FENAMIDONE	GROUP	11	FUNGICIDE

Maintain above Freezing

REASON®
500 SC FUNGICIDE

For the control of fungal diseases on various listed crops.

ACTIVE INGREDIENT:	**% BY WT.**
Fenamidone: (5S)-3,5-dihydro-5-methyl-2-(methylthio)-5-phenyl-3-(phenylamino)-4H-imidazol-4-one	44.40%
OTHER INGREDIENTS:	55.60%
TOTAL:	100%

Contains 4.13 pounds active ingredient per U.S. gallon

KEEP OUT OF REACH OF CHILDREN
CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
IF ON SKIN OR CLOTHING	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF 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. • Call a poison control center or doctor for treatment advice.
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 a poison control center or doctor for further treatment advice.
HOT LINE NUMBER	
Have a product container or label with you when calling a poison control center or doctor, or going for treatment. For additional information on this pesticide product (including health concerns, medical emergencies or pesticide incidents), you may call 1-888-478-0798.	
Note to Physician: Possible mucosal damage may contraindicate the use of gastric lavage. May pose an aspiration pneumonia hazard.	

NET CONTENTS:

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Harmful if inhaled. Avoid breathing spray mist.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical resistant gloves made of any waterproof material, such as Nitrile, Butyl, Neoprene, and/or Barrier Laminate.

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.

EPA Reg. No. 10163-371
EPA Est. No.

Gowan®

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

USER SAFETY REQUIREMENTS

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

USER SAFETY RECOMMENDATIONS

- Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish, aquatic invertebrates, shrimp, and oysters. Do not apply directly to water, or 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 water adjacent to treated areas. Do not contaminate water when disposing of equipment washwater or rinsate.

SURFACE WATER ADVISORY

This product may contaminate water through drift of spray in wind. This product has a high potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

ENDANGERED SPECIES ADVISORY/PROTECTION REQUIREMENTS

If endangered aquatic invertebrate species occur in the proximity of the application site, the following mitigation measures are required to avoid adverse effects: Apply when the wind direction is away from permanent water bodies (lakes, ponds, rivers, streams, springs) that are adjacent to the treatment area. To determine whether your county has an endangered aquatic invertebrate species, consult http://www.epa.gov/espp/bulletins.htm. Endangered Species Bulletins may also be obtained from extension offices or state pesticide agencies. If the bulletin is not available from your specific area, check with the appropriate local state agency to determine if known populations of endangered aquatic invertebrates occur in the area to be treated.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read the entire label before using this product. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.
In the State of New York only; not for sale, distribution or use in Nassau or Suffolk County.

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, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), notification to workers, and restricted- entry interval. 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 worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Exception: Once the seeds are planted in the soil the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area without restriction if there will be no worker contact with the soil subsurface or treated seed. PPE required for early entry to treated areas that is permitted under Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is: long sleeved shirt and long pants and chemical-resistant gloves.
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:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical resistant gloves made of any waterproof material, such as Nitrile, Butyl, Neoprene and/or Barrier Laminate

PRODUCT INFORMATION

REASON® 500 SC Fungicide:

- is a broad-spectrum foliar fungicide for control of certain plant diseases of basil (field and greenhouse), potatoes (including potato seed pieces) and other tuberous and corm vegetable subgroup 1C, leafy petiole vegetable subgroup 22B, brassica head and stem vegetable group 5-16, root vegetables subgroup 1B (except radish and sugar beet), leafy vegetable group 4-16, cottonseed subgroup 20C, bulb onion subgroup 3-07A, green onion subgroup 3-07B, cucurbit vegetable group 9, fruiting vegetable group 8, grapes (only east of Rocky Mountains), ginseng, celtuce, fennel Florence, kohlrabi, succulent bean (except cowpea). See use directions for list of all crops approved for use.
- should be integrated into an overall disease, pest management, or IPM program.
- may be used with disease forecasting or Extension advisory programs which recommend application timings based on environmental factors favorable to disease development. Consult with your local agricultural authorities for additional IPM strategies established for your area.

APPLICATION INSTRUCTIONS

- The higher rates in the rate range or shorter spray intervals may be required under conditions of heavy infection pressure, highly susceptible varieties, or when disease conductive environmental conditions exist. FAILURE TO FOLLOW THE DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN ILLEGAL RESIDUES, POOR DISEASE CONTROL, AND/OR CROP INJURY.
- Applications may be made at the longer spray intervals under low to moderate disease pressure. When environmental conditions are conducive for disease development, when disease has been detected in the area, or under moderate to high disease pressure, the shorter application interval and the higher rates are recommended.
- For optimum results, begin applications as soon as crop and/or environmental conditions become favorable for disease development.
- Under conditions favorable for disease development, shorten the spray intervals and/or switch to the higher rate for improved control.
- Always consult your agricultural advisor, University contact or Extension Service for recommended pest management practices for your area.

AERIAL APPLICATION

Apply REASON 500 SC Fungicide using fixed wing or rotary aircraft equipment in a minimum of 5 gallons of water per acre. Thorough and uniform coverage is essential for effective disease control.

GROUND APPLICATION

Apply in a minimum of 15 gallons of water per acre. Thorough uniform coverage is essential for effective disease control.

FUNGICIDE RESISTANCE MANAGEMENT (FRM) RECOMMENDATIONS

REASON 500 SC Fungicide is an imidazolinone fungicide that exhibits no known cross-resistance to fungicide chemistry such as sterol-inhibitors, dicarboximides, benzimidazoles, anilinopyridines, or phenylamides. REASON 500 SC Fungicide is an inhibitor of the Qo (quinone outside) site within the electron transport system (QoI inhibitor) in several plant pathogenic fungi species. REASON 500 SC Fungicide exhibits cross-resistance in certain plant-pathogenic fungi to fungicides of the QoI Group, which includes certain strobilurin compounds such as azoxystrobin and trifloxystrobin. Fungal pathogens can develop resistance to products with the same mode of action when used repeatedly. Because resistance development cannot be predicted, use of this product should conform to resistance management strategies established for the crop and use area. Consult your local or State agricultural authorities for resistance management strategies that are complementary to those in this label. Resistance management strategies may include rotating and/or tank-mixing with products having different modes of action or limiting the total number of applications per season. Gowan Company, LLC encourages responsible resistance management to ensure effective long-term control of the fungal diseases on this label.

In situations requiring multiple fungicide sprays, develop season long spray programs for Group 11 fungicide. When using a Group 11 fungicide as a solo product, the number of applications should be no more than 1/3 the total number of fungicide applications. In programs in which tank mixes or pre-mixes of a Group 11 fungicide with a fungicide of another Group are utilized, the number of Group 11 fungicide (QoI)-containing application should be no more than 1/2 the total number of fungicide applications per season. Do not make more than four total Group 11 fungicide applications per season. Avoid alternation of REASON 500 SC Fungicide with other fungicides in the QoI group. REASON 500 SC Fungicide should not be alternated or tank mixed with any fungicide to which resistance has already developed.

CHEMIGATION

Types of irrigation systems

Apply this product only through:

- Sprinkler irrigation systems including solid set, wheel lines and center pivot.

Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. For specific information about calibration, contact State Extension Service Specialists, equipment manufacturers or other irrigation experts.

Uniform Water Distribution and System Calibration

The chemigation system must provide uniform distribution of treated water. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. The chemigation system must be calibrated to uniformly apply the rates specified in crop-specific label sections. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Chemigation Monitoring

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.

Required System Safety Devices

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. 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. 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**.**

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 back flow if water flow stops.

Systems utilizing a pressurized water and pesticide injection system must meet the following requirements: 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. 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. 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.

Using Water from Public Water Systems
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.
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, back-flow preventer **(RPZ)** or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system 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. 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 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. 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.

Flushing and Cleaning the Chemical Injection System
At the end of the application period, allow time for all lines to flush the pesticide through all nozzles or emitters before turning off irrigation water. To ensure the lines are flushed and free of pesticides, a dye indicator may be injected into the lines to mark the end of the application period.
In order to apply pesticides accurately, the chemical injection system must be kept clean and free of chemical or fertilizer residues and sediments. Refer to your owner's manual or ask your equipment supplier for the cleaning procedure for your injection system.

SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interactions of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. This section is advisory in nature and does not supersede the mandatory label requirements.

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 environmental conditions.

- Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles - Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation - Orienting 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.

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.

Wind Speed
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 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) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas
This pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitats for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas). Where states or local authorities have more stringent regulations, they should be observed.

Aerial Applications

- 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 formulation.
- The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
- Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.
- Applications should not be made at a height greater than 10 feet 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.
- When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up 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.).

COMPATIBILITY TESTING AND TANK MIX PARTNERS

Compatibility

REASON 500 SC Fungicide is compatible with most commonly used fungicide, herbicide, insecticide, and foliar nutrient products. However, the physical compatibility of REASON 500 SC Fungicide with all potential tank mix partners has not been fully investigated. If tank mixing with other pesticides is desirable, conduct a jar test with the volumes and rates typically used in agricultural application. Using a small container of water, add the proportionate amounts of the products, wettable powders and water-dispersible granular products first, then liquid flowables and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 15 minutes. Look for signs of separation, globules, sludge, flakes, or other precipitates. Physical compatibility is indicated if the combination remains mixed or can be remixed readily. **The crop safety of all potential tank mixes with Reason 500 SC Fungicide, including additives and other pesticides has not been tested on all crops. Before applying any tank mixture not specifically recommended on this label, safety to the target crop(s) should be confirmed.**

Order of Mixing

1. Prepare no more spray mixture than is needed for immediate operation. Add approximately 1/2 of the required amount of water to the mix tank.
2. Start the agitator running before adding the required amount of REASON 500 SC Fungicide.
3. Continue agitation while filling the tank to ensure thorough mixing.
4. Maintain agitation during application and apply with properly calibrated application equipment.
5. REASON 500 SC Fungicide should be added to the tank before the addition of any adjuvant. Consult the adjuvant label or manufacturer for crop tolerance and safety information when used with REASON 500 SC Fungicide.

NOTE: Do not allow spray mixture to stand overnight or for prolonged periods. A high quality spreader/sticker, approved for use on growing crops, should be used with REASON 500 SC Fungicide. Do not use a spreader/sticker on carrots.

ROTATIONAL CROP RESTRICTIONS

Reason 500 SC Fungicide is labeled for use on the following crops: basil (field and greenhouse), brassica head and stem vegetable group 5-16, bulb onion subgroup 3-07A, green onion subgroup 3-07B, cottonseed subgroup 20C, cucurbit vegetables group 9, fruiting vegetables group 8, ginseng, grapes (east of Rocky Mountains), leafy greens subgroup 4-16, leaf petiole vegetables subgroup 22B, celtuce, fennel Florence, kohlrabi, succulent bean (except cowpea), potatoes (including seed pieces), tuberous and corm vegetable subgroup 1C, and root vegetable subgroup 1B (except radish and sugar beet).

- Treated areas may be replanted with any crop specified on this label, or any crop for which a tolerance exists for the active ingredient, as soon as practical following the last application.

IMMEDIATE PLANT-BACK:

Basil (field and greenhouse), brassica head and stem vegetable group 5-16, bulb onion subgroup 3-07A, green onion subgroup 3-07B, cottonseed subgroup 20C, cucurbit vegetables group 9, fruiting vegetables group 8, ginseng, grapes (east of Rocky Mountains), leafy greens subgroup 4-16, leaf petiole vegetables subgroup 22B, celtuce, fennel Florence, kohlrabi, succulent bean (except cowpea), potatoes (including seed pieces), tuberous and corm vegetable subgroup 1C, sunflower (seed), tobacco, and root vegetable subgroup 1B (except radish and sugar beet).

30-DAY PLANT-BACK:

Cereals grains (barley, buckwheat, corn [field, sweet and pop], millet, oats, rye, sorghum, teosinte, triticale and wheat), soybeans and strawberries

7- MONTH-BACK:

Sugar beets

12-MONTH PLANT-BACK:

All other crops not listed above

SPECIFIC CROP DIRECTIONS
CROP USE DIRECTIONS

BASIL - FIELD AND GREENHOUSE

Disease Controlled	Product Rate (fl oz/A)	Product Instructions
Downy mildew (*Peronospora belbahrii*)	**6.0** 0.19 (lb ai/A)	Apply using ground equipment, or by air.

Application Restrictions:

Pre-Harvest Interval (PHI): **2 day(s)**

Minimum between applications: **7 day(s)**

Maximum REASON 500 SC Fungicide allowed per year: **24.0 fluid ounces/Acre** (0.76 lb AI/Acre)

Do not make more than one application of REASON 500 SC Fungicide before alternating with a fungicide from a different resistance management group.

BRASSICA HEAD AND STEM VEGETABLES
Crops of Crop Group 5-16, including: Broccoli, Brussels sprouts, Cabbage, Cabbage Chinese (Napa), Cauliflower, cultivars, varieties and hybrids of these commodities

Disease Controlled	Product Rate (fl oz/A)	Product Instructions
Downy mildew (*Peronospora parasitica*)	**5.5 - 8.2** 0.178 - 0.267 (lb ai/A)	Apply using ground equipment, chemigation, or by air.
White rust (*Albugo candida*) **Alternaria leaf spot** (*Alternaria* spp.)	**8.2** 0.267 (lb ai/A)	
Disease Suppressed	**Product Rate (fl oz/A)**	**Product Instructions**
Cercospora leaf spot *(Cercospora brassicicola)*	**8.2** 0.267 (lb ai/A)	Apply using ground equipment, chemigation, or by air.

Application Restrictions:
Pre-Harvest Interval (PHI): **2 day(s)**
Minimum interval between applications: **5 day(s)**
Maximum REASON 500 SC Fungicide allowed per year: **24.6 fluid ounces/Acre** (0.80 lb AI/Acre)
Do not make more than one application of REASON 500 SC Fungicide before alternating with a fungicide from a different resistance management group.

LEAFY VEGETABLE CROPS OF CROP GROUP 4-16
Amaranth (leafy and Chinese), Arugula (roquette), Aster (Indian),Blackjack, Broccoli (Chinese, gai lon), Broccoli raab (rapini), Cabbage (Abyssinian), Cabbage Chinese (bok choy), Cabbage (seakale), Cat's Whiskers, Cham-chwi, Cham-na-mul, Chervil (fresh leaves), Chipilin, Chrysanthemum (garland), Cilantro (fresh leaves), Collards, Corn salad, Cosmos, Cress (garden), Cress (upland), Dandelion, Dang-gwi, Dillweed, Dock (sorrel), Dol-nam-mul, Ebolo, Endive, Escarole, Fameflower, Feather Cockscomb, Good King Henry, Hanover Salad, Huauzontle,Jute (leaves), Kale, Lettuce (bitter), Lettuce (head and leaf), Maca, Mizuna, Mustard greens, Orach, Parsley (fresh leaves), Plantain (buckhorn), Primrose (English), Purslane (garden), Purslane (winter), Radicchio (red chicory), Spinach (tanier), Radish (leaves), Rape greens, Rocket (wild), Shepherd's Purse,Spinach, Spinach (New Zealand), Malabar spinach, Swiss chard), Turnip greens, Violet (Chinese), Watercress, cultivars, varieties and hybrids of these commodities

Disease Controlled	Product Rate (fl oz/A)	Product Instructions
Downy mildew (*Bremia lactucae* spp.) **White rust** (*Albugo occidentalis*) **Alternaria leaf spot** (*Alternaria* spp.)	**5.5 – 8.2** 0.178 – 0.267 (lb ai/A)	Apply using ground equipment, chemigation, or by air.
Disease Suppressed	**Product Rate (fl oz/A)**	**Product Instructions**
Cercospora leaf spot (*Cercospora brassicicola*)	**8.2** 0.267 (lb ai/A)	Apply using ground equipment, chemigation, or by air.

Application Restrictions:
Pre-Harvest Interval (PHI): **2 day(s)**
Minimum interval between applications: **5 day(s)**
Maximum REASON 500 SC Fungicide allowed per year: **24.6 fluid ounces/Acre** (0.80 lb AI/Acre)
Do not make more than one application of REASON 500 SC Fungicide before alternating with a fungicide from a different resistance management group.
For applications made to watercress, production fields must be drained of water at least 24 hours prior to application and water must not be reapplied to the field for a minimum of 24 hours following the application.

BULB ONION, GREEN ONION
Crops of Crop SubGroup 3-07A & 3-07B, including: Chive, fresh leaves; chive, Chinese, fresh leaves; daylily, bulb; elegans hosta; fritillaria, bulb; fritillaria, leaves; garlic, bulb; garlic, great-headed, bulb; garlic, serpent, bulb; kurrat; lady's leek; leek; leek, wild; lily, bulb; onion, Beltsville bunching; onion, bulb; onion, Chinese, bulb; onion, fresh; onion, green; onion, macrostem; onion, pearl; onion, potato, bulb; onion, tree, tops; onion, Welsh, tops; shallot, bulb; shallot, fresh leaves; cultivars, varieties, and/or hybrids of these

Disease Controlled	Product Rate (fl oz/A)	Product Instructions
Onion downy mildew (*Peronospora destructor*) **Purple blotch** (*Alternaria porri*)	**5.5** 0.178 (lb ai/A)	Apply using ground, air, or chemigation equipment.

Application Restrictions:
Pre-Harvest Interval (PHI): **7 day(s)**
Minimum interval between applications: **5 day(s)**
Maximum REASON 500 SC Fungicide allowed per year: **22 fluid ounces/Acre** (0.71 lb AI/Acre)
Do not make more than one application of REASON 500 SC Fungicide before alternating with a fungicide from a different resistance management group.

CARROT

Disease Controlled	Product Rate (fl oz/A)	Product Instructions
Cavity Spot (*Pythium* spp.)	**8.2** 0.267 (lb ai/A)	Foliar application using ground or chemigation equipment.

Application Notes(s):
When applying with ground equipment, direct spray to the base of the plant and follow immediately with at least 0.25 inch of irrigation to move the product into the root zone.

Application Restrictions:
Pre-Harvest Interval (PHI): **14 day(s)**
Minimum interval between applications: **14 day(s)**
Maximum REASON 500 SC Fungicide allowed per year: **24.6 fluid ounces/Acre** (0.8 lb AI/Acre) Do not use a spreader/sticker.
Do not make more than one application of REASON 500 SC Fungicide before alternating with a fungicide from a different resistance management group.

COTTON – IN FURROW
Crops of Crop SubGroup 20C Including: Cottonseed; cultivars, varieties, and/or hybrids of these

Disease Controlled	Product Rate (fl oz/1000 ft of row)	Product Instructions
Pythium damping-off (*Pythium* spp.)	**0.45**	**OUNCES PER ROW SPACING PER ACRE** 40'' = 6.0 38'' = 6.3 36'' = 6.7 30'' = 8.0

Application Notes(s):
Apply at planting using spray nozzles mounted on the planter to deliver the spray solution to the open seed furrow. Direct the spray in furrow immediately behind the seed drop tube and before the furrow closure devices. Apply in a spray volume of 3 - 5 gallons/acre. REASON 500 SC Fungicide (fenamidone) applied in furrow at the full rate and may be applied over seed treated with the full labeled seed treatment rate.

Application Restrictions:
Pre-Harvest Interval (PHI): **190 day(s)**
Maximum REASON 500 SC Fungicide allowed per year: **8.2 fluid ounces/Acre** (0.267 lb AI/Acre)

CUCURBIT VEGETABLES
Crops of Crop Group 9, including: Chayote, Chinese waxgourd, citron melon, cucumber, gherkin, edible gourds, Momordica spp., muskmelon, pumpkin, squash (summer and winter) and watermelon

Disease Controlled	Product Rate (fl oz/A)	Product Instructions
Downy mildew (*Pseudoperonospora cubensis*) **Alternaria leaf spot** (*Alternaria cucumerina*)	**5.5** 0.178 (lb ai/A)	Apply using ground, air, or chemigation equipment.

Application Restrictions:
Pre-Harvest Interval (PHI): **14 day(s)**
Minimum interval between applications: **5 day(s)**
Maximum REASON 500 SC Fungicide allowed per year: **22 fluid ounces/Acre** (0.71 lb AI/Acre)
Do not make more than one application of REASON 500 SC Fungicide before alternating with a fungicide from a different resistance management group. Do not make more than four total Group 11 fungicide applications per season.

GINSENG		
Disease Controlled	**Product Rate (fl oz/A)**	**Product Instructions**
Phytophthora root rot (*Phytophthora cactorum*)	**5.5 – 8.2** 0.178 - 0.267 (lb ai/A)	Apply using ground, air, or chemigation equipment.
Application Notes(s): A sticker / spreader may be used to improve disease control.		
Application Restrictions: Pre-Harvest Interval (PHI): **14 day(s)** Minimum interval between applications: **14 day(s)** Maximum REASON 500 SC Fungicide allowed per year: **24.6 fluid ounces/Acre** (0.80 lb AI/Acre) Do not make more than one application of REASON 500 SC Fungicide before alternating with a fungicide from a different resistance management group.		

GRAPES – FOR USE EAST OF THE ROCKY MOUNTAINS ONLY		
Disease Controlled	**Product Rate (fl oz/A)**	**Product Instructions**
Grape downy mildew (*Plasmopara viticola*)	**2.7** 0.089 (lb ai/A)	Apply using ground equipment, chemigation, or by air.
Application Restrictions: Pre-Harvest Interval (PHI): **30 day(s)** Minimum interval between applications: **10 day(s)** Maximum REASON 500 SC Fungicide allowed per year: **8.1 fluid ounces/Acre** (0.268 lb AI/Acre) Do not make more than one application of REASON 500 SC Fungicide before alternating with a fungicide from a different resistance management group.		

LEAF PETIOLE VEGETABLES **Crops of Crop SubGroup 22B Including:** Cardoon; Celery; Celery, Chinese; Fuki; Rhubarb; Udo; Zuiki; cultivars, varieties, and hybrids of these commodities		
Disease Controlled	**Product Rate (fl oz/A)**	**Product Instructions**
Downy mildew (*Bremia lactucae*) (*Peronospora* spp.) **White rust** (*Albugo occidentalis*) **Alternaria leaf spot** (*Alternaria spp.*)	**5.5 – 8.2** 0.178 – 0.267 (lb ai/A)	Apply using ground equipment, chemigation, or by air.
Disease Suppressed	**Product Rate (fl oz/A)**	**Product Instructions**
Late blight of celery (*Septoria apiicola*) **Cercospora leaf spot** (*Cercospora brassicicola*)	**8.2** 0.267 (lb ai/A)	Apply using ground equipment, chemigation, or by air.
Application Restrictions: Pre-Harvest Interval (PHI): **2 day(s)** Minimum interval between applications: **5 day(s)** Maximum REASON 500 SC Fungicide allowed per year: **24.6 fluid ounces/Acre** (0.80 lb AI/Acre) Do not make more than one application of REASON 500 SC Fungicide before alternating with a fungicide from a different resistance management group.		

POTATOES AND OTHER TUBEROUS AND CORM VEGETABLES - FOLIAR
Crops of Crop SubGroup 1C Including: (Arracacha, arrowroot, artichoke (Chinese), artichoke (jerusalem), canna (edible), cassava (bitter and sweet), chayote (root), chufa, dasheen, ginger, leren, potato, sweet potato, tanier, turmeric, yam (bean and true)

Disease Controlled	Product Rate (fl oz/A)	Product Instructions
Early blight (*Alternaria solani*) **Late blight** (*Phytophthora infestans*) **White rust -** Sweet Potato only (*Albugo ipomoeae-panduratae*)	**5.5 – 8.2** 0.178 – 0.267 (lb ai/A)	Apply using ground equipment, chemigation, or by air.
Disease Suppressed	**Product Rate (fl oz/A)**	**Product Instructions**
Black dot (*Colletotrichum coccodes*)	**5.5 – 8.2** 0.178-0.267 (lb ai/A)	Apply using ground equipment, chemigation, or by air.

Application Notes(s):
Tuber blight (*Phytophthora infestans*) suppression typically results as a consequence of good foliar blight control, complete killing of vines before harvest, and proper tuber storage conditions.

Application Restrictions:
Pre-Harvest Interval (PHI): **14 day(s)**
Minimum interval between applications: **5 day(s)**
Potatoes and other tuberous and corm vegetables, except sweet potatoes: Maximum REASON 500 SC Fungicide allowed per year: 24.6 fluid ounces/Acre (0.80 lb AI/Acre) (Including the potato seed piece treatment rate of 0.18 lb ai/A)
Sweet Potatoes: Maximum REASON 500 SC Fungicide allowed per year: 16.4 fluid ounces/Acre (0.53 lb AI/Acre)
Do not make more than one application of REASON 500 SC Fungicide before alternating with a fungicide from a different resistance management group.

POTATOES AND OTHER TUBEROUS AND CORM VEGETABLES – SEED PIECE TREATMENT
Crops of Crop SubGroup 1C Including: (Arracacha, arrowroot, artichoke (Chinese), artichoke (jerusalem), canna (edible), cassava (bitter and sweet), chayote (root), chufa, dasheen, ginger, leren, potato, sweet potato, tanier, turmeric, yam (bean and true)

Disease Controlled	Product Rate (fl oz/ per 100 lbs of seed pieces)	Product Instructions
Seed-borne late blight (*Phytophthora infestans*)	**0.15**	For optimal disease control, good coverage of the seed-piece is required. Apply specified dosage as a diluted spray using equipment that ensures uniform coverage of each seed-piece. Agitate or stir the slurry solutions as needed. Apply only in areas with adequate ventilations or in areas that are equipped to remove spray mist or dust. It is recommended to periodically clean and sanitize all surfaces which may come in contact with cut seed-pieces (i.e. cutting machines, tables, knives, planting equipment etc.) Seed-pieces should be treated immediately after cutting. As part of the seed cutting and treating process, application of an absorbent ingredient is recommended to improve suberization.

Seed Labeling:
To meet U.S. Federal Seed Act requirements, all seed treated with REASON 500 SC Fungicide must be labeled as follows: “TREATED SEED. DO NOT USE FOR FOOD, FEED OR OIL PURPOSES. Treated with fenamidone.”

Application Restrictions:
For potato seed-piece treatment, REASON 500 SC Fungicide may be tank mixed with Emesto Silver. Refer to the registered label of each tank-mix partner for application rates, precautions and directions for use associated with those products, and follow the most restrictive label precautions and limitations.
Not for use as a potato seed piece treatment in CA.
Do not apply more than 2.5 fl oz of slurry / 100 lbs of seed pieces. Do not use treated seed-pieces for food, feed, or fodder.
This product is for commercial or on-farm application.
Do not use for direct application into a planter box and drill-box.
The purchaser of this product is responsible for ensuring that all seed treated with this product is adequately dyed with an EPA approved dye/colorant (Refer to 40 CFR Part 153.155) to prevent its accidental use as a food for man or feed for animals.
If treated on-farm and not bagged, please add the following statement: Plant within four weeks after treatment.

Kohlrabi; Celtuce; Fennel Florence		
Disease Controlled	**Product Rate (fl oz/A)**	**Product Instructions**
Downy mildew (*Bremia lactucae*) (*Peronospora* spp.) **White rust** (*Albugo occidentalis*) **Alternaria leaf spot** (*Alternaria* spp.)	**5.5 – 8.2** 0.178 – 0.267 (lb ai/A)	Apply using ground equipment, chemigation, or by air.
Disease Suppressed	**Product Rate (fl oz/A)**	**Product Instructions**
Late blight of celery (*Septoria apiicola*) **Cercospora leaf spot** (*Cercospora brassicicola*)	**8.2** 0.267 (lb ai/A)	Apply using ground equipment, chemigation, or by air.
Application Restrictions: Pre-Harvest Interval (PHI): **2 day(s)** Minimum interval between applications: **5 day(s)** Maximum REASON 500 SC Fungicide allowed per year: **24.6 fluid ounces/Acre** (0.80 lb AI/Acre) Do not make more than one application of REASON 500 SC Fungicide before alternating with a fungicide from a different resistance management group.		

SUCCULENT BEAN - EXCEPT COWPEA Cicer arietinum (chickpea, garbanzo bean); Lupinus spp. (including grain lupin, sweet lupin, white lupin, and white sweet lupin); Phaseolus spp. (including field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean); Vicia faba (broad bean, fava bean); Vigna spp. (except cowpea),(including adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean)		
Disease Controlled	**Product Rate (fl oz/A)**	**Product Instructions**
Cottony leak (*Pythium* spp.)	**5.5 – 8.2** 0.178 – 0.267 (lb ai/A)	Apply using ground, air, or chemigation equipment.
Disease Suppressed	**Product Rate (fl oz/A)**	**Product Instructions**
Pod rot[1] (*Phytophthora capsici*)	**5.5 – 8.2** 0.178 – 0.267 (lb ai/A)	Apply using ground, air, or chemigation equipment.
Application Notes(s): A sticker / spreader may be used to improve disease control.		
Application Restrictions: Pre-Harvest Interval (PHI): **3 day(s)** Minimum interval between applications: **7 day(s)** Maximum REASON 500 SC Fungicide allowed per year: **24.6 fluid ounces/Acre** (0.80 lb AI/Acre) Do not make more than one application of REASON 500 SC Fungicide before alternating with a fungicide from a different resistance management group. [1]**Not for use in California**		

TOMATOES, PEPPERS, AND OTHER FRUITING VEGETABLES (EXCEPT CUCURBITS) **Crops of Crop Group 8, Including:** Eggplant, Groundcherry, Okra, Pepino, Pepper (bell, chili, cooking, pimento, sweet), Tomatillo, Tomato		
Disease Controlled	**Product Rate (fl oz/A)**	**Product Instructions**
Early blight (*Alternaria solani*) **Late blight** (*Phytophthora infestans*)	**5.5 – 8.2** 0.178 – 0.267 (lb ai/A)	Apply using ground, air, or chemigation equipment.
Disease Suppressed	**Product Rate (fl oz/A)**	**Product Instructions**
Septoria leaf spot (*Septoria lycopersici*)	**5.5 – 8.2** 0.178 – 0.267 (lb ai/A)	Apply using ground, air, or chemigation equipment.
Phytophthora blight of foliage and fruit (*Phytophthora capsici*)	**8.2** 0.267 (lb ai/A)	Ground application only. Assure good coverage of fruit and foliage.
Application Restrictions: Pre-Harvest Interval (PHI): **14 day(s)** Minimum interval between applications: **5 day(s)** Maximum REASON 500 SC Fungicide allowed per year: **24.6 fluid ounces/Acre** (0.80 lb AI/Acre) Do not make more than one application of REASON 500 SC Fungicide before alternating with a fungicide from a different resistance management group.		

ROOT VEGETABLES (EXCEPT CARROT, POTATO, RADISH AND SUGARBEET)[1]
Crops of Crop SubGroup 1B Including: Beet (garden), Burdock (edible), Celeriac, Chervil (turnip-rooted), Chicory, Ginseng, Horseradish, Oriental Radish, Parsley (turnip-rooted), Parsnip, Rutabaga, Salsify (oyster plant), Salsify (black), Salsify (spanish), Skirret, Turnip

Disease Controlled	Product Rate (fl oz/A)	Product Instructions
Phytophthora foliar blight and crown rot (*Phytophthora* spp.)	**8.2** 0.267 (lb ai/A)	Apply using ground, air, or chemigation equipment.
Disease Suppressed	**Product Rate (fl oz/A)**	**Product Instructions**
Alternaria leaf spot (*Alternaria* spp.)	**8.2** 0.267 (lb ai/A)	Apply using ground, air, or chemigation equipment.
Pythium damping-off and root rot (*Pythium* spp.)	**8.2** 0.267 (lb ai/A)	Apply using ground, air, or chemigation equipment. When applying with ground equipment, direct spray to the base of the plant and follow immediately with at least 0.25 inch of irrigation to move the product into the root zone.

Application Restrictions:
Pre-Harvest Interval (PHI): **14 day(s)**
Minimum interval between applications: **14 day(s)**
Maximum REASON 500 SC Fungicide allowed per year: **24.6 fluid ounces/Acre** (0.80 lb AI/Acre)
Do not make more than one application of REASON 500 SC Fungicide before alternating with a fungicide from a different resistance management group.
Not for use on forage turnips where tops are intended for livestock feed.
[1] For carrots, potatoes and tuberous and corm vegetables, see specific use directions under separate section

STORAGE AND DISPOSAL

Pesticide storage
Do not contaminate water, food, or feed by storage or disposal.
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
[Dilutable Seed Treatment Products in Non-Refillable Plastic Containers]
Rigid Non-refillable containers that are too large to shake (i.e., with capacities greater than 5 gallons or 50 lbs)
Non-refillable container. Do not reuse or refill this container. Rinse and either recycle or dispose of the container as follows:
Bottom Discharge IBC (e.g. – Schuetz Caged IBC or Snyder Square Stackable)
Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. To pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal. Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.
Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.
[Dilutable Seed Treatment Products in Non-Refillable Containers]
Nonrefillable container. Do not reuse or refill this container. Rinse and either recycle or dispose of the container as follows:
Liquid dilutables in containers small enough to shake (5 gallons or less)
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 1/4 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.
Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration

FOR 24 HOUR EMERGENCY ASSISTANCE (SPILL, LEAK OR FIRE), CALL CHEMTREC® (800) 424-9300.
For other product information, contact Gowan Company, LLC or see 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, LLC. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer and User.
Gowan Company, LLC 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, LLC MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY.
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