and Directions .
	Belly Rot, Root Rots, Fusarium Wilt, <i>Pythium</i> , <i>Phytophthora</i> , <i>Rhizoctonia</i>	At Planting Applications: 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. Banded Applications: 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.
Fruiting Vegetables <i>Including, but not limited to:</i> Eggplant, Peppers, Tomatoes, Tomatillos	<i>Alternaria</i> , Anthracnose, Early Blight, Late Blight, Bacterial Spot, Bacterial Speck, Botrytis-Gray Mold, Leaf Mold, Powdery Mildew, Bacterial Wilt, Cladosporium 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, follow Application Rates and Directions .
Globe Artichokes	Black Rot, Botrytis Blight, Crown Rot, Gray Mold, Powdery Mildew	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, follow Application Rates and Directions .

Grapes	Black Rot, <i>Botrytis</i> , Downy Mildew, Phomopsis Blight, Powdery Mildew, Sour Rot	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, follow Application Rates and Directions .
Grasses grown for seed or sod	Gray Leaf Spot, Leaf Rust, Leaf Spot, Stem Rust	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. For more directions, follow Application Rates and Directions .
Herbs and Spices Including, but not limited to: Basil, Chives, Cilantro, Coriander, Dill, Mint, Oregano, Parsley, Rosemary, Sage	Anthrachnose, Downy Mildew, Powdery Mildew, Leaf Spot, Pythium Rot	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. For more directions, follow Application Rates and Directions .
Hops	<i>Botrytis</i> , Downy Mildew, Powdery Mildew	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, follow Application Rates and Directions .
Leafy Vegetables Including, but not limited to: Arugula, Celery, Chicory Root, Endive, Fennel, Frisee, Lettuce Mizuna, Spinach, Rhubarb, Radicchio, Swiss Chard	Brown Rot, <i>Botrytis</i> , Downy Mildew, Early Blight, Late Blight, <i>Phytophthora</i> , Powdery Mildew, Leaf Spot, Rust, White Mold	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. For more directions, follow Application Rates and Directions .
Legume Vegetables (succulent or dried) Including, but not limited to: Bean (<i>Lupinus</i> spp., <i>Phaseolus</i> spp., <i>Vigna</i> spp.), Broad Bean, Chickpea, Dry Beans, Lima Beans, Peas, Edible Podded Legume Vegetables, Lentil, Pea (<i>Pisum</i> spp.)	Anthrachnose, Bacterial Leaf Blight, Bacterial Wilt, Bacterial Brown Spot, <i>Botrytis</i> Gray Mold, <i>Cercospora</i> , Downy Mildew, Early & Late Blight, Powdery Mildew, Rust(s), White Mold	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. For more directions, follow Application Rates and Directions .
Mushrooms	Bacterial Blotch, <i>Mycogone</i> , Necrotic Spot, <i>Trichoderma</i> , 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.
Papaya	Anthrachnose, <i>Phytophthora</i>	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, follow Application Rates and Directions .
Peanuts	Early Blight, Late Blight, Early Leaf Spot, Late Leaf Spot, Rust, White Mold	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. For more directions, follow Application Rates and Directions .

Pome Fruit Including, but not limited to: Apples, Pears, Loquats, Mayhaws, Quince	Cedar Apple Rust, Fire Blight, Powdery Mildew, Rusts, Scab, Flyspeck, Sooty 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 fire blight control, make 2-4 applications during bloom and petal fall stages.</p> <p>For more directions, follow Application Rates and Directions.</p>
Root & Tuber Vegetables Including, but not limited to: Artichokes, Beets, Carrots, Ginseng, Horseradish, Parsnip, Potatoes, Radish, Rutabaga, Sugar Beets, Sweet Potatoes, Taro, Turnips, Yams	<i>Alternaria</i> , Bacterial Leaf Spot, Crown Rot, Early Blight, Late Blight, Leaf Blight, <i>Cercospora</i> Leaf Spot, Powdery Mildew, <i>Rhizoctonia</i> , <i>Botrytis</i> , White 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 control of white mold, start applications during early bloom and continue as needed.</p> <p>For more directions, follow Application Rates and Directions.</p>
Soybean	Anthracnose, Bacterial Leaf Blight, Bacterial Wilt, <i>Botrytis</i> Blight, <i>Cercospora</i> Leaf Blight, Downy Mildew, Powdery Mildew, Rust, 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 control of White Mold, start applications during early bloom and continue as needed.</p> <p>For more directions, follow Application Rates and Directions.</p>
Strawberries	For control of soil-borne disease Including, but not limited to: Anthracnose Crown Rot, <i>Botrytis</i> Crown Rot, <i>Pestalotiopsis</i> , <i>Phytophthora</i> Crown Rot	<p>Pre-Plant Dip or Spray: 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>Setting Water Applications: 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>
	<i>Alternaria</i> , Anthracnose, <i>Pestalotiopsis</i> , Powdery Mildew, Leaf Blight, Angular Leaf Spot, <i>Botrytis</i>	<p>Foliar applications immediately post planting: 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>
	<i>Alternaria</i> , Anthracnose, Angular Leaf Spot, <i>Botrytis</i> (Fruit Rot or Blight), <i>Pestalotiopsis</i> , Powdery Mildew	<p>Foliar applications to established plants: Follow: Application Rates and Directions.</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>
Stone Fruit Including, but not limited to: Apricots, Cherries, Nectarines, Peaches, Plums, Prunes	Brown Rot, Downy Mildew, Powdery Mildew, Bacterial Canker (<i>Pseudomonas</i>)	<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 Application Rates and Directions.</p>
Tobacco	Tobacco Mosaic Virus	<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>To control foliar diseases such as Blue Mold.</p> <p>To control root rot diseases caused by pathogens, such as <i>Pythium</i> spp.</p>	<p>Foliar Treatment: 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>Water Treatment: 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>

Tree Nuts Including, but not limited to: Almonds, Brazil Nuts, Cashews, Filberts, Macadamias, Pecans, Pistachios, Walnuts	<i>Alternaria</i> , Anthracnose, Blossom Blight, <i>Botryosphaeria</i> , Brown Rot, Bacterial Blight, Bacterial Canker, E. Filbert Blight, Shot Hole, Jacket Rot, Panicle & Shoot Blight, Scab, Walnut Blight	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, follow Application Rates and Directions .
Tropical/Sub Tropical Fruit Including, but not limited to: Casaba, Coconut, Dates, Guava, Kiwi, Mango, Olive, Passion Fruit, Pineapple, Poi, Star Fruit	<i>Alternaria</i> , Anthracnose, <i>Botrytis</i> , Leaf Blight, Leaf Spot, Powdery Mildew, <i>Rhizoctonia</i> , Sooty Mold, Stem Rot	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, follow Application Rates and Directions .

OTHER CROPS

Application Rates and Directions Chart – Other Crops

Crops	Disease	Application Rates
Hemp Industrial Hemp	Anthracnose, Bacterial Leaf Spot, <i>Botrytis</i> 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.

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 seedling, 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.

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
Field Soils to be planted to the following crops, including but not limited to: 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.	Pre-Plant Soil Treatment: 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 peroxy-acetic 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 1,000 sq. ft.) of finished OxiDate 5.0 solution, as
Greenhouse Soils to be planted to the following, including but not limited to: Food and Non-food crops, hemp, flowering plants.	

Nursery, Turf, and Ornamental Soils to be planted to the following, including but not limited to: Turf, lawns, parks, golf greens, athletic fields, recreational turf area, ornamentals, floral crops, forest tree seedlings.	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.
Seed or Transplant beds to be planted to the following, including but not limited to: 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
Field Soils to be planted to the following crops, including but not limited to: 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.	<p>Soil Drench: 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.</p> <p>Flood Irrigation: Inject OxiDate 5.0 through a metered system using one gallon of OxiDate 5.0 per 1,000 gallons of water used.</p> <p>Drip Irrigation: 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>
Greenhouse Soils to be planted to the following, including but not limited to: Food and Non-food crops, hemp, flowering plants.	
Nursery, Turf, and Ornamental Soils to be planted to the following, including but not limited to: Turf, lawns, parks, golf greens, athletic fields, recreational turf area, ornamentals, floral crops, forest tree seedlings.	
Seed or Transplant beds to be planted to the following, including but not limited to: 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 bacteria 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 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 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 biofungicides (spore containing or spent fermented media), Bt based bioinsecticides, 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).

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 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: 25.5-51 fl. oz. per 1,000 gallons of water (1:5,000-1:2,500 dilution)

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

PREHARVEST 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 and 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.

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:

SURFACE	USE RATE	INSTRUCTIONS
Pots, Flats, Trays	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.
Cutting Tools	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.
Benches and Work Areas	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.
Foot Bath Mats 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.

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.

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