



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

January 23, 2018

Jenny Qu  
Registration Specialist  
Gowan Company  
P.O. Box 5569  
Yuma, AZ 85366-5569

Subject: Label Amendment – add restriction regarding not for use in CA for certain diseases and crops; separate use rates for certain potato diseases  
Product Name: Zing!  
EPA Registration Number: 10163-331  
Application Date: 6/27/2017  
Decision Number: 531011

Dear Mr. Qu:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

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

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance

Page 2 of 2  
EPA Reg. No. 10163-331  
Decision No. 531011

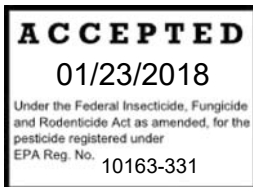
with FIFRA section 6. If you have any questions, please contact Heather Garvie by phone at 703-308-0034, or via email at [garvie.heather@epa.gov](mailto:garvie.heather@epa.gov).

Sincerely,

A handwritten signature in cursive script that reads "Heather Garvie for".

Tony Kish  
Product Manager 22  
Fungicide Branch  
Registration Division

Enclosure



GROUP	22	M5	FUNGICIDE
-------	----	----	-----------

# ZING!<sup>®</sup>

Fungicide

<b>ACTIVE INGREDIENTS:</b>	<b>% By Wt.</b>
Zoxamide: 3,5-Dichloro-N-(3-chloro-1-ethyl-1-methyl-2-oxopropyl)-4-methylbenzamide .....	6.8%
Chlorothalonil: tetrachloroisophthalonitrile.....	40.0%
Other Ingredients.....	53.2%
	<b>TOTAL 100.0%</b>

Contains 4.9 lb active ingredients per gallon  
(4.19 lb active ingredient chlorothalonil and 0.71 lb active ingredient zoxamide)

## KEEP OUT OF REACH OF CHILDREN

# CAUTION

FIRST AID	
<b>IF SWALLOWED</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF INHALED</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>IF IN EYES</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>HOT LINE NUMBER</b> Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, contact 1-888-478-0798, day or night.	

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if swallowed, absorbed through skin or inhaled. Causes Moderate Eye Irritation. Avoid contact with skin, eyes or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category A on the EPA chemical resistance category selection chart.

**Mixers, Loaders, Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material.
- Shoes plus socks

**User Safety Requirements**

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instruction for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

A dust/mist filtering respirator must be worn if mixer/loader/applicator uses a high-pressure hand wand sprayer.

#### ENGINEERING CONTROLS

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

### NET CONTENTS \_\_\_\_\_

EPA Reg. No. 10163-331  
EPA Est. No.



Produced For:  
Gowan Company  
P.O. Box 5569  
Yuma, AZ 85366-5569

## USER SAFETY RECOMMENDATIONS

### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- 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.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and change into clean clothing.

## ENVIRONMENTAL HAZARDS

This product is toxic to fish, aquatic invertebrates and wildlife. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash water or rinsate.

### Groundwater Advisory

This chemical is known to leach through soil into groundwater under certain conditions as a result of labeled use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

### Surface Water Advisory

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas over-laying extremely shallow ground water, areas with infield canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips and areas over-laying tile drainage systems that drain to surface water.

Attention: This product contains a chemical known to the State of California to cause cancer.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, or pets 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 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) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow workers to enter treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls, Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material.
- Shoes plus socks
- Protective eyewear

**Special Eye Irritation Provisions:** Chlorothalonil in this product is a severe eye irritant. Although the restricted-entry interval expires after 12 hours, for the next 6.5 days entry is permitted only when the following safety measures are provided:

At least one container designed specifically for flushing eyes must be available in operating condition at the WPS required decontamination site intended for workers entering the treated area.

Workers must be informed, in a manner they can understand;

- That residues in the treated area may be highly irritating to their eyes
- That they should take precautions, such as refraining from rubbing their eyes to keep the residues out of their eyes
- That if they do get residues in their eyes, they should immediately flush their eyes using the eye flush container that is located at the decontamination site or using other readily available clean water
- How to operate the eye flush container

Zing! can cause allergic skin reactions in some individuals. When entering treated areas, avoid contact of unprotected skin and eyes with treated crops, foliage, and soil. To minimize the potential for allergic reaction, when entering treated areas after the 12 hour REI has expired, protective clothing (e.g., coveralls, socks, shoes, gloves, protective eyewear) is recommended. Keep and wash all protective clothing separately from other laundry; wash PPE regularly, preferably daily; remove PPE immediately after leaving the treated area, wash thoroughly as soon as possible and change into clean clothing. People who have become sensitized to Zing! must not use or have further contact with this or other zoxamide-containing products or residues. If an allergic skin reaction (rash, redness, swelling, itchiness) or asthma symptoms or rhinitis occurs following the use of this product report the incident to Gowan Company, 1-888-478-0798.

## GENERAL INFORMATION

Zing! is a broad-spectrum protectant fungicide. Optimum disease control is achieved when the fungicide is used according to label directions and applied in a regularly scheduled preventative spray program. The addition of an agricultural surfactant will improve fungicide performance by providing a more uniform spray deposit, increased foliar redistribution, and improved fungicide retention during periods of wet weather. The use of Zing! is compatible with the principles of Integrated Pest Management (IPM) and programs that attempt to minimize disease resistance to fungicides. Unlike single-site mode of action fungicides which are at risk from disease resistance, Zing!, with a multi-site mode of

action, may be used to delay or prevent the development of resistance to single site fungicides. Consult with your Federal or State Cooperative Extension Service representatives for guidance on the proper use of Zing! in IPM and resistance management programs.

#### **Precautions and Restrictions**

- Do not use in greenhouses.
- Users must carefully read, understand and follow use restrictions prior to using Zing!.
- For proper application, determine the number of acres to be treated, the specified label use rate and the spray volume to be applied per acre. Prepare only the amount of spray solution required to treat the measured acreage. Carefully calibrate spray equipment before use.

This product must not be applied within 150 feet for aerial applications, or 25 feet for ground applications of marine/estuarine water bodies, unless there is an untreated buffer area of that width between the area to be treated and the water body.

#### **Mixing, Loading and Applying**

Dosage rates on this label indicate ounces of Zing! per acre, unless otherwise stated. Under conditions favoring disease development the highest rate specified and shortest application interval should be used.

Zing! is intended to be diluted into water and then applied to crops by typical agricultural spraying techniques. Always apply Zing! in sufficient water to obtain thorough, uniform coverage of foliage and crop surfaces intended to be protected from disease. Spray volume to be used will vary with crop and amount of plant growth. Spray volume should normally range from 20 to 150 gallon per acres (200 to 1400 liters per hectare) for dilute sprays and 5 to 10 gallons per acre (50 to 100 liters per hectare) for concentrate ground sprays and aircraft application. Slowly invert container several times to assure uniform mixture. Measure the required amount of Zing! and pour into the spray tank during filling. Keep agitator running when filling spray tank and during spray operations.

#### **Tank Mixing**

Do not combine Zing! in spray tank with pesticides, surfactants or fertilizers, unless your prior use has shown the combination physically compatible, effective and non-injurious under your conditions of use. Do not combine Zing! with Dipel® Triton B-1956 · Latron B-1956® or Latron AG-98® as phytotoxicity may result from the combination when applied to the crops on this label. Do not tank mix Zing! with oil, or with any adjuvants which contain oil as their principal ingredient. When an adjuvant is to be used with this product, Gowan Company recommends the use of a Chemical Producers and Distributors Association (CPDA) certified adjuvant. Do not use with Copper-Count N® in concentrated spray suspensions.

The additions of agricultural surfactants to Zing! sprays may improve initial spray deposits, fungicide redistribution and weatherability. Suspend Zing! into the spray solution prior to adding an adjuvant. Read and carefully observe the precautionary statements and all other information appearing on both product labels prior to spray preparation.

#### **Application:**

**Ground:** Thorough coverage foliar sprays generally result in optimum disease control. To achieve good coverage use proper spray pressure, gallonage per acre, nozzles (generally hollow cone), disc (generally D-5 to D-7), nozzle spacing, and tractor speed. Consult spray nozzle and accessory catalogues for specific information on proper equipment calibration.

**Spray Volume:** Use adequate amounts of water to insure thorough and complete coverage. Dense canopies require greater spray penetration. Higher spray volumes may be required to adequately cover inner leaves and vines in lower portions of dense canopies. **DO NOT USE LESS THAN 5 GALLONS PER ACRE IN CALIFORNIA OR 2 GALLONS IN ALL OTHER STATES.**

#### **Additional requirements for ground boom application:**

Do not apply with a nozzle height greater than 4 feet above the crop canopy.

**Aerial:** A uniform initial spray deposit over the crop canopy generally results in optimum disease control. Pre-check each aircraft for droplet size, uniformity of spray pattern, swath width, and spray volume. During aerial application, human flaggers are prohibited unless in totally enclosed vehicles.

**Nozzle selection:** Hollow cone brass nozzles with a D-series orifice disc and core (whirl plate) are recommended. Nozzles should point straight down or slightly backward.

**Swath width:** For most field and vegetable crops, swaths just beyond the wingspan of 36 to 40 feet for light aircraft and up to 45 feet for heavier aircraft are suggested. Optimum swath for helicopters is usually 5 to 10 feet beyond normal boom length.

**Spray Volume:** Aerial applications are to be made in a minimum of two (2) gallons of water per acre. On potatoes, 2 to 3 gallons of spray per acre are generally optimal. **Do not use less than 5 gallons per acre in California.**

**Altitude:** Position the spray boom 5 to 10 feet above the crop canopy.

**Flagging:** Mark swaths with permanent flags at the end of the field. Measure swaths accurately with a chain or other device except when rows can be accurately counted.

#### **Spray Drift Management (Aerial Application)**

Avoiding spray drift at the application site is the responsibility of the applicator. A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, and relative humidity) and method of application (e.g., ground, aerial, airblast, and chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed  $\frac{1}{4}$  the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed. **Aerial Spray Drift Information**

**Importance of Droplet Size:** The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable conditions (See **Wind, Temperature and Humidity, and Temperature Inversion section of this label**).

#### **Controlling Droplet Size:**

**Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

**Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When high flow rates are needed, use high flow rate nozzles instead of increasing pressure.

**Number of nozzles** - Use the minimum number of nozzles that provide uniform coverage.



**Nozzle Orientation** – Orienting the nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.

**Nozzle Type** – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift potential.

**Boom Length** – For some use patterns, reducing the effective boom length to less than  $\frac{3}{4}$  of the wingspan or rotor length may further reduce drift without reducing swath width.

**Application Height** – Applications should not be made at a height greater than 10 ft. above the top of the largest plants, unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

**Swath Adjustment** – When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

**Wind** – Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

**Temperature and Humidity** – When making applications in low relative humidity set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

**Temperature Inversions** – Applications should not occur during a temperature inversion, because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicated an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

**Sensitive Areas** – The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

#### **Equipment:**

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

#### *Additional requirements for aerial applications:*

1. The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.
2. Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.
3. When applications are made with a crosswind, the swath must be displaced downwind. The applicator must compensate for this displacement at the up and downwind edge of the application area by adjusting the path of the aircraft upwind.

#### *Additional requirements for ground boom application:*

1. Do not apply with a nozzle height greater than 4 feet above the crop canopy.

### **Chemigation Use Directions**

Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur. Do not apply when wind speeds favor drift beyond the area intended for treatment.

#### **Sprinkler Irrigation**

Zing! must be applied on a regular protectant fungicide schedule, **not an irrigation schedule**. If irrigation cycles are less frequent than recommended Zing! application intervals, ground or aerial applications must supplement chemigation applications to achieve adequate disease control.

- Apply Zing! only through sprinkler irrigation systems including center-pivot, lateral move, traveling gun, end tow, side (wheel) roll, traveler, solid set or hand move irrigation systems. Do not apply this product through any other type of irrigation system.
- Crop injury, lack of fungicidal effectiveness or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts.
- 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 system are in place.
- 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 should the need arise.

#### **Before applying Zing! through sprinkler irrigation equipment, the chemigation system must meet the following specifications:**

- 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.
- Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone (RPZ), backflow preventer 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 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 or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- Systems not connected to a public water supply must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located in the irrigation pipeline to prevent water source contamination from back flow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 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.
- 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.
- 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.
- 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.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

**Center-pivot, Lateral Move, End Tow, and Traveler Irrigation Equipment (use only with electric or oil hydraulic drive systems, which provide a uniform water distribution):**

- Determine size of area to be treated.
- Determine the time required to apply no more than ¼ inch water (6,750 gallons water per acre) over the area to be treated when the system and injection equipment are operated at normal pressures recommended by the equipment manufacturer. Run system at 80 to 95% of manufacturer's rated capacity.
- Using only water, determine the injection pump output when operated at normal line pressure.
- Determine the amount of Zing! required for treatment area.
- Add the required amount of Zing! and sufficient water to meet the injection time requirements of the solution tank.
- Maintain constant solution tank agitation during the injection period.
- Stop injection equipment after treatment is completed. Continue to operate the system until Zing! solution has cleared the sprinkler head.

**Solid-set, Side (wheel) Roll, and Hand Move Irrigation Equipment:**

- Determine acreage covered by sprinkler.
- Fill injector solution tank with water and adjust flow rate to use contents over a 30 to 45 minute interval.
- Determine the amount of Zing! required to treat area.
- Add the required amount of Zing! into the same quantity of water used to calibrate the injection equipment.
- Maintain constant solution tank agitation during the injection period.
- Operate system at normal pressures recommended by the manufacturer of the injection equipment and used for the time interval established during calibration.
- Inject Zing! at the end of the irrigation cycle or as a separate application to maximize foliar fungicide retention.
- Stop injection equipment after treatment is completed. Continue to operate the system until Zing! solution has cleared the last sprinkler head.

**Rotational Crop Restrictions:**

The following rotational crops may be planted at intervals defined below, following the final application of Zing! at the specified rates for a registered use:

Crops with uses on this label: No Restrictions

All Other Crops: 30 Days

**PREHARVEST INTERVAL**

Minimum days between last application and harvest are given in ( ) after each crop name.

**DIRECTIONS FOR USE**

Crop	Diseases Controlled	Rate per Acre (fl oz/Acre)	Remarks (Also Refer to Directions for Use)
<b>Cucurbits (0), including the following:</b> <b>Chayote</b> <i>(Sechium edule)</i> <b>Chinese wax gourd</b> <i>(Benincasa hispida)</i> <b>Citron melon</b> <i>(Citrullus lanatus var. citroides)</i> <b>Cucumber</b> <i>(Cucumis sativus)</i> <b>Gherkin</b> <i>(Cucumis anguria)</i> <b>Gourd, edible (Lagenaria spp.) including:</b> hyotan, cucuzza ( <i>Luffa acutangula</i> , <i>L. cylindrical</i> ) includes: hechima, Chinese okra <b>Momordica spp. Including:</b> balsam apple, balsam pear, bitter melon and Chinese cucumber <b>Muskmelons (hybrids and/or cultivars of Cucumis melo):</b> 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 <b>Pumpkin, (Cucurbita spp.)</b> <b>Squash, summer (Cucurbita pepo var. melopepo) including:</b> crookneck squash, scallop squash, straightneck squash, vegetable marrow and zucchini <b>Squash, winter (Cucurbita maxima; C. moschata) including:</b> butternut squash, Calabaza, hubbard squash; (C. mixta; C. pep) including: acorn squash and spaghetti squash <b>Watermelon including hybrids and/or varieties of Citrullus lanatus</b>	Anthracnose, ( <i>Colletotrichum spp</i> ) Downy mildew, <i>(Pseudoperonospora cubensis)</i> Target spot**, <i>(Corynespora cassiicola)</i> Alternaria leaf blight, <i>(A. cucumerina)</i> Alternaria leaf spot, ( <i>A. alternata</i> ) Cercospora leaf spot**, ( <i>C. citrullina</i> ) Gummy stem blight/vine decline** <i>(Didymella bryoniae)</i> Powdery mildew, <i>(Sphaerotheca only)</i> Scab, ( <i>Cladosporium cucumerinum</i> )  **Use for this disease excluded in California	30-36 fl oz/A  (0.17-0.20 lb zoxamide and 0.98-1.18 lb chlorothalonil)	Start applications when plants are in the two-leaf stage and repeat at 7 to 10 day intervals or when environmental conditions are favorable for disease development. The minimum re-treatment interval is 7 days. Use sufficient water and direct sprays to provide thorough coverage of foliage, stems and developing fruit.  <b>Note:</b> Spraying mature watermelons may result in sunburn of the upper surface of the fruit. Do not apply Zing! to watermelons when any of the following conditions are present: <ol style="list-style-type: none"> <li>1. Intense heat and sunlight</li> <li>2. Drought conditions</li> <li>3. Poor vine canopy</li> <li>4. Other crop and environmental conditions which may be conducive to increase natural sunburn</li> </ol> Do not combine Zing! with anything except water for application to watermelons unless your prior use has shown the combination to be non-injurious to watermelons under your conditions of use.  Apply by ground, aerial or chemigation.
	<b>Restrictions</b>		
	<ul style="list-style-type: none"> <li>• Do not make more than 2 sequential applications before alternating with a fungicide that has a different mode of action.</li> <li>• Do not make more than 8 applications or apply more than 1.6 lb zoxamide and 9.44 lb chlorothalonil per acre per season.</li> <li>• Zing! may be applied the day of harvest.</li> </ul>		
Crop	Diseases Controlled	Rate per Acre (fl oz/Acre)	Remarks (Also Refer to Directions for Use)

Onion, bulb (7) Garlic, bulb Shallot, bulb Daylily, bulb Fritillaria, bulb  Garlic, great-headed, bulb Garlic, serpent, bulb Lily, bulb  Onion, Chinese, bulb Onion, pearl Onion, potato, bulb  Cultivars, varieties, and/or hybrids of these	Botrytis leaf blight ( <i>Botrytis</i> spp.) Downy mildew ( <i>Peronospora destructor</i> ) Neck rot ( <i>Botrytis allii</i> ) Purple blotch ( <i>Alternaria porri</i> ) Rust** ( <i>Puccinia allii</i> ) **Use for this disease excluded in California	30 fl oz/A  (0.17 lb zoxamide and 0.98 lb chlorothalonil)	Follow a protective spray schedule starting when diseases are first reported in the area and repeat at 7 day intervals throughout the season. Do not allow spray or drift to contact bulbs after lifting from soil.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>Do not apply within 7 days of harvest.</li> <li>Do not make more than 8 applications or apply more than 1.33 lb zoxamide and 7.84 lb chlorothalonil per acre per season.</li> <li>Do not apply to exposed bulb.</li> </ul>			

Crop	Diseases Controlled	Rate per Acre (fl oz/Acre)	Remarks (Also Refer to Directions for Use)
Ginseng (28)  ( Not for use in California)	Foliar infection of <i>Phytophthora cactorum</i> suppression	22-30 fl oz/A  (0.12-0.17 lb zoxamide and 0.72-0.98 lb chlorothalonil)	Start applications when environmental conditions are favorable for disease development. Use in a minimum spray volume of 80 gallons of water per acre and direct sprays to provide thorough coverage of foliage and stems.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>Do not apply within 28 days of harvest.</li> <li>Do not make more than 6 applications or apply more than 1.02 lb zoxamide and 5.88 lb chlorothalonil per acre per year.</li> <li>Consecutive sprays must be at least 7 days apart.</li> <li>Do not apply through any type of irrigation system.</li> </ul>			

Crop	Diseases Controlled	Rate per Acre (fl oz/Acre)	Remarks (Also Refer to Directions for Use)
Potatoes (7)	Botrytis vine rot, ( <i>B. cinerea</i> ) Brown Spot** ( <i>A. alternata</i> ) Late blight, ( <i>Phytophthora infestans</i> ) ** Use for this disease excluded in California	30-34 fl oz/A  (0.17-0.19 lb zoxamide and 0.98 -1.11 lb chlorothalonil)	Apply on a preventative schedule. Begin applications when conditions are favorable for disease development. Use a 5 to 7 day schedule (the minimum re-treatment interval is 5 days) when disease is present and environmental conditions favor continued disease development. Use the highest rate and shortest interval when plants are rapidly growing and disease conditions are severe. Use the maximum labeled rate at row fill. Under low disease conditions and environmental conditions unfavorable for disease development, a 7 to 14 day application schedule may be used.
	Black dot, ( <i>Colletotrichum coccodes</i> ) Early blight, ( <i>Alternaria solani</i> )	24-34 fl oz/A  (0.13-0.19 lb zoxamide and 0.78-1.11 lb chlorothalonil)	Increase water spray volume as canopy density increases. Apply by ground, aerial or chemigation. Do not exceed a 10 day interval between applications when using chemigation.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>Do not make more than 2 sequential applications before alternating with a fungicide that has a different mode of action.</li> <li>Do not make more than 8 applications or apply more than 1.52 lb zoxamide and 8.88 lb chlorothalonil per acre per season.</li> <li>Do not apply within 7 days of harvest</li> </ul>			

Crop	Diseases Controlled	Rate Per Acre (fl oz/Acre)	Remarks (Also Refer to Directions for Use)
Tomatoes (5)	Early blight, ( <i>Alternaria solani</i> ) Gray leaf mold, ( <i>Fluvia fluva</i> ; <i>Cladosporium</i> ) Gray leaf spot, ( <i>Stemphyllium botryosum</i> ) Late blight, ( <i>Phytophthora infestans</i> ) Septoria leaf spot, ( <i>S. lycopersici</i> ) Target spot, ( <i>Corynespora cassicola</i> ) Anthracnose, ( <i>Colletotrichum</i> spp.) Alternaria fruit rot (black mold), ( <i>A. alternata</i> ) Botrytis gray mold, ( <i>B. cinerea</i> ) Late blight fruit rot, ( <i>P. infestans</i> ) Rhizoctonia fruit rot, ( <i>R. solani</i> )	30-36 fl oz/A  (0.17-0.20 lb zoxamide and 0.98-1.18 lb chlorothalonil)	Start applications when seedlings emerge or transplants are set and repeat at 7 to 10 day intervals or when environmental conditions are favorable for disease development. For fruit diseases, begin at fruit set and apply on a 7-14 day interval. Use the highest rate and shortest interval specified when disease conditions are severe. The minimum re-treatment interval is 7 days. Apply in sufficient water to obtain adequate coverage.
	<b>Restrictions</b>		



- Do not make more than 2 sequential applications before alternating with a fungicide that has a different mode of action.
- Do not make more than 8 applications or apply more than 1.6 lb zoaxamide and 9.44 lb chlorothalonil per acre per season.
- Do not apply within 5 days of harvest
- Do not tank mix with another fungicide if the target pest is only late blight. Tank mix only if a partner is required to control other diseases.

## STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store product in original container only, away from other pesticides, fertilizers, food or feed.

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. 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.

**FOR 24-HOUR EMERGENCY ASSISTANCE (SPILL, LEAK OR FIRE), CALL CHEMTREC® (800) 424-9300.  
For other product information, contact Gowan Company or see Material Safety Data Sheet.**

### NOTICE OF CONDITIONS OF SALE AND WARRANTY AND LIABILITY LIMITATIONS

**Important:** Read the entire Directions for Use and Notice of Conditions of Sale and Warranty and Liability Limitations before using this product. If terms are not acceptable return the unopened container for a full refund.

Our directions for use of this product are based on tests believed to be reliable. However, it is impossible to eliminate all risk associated with the use of this product. Crop injury, inadequate performance, or other unintended consequences may result due to soil or weather conditions, off target movement, presence of other materials, method of use or application, and other factors, all of which are beyond the control of Gowan Company. All such risks shall be assumed by the Buyer and User.

Gowan Company warrants that this product conforms to the specifications on the label when used in strict conformance with Direction for Use, subject to the above stated risk limitations. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, GOWAN COMPANY MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, GOWAN COMPANY'S EXCLUSIVE LIABILITY FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, OR ANY OTHER LEGAL THEORY IS STRICTLY LIMITED TO THE PURCHASE PRICE PAID OR REPLACEMENT OF PRODUCT, AT GOWAN COMPANY'S SOLE DISCRETION.

Chemtrec® is a registered trademark of American Chemistry Council, Inc.  
Zing!® is a registered trademark used under license by Gowan Company, LLC.  
Dipel® is a registered trademark of Valent Biosciences  
Latron B-1956® and Latron AG-98® are registered trademarks of J.R. Simplot  
Copper-Count® is a registered trademark of Chemical Specialties

EPA TEXT (Approved XX-XX-XX)