

PeroxySan-CX

Broad Spectrum Bactericide/Fungicide

EPA Reg. No. 68660-14-93741

EPA Est. No. 60156-IL-001

DIRECTIONS FOR USE BOOKLET

Version Date: May 21, 2019

Keep booklet with the container at all times.

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)

<p style="text-align: center;">FIRST AID</p> <p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</p>
<p>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.</p>
<p>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.</p>
<p>IF SWALLOWED: Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.</p>
<p>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.</p>
<p style="text-align: center;">NOTE TO PHYSICIAN</p> <p>Probable mucosal damage may contraindicate the use of gastric lavage.</p>

Distributed by:



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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

DANGER - CORROSIVE. Concentrate causes irreversible eye damage and skin burns. Concentrate may be fatal if swallowed, inhaled or absorbed through the skin. Do not breathe vapors or spray mists. 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):

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

Wear a respirator with an organic vapor removing cartridge with a pre-filter approved for pesticides (MSHA/NIOSH approval prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approved prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with an N, R, P, or HE pre-filter.

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.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE) and Restricted-Entry Interval (REI). The requirements in this box only apply to the uses of this product that are covered by the Worker Protection Standard.

For enclosed environments:

The restricted entry interval (REI) for this product is **one hour** 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 (coveralls, waterproof gloves and shoe plus socks) is 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.

There is no restricted entry interval (zero hours) for pre-plant dip, soil drench, mop, sponge, dip, soak, rinse or other non-spraying or non-fogging application methods when used in enclosed environments such as a glasshouses or greenhouses.

For outdoor 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 Act 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.

HORTICULTURAL AND TURF USES

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the Agency responsible for pesticide regulation.

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.

Dilute PeroxySan-CX for application with clean water containing low levels of dissolved or suspended organic or inorganic materials, and having a neutral pH. Thoroughly rinse out tank with water before mixing concentrate. PeroxySan-CX will readily mix with clean, neutral water and does not require agitation. Use the solution the same day it is prepared; do not store and re-use PeroxySan-CX that has already been mixed with water.

Conduct a compatibility test ("jar test") before mixing with other pesticides, fertilizers, or adjuvants. Mix each component in the correct proportions, and shake or stir vigorously. Excessive bubbling and/or pressure are indications of incompatibility.

PeroxySan-CX 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 waxy or hairy surfaces, as long as all label instructions are followed.

PeroxySan-CX works by contact with the plants and surfaces being treated. It is important to ensure that all surfaces are thoroughly wetted. PeroxySan-CX does not cause any visible residue, distinct odor or deleterious effects to plants when used in accordance with label directions. Do not use at higher concentration than suggested dilution rates as leaf burn may result.

Do not apply this product through any irrigation system unless directed by the label. Refer to "Chemigation" Directions for Use" for additional instructions.

PRE-PLANTING DIP TREATMENT: Use PeroxySan-CX to control of damping-off, root disease and stem rot disease caused by *Pythium*, *Phytophthora*, *Rhizoctonia*, *Fusarium* or *Thielaviopsis*, on seeds, seedlings, bare roots (including nursery stock), bulbs, or cuttings prior to planting or transplanting.

1. Mix 1½ pint (24 fluid ounces) of PeroxySan-CX per 50 gallons of water (1:250 dilution).
2. Immerse plants or cuttings. Immersion time will depend on type/size of plant and amount of organic material. Bare roots or plants in media will require longer than seeds, bulbs, or cuttings.
3. Remove and allow to drain. Do not rinse.

SEED BED TREATMENT: Prior to sowing seed, mix 1 fluid ounce (2 tablespoons) of PeroxySan-CX per gallon of water. Apply 60 – 100 gallons of this dilute solution per 1,000 square feet, thoroughly drenching the seed bed to the point of saturation. Plant seeds in treated soil 1 hour after application.

After seeds have germinated, lightly spray or irrigate with a mixture of ½ fluid ounce (1 tablespoon) PeroxySan-CX per gallon of water, until the soil is thoroughly wetted. Repeat application once per week until seedlings are well established.

SOIL OR MEDIA DRENCH: PeroxySan-CX can be applied as a soil or plant media drench at seeding or transplanting to control of damping-off, root disease and stem rot disease caused by *Pythium*, *Phytophthora*, *Rhizoctonia*, *Fusarium* or *Thielaviopsis*. PeroxySan-CX can also be applied to potting soil and other growing media prior to planting. Drench applications can be repeated periodically throughout the life of the plant.

1. Mix ½ fluid ounce (1 tablespoon) of PeroxySan-CX per gallon of clean water (1:250).
2. Apply to soil or growing media to the point of saturation.
3. Wait 15 minutes before planting or watering.

PRE-TREATMENT OF SOIL BEFORE INOCULATING WITH BENEFICIAL ORGANISMS: PeroxySan-CX can reduce populations of potential plant pathogens that would otherwise compete with and prevent establishment of beneficial soil microbes. Thoroughly drench the soil in the area to be inoculated with a mixture of 1 fluid ounce (2 tablespoons) of PeroxySan-CX per gallon of water. Wait one day before inoculating the soil with beneficial microbes.

MIST PROPAGATION OF CUTTINGS AND PLUGS: Inject PeroxySan-CX into misting systems to control/suppress algae, fungi, and bacterial disease from becoming established on plant material. Inject at 1:2500 dilution rate (5 fluid ounces per 100 gallons of water) for 4 – 10 consecutive days, then reduce concentration to 1:12,800 (1 fluid ounce per 100 gallons) and continue to apply through the propagation cycle. Increase the concentration to 1:2500 if signs of disease become evident.

PROTECTION OF BARE ROOT NURSERY STOCK/BUDWOOD IN STORAGE: Use PeroxySan-CX to prevent *Botrytis* infection on budwood and bare root nursery stock in storage. Dip plants or spray to run-off with a solution of 1 fluid ounce (1 tablespoon) of PeroxySan-CX per gallon of water (1:125 dilution). Repeat weekly if needed.

FOLIAR SPRAY APPLICATION: PeroxySan-CX works immediately on contact with any plant surface for control of plant diseases. Good coverage and wetting of the foliage is required. See the sections below for specific instructions by crop or growing environment.

Plant Sensitivity Testing: For foliar applications, do not use PeroxySan-CX at concentrations greater than 1% v:v (1:100 dilution). Higher concentration can result in leaf necrosis for some crops. PeroxySan-CX has been designed to provide a balanced source of the active ingredient directly to the plant surface. PeroxySan-CX has been used and tested on many varieties of plant material. However, plant type and vigor, environmental conditions, and the use of other pesticides can influence plant sensitivity. It is therefore recommended to conduct a sensitivity test on a few plants before treating large numbers of the same type of plants with PeroxySan-CX.

Application of PeroxySan-CX for curative control of some plant diseases (such as downy and powdery mildew) may increase the visibility of lesions on infected plant tissue. PeroxySan-CX will oxidize plant pathogenic fungi, possibly revealing spots or drying of the plant tissue where lesions caused by the pathogen were not visible to the naked eye.

Flowering plants, foliage plants, poinsettias, bedding plants, vegetable transplants, trees (including non-bearing fruit trees), shrubs, roses, and other ornamental plants in greenhouses, shadehouses, interiorscapes, landscapes, and nurseries (indoors and outdoors): Use PeroxySan-CX as a preventative treatment to suppress/control/prevent plant diseases including:

Algae	<i>Plasmopara</i>
<i>Alternaria</i> spp.	Powdery mildew
Anthraxnose	<i>Pseudomonas</i> & <i>Xanthomonas</i> spp.
<i>Aphanomyces</i>	<i>Pythium</i> spp.
Black spot	<i>Rhizoctonia</i> spp.
<i>Botrytis</i> (gray mold)	Rusts
Downy mildew	Scabs
<i>Erwinia</i> spp.	Smuts
<i>Fusarium</i> root rot	<i>Thielaviopsis</i>
Leaf spots	Wilts and blights
<i>Phytophthora</i> blights/rots	

Initial (curative) application: Mix ½ fluid ounce (1 tablespoon) of PeroxySan-CX per gallon of water (1:250 dilution ratio). Spray, mist, or fog plants in early morning or late evening. Thoroughly wet all plant surfaces, including upper and lower sides of leaves, stems, branches, stalks, and flowers to ensure full coverage. Repeat for 2 – 3 consecutive days, then follow preventative treatment directions below.

Preventative treatment: Spray, mist or fog plants with 1 teaspoon (0.167 fluid ounce) of PeroxySan-CX per gallon of water (1:750 dilution ratio). Thoroughly wet all plant surfaces, including upper and lower sides of leaves, stems, branches, stalks, and flowers to ensure full coverage. Repeat every 5 – 7 days as a preventative treatment. At first sign of disease, follow the curative treatment instructions above for 3 consecutive days, then resume weekly preventative treatments.

Refer to “Chemigation Directions for Use” for instructions on application through irrigation systems.

Commercial turf, sod farms, lawns, athletic fields, golfcourse fairways, tees, and greens: Use PeroxySan-CX for broad spectrum control of algae, fungi and bacteria on turf, including:

Algae	<i>Fusarium</i> blight
Anthraxnose	Fairy ring
Brown spot	Pink snow mold
Copper spot	<i>Pythium</i>
Dollar spot	<i>Phytophthora</i>

Summer patch
Stripe smut
Take-all patch
Leaf spot

Rhizoctonia
Scum
Slime molds
Wilts and blight

Initial (curative) application: Apply 2 – 4½ fluid ounces of PeroxySan-CX in 3 – 5 gallons of water per 1,000 square feet of turf. For heavy algae infestations, use 4½ – 9 fluid ounces of PeroxySan-CX. Two to three consecutive daily treatments may be required to eradicate disease. Once control is achieved, follow with preventative treatments as described below. PeroxySan-CX can also be combined with a systemic fungicide for residual control/suppression.

Weekly preventative treatment: Apply ¾ – 2 fluid ounces of PeroxySan-CX in 3 – 5 gallons of water per 1,000 square feet of turf. Repeat at 7 day intervals as needed to maintain control.

For best results, apply in early morning or late afternoon, immediately after grass has been cut. Applications can be made during wet or rainy weather.

PeroxySan-CX can be injected through automatic irrigation systems for turf areas. Refer to the “Chemigation Directions for Use” for specific instructions on applying this product through irrigation systems.

SURFACE DISINFESTATION:

For Clean, Non-Porous Surfaces: Mix PeroxySan-CX at a rate of 1 – 3 teaspoons (or 0.167 – 0.5 fluid ounce) per gallon of clean water (dilution ratio of approximately 1:750 – 1:250). Additional surfactant can be included in the mixture if desired to enhance spreading/wetting of surfaces.

Pots, flats, trays: Spray until runoff.

Cutting tools: Soak tools to ensure complete coverage.

Benches and work areas: Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt. Use a more concentrated (1:128) solution of 1 fluid ounce (2 tablespoons) of PeroxySan-CX per gallon of clean water if surfaces to be treated have not been pre-cleaned with water to remove organic deposits.

For Surfaces, Equipment and Structures: Use PeroxySan-CX to suppress/control bacteria, fungi and slime-forming algae on surfaces and equipment, such as plastic, benches, walkways, floors, walls, fan blades, watering systems, vats, tanks, coolers, storage rooms, spray equipment, conveyors, irrigation systems, process equipment, process water systems, trucks, structures and related equipment.

1. Sweep to remove plant debris. Power wash all surfaces to remove loose dirt and organic material.
2. Use 1 – 3 teaspoons (0.167 – 0.5 fluid ounce) of PeroxySan-CX per gallon of clean water (1:750 – 1:250 dilution). Use a more concentrated (1:128) solution of 1 fluid ounce (2 tablespoons) of PeroxySan-CX per gallon of clean water if surfaces to be treated have not been pre-cleaned with water to remove organic deposits. The use of additional surfactant is acceptable.
3. Apply with mop, sponge, power sprayer or fogger (see below) to thoroughly wet all surfaces.
4. Enclosed areas may be fogged with PeroxySan-CX 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 with a mixture of 0.167 – 1 fluid ounce (1 – 6 teaspoons) of PeroxySan-CX per gallon of clean water (1:750 – 1:128 dilution), using any type of fogging equipment including but not limited to cold foggers, thermal foggers, low pressure air assisted and high pressure fog systems. Diluted PeroxySan-CX may be corrosive to materials that are easily oxidized, such as natural rubber, copper, galvanized and black iron pipe. Test spray solutions on such surfaces prior to use.
5. Rinse any food contact surfaces, equipment or structures with potable water after treatment with PeroxySan-CX.
6. Scrub off heavy growths of algae and fungi following application. Use a solution of PeroxySan-CX to wash away dead growth.
7. Reapply as often as needed for control.

For Foot Bath Mats: Make a dilution rate of 2 teaspoons (1/3 fluid ounces) of PeroxySan-CX per gallon of water and fill foot bath to capacity (immersing the mat). Change solution as needed.

TREATMENT OF IRRIGATION SYSTEMS:

Flooded floors/benches, recycled water systems, capillary mats, humidification/misting systems in greenhouses, shadehouses, and nurseries: Treat contaminated water with 8½ fl. oz of PeroxySan-CX per 100 gallons of water

(1:1500 dilution ratio). Treat clean water with 1 tablespoon (½ fluid ounce) of PeroxySan-CX0 per 100 gallons (a dilution of approx. 1:25,000).

CHEMIGATION DIRECTIONS FOR USE:

General Requirements:

1. Apply this product only through a drip system or sprinkler including a center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, hand move, flood (basin) or drip (trickle) irrigation system. Do not apply this product through any other type of irrigation system.
2. Crop injury, lack of effectiveness or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
3. If you have any questions about calibration, should 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, will shut the system down and make any necessary adjustments should the need arise.
6. Posting of areas to be chemigated is required when:
 - a. 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
 - b. When the chemigated area is open to the public, such as golf courses, retail green houses, or “pick your own” operations.
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 should 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 posing period.
8. All words shall consist of letters at least 2.5 inches tall, and all letters and the symbols 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 words PESTICIDES IN IRRIGATION WATER.

Specific Requirements for Chemigation Systems Connected to Public Water Systems:

1. Public water supply means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to the public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top of the overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back towards 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 filled 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 system 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, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being filled with a system interlock.

Application Instructions:

1. Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues may cause product to lose effectiveness or strength.
Determine the treatment rates as indicated in the directions for use and make proper dilutions.

2. Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. The product will immediately go into suspension without any required agitation.
3. Do not apply PeroxySan-CX in conjunction with any other pesticides or fertilizers; this has the potential to cause reduced performance of the product. Avoid application in this manner.

AGRICULTURAL CROP USES

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the Agency responsible for pesticide regulation.

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.

Dilute PeroxySan-CX for application with clean water containing low levels of dissolved or suspended organic or inorganic materials, and having a neutral pH. Thoroughly rinse out tank with water before mixing concentrate. PeroxySan-CX will readily mix with clean, neutral water and does not require agitation. Use the solution the same day it is prepared; do not store and re-use PeroxySan-CX that has already been mixed with water.

Conduct a compatibility test (“jar test”) before mixing with other pesticides, fertilizers, or adjuvants. Mix each component in the correct proportions, and shake or stir vigorously. Excessive bubbling and/or pressure are indications of incompatibility.

PeroxySan-CX 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 waxy or hairy surfaces, as long as all label instructions are followed.

PeroxySan-CX works by contact with the plants and surfaces being treated. It is important to ensure that all surfaces are thoroughly wetted. PeroxySan-CX does not cause any visible residue, distinct odor or deleterious effects to plants when used in accordance with label directions. Do not use at higher concentration than suggested dilution rates as leaf burn may result.

Do not apply this product through any irrigation system unless directed by the label. Refer to “Chemigation Directions for Use” for additional instructions.

PREHARVEST INTERVAL: PHI = Zero (0) Days. PeroxySan-CX can be sprayed up to and including the day of harvest.

PeroxySan-CX can be used on the crops and diseases listed in the table below. Use the following rates and application timings, unless directed otherwise by the table:

Curative treatment: Spray diseased plants with PeroxySan-CX at a concentration of 3 pints (48 fluid ounces) per 100 gallons of water (approx. 1:250 dilution ratio). Apply 30 – 100 gallons of spray solution per treated acre. Repeat daily for up to 3 consecutive days, and then continue with preventative treatments at 5 – 14 day intervals as needed to maintain control.

Preventative treatment: Apply PeroxySan-CX at a concentration of 3 pints (48 fluid ounces) per 100 gallons of water (1:250 dilution). Begin when plants are small. Repeat at 5 day intervals for a total of 3 applications, and then reduce the rate to 1 pint (16 fluid ounces) 100 gallons of water (1:800) for subsequent applications at 5 – 14 day intervals (depending on disease pressure) until harvest. At first sign of disease, follow the curative treatment instructions above for 3 consecutive days, and then resume preventative treatments every 5 – 14 days as needed to maintain control.

Direct injection into misting systems (such as propagation of herbs & spices): Inject directly into misting system at ½ – 1 fluid ounce (1 – 2 tablespoons) per 10 gallons of water (1:1250 – 1:2500 dilution) for continual treatment during propagation.

CROPS	DISEASES		
ASPARAGUS	<i>Phytophthora</i>		
BANANAS, PLANTAINS	Sigatoka		
BEANS: Dry beans, Lentils, Lima beans, Peas, Snap beans, Soybeans (including edible types such as edamame). <i>See “Snap & Dry Beans – Application Instructions.”</i>	Anthracnose <i>Botrytis</i> Downy mildew Early blight	Late blight <i>Phytophthora</i> Powdery mildew <i>Pythium</i>	<i>Rhizoctonia</i> Rust <i>Sclerotinia</i> White mold
BERRIES, including but not limited to: Blackberry, Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Raspberries (red,	<i>Alternaria</i> Angular leaf spot Anthracnose	<i>Botrytis</i> Crown rot Downy mildew	Fruit rot Leaf blight Powdery mildew

CROPS	DISEASES		
black, and black caps), and Strawberry. See "Strawberry - Application Instructions."			
CITRUS: Calamondin, Citron, Clementine, Grapefruit, Kumquat, Lemon, Lime, Mandarin, Orange, Pummelo, Tangelo, Tangerine, Tangor, and other citrus.	Brown rot <i>Phytophthora</i>	Powdery mildew Rust	Scab Citrus canker*
COLE CROPS (BRASSICA VEGETABLES), including Leafy Brassica Vegetables: Broccoli, Brussels Sprouts, Cabbage, Chinese Cabbage (Bok Choi, Nappa), Cauliflower, Collard Greens, Kale, Kohlrabi, Mustard Greens	Powdery mildew Downy mildew Early blight	Late blight <i>Alternaria</i> leaf spot	
CUCURBITS: Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Gourd (edible, including hyotan, cucuzza, hechima, Chinese okra), <i>Momordica</i> spp. (includes balsam apple, balsam pear, bittermelon, Chinese cucumber), Muskmelon (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon), Pumpkin, Squash (including acorn squash, butternut squash, calabaza, crookneck squash, hubbard squash, scallop squash, spaghetti squash, straightneck squash, vegetable marrow, zucchini), Watermelon	<i>Alternaria</i> Anthracnose Belly rot Downy mildew <i>Fusarium</i> wilt Root rots	Gummy stem blight Leaf spot <i>Phytophthora</i> Powdery mildew	<i>Pythium</i> rot <i>Rhizoctonia</i>
FRUITING VEGETABLES: Tomato, Pepper (Bell, Chili, Jalapeño, Habañero, Sweet, Pepino, Pimento), Eggplant, Groundcherry, Tomatillo See "Tomato and Pepper - Application Instructions."	<i>Alternaria</i> Anthracnose Bacterial speck Bacterial spot <i>Botrytis</i>	<i>Cladosporium</i> Early blight Late blight Leaf spot	<i>Phytophthora</i> Powdery mildew <i>Pythium</i> <i>Rhizoctonia</i>
GARLIC, LEEKS, ONIONS, GREEN ONIONS, SCALLIONS, SHALLOTS	<i>Botrytis</i>	Downy mildew	Powdery mildew
GRAPES: Wine grapes, Table grapes, Juice grapes, and Raisins	Black rot <i>Botrytis</i>	Downy mildew Powdery mildew	Sour rot
GRASSES GROWN FOR SEED OR SOD See "Grass Grown for Seed/Sod – Application Instructions."	Gray leaf spot Stem rust	Leaf rust Leaf spot	
HERBS & SPICES, including but not limited to: Basil, Chives, Cilantro, Coriander, Dill, Mint, Parsley, Rosemary, Sage, Thyme	Anthracnose Downy mildew	Powdery mildew	<i>Pythium</i> rot
LEAFY VEGETABLES: Amaranth, Arugula (garden rocket), Asparagus chicory, Beet greens (spinach beet), Borage, Catalogna, Celery, Chard, Chaya, Chicory, Colocasia, Corn salad (mâche), Dandelion, Endive, Escarole, Fenugreek, Garden cress, Ground-elder, Kailan, Lettuce (Head, Leaf, Iceberg, Romaine), Mizuna, Purslane, Radichetta, Radicchio, Sorrel, Spinach, Spinach beet (beet greens), Spring greens (Spring mix), Stinging nettle, Tatsoi, <i>Tropaeolum (Nasturtium)</i> , Turnip	Early blight Brown rot <i>Botrytis</i>	Downy mildew <i>Phytophthora</i> Rusts	Late blight Powdery mildew

CROPS	DISEASES		
greens, Watercress (<i>Nasturtium</i>), Water spinach (ong choy), Yarrow			
MUSHROOMS See "Mushrooms – Application Instructions."	Bacterial blotch Necrotic spot	<i>Mycogone</i> (wet bubble)	<i>Trichoderma</i> <i>Verticillium</i> spot/dry bubble
PEANUTS	Early blight Late blight	Rusts	White mold
POME FRUIT: Apple, Pear, Crabapple, Loquat, Mayhaw, Quince	Powdery mildew	Rusts	Scabs
POTATOES, including seed potatoes	Foliar spray: Early blight	<i>Potatoes</i> – Late blight	Seed treatment: <i>Fusarium</i> (See "Seed Application Instructions")
ROOT & TUBER CROPS: Beets, Carrots, Cassava, Ginseng, Horseradish, Radish, Sweet potato, Taro, Turnip, Yam, and other root, tuber or corm crops.	Early blight Late blight	<i>Alternaria</i>	Crown rot
STONE FRUITS: Apricot, Aprium, Cherry, Nectarine, Peach, Plum, Prune, Pluot, and other stone fruit crosses. See "Stone Fruit – Application Instructions."	Brown rot	Downy mildew	Powdery mildew
SUGAR BEETS	<i>Alternaria</i> Bacterial leaf spot <i>Cercospora</i>	Crown rot Leaf blight Leaf spot	Powdery mildew <i>Rhizoctonia</i>
TOBACCO See "Tobacco - Application Instructions."	Blue mold	<i>Phytophthora</i>	
TREE NUTS: Almonds, Chestnut, Filberts, Hazelnuts, Macadamia, Pecans, Pistachios, Walnuts See "Tree Nuts – Application Instructions."	<i>Alternaria</i> Brown rot Bacterial blight Shot hole	Bacterial canker Eastern filbert blight	Jacket rot Scab Panicle & shoot blight
TROPICAL/SUBTROPICAL FRUIT: Avocado, Casaba, Coconut, Date, Fig, Guava, Kiwi, Mango, Passion fruit, Persimmon, Pineapple, Pomegranate, Poi, Star fruit	<i>Alternaria</i> Anthracnose Leaf blights	Powdery mildew <i>Rhizoctonia</i>	Stem rot Sooty mold

CITRUS - Application Instructions

Foliar & Tree treatment for control against Citrus Canker. (For disinfestation of equipment and tools see "Surface Treatment against Citrus Canker and Other Plant Pathogenic Bacteria" under "Surface Disinfestation.")

RATE	ADDITIONAL INFORMATION
½ – 3 pints (8 – 48 fl. oz.) per 100 gallons of water	Begin preventative applications before or at first appearance of disease symptoms, or when conditions favor disease development. Continue at 5 – 7 day intervals as needed to maintain control. For curative applications to diseased trees, spray daily for 2 – 3 days, then continue on a 5 – 7 day interval as needed to maintain control. Spray entire tree, including trunk, branches, and leaf canopy. Spray all areas where branches have been pruned, grafted, damaged, and any areas having visible lesions or breaks in bark. Use sufficient water to obtain complete coverage (typically 30 – 100 gallons per treated acre). Use higher rates in groves with a history of canker. During periods of wet, cloudy or rainy weather use higher rates, greater application volumes, and shorten spray interval to every 3 – 5 days.

CUCURBITS – Application Instructions

At-Planting Application: For Control of Belly rot, Root rot, *Fusarium* wilt, *Pythium*, *Phytophthora*, and *Rhizoctonia*.

RATE	ADDITIONAL INFORMATION
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1½ – 3 pints (24 – 48 fl. oz.) in 50 – 200 gallons of water per treated acre	Apply to seed furrow just before covering seed with soil. Make band application to soil surface after seed is covered. Use higher rates in fields having a history of disease pressure.
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Banded Application: For Control of Belly rot, Root rot, *Fusarium* wilt, *Pythium*, *Phytophthora*, and *Rhizoctonia*.

RATE (Spray Application)	ADDITIONAL INFORMATION
1 – 3 pints (16 – 48 fl. oz.) per 100 gallons of water	Apply as a foliar spray when vines begin to run, using sufficient water to achieve run-off onto soil (typically 30 – 100 gallons of water per treated acre). Repeat application every 7 days during periods when infection may occur. During periods of wet, cloudy or rainy weather use higher rate, greater application volumes, and shorten spray interval to every 3 – 5 days.
RATE (Chemigation)	ADDITIONAL INFORMATION
1½ – 3 pints (24 – 48 fl. oz.) in 500 – 1,000 gallons of water per treated acre	Apply through drip (trickle), center pivot, lateral move, end tow, side wheel roll, traveler, solid set, hand move, or flood basin irrigation systems. See “Chemigation Directions for Use” for additional instructions.

Foliar Application: For Control of *Alternaria*, Anthracnose, Downy mildew, Gummy stem blight, Leaf spot, and Powdery mildew.

RATE (Spray Application)	ADDITIONAL INFORMATION
1 – 3 pints (16 – 48 fl. oz.) per 100 gallons of water	Begin applications early: Spray before or at first appearance of disease symptoms, or when conditions favor disease development. Continue applications throughout the season at 7 day intervals. Under severe disease pressure and during periods of rainy weather, apply immediately after each rain, reduce spray interval to 1-3 days, and use the high rate. Complete spray coverage must be achieved for effective disease control. Use sufficient water to obtain complete coverage. Do not apply during conditions of intense heat, drought, or poor canopy or vine development.
RATE (Chemigation)	ADDITIONAL INFORMATION
1½ – 3 pints (24 – 48 fl. oz.) in 500 – 1,000 gallons of water per treated acre	Apply through drip (trickle), center pivot, lateral move, end tow, side wheel roll, traveler, solid set, hand move, or flood basin irrigation systems. Do not apply during conditions of intense heat, drought, or poor canopy or vine development. See “Chemigation Directions for Use” for additional instructions.

GRASS GROWN FOR SEED/SOD – Application Instructions

To Control Gray leaf spot, Stem rust, Leaf rust, and Leaf spot.

RATE	ADDITIONAL INFORMATION
1 – 3 pints (16 – 48 fl. oz.) per 100 gallons of water	Apply 30 – 100 gallons of spray solution per treated acre. Begin applications during stem elongation periods. Repeat weekly or as needed to maintain control. Livestock can graze treated areas

MUSHROOMS – Application Instructions

To Control *Verticillium* spot/dry bubble, *Trichoderma*, Bacterial blotch, *Mycogone* (wet bubble), and Necrotic spot.

RATE	ADDITIONAL INFORMATION
Curative: ½ fluid ounce (1 tablespoon) per gallon of water (1:250 dilution) Preventative: 0.175 fluid ounces (about 1 teaspoon) per gallon of water (1:750 dilution)	Apply 6 gallons of spray solution per 1,000 square feet. For curative treatment of diseased mushrooms, spray daily for 2 – 3 days. For preventative treatment, spray every 5 – 7 days from pinning stage through harvest.

SEED POTATOES – Application Instructions

Pre-Planting Treatment of Seed: For Control of Fusarium.

RATE	ADDITIONAL INFORMATION
1 fluid ounce (2 tablespoons) per gallon of water (1:128 dilution)	Immerse whole tubers or cut seed pieces into a tank containing PeroxySan-CX in water. Allow to soak for at least 5 minutes, and then remove seed pieces from the tank. Solution can also be applied to seed pieces as a spray of sufficient volume to ensure complete and uniform coverage of the entire seed piece. Plant seed potatoes immediately after treatment with PeroxySan-CX.

STONE FRUITS – Application Instructions

To Control Brown rot, Downy mildew, and Powdery Mildew.

RATE	ADDITIONAL INFORMATION
3 pints (48 fl. oz.) per 100 gallons of water	Apply in sufficient volume to achieve complete spray coverage (typically 30 – 100 gallons of spray solution per treated acre). Higher volumes may be required for older trees or dense canopies. Pre-bloom: Begin applications at ¼ - ½” green tip; repeat at 5 – 7 day intervals through bloom period. Curative: Spray diseased trees for 3 consecutive days, and then continue on a 5 -7 day spray interval.

TREE NUTS – Application Instructions

For Control of: *Alternaria*, Brown rot, Bacterial blight, Bacterial canker, *Botryosphaeria* panicle blight, Eastern filbert blight, Jacket rot, Scab, Shot

RATE	ADDITIONAL INFORMATION
3 pints (48 fl. oz.) per 100 gallons of water	Apply in sufficient volume to achieve complete spray coverage (typically 30 – 100 gallons of spray solution per treated acre). Higher volumes may be required for older trees or dense canopies. Pre-bloom: Begin applications at ¼ - ½” green tip. Repeat at 5 – 7 day intervals through bloom period. Curative: Spray diseased trees for 3 consecutive days, and then continue on a 5 -7 day treatment interval.

SNAP and DRY BEANS – Application Instructions

At-Planting Application: For Control of Early Blight, Late Blight, *Phytophthora*, *Pythium*, *Rhizoctonia*, *Fusarium* Root-Rot and *Sclerotinia*.

RATE	APPLICATION NOTES
1½ – 3 pints (24 – 48 fl. oz.) in 500 – 1,000 gallons of water per treated acre	Add to setting water or starter fertilizer and make in-furrow application just prior to seed drop. Use the higher rate in fields having a history of disease pressure.

Surface Application: For Control of Early Blight, Late Blight, *Phytophthora*, *Pythium*, *Rhizoctonia*, *Fusarium* Root-Rot and *Sclerotinia*.

RATE (Spray Application)	APPLICATION NOTES
1 – 3 pints (16 – 48 fl. oz.) per 100 gallons of water	Apply as a foliar spray with sufficient water to achieve run-off onto soil (typically 30 – 100 gallons of water per treated acre). Repeat application every 7 days during periods when infection may occur. During periods of wet, cloudy or rainy weather use higher rate, greater application volumes, and shorten spray interval to every 3 – 5 days.
RATE (Chemigation)	APPLICATION NOTES
1½ – 3 pints (24 – 48 fl. oz.) in 50 – 100 gallons of water per treated acre	Apply through drip (trickle), center pivot, lateral move, end tow, side wheel roll, traveler, solid set, hand move, or flood basin irrigation systems.

	See "Chemigation Directions for Use" for additional instructions.
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Foliar Application: For Control of Anthracnose, Bacterial blights, *Botrytis*, Powdery mildew, *Rhizoctonia*, Rust, and White mold.

RATE (Spray Application)	APPLICATION NOTES
1 – 3 pints (16 – 48 fl. oz.) per 100 gallons of water	<p>Begin applications early: Spray before or at first appearance of disease symptoms, or when conditions favor disease development.</p> <p>Continue applications throughout the season at 7 day intervals.</p> <p>Under severe disease pressure and during periods of rainy weather, apply immediately after each rain, reduce spray interval to 1-3 days, and use the high rate.</p> <p>Complete spray coverage must be achieved for effective disease control. Use sufficient water to obtain complete coverage.</p> <p>Do not apply during conditions of intense heat, drought, or poor vine/canopy development.</p>
RATE (Chemigation)	APPLICATION NOTES
1½ – 3 pints (24 – 48 fl. oz.) in 500 – 1,000 gallons of water per treated acre	<p>Apply through drip (trickle), center pivot, lateral move, end tow, side wheel roll, traveler, solid set, hand move, or flood basin irrigation systems.</p> <p>Do not apply during conditions of intense heat, drought, or poor canopy or vine development.</p> <p>See "Chemigation Directions for Use" for additional instructions.</p>

TOBACCO – Application Instructions

Float Beds: For Control of Blue mold, Fusarium, Phytophthora, and Pythium.

RATE	ADDITIONAL INFORMATION
½ – 1 fluid ounce (1 – 2 tablespoons) per 10 gallons of water (approx. 1:1,250 – 1:2,500 dilution ratio)	Curative rate for initial treatment of float bed water.
2½ – 8 fluid ounces per 1,000 gallons of water (approx. 1:16,000 – 1:50,000 dilution ratio)	Preventative rate: treat water on a regular basis, or maintain residual concentration of 35 ppm (4½ fl oz. per 1,000 gallons).

Field application: For Control of Blue Mold.

RATE	ADDITIONAL INFORMATION
Curative: 3 pints (48 fl. oz.) per 100 gallons of water (approx. 1:300 dilution)	Apply 30 – 100 gallons of spray per treated acre daily for 1 – 3 days. Repeat application every 5 – 7 days as needed to maintain control.
Preventative: 1 – 3 pints (16 – 48 fl. oz.) per 100 gallons of water (approx. 1:750 – 1:250 dilution)	Begin applications when plants are small. Apply 30 – 100 gallons of spray solution per treated acre. Make first 3 treatments at curative rate (3 pt/100 gal) at 5-day intervals. Subsequent applications can be made at lower rate (1 pt/100 gal) at 5 – 7 day intervals until harvest.

STRAWBERRY – Application Instructions

Pre-Plant Dip or Spray Application: For Control of Botrytis, Crown rot, Powdery mildew.

RATE	ADDITIONAL INFORMATION
1½ pints (24 fl. oz.) per 100 gallons of water	Thoroughly wet transplants by dipping or spraying before transplanting into field soil. Remove dead/dying foliage before dipping. Excessive foaming or bubbling during the dipping process may indicate a high level of disease contamination.

Setting Water Application: For Control of Botrytis.

RATE	ADDITIONAL INFORMATION
1½ – 3 pints (24 – 48 fl. oz.) in 500 – 1,000 gallons of water per treated acre	Add PeroxySan-CX to transplant water or starter fertilizer. Apply in-furrow or in planting hole when setting plants. PeroxySan-CX is chemically compatible with most water-soluble fertilizers. When in doubt, conduct a “jar test” on a small scale to check compatibility before mixing full amounts.

At-Planting Foliar Application: For Control of Angular leaf spot, Botrytis, Crown rot, Leaf blight, Powdery mildew.

RATE	ADDITIONAL INFORMATION
1 – 3 pints (16 – 48 fl. oz.) per 100 gallons of water	Apply as a foliar spray immediately after planting. Apply in sufficient water to achieve uniform coverage and thorough wetting of crop canopy (typically 30 – 100 gallons of water per treated acre). Use higher rates in fields having a history of disease pressure.

Existing Plantings – Foliar and Crown Disease Control: For Control of Angular leaf spot, Botrytis, Crown rot, Leaf blight, Powdery mildew

RATE	ADDITIONAL INFORMATION
1 – 3 pints (16 – 48 fl. oz.) per 100 gallons of water	Apply as a foliar spray before or at first appearance of disease symptoms, or when conditions favor disease development. Apply in sufficient water to achieve uniform coverage and thorough wetting of the crop canopy (typically 30 – 100 gallons of water per treated acre).

	<p>Use higher rates in fields having a history of disease pressure.</p> <p>Repeat applications every 7 days as needed to maintain control.</p> <p>Under severe disease pressure and during periods of rainy weather, apply immediately after each rain, reduce spray interval to 1-3 days, and use the high rate.</p>
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For *Botrytis* Control on Existing Plantings

RATE	ADDITIONAL INFORMATION
1 – 3 pints (16 – 48 fl. oz.) per 100 gallons of water	<p>Apply PeroxySan-CX as a foliar spray at first growth flush, and then repeat applications at 10% bloom, full bloom, and at late or extended bloom.</p> <p>Apply in sufficient water to achieve uniform coverage and thorough wetting of the crop canopy (typically 30 – 100 gallons of water per treated acre).</p> <p>Make additional applications in late winter, immediately after plant bed cleaning. Remove dead plant growth from the beds immediately before applying PeroxySan-CX.</p>

TOMATO & PEPPER – Application Instructions

Seed Treatment: For Control of Bacterial speck and Bacterial spot.

RATE	ADDITIONAL INFORMATION
3 pints (48 fl. oz.) per 100 gallons of water (approx. 1:250 dilution)	<p>If seed has not already been treated by the supplier:</p> <p>Immerse seed in PeroxySan-CX solution for 1 minute, then remove seed and allow to drain. Rinsing of seed after application is not necessary.</p>

Seedling Production Treatment: For Control of Bacterial speck, Bacterial spot, Damping-off *Pythium*, Early blight, Late blight, *Phytophthora*

RATE AT SEEDING	ADDITIONAL INFORMATION
1 – 3 pints (16 – 48 fl. oz.) per 100 gallons of water	Apply with initial watering. Drench newly-seeded plug trays, flats, or beds to point of saturation
POST-EMERGENCE RATE	ADDITIONAL INFORMATION
1 pint (16 fl. oz.) per 100 gallons of water	Apply as foliar spray at 2 – 4 true leaf stage with sufficient volume to achieve complete coverage. Repeat every 7 days as needed.

Application at Transplanting: For Control of Early blight, Late blight, *Phytophthora*, *Pythium*

RATE	ADDITIONAL INFORMATION
1½ – 3 pints (24 – 48 fl. oz.) in 50 – 200 gallons of water per treated acre	Add PeroxySan-CX to transplant water or starter fertilizer and apply in-furrow or by dribble application just before plant set. Use higher rate in fields with a history of disease pressure. PeroxySan-CX is chemically compatible with most water-soluble fertilizers. When in doubt, conduct a “jar test” on a small scale to check compatibility before mixing full amounts.

Surface Application: For Control of Early blight, Late blight, *Phytophthora*, *Pythium*

RATE (Spray Application)	APPLICATION NOTES
1 – 3 pints (16 – 48 fl. oz.) per 100 gallons of water	Apply as a foliar spray with sufficient water to achieve run-off onto soil (typically 30 – 100 gallons of water per treated acre). Repeat application every 7 days during periods when infection may occur. During periods of wet, cloudy or rainy weather use higher rate, greater application volumes, and shorten spray interval to every 3 – 5 days.
RATE (Chemigation)	APPLICATION NOTES
1½ – 3 pints (24 – 48 fl. oz) in 500 – 1,000 gallons of water per treated acre	Apply through drip (trickle), center pivot, lateral move, end tow, side wheel roll, traveler, solid set, hand move, or flood basin irrigation systems. See “Chemigation Directions for Use” for additional instructions.

Foliar Application: For Control of Anthracnose, Bacterial speck, Bacterial spot, *Botrytis*, Early blight, Late blight, Powdery mildew, *Rhizoctonia* fruit rot.

RATE (Spray Application)	APPLICATION NOTES
1 – 3 pints (16 – 48 fl. oz.) per 100 gallons of water	Begin applications early: Spray before or at first appearance of disease symptoms, or when conditions favor disease development. Continue applications throughout the season at 7 day intervals. Under severe disease pressure and during periods of rainy weather, apply immediately after each rain, reduce spray interval to 1-3 days, and use the high rate. Complete spray coverage must be achieved for effective disease control. Use sufficient water to obtain complete coverage. Do not apply during conditions of intense heat, drought, or poor vine/canopy development.
RATE (Chemigation)	APPLICATION NOTES
1½ – 3 pints (24 – 48 fl. oz) in 500 – 1,000 gallons of water per treated acre	Apply through drip (trickle), center pivot, lateral move, end tow, side wheel roll, traveler, solid set, hand move, or flood basin irrigation systems. Do not apply during conditions of intense heat, drought, or poor vine/canopy development. See “Chemigation Directions for Use” for additional instructions.

POST-HARVEST TREATMENT:

For post-harvest spray application to process and packing lines: Inject PeroxySan-CX at 3 pints per 100 gallons of water (approx. 1:250 dilution ratio) directly into spray system water on process and packing lines to prevent post-harvest bacterial and fungal diseases on fruits, vegetables and all types of post-harvest commodities. Where dump tanks are used, for best results spray as fruit is leaving the dump tank.

For post-harvest treatment of fruits and vegetables:

Spray PeroxySan-CX at 1:250 dilution (1 tablespoon, or 0.5 fluid ounce, per gallon of clean water) directly onto post-harvest commodities such as fruit and vegetables to reduce or prevent post-harvest bacterial and fungal diseases. Spray fruit or vegetables to run-off using a hydraulic, backpack, air-assisted, or other sprayer. Alternatively, where dump or dip tanks are used, submerge fruit and vegetables in a 1:250 PeroxySan-CX solution for a minimum contact time of 45 seconds, followed by adequate draining.

Spray treatment of newly harvested potatoes prior to storage: For control of bacterial soft rot, early and late blight, *Fusarium* tuber rot, and silver scurf in storage.

1. Mix 1 – 2 tablespoons (0.5 – 1 fluid ounce) PeroxySan-CX per gallon of water.
2. Spray this mixture uniformly on tubers to run-off, using a hydraulic, backpack, air-assisted, or other sprayer at a rate of 1 – 2 gallons per ton of potatoes.
3. Additional surfactant may be included to ensure full coverage and sticking.

Direct injection into humidification water for post-harvest potato storage: For control of bacterial soft rot, early and late blight, *Fusarium* tuber rot, and silver scurf in storage. Inject undiluted PeroxySan-CX directly into makeup water used in humidification, at a rate of 1 tablespoon (0.5 fluid ounce) per gallon of water.

Cut flowers (post-harvest): Apply PeroxySan-CX as a post-harvest spray (after grading and before storage) to prevent fungal diseases such as *Botrytis*, powdery mildew, or downy mildew in cold storage or in transit. Spray with a solution of ½ teaspoon (0.08 fluid ounces) of PeroxySan-CX per gallon of clean water (1:1500 dilution). Repeat weekly for flowers in storage if needed.

SURFACE DISINFESTATION:

For Clean, Non-Porous Surfaces: Mix PeroxySan-CX at a rate of 1 – 3 teaspoons (or 0.167 – 0.5 fluid ounce) per gallon of clean water (dilution ratio of approximately 1:750 – 1:250). Additional surfactant can be included in the mixture if desired to enhance spreading/wetting of surfaces.

Pots, flats, trays: Spray until runoff.

Cutting tools: Soak tools to ensure complete coverage.

Benches and work areas: Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt. Use a more concentrated (1:128) solution of 1 fluid ounce (2 tablespoons) of PeroxySan-CX per gallon of clean water if surfaces to be treated have not been pre-cleaned with water to remove organic deposits.

For Surfaces, Equipment and Structures: Use PeroxySan-CX to suppress/control bacteria, fungi and slime-forming algae on surfaces and equipment, such as plastic, benches, walkways, floors, walls, fan blades, watering systems, vats, tanks, coolers, storage rooms, spray equipment, conveyors, irrigation systems, process equipment, process water systems, trucks, structures and related equipment.

1. Sweep to remove plant debris. Power wash all surfaces to remove loose dirt and organic material.
2. Use 1 – 3 teaspoons (0.167 – 0.5 fluid ounce) of PeroxySan-CX per gallon of clean water (1:750 – 1:250 dilution). Use a more concentrated (1:128) solution of 1 fluid ounce (2 tablespoons) of PeroxySan-CX per gallon of clean water if surfaces to be treated have not been pre-cleaned with water to remove organic deposits. The use of additional surfactant is acceptable.
3. Apply with mop, sponge, power sprayer or fogger (see below) to thoroughly wet all surfaces.
4. Enclosed areas may be fogged with PeroxySan-CX 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 with a mixture of 0.167 – 1 fluid ounce (1 – 6 teaspoons) of PeroxySan-CX per gallon of clean water (1:750 – 1:128 dilution), using any type of fogging equipment including but not limited to cold foggers, thermal foggers, low pressure air assisted and high pressure fog systems. Diluted PeroxySan-CX may be corrosive to materials that are easily oxidized, such as natural rubber, copper, galvanized and black iron pipe. Test spray solutions on such surfaces prior to use.
5. Rinse any food contact surfaces, equipment or structures with potable water after treatment with PeroxySan-CX.
6. Scrub off heavy growths of algae and fungi following application. Use a solution of PeroxySan-CX to wash away dead growth.
7. Reapply as often as needed for control.

For Foot Bath Mats: Make a dilution rate of 2 teaspoons (1/3 fluid ounces) of PeroxySan-CX per gallon of water and fill foot bath to capacity (immersing the mat). Change solution as needed.

Surface Treatment against Citrus Canker and Other Plant Pathogenic Bacteria: PeroxySan-CX can be used to control and prevent the transfer of *Xanthomonas* bacterial species (including citrus canker) on field equipment and hard, non-porous surfaces in packinghouses. Apply PeroxySan-CX to vehicles and field equipment such as pickers, trailers, trucks (including truck body parts and tires), bins, packing crates, ladders, power tools, pruning shears, gloves, rubber boots, spray suits/coveralls, or other equipment that can transfer plant pathogenic bacteria such as *Xanthomonas*. PeroxySan-CX can also be applied to surfaces and equipment in commercial packinghouses, such as containers, conveyors, dump tanks, drenches, floors, process lines, storages, and walls.

1. Remove loose soil or organic matter with clean water and/or detergent rinse.
2. Mix PeroxySan-CX at 6 – 8 fluid ounces per 100 gallons of water (approx. 1:2,100 – 1:1,600 dilution ratio) and apply as a coarse spray to run-off.
3. Allow treated equipment to remain wet for at least 10 minutes, then air dry. Do not rinse.

Foaming applications: Apply PeroxySan-CX as a foam treatment to enhance contact on porous, vertical, or irregular surfaces such as metal grates and structural steel, where contact is difficult to maintain with coarse spray application. Add a foaming agent to the diluted PeroxySan-CX solution in the spray tank and apply until the treated surface is completely covered with foam. Allow treated surface to dry. Do not rinse.

WATER TREATMENT:

For agricultural spray, irrigation and drainage water in ditches: Use PeroxySan-CX at the following rates to suppress/control algae, bacteria and fungi/oomycetes in agricultural spray, irrigation and drainage water and ditches.

Bacteria:	6 – 48 fluid ounces per 1,000 gallons
Algae:	12 – 48 fluid ounces per 1,000 gallons
Fungi and oomycetes:	16 – 48 fluid ounces (1 – 3 pints) per 1,000 gallons

Product can be simply added to the body of water for even distribution throughout the water column. Allow solution to disperse for 5 minutes before irrigating.

Apply PeroxySan-CX as needed to control and prevent algae growth; apply more frequently in times of higher water temperatures. 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 PeroxySan-CX over the algae mats.

For stock tanks and livestock water: Use PeroxySan-CX to suppress/control algae, bacteria and fungi in stock tanks, stock watering ponds, tanks and troughs, and livestock water. Apply 0.75 fluid ounces (1.5 tablespoons) of PeroxySan-CX per 250 gallons of water for algae control. Product can be simply added to the body of water for even distribution throughout the water column.

Apply PeroxySan-CX as needed to control and prevent algae growth; apply more frequently in times of higher water temperatures. 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 PeroxySan-CX over the algae mats.

Tanks fed by a continuous flow of spring or well water can be equipped with a chemical drip system designed to meter-in PeroxySan-CX based upon water flow rates. Pre-dilute PeroxySan-CX at a 1:250 rate or 1.5 mL/min. water flow rate. Treat continuously or as needed to control and prevent algae regrowth.

Treatment of nonpotable water systems (wash tanks, dip tanks, drench tanks, humidification systems and/or storage tanks): Treat soiled water with 0.5 fluid ounce (1 tablespoon) of PeroxySan-CX for every 10 gallons of water (approx. 1:2,500 dilution).

Evaporative coolers: Use a 1:250 dilution of ½ fluid ounce (1 tablespoon) per gallon of water to treat surfaces contaminated with algae and slime. Treat cooler water every week with 2 tablespoons (1 fluid ounce) of PeroxySan-CX per 10 gallons of water (1:1250 dilution).

Treatment of agricultural irrigation systems: Use PeroxySan-CX to suppress/control algae, bacteria, fungi, and plant pathogenic organisms in drip (trickle), center pivot, lateral move, end tow, side wheel roll, traveler, solid set/overhead sprinklers, hand move, or flood basin irrigation systems. Treat contaminated water at a dilution of 1:500 – 1:2500 (5 – 25 fluid ounces PeroxySan-CX per 100 gallons of water).

For shock treatment of irrigation lines, dilute PeroxySan-CX at 1:500 – 1:2500 (5 – 25 fluid ounces per 100 gallons of water). Allow solution to remain in the lines for 12 – 48 hours, and then flush by opening valves or laterals to avoid plugging emitters.

Treat clean water for maintenance as needed with 0.25 to 0.5 fluid ounce (0.5 – 1 tablespoon) of PeroxySan-CX per 100 gallons of water (approx. 1:25,000 – 1:50,000 dilution). Allow 5 minutes for PeroxySan-CX to disperse into the water column before irrigating.

Refer to the “Chemigation Directions for Use” for specific instructions on using PeroxySan-CX through irrigation systems.

CHEMIGATION DIRECTIONS FOR USE:

General Requirements:

1. Apply this product only through a drip system or sprinkler including a center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, hand move, flood (basin) or drip (trickle) irrigation system. Do not apply this product through any other type of irrigation system.
2. Crop injury, lack of effectiveness or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
3. If you have any questions about calibration, should 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, will shut the system down and make any necessary adjustments should the need arise.
6. Posting of areas to be chemigated is required when:
 - a. 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
 - b. When the chemigated area is open to the public, such as golf courses, retail green houses, or "pick your own" operations.
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 should 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 posing period.
8. All words shall consist of letters at least 2.5 inches tall, and all letters and the symbols 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 words PESTICIDES IN IRRIGATION WATER.

Specific Requirements for Chemigation Systems Connected to Public Water Systems:

1. Public water supply means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to the public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top of the overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back towards 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 filled 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 system 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, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being filled with a system interlock.

Application Instructions

1. Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues may cause product to lose effectiveness or strength.
Determine the treatment rates as indicated in the directions for use and make proper dilutions.
2. Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. The product will immediately go into suspension without any required agitation.
3. Do not apply PeroxySan-CX in conjunction with any other pesticides or fertilizers; this has the potential to cause reduced performance of the product. Avoid application in this manner.

WARRANTY

XGENEX LABS, LLC warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purpose referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the disease problem, condition of the crop, incompatibility with other influencing factors in the use of this product are beyond the control of the seller. Buyer assumes all risks of use, storage, or handling of this material not in strict accordance with directions given herein. NO OTHER EXPRESS OR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.