



# OxiDate® 2.0

## SPECIMEN LABEL

Fungicide, Bactericide and Algacide

### FOR AGRICULTURAL USE ONLY

#### ACTIVE INGREDIENT:

Hydrogen Dioxide:.....27.1%  
 Peroxyacetic Acid:.....2.0%  
 OTHER INGREDIENTS:.....70.9%  
**TOTAL:.....100%**

#### KEEP OUT OF REACH OF CHILDREN

### **DANGER – PELIGRO** **STRONG OXIDIZING AGENT**

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.
- 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 mouth-to-mouth if possible.
- Call poison control center or doctor for treatment advice.

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 2.0 call the National Pesticides Information Center at 1-800-858-7378, 6:30AM to 4:30 PM Pacific Time (PT), seven days a week. During other times, call the Poison Control Center at 1-800-222-1222.

#### NOTE TO PHYSICIAN:

Probable mucosal damage may contraindicate the use of gastric lavage.

Sold by: BioSafe Systems LLC  
22 Meadow Street East Hartford, CT 06108  
EPA Registration No. 70299-12  
EPA Establishment No. 60156-IL-001

#### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS-DANGER:

**CORROSIVE.** Causes irreversible eye damage. Causes skin irritation or temporary discoloration on exposed 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. 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 eye-wear (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 wash hands thoroughly with soap and water before eating, drinking, chewing gum, using tobacco or using the toilet. Users should remove clothing immediately if pesticide gets inside.

Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### ENVIRONMENTAL HAZARDS

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 fish. Begin treatment along the shore and proceed outward in bands to allow fish to move into untreated areas. Consult with the State agency with primary responsibility for regulating pesticides before applying to public waters to determine if a permit is needed.

This pesticide is toxic to birds who eat treated seed exposed on soil surface.

Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

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 undiluted form. Mix only with water in accordance with label instructions. Never bring undiluted product 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 eye-wear (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 of one (1) hour for this product when applied via fogging or spraying to growing plants, surfaces, equipment, structures and non-porous surfaces in enclosed environments such as glasshouses and greenhouses. PPE requirement for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is coveralls worn over long-sleeved shirt and pants, waterproof gloves and shoes plus socks.

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

### For field applications:

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

## Non-Agricultural Use Requirements

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

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

OxiDate 2.0 is a liquid bactericide/fungicide used to treat and control plant pathogens on field grown crops, and post harvest commodities. Apply OxiDate 2.0 up to and including the day of harvest. See the label for a complete list of plant pathogens.

Apply OxiDate 2.0 to treat/control bacteria, fungi and algae in greenhouse structures and equipment, storage sites and irrigation systems.

## FOLIAR APPLICATIONS

### **Solution Preparation:**

OxiDate 2.0 works best when diluted with water containing low levels of organic or inorganic materials and having a neutral pH (pH value of 7.0). pH can be measured using a pH meter or indicator test strips. 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 2.0 will readily mix with clean, neutral water and does not require agitation.

OxiDate 2.0 is formulated with minimal surfactant for plants having waxy or hairy surfaces. In order to increase the effectiveness of OxiDate 2.0, 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 2.0.

OxiDate 2.0 works by surface contact with the plants and materials being treated. It is important to ensure that all surfaces are thoroughly wetted. OxiDate 2.0 does not produce any visible residue, distinct odor or deleterious effects to plants when used in accordance with label directions.

Tank mixes of metal-based chemicals and OxiDate 2.0 that have a pH of less than 7.0 may cause excessive foaming and phytotoxicity. 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.

OxiDate 2.0 is a strong oxidizing agent and may react with residues of metal-based fungicides or supplements. Do not apply OxiDate 2.0 as a foliar spray immediately following foliar applications of metal-based products. Allow at least 24 hrs. after application of metal-based products before applying OxiDate 2.0 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 2.0 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 2.0 in to the irrigation system or in 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.

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.

### **Plant Sensitivity Testing:**

For foliar applications, only use OxiDate 2.0 at labeled dilutions. Solutions more concentrated than prescribed on this label may result in leaf necrosis for some plants (i.e., do not use dilutions less than 1:100 for foliar treatments). OxiDate 2.0 has been designed to provide a balanced source of the active ingredient directly to the plant surface. OxiDate 2.0 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 2.0. The safety of OxiDate 2.0 has not determined on all plants and crops. Plants grown in greenhouses vary greatly from those grown under field conditions. Determine if OxiDate 2.0 can be safely used prior to application. Before treating large numbers of plants, test OxiDate 2.0 or tank mixes of OxiDate 2.0 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 2.0 for control of organisms living on the plant tissue (such as downy and powdery mildew), treatment may result in lesions on plant tissue. OxiDate 2.0 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.

NOTE: OxiDate 2.0 can be used on hydroponic growing systems as a foliar treatment when following the label directions for foliar treatments. OxiDate 2.0 can be used as a hydroponic water treatment only after a water sample has been submitted to BioSafe Systems for analysis and special direction is provided for application recommendations. Inert growing media in a hydroponic growing system provide special conditions that the grower needs to adjust for due to the unbuffered water conditions. Water pH, EC and supplements such as fertilizer, biological loading and minor elements are factors that need to be considered before determining correct water treatment rates.

Before applying OxiDate 2.0, thoroughly read the Directions for Use. Apply this product as directed. Do not use OxiDate 2.0 above labeled rates.

## USE RATES AND DIRECTIONS

### Pre-Plant Dip Treatment:

Use OxiDate 2.0 for the control of damping-off, root disease and stem rot disease caused by *Pythium*, *Phytophthora*, *Rhizoctonia*, *Fusarium* or *Thielaviopsis*, on seeds, seedlings, bulbs, or cuttings. **Remove dead or dying foliage prior to dipping.**

1. Use a dilution of 1:100 or 64-fl. oz. OxiDate 2.0 per 50 gallons of water.
2. Immerse plants or cuttings; remove and allow to drain. Do not rinse.
3. Excessive foaming or bubbling during the dipping process is an indication of high levels of disease contamination.

### Seed Treatment:

Use OxiDate 2.0 for the control of damping-off, root disease and stem rot disease caused by *Pythium*, *Phytophthora*, *Rhizoctonia*, *Fusarium* or *Thielaviopsis*, on seeds of seed sprout crops such as mung bean, red clover, soybeans and alfalfa, and on crops grown exclusively for seed for planting.

1. Use a dilution of 1:100 or 64-fl. oz. OxiDate 2.0 per 50 gallons of water.
2. Immerse seeds and let soak for two minutes; remove and allow to drain. Do not rinse. Plant seed according to seed package directions.

### Bean Sprout Production:

Use OxiDate 2.0 to prevent bacterial and fungal diseases in bean sprout production process and packing lines. Treat tank and spray system water with a dilution of 1.28 fl. oz. of OxiDate 2.0 for every 10 gallons of water or use a dilution rate of 1:1,000.

## FIELD AND GREENHOUSE APPLICATIONS

Use OxiDate 2.0 to treat plant diseases on field grown crops, tree crops, crops grown in commercial greenhouses through soil drench, irrigation and foliar applications. For specific foliar applications refer to **Application Instructions chart**.

### Soil Drench:

OxiDate 2.0 is effective for the control of soil-borne plant diseases such as *Pythium*, *Phytophthora*, *Rhizoctonia*, *Thielaviopsis* or *Fusarium*. Use as a soil drench at the time of seeding or transplanting, as well as a periodic drench throughout the plant's life. Use OxiDate 2.0 on potting soil and growing mediums prior to planting.

1. Use a dilution of 1:200 or 32-fl. oz. OxiDate 2.0 per 50 gallons of water.
2. Apply to soil or growing media to the point of saturation.
3. Wait fifteen minutes before planting or watering.
4. Apply every five to seven days as a preventative treatment.

### To Treat Setting Water:

Add OxiDate 2.0 to transplant water or starter fertilizer and make in-furrow or dibble application at the time of plant set.

1. Use ½ to 1 gallon OxiDate 2.0 per treated acre in 50 – 200 gallons of water.
2. Add OxiDate 2.0 to transplant water or starter fertilizer and make in furrow or dibble applications just prior to seed drop or plant set.
3. In fields with a history of disease pressure, use the high rate.

### Surface or Banded Applications:

1. Use 1/3 to 1 gallon of OxiDate 2.0 per 100 gallons of water.
2. Apply OxiDate 2.0 as a foliar spray with sufficient water to achieve runoff to soil.
3. Repeat applications every 7 days through infectious season.
4. Typical applications use 30 to 100 gallons of spray solution per acre.
5. During periods of wet, cloudy or rainy weather, use stronger rates and volumes and reduce spray intervals.

### To Apply Through Irrigation Systems

1. Use ½ to 1 gallon of OxiDate 2.0 per treated acre in 500 to 1,000 gallons of water.
2. Apply through drip trickle, center pivot, lateral move, end tow, side wheel roll, traveler, solid set, hand move or flood basin irrigation systems. Refer to Chemigation Directions for Use for specific instructions on using this product through irrigation systems.

## Foliar Spray Treatments For Field Grown Crops, Crops Grown In Greenhouses:

OxiDate 2.0 works immediately on contact with any plant surface for control of plant diseases – see Application Instructions chart. Good coverage and wetting of the foliage is required. Do not spray OxiDate 2.0 during conditions of intense heat, drought or poor plant vigor.

### Curative application rates:

1. For best results, apply at first sign of disease. Spray diseased plants using 1:100 dilution rate, or 128 fl. oz. of OxiDate 2.0 per 100 gallons of water. Apply consecutive applications until control is achieved and then follow directions for preventative treatment.
2. Apply 30-100 gallons of spray solution per treated acre.

### Preventative application rates:

1. Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals.
2. Reduce rate to 1:400, or 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of the third treatment and maintain 5-day interval spray cycle until harvest.
3. Apply 30-100 gallons of spray solution per treated acre.

## Aerial Spray Treatments For Field-Grown Crops And Tree Crops

**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. 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.

**Foliar Application Instructions**  
**Crops and Diseases (Alphabetical by Crop Grouping)**

*See Crop Specific Directions, Rates And Usage Section For Additional Instructions.*

**For Heavy Pathogen Pressure When Curative Or Rescue Treatments Are Required:**

Spray diseased plants using 128 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre. Apply consecutive applications until control is achieved and then follow directions for preventative treatment.

<b>Crop</b>	<b>Disease</b>	<b>Dilution Rate</b>	<b>Application Rate</b>	<b>Directions</b>
<b>Alfalfa</b>	Cerospora Leaf Spot	1:400	32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	For preventive sprays, spray on a 7-14 day schedule. Use higher rates for increased disease severity or when conditions are favorable for disease.
<b>Asparagus</b>	Phytophthora	1:400	32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	<b>Preventive:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
<b>Avocado</b>	Anthracnose Blotch	1:400	32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	<b>Pre-Bloom:</b> Apply when bloom buds swell and continue on a five to seven day schedule through bloom.  <b>Preventive:</b> Begin applications before disease appear. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
<b>Bananas Plantains</b>	Sigatoka	1:400	32 –128 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	<b>Preventive:</b> Begin application before disease appears. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
<b>Berries</b> Blackberry Blueberry Raspberry	Alternaria Angular Leaf Spot Botrytis Crown Rot Downy Mildew Mummy Berry Disease Leaf Blight Powdery Mildew Fruit Rot	1:400	32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	<b>Preventive:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
<b>Bulb Vegetables</b> Garlic Green Onions Leeks Onions Scallions Shallots	Botrytis Downy Mildew Powdery Mildew	1:400	32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	<b>Preventive:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
<b>Cereal Grains &amp; Commodities including but not limited to:</b> Barley Corn (field) Millet Oats Popcorn Rice Rye Sorghum (Milo) Soybeans Sweet Corn Wheat Wild Rice	Anthracnose Bacterial Blight Bacterial Leaf Blight Blast Brown Leaf Spot Common Rust Common Smut Downey Mildew Head Smut Leaf Smut Sheath Blight Sorghum Downey Mildew Southern Blight Stem Canker Stem Rot	1:400	32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	<b>Preventive:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.

Crop	Disease	Dilution Rate	Application Rate	Directions
<b>Citrus Crops</b> Citrus Hybrids Grapefruit Kumquat Lemon Limes Orange Tangerine	Alternaria Anthracnose Brown Rot Phytophthora Powdery Mildew Rust Scab  Citrus Canker	1:400         1:600	32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.         <i>See Citrus Canker Application Instructions.</i>	<b>Preventive:</b> Begin application before disease appears. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.         For specific application instructions, see <u><i>Citrus Canker Treatment Application Instructions.</i></u>
<b>Coffee</b>	Coffee Berry Disease Bacterial Blight Leaf Rust	1:400	32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	For preventive sprays, spray on a 7-14 day schedule. Use higher rates for increased disease severity or when conditions are favorable for disease.
<b>Cole Crops</b> Broccoli Brussel Sprouts Cabbage Cauliflower Collards Kale	Alternaria Leaf Spot Downy Mildew Early Blight Late Blight Powdery Mildew	1:400	32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	<b>Preventive:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
<b>Cotton</b>	Fusarium Pythium Rhizoctonia Cotton Root Rot Thielaviopsis Bacterial Blight	1:100 – 1:2,000	<i>See Cotton- Application Instructions.</i>	For specific application instructions, see <u><i>Cotton - Application Instructions.</i></u>
<b>Cranberries</b>	Fruit Rot Leaf Blight Bacterial Stem Canker	1:400	32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	<b>Preventive:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
<b>Cucurbit Crops</b> Cucumber Melons Pumpkin Squash	Alternaria Anthracnose Belly Rot Downy Mildew Fusarium Wilt Gummy Stem Blight Leaf Spot Phytophthora Powdery Mildew Pythium Rot Rhizoctonia Root Rots		<i>See Cucurbit Application Instructions.</i>	For specific application instructions, see <u><i>Cucurbit Application Instructions.</i></u>
<b>Fruiting Vegetables</b> Eggplant Peppers Tomatoes Tomatillos	Anthracnose Early Blight (Alternaria) Late Blight Bacterial Wilt Bacterial Leaf Spot Bacterial Speck Gray Mold (Botrytis) Cladosporium Mold Powdery Mildew Fusarium Pythium Rhizoctonia		<i>See Fruiting Vegetables Application Instructions.</i>	For specific application instructions, see <u><i>Fruiting Vegetables Application Instructions</i></u>

Crop	Disease	Dilution Rate	Application Rate	Directions
<b>Grapes</b>	Black Rot Botrytis Downy Mildew Powdery Mildew Sour Rot	1:400	32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	<b>Preventive:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
<b>Grasses grown for seed or sod</b>	Grey Leaf Spot Leaf Rust Leaf Spot Stem Rust	1:300	40 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	Use sufficient water to achieve good coverage. Begin applications during stem elongations. Repeat weekly or as needed. Livestock can graze treated areas.
<b>Herbs and Spices</b> Basil Chives Cilantro Coriander Dill Mint Rosemary Sage	Anthracnose Downy Mildew Powdery Mildew Pythium Rot	1:400	32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	<b>Preventive:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
<b>Hops</b>	Downy Mildew Powdery Mildew	1:400	32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	<b>Preventive:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
<b>Kiwi</b>	Alternaria Anthracnose Leaf Blight Powdery Mildew Rhizoctonia Sooty Mold Stem Rot	1:400	32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	<b>Preventive:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
<b>Leafy Vegetables</b> Arugula Celery Chickory Root Endive Fennel Lettuce Spinach Rhubarb Radicchio Swiss Chard	Brown Rot Botrytis Downy Mildew Early Blight Late Blight Phytophthora Powdery Mildew Rust	1:400	32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	<b>Preventive:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
<b>Legumes</b> Chick Peas Dry Beans Lima Beans Peas Snap Beans	Anthracnose Botrytis Downy Mildew Early & Late Blight Fusarium Phytophthora Powdery Mildew Pythium Rhizoctonia Sclerotinia Rust White Mold		See <i>Legumes Application Instructions</i>	For specific application instructions, see <a href="#"><u>Legumes Application Instructions</u></a> .

Crop	Disease	Dilution Rate	Application Rate	Directions
<b>Mango</b>	Alternaria Anthracnose Leaf Blight Powdery Mildew Rhizoctonia Sooty Mold Stem Rot	1:400	32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	<b>Preventive:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
<b>Mushrooms</b>	Bacterial Blotch Mycogone Necrotic Spot Trichoderma Verticillium Spot	1:400	0.32 fl. oz. of OxiDate 2.0 per gallon of water; apply 6 gallons of solution per 1000 sq. ft.	<b>Preventive:</b> Spray mushrooms using 0.32 fl. oz. of OxiDate 2.0 per gallon of water on five to seven day intervals. Begin at pinning stage and continue through harvest.
<b>Papaya</b>	Anthracnose Phytophthora	1:100	128 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	<b>Pre-Bloom:</b> Begin applications at ¼ - ½ inch green tip and continue on a five to seven day schedule through bloom.  <b>Curative:</b> Apply consecutive applications until control is achieved and then follow directions for preventative treatment.
<b>Peanuts</b>	Early Blight Late Blight Rust Leaf Spot	1:400	32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	<b>Preventive:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
<b>Pineapple</b>	Alternaria Anthracnose Leaf Blight Powdery Mildew Rhizoctonia Sooty Mold Stem Rot	1:400	32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	<b>Preventive:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
<b>Pome Fruit</b> Apples Pears Loquats Mayhaws Quince	Fire Blight Powdery Mildew Rusts Scab	1:400	32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	<b>Preventive:</b> Begin application before disease appears. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
<b>Root &amp; Tuber Vegetables</b> 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 Phizoctonia Potato Brown Rot	1:400	32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	<b>Preventive:</b> Begin application before disease appears. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.

Crop	Disease	Dilution Rate	Application Rate	Directions
<b>Stone Fruit</b> Apricots Cherries Nectarines Peaches Plums Prunes	Brown Rot Downy Mildew Powdery Mildew Bacterial Canker (Pseudomonas)	1:100  1:400	128 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.  32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	<b>Pre-Bloom:</b> Begin applications at ¼ - ½ inch green tip and continue on a five to seven day schedule through bloom.  <b>Preventive:</b> Begin application before disease appears. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
<b>Strawberries</b>	Alternaria Angular Leaf Spot Botrytis Crown Rot Downy Mildew Fruit Rot Leaf Blight Powdery Mildew		See <i>Strawberry Application Instructions</i>	For specific application instructions, see <u><i>Strawberry Application Instructions.</i></u>
<b>Tobacco (Field)</b>	Blue Mold Tobacco Mosaic Virus	1:400	32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	<b>Preventive:</b> Begin when plants are small. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
<b>Tobacco (Float Beds)</b>	Blue Mold Fusarium Pythium Phytophthora		See <i>Tobacco (Float Beds) Application Instructions</i>	For specific application instructions, see <u><i>Tobacco (Float Beds) Application Instructions.</i></u>
<b>Tree Nuts</b> Almonds Brazil Nuts Cashews Filberts Macadamias Pecans Pistachios Walnuts	Almond Leaf Scorch Alternaria Anthracnose Brown Rot Bacterial Blight Bacterial Canker E. Filbert Blight Jacket Rot	1:100  1:400	128 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.  32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	<b>Pre-Bloom:</b> Begin applications at ¼ - ½ inch green tip and continue on a five to seven day schedule through bloom.  <b>Preventive:</b> Begin application before disease appears. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.
<b>Tropical Fruit</b> Casaba Coconut Dates Guava Passion Fruit Poi Star Fruit	Alternaria Anthracnose Leaf Blight Powdery Mildew Rhizoctonia Sooty Mold Stem Rot	1:100  1:400	128 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.  32 fl. oz. of OxiDate 2.0 per 100 gallons of water; apply 30–100 gallons of spray solution per treated acre.	<b>Pre-Bloom:</b> Begin applications at ¼ - ½ inch green tip and continue on a five to seven day schedule through bloom.  <b>Preventive:</b> Begin application before disease appears. Apply first three treatments using the curative rate at 5-day intervals. Reduce rate to 32 fl. oz. of OxiDate 2.0 per 100 gallons of water after the completion of third treatment and maintain 5-day interval spray cycle until harvest.



## Crop Specific Directions, Rates and Usage

### Fruiting Vegetables Application Instructions:

#### Seed Treatment

Surface seed treatment to reduce disease causing fungi and bacterial pathogens on or in seed.

Rate	Application	Notes
1:100 or 1 gallon of OxiDate 2.0 to 100 gallons of water.	If the seed company has not treated seed, immerse seed in the OxiDate 2.0 solution for one minute, remove seed and allow to drain.	Rinsing of the seed after application is not required.

#### Seedling Production Treatment

For control of seedling diseases (pre and post emergence damping off) caused by fungi: Pythium, Phytophthora, Rhizoctonia, and Fusarium.

Rate at Seeding	Application	Notes
½ to 1 ¼ fl. oz. OxiDate 2.0 per gallon of water.	Apply one application of OxiDate 2.0 to the point of saturation.	Apply on newly seeded plug trays, seed flats or beds with the initial watering.

Rate for Post Emergence	Application	Notes
½ fl. oz. of OxiDate 2.0 per gallon of water.	Apply OxiDate 2.0 at the 2 to 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 7-day intervals.

#### At Planting Application

For prevention, suppression and control of soil-borne diseases caused by Pythium, Phytophthora, Rhizoctonia and Fusarium.

Rate	Application	Notes
½ to 1 gallon of OxiDate 2.0 per treated acre in 50-200 gallons of water.	Add OxiDate 2.0 to transplant water or starter fertilizer and make in-furrow or dibble application just prior to plant set.	In fields with a history of disease pressure, use the high rate.  Before tank mixing OxiDate 2.0 with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.

#### Foliar Applications

For control of foliar diseases caused by bacteria and fungi that attack stems, leaves and fruit during crop growth: Anthracnose, Bacterial Speck and Spot, Botrytis, Early Blight, Late Blight, and Powdery Mildew.

Rate – Foliar Spray	Application	Notes
32 fl. oz - 1 gallon of OxiDate 2.0 per 100 gallons of water. Complete coverage is essential.	Begin applications of OxiDate 2.0 prior to or in the early stages of disease development and continue throughout the season. Spray at first appearance or when conditions are favorable for disease development. Repeat applications at 7-day intervals.	Under severe disease conditions and during periods of rainy weather, apply immediately following each rain, reduce spray intervals and use stronger dilution rate. Use sufficient water to obtain complete coverage.  Before tank mixing OxiDate 2.0 with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.

Irrigation Application Rate	Application	Notes
½ to 1 gallon of OxiDate 2.0 per treated acre in 500 to 1,000 gallons of water.	Apply through center pivot, lateral move, end tow, side-wheel roll, traveler, solid set, or hand move irrigation systems.	Do not spray OxiDate 2.0 during conditions of intense heat, drought or poor vine canopy.

## Cotton Application Instructions:

### At Planting Application

For control of Cotton Root Rot, Fusarium Wilt, Pythium, Thielaviopsis, and Rhizoctonia.

Rate	Application	Notes
½ to 1 gallon of OxiDate 2.0 per treated acre in 50-200 gallons of water.	Make in-furrow applications just before seed is covered. Make band applications to soil surface after seed is covered.	In fields with a history of disease pressure, use higher rates.

### Banded Application

For control of Cotton Root Rot, Fusarium Wilt, Pythium, Thielaviopsis and Rhizoctonia.

Rate for Spray Application	Application	Notes
⅓ to 1 gallon of OxiDate 2.0 per 100 gallons of water.	Apply OxiDate 2.0 as a foliar spray with sufficient water to achieve runoff to soil when vines begin to run. Repeat every seven days through infectious season.	Typical applications use 30-100 gallons of spray per acre. During periods of wet, cloudy or rainy weather, use stronger rates and volumes and reduce spray intervals. Before tank mixing OxiDate 2.0 with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.

Irrigation Application Rate	Application	Notes
½ to 1 gallon of OxiDate 2.0 per treated acre in 500-1,000 gallons of water.	Apply through drip trickle, center pivot, lateral move, end tow, side wheel roll, traveler, solid set, hand move or flood basin irrigation systems.	Before tank mixing OxiDate 2.0 with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility. Do not spray OxiDate 2.0 during conditions of intense heat, drought or poor plant vigor.

### Foliar Applications

For control of Bacterial Blight.

Rate for Spray Application	Application	Notes
32 fl. oz - 1 gallon of OxiDate 2.0 per 100 gallons of water. Complete coverage is essential	Begin applications of OxiDate 2.0 prior to or in early stages of disease development and continue throughout the season. Spray at first appearance or when conditions are favorable for disease development. Repeat at 7-day intervals using sufficient water to obtain complete coverage.	Before tank mixing OxiDate 2.0 with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.  Under severe disease conditions and during periods of rainy weather, apply immediately following each rain, reduce spray intervals and use stronger dilution rate  Do not spray OxiDate 2.0 during conditions of intense heat, drought or poor plant vigor.

Irrigation Application Rate	Application	Notes
½ to 1 gallon of OxiDate 2.0 per treated acre in 500-1,000 gallons of water.	Apply through center pivot, lateral move, end tow, side-wheel roll, traveler, solid set, or hand move irrigation systems.	Before tank mixing OxiDate 2.0 with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.  Do not spray OxiDate 2.0 during conditions of intense heat, drought or poor plant vigor.

## Cucurbit Application Instructions:

### At Planting Application

For control of Belly Rot, Root Rots, Fusarium Wilt, Pythium, Phytophthora, and Rhizoctonia.

Rate	Application	Notes
½ to 1 gallon of OxiDate 2.0 per treated acre in 50-200 gallons of water.	Make in-furrow applications just before seed is covered. Make band applications to soil surface after seed is covered.	In fields with a history of disease pressure, use higher rates.

### Banded Application

For control of Belly Rot, Root Rots, Fusarium Wilt, Pythium, Phytophthora, and Rhizoctonia.

Rate for Spray Application	Application	Notes
⅓ to 1 gallon of OxiDate 2.0 per 100 gallons of water.	Apply OxiDate 2.0 as a foliar spray with sufficient water to achieve runoff to soil when vines begin to run. Repeat every seven days through infectious season.	Typical applications use 30-100 gallons of spray per acre. During periods of wet, cloudy or rainy weather, use stronger rates and volumes and reduce spray intervals.  Before tank mixing OxiDate 2.0 with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.

Irrigation Application Rate	Application	Notes
½ to 1 gallon of OxiDate per treated acre in 500-1,000 gallons of water.	Apply through drip trickle, center pivot, lateral move, end tow, side wheel roll, traveler, solid set, hand move or flood basin irrigation systems.	

### Foliar Applications

For control of Alternaria, Anthracnose, Downy Mildew, Gummy Stem Blight, Leaf Spot, and Powdery Mildew.

Rate for Spray Application	Application	Notes
32 fl. oz - 1 gallon of OxiDate 2.0 per 100 gallons of water. Complete coverage is essential.	Begin applications of OxiDate 2.0 prior to or in early stages of disease development and continue throughout the season. Spray at first appearance or when conditions are favorable for disease development. Repeat at 7-day intervals using sufficient water to obtain complete coverage.	Before tank mixing OxiDate 2.0 with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.  Under severe disease conditions and during periods of rainy weather, apply immediately following each rain, reduce spray intervals and use stronger dilution rate.  Do not spray OxiDate 2.0 during conditions of intense heat, drought or poor vine canopy.

Irrigation Application Rate	Application	Notes
½ to 1 gallon of OxiDate 2.0 per treated acre in 500-1,000 gallons of water.	Apply through center pivot, lateral move, end tow, side-wheel roll, traveler, solid set, or hand move irrigation systems.	Before tank mixing OxiDate 2.0 with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.  Do not spray OxiDate 2.0 during conditions of intense heat, drought or poor vine canopy.

## Legumes Application Instructions:

### At Planting Application

For control of Early Blight, Late Blight, Phytophthora, Pythium, Rhizoctonia, Fusarium Root-Rot and Sclerotinia.

Rate	Application	Notes
½ to 1 gallon of OxiDate 2.0 per treated acre in 50-200 gallons of water.	Add OxiDate 2.0 to setting water or starter fertilizer and make in-furrow application just prior to seed drop.	In fields with a history of disease pressure, use the high rate.  Before tank mixing OxiDate 2.0 with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.

### Surface Application

For control of Early Blight, Late Blight, Phytophthora, Pythium, Rhizoctonia, Fusarium Root-Rot and Sclerotinia.

Rate – Foliar Spray	Application	Notes
⅓ to 1 gallon of OxiDate 2.0 per 100 gallons of water.	Apply OxiDate 2.0 as a foliar spray with sufficient water to achieve runoff to soil. Repeat applications every 7 days through infectious season.	Typical applications use 30 to 100 gallons of spray solution per acre. During periods of wet, cloudy or rainy weather, use stronger rates and volumes and reduce spray intervals. Before tank mixing OxiDate 2.0 with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.

Irrigation Application Rate	Application	Notes
½ to 1 gallon of OxiDate 2.0 per treated acre in 500 to 1,000 gallons of water.	Apply through drip trickle, center pivot, lateral move, end tow, side wheel roll, traveler, solid set, hand move or flood basin irrigation systems.	

### Foliar Applications

For control of Anthracnose, Bacterial Blights, Botrytis, Powdery Mildew, Rhizoctonia, Rust, and White Mold

Rate – Foliar Spray	Application	Notes
32 fl. oz - 1 gallon of OxiDate 2.0 per 100 gallons of water. Complete coverage is essential.	Begin applications of OxiDate 2.0 prior to or in the early stages of disease development and continue throughout the season. Spray at first appearance or when conditions are favorable for disease development. Repeat applications at 7-day intervals.	Under severe disease conditions and during periods of rainy weather, apply immediately following each rain, reduce spray intervals and use stronger dilution rate.  Use sufficient water to obtain complete coverage.  Before tank mixing OxiDate 2.0 with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.

Irrigation Application Rate	Application	Notes
½ to 1 gallon of OxiDate 2.0 per treated acre in 500 to 1,000 gallons of water.	Apply through center pivot, lateral move, end tow, side-wheel roll, traveler, solid set, or hand move irrigation systems.	Do not spray OxiDate 2.0 during conditions of intense heat, drought or poor vine canopy.

## Strawberry Application Instructions:

### Pre-Plant Dip or Spray Application

For control of Botrytis, Crown Rot and Powdery Mildew.

Rate	Application	Notes
64 fl. oz. of OxiDate 2.0 per 100 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.  Before tank mixing OxiDate 2.0 with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.

### Setting Water Application

For control of Botrytis.

Rate	Application	Notes
½ to 1 gallon of OxiDate 2.0 in 50 – 200 gallons of water per treated acre.	Add OxiDate 2.0 to transplant water or starter fertilizer and make in-furrow or dibble application at the time of plant set.	OxiDate 2.0 is chemically compatible with most water-soluble fertilizers.  Before tank mixing OxiDate 2.0 with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.

### At-Planting Foliar Application

For control of Powdery Mildew, Leaf Blight, Angular Leaf Spot, Crown Rot and Botrytis.

Rate	Application	Notes
32 fl. oz - 1 gallon of OxiDate 2.0 per 100 gallons of water. Complete coverage is essential.	Immediately following planting, apply OxiDate 2.0 as a foliar spray with sufficient water to achieve runoff to soil or plastic, or to the soil directly via drip trickle, in furrow or flood basin.	Typical applications use 30 to 100 gallons of spray solution per treated acre. In fields with a history of disease pressure, use the high rate.  Before tank mixing OxiDate 2.0 with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.

### Existing Plantings – Foliar and Crown Disease Control

For control of Powdery Mildew, Leaf Blight, Angular Leaf Spot, Crown Rot and Botrytis.

Rate – Foliar Spray	Application	Notes
32 fl. oz - 1 gallon of OxiDate 2.0 per 100 gallons of water. Complete coverage is essential.	Begin applications of OxiDate 2.0 prior to or in the early stages of disease development and continue throughout the season.  Spray at first appearance or when conditions are favorable for disease development.  Repeat applications at 7-day intervals.	Typical applications use 30 to 100 gallons of spray solution per treated acre. Before tank mixing OxiDate 2.0 with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility. Under severe disease conditions and during periods of rainy weather, apply immediately following each rain, reduce spray intervals and use stronger dilution rate.  Use sufficient water to obtain complete coverage. OxiDate 2.0 may be applied up to and including the day of harvest.

## Botrytis Control on Existing Plantings

Rate – Foliar Spray	Application	Notes
40 – 128 fl. oz. of OxiDate 2.0 per 100 gallons of water. Complete coverage is essential.	Apply OxiDate 2.0 at the first growth flush. Repeat applications at 10% bloom, full bloom and at late or extended bloom. Use additional sprays in late winter just after plant bed cleaning.	<p>Typical applications use 30 to 100 gallons of spray solution per treated acre. Use sufficient water to obtain complete coverage.</p> <p>Remove dead plant growth from the beds immediately prior to making a OxiDate 2.0 application.</p> <p>Before tank mixing OxiDate 2.0 with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility.</p>

## Tobacco (Float Beds) Application Instructions:

### Pre-Plant Dip or Spray Application

For control of Fusarium, Blue Mold, Phytophthora, Pythium.

Rate	Application	Notes
1:500–1:1,000 1:5,000-1:10,000	1¼ – 2½ fl. oz. of OxiDate 2.0 per 10 gallons. 6 – 24 fl. oz. of OxiDate 2.0 per 1000 gallons.	<p><b>Curative:</b> Initial treatment of float bed water.</p> <p><b>Preventive:</b> Treat water on a regular basis or maintain a residual 100 ppm concentration.</p>

## Citrus Canker Application Instructions:

### Existing Plantings – Foliar and Tree Treatment

For control of Citrus Canker on citrus crops: grapefruit, kumquat, lemons, limes, oranges and tangerines.

Rate – Foliar Spray	Application	Notes
20 – 128 fl. oz. of OxiDate 2.0 per 100 gallons of water. Complete coverage is essential.	Begin applications of OxiDate 2.0 prior to or in the early stages of disease development and continue throughout the season. Spray at first appearance or when conditions are favorable for disease development. Repeat applications at 7-day intervals.	Spray diseased plants using OxiDate 2.0 treatment solution for one to three consecutive days and continue treatments on five to seven day intervals. 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 stronger rate. Typical applications use 30 to 100 gallons of spray solution per treated acre. Before tank mixing OxiDate 2.0 with other fertilizers, fungicides or bactericides, conduct a compatibility test for each combination. Make a test solution and shake or stir vigorously. Excessive bubbling and/or pressure are an indication of incompatibility. Under severe disease conditions and during periods of wet, cloudy or rainy weather, apply immediately following each rain, reduce spray intervals and use stronger dilution rate. Use sufficient water to obtain complete coverage. OxiDate 2.0 may be applied up to and including the day of harvest.

## Specific Directions For Algae Control In Rice/Wild Rice Fields And Paddies

Use OxiDate 2.0 to suppress / control algae in rice fields and paddies. Apply OxiDate 2.0 at a rate of 5–10 gallons of OxiDate 2.0 per surface acre using conventional sprayer equipment or aerial application. Apply at the first signs of algae. Applications are most effective when made before rice rises to the water surface. Apply OxiDate 2.0 as needed to control and prevent algae growth; apply more often in times of higher water temperatures.

## NON PLANT USES

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

Use OxiDate 2.0 to suppress / control bacteria, fungi and slime-forming algae as follows:

SURFACE	USE RATE	INSTRUCTIONS
<b>Pots, Flats, Trays</b>	1:100 - 1:300 or 1¼ fl. oz. -½ fl. oz. per gallon of clean water.	Spray until runoff. Add additional surfactant if needed.
<b>Cutting Tools</b>	1:100 - 1:300 or 1¼ fl. oz. -½ fl. oz. per gallon of clean water.  Tobacco Mosaic Virus control: 1:50- 1:100 or 2½ fl. oz. - 1¼ fl. oz. per gallon of clean water.	Soak tools to ensure complete coverage. Add additional surfactant if needed. Use OxiDate 2.0 to prevent the spread of Tobacco Mosaic Virus on cutting tools. Allow surfaces to remain wet for 1 minute.
<b>Benches and Work Areas</b>	Precleaned surfaces: 1:100-1:300 or 1¼ fl. oz. -½ fl. oz. per gallon of clean water. Unclean surfaces: 1:50 or 2½ 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.
<b>Foot Bath Mats</b> Foot pads and walk-through trays	1:100 - 1:170 or 1¼ fl. oz. -¾ fl. oz. per gallon of water.	Apply OxiDate 2.0 to prevent the tracking and spread of dirt and microorganisms. Make a solution of OxiDate 2.0 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 2.0 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. Follow treatment of any food contact surfaces, equipment or structures with a potable water rinse.

1. Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt and/or organic material.
2. Use a dilution of 1:100 - 1:300, or 1¼ fl. oz. - ½ fl. oz. of OxiDate 2.0 per gallon of clean water. Use a dilution of 1:50 or 2½ fl. oz. of OxiDate 2.0 per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits. The use of additional surfactant is acceptable.
3. Apply solution with mop, sponge, power sprayer or fogger to thoroughly wet all surfaces. Fog enclosed areas as an adjunct to manual surface application. Wear protective eyewear (goggles or face shield) when fogging. Prior to fogging, pre-clean surfaces with water to remove any organic deposits. Fog the desired areas using dilution rates of 1:100 - 1:300, or 1¼ fl. oz. - ½ fl. oz., of OxiDate 2.0 using any type of fogging equipment including but not limited to cold foggers, thermal foggers, low pressure air assisted and high pressure fog systems. Solutions are corrosive to materials that are easily oxidized such as natural rubber, copper, galvanized and black iron pipe. Test solutions on surfaces

prior to use.

4. Follow treatment of any food contact surfaces, equipment or structures with a potable water rinse.
5. Scrub off heavy growths of algae and fungi following application. Use a solution of OxiDate 2.0 to wash away dead growth.
6. Reapply often for control.

### Foaming Applications

Apply OxiDate 2.0 as a foam treatment to enhance contact on porous surfaces, vertical surfaces and irregular surfaces where contact is difficult to maintain with spray treatments. Remove loose soil or organic matter with clean water and/or detergent rinse. Use OxiDate 2.0 at a dilution ratio of 1:800 to 1:600 or 16.00 fl. oz. to 21.3 fl. oz. of OxiDate 2.0 per 100 gallons of water. Add a surfactant foaming agent to the spray tank that contains the diluted OxiDate 2.0 solution. Apply foam until the surface treated is completely covered. Allow foam treated surface to air dry. Do not rinse.

### For Surfaces And Equipment Applications In Packing Houses

Apply OxiDate 2.0 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 2.0 at a dilution ratio of 1:800 to 1:600 or 16.00 fl. oz. to 21.3 fl. oz. of OxiDate 2.0 per 100 gallons of water. Apply

as a coarse spray until runoff.

3. Allow OxiDate 2.0 treated surfaces to air dry. Do not rinse.

### Foaming Applications

Apply OxiDate 2.0 as a foam treatment to enhance contact on porous surfaces, vertical surfaces and irregular surfaces where contact is difficult to maintain with spray treatments. Remove loose soil or organic matter with clean water and/or detergent rinse. Use OxiDate 2.0 at a dilution ratio of 1:800 to 1:600 or 16.00 fl. oz. to 21.3 fl. oz. of OxiDate 2.0 per 100 gallons of water. Add a surfactant foaming agent to the spray tank that contains the diluted OxiDate 2.0 solution. Apply foam until the surface treated is completely covered. Allow foam treated surface to air dry. Do not rinse.

**Surface Treatment- For Treatment Of Citrus Canker On Vehicles, Field Equipment, Tools, Personnel Clothing.**

Rate – Surface Treatment	Application	Notes
16.0 – 21.3 fl. oz. of OxiDate 2.0 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 Xanthomonas 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, portable sprayer or fogger. Apply until run off. 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 com-

posed 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 de-

creases 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 dis-



pensing 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 in-

clude 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. The product will immediately go into suspension without any agitation.

4. Do not apply OxiDate 2.0 in conjunction with any other pesticides or fertilizers; this has the potential to cause reduced performance of the product.

### 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 DISPOSAL (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.

**CONTAINER DISPOSAL (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.

### 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, ineffectiveness 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 and Seller harmless for any claims relating to such factors.

BIOSAFE SYSTEMS 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. 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, and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BIOSAFE SYSTEMS MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PUR-

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For additional information on OxiDate® 2.0,  
call us toll-free at 1.888.273.3088 or visit [www.biosafesystems.com](http://www.biosafesystems.com).

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