

# CHICKPEA

## General Information

### PRODUCT INFORMATION

#### Delaro 325 SC Fungicide:

- is a broad spectrum fungicide for the control of certain diseases of Chickpea, Corn, Dry Peas, Lentils, Soybean, and Sugar beets;
- works by interfering with both energy and cell membrane production by plant pathogenic fungi. Equipment must be properly calibrated before use.

### APPLICATION INSTRUCTIONS

- Delaro 325 SC Fungicide may be applied by ground, air (except in New York), or chemigation.
- Use of an adjuvant may enhance the performance of Delaro 325 SC Fungicide.

#### Aerial Application

Avoid application under conditions when uniform coverage cannot be obtained or when excessive spray drift may occur. Do not apply directly to humans or animals. Not registered for aerial application in New York State. For aerial application on Chickpea, Dry Peas, Lentils, and Sugar beets a minimum of 5 gal/A is recommended. For aerial application on Corn and Soybean a minimum of 2 gal/A is recommended.

#### Ground Application

Thorough coverage is necessary to provide good disease control. Applications using sufficient water volume to provide thorough and uniform coverage generally provide the most effective disease control. For ground application equipment, a minimum of 10 gal/A is recommended.

#### Ground Application (Broadcast)

Equip sprayers with nozzles that provide accurate and uniform application. Nozzle selection, spraying pressures, carrier volume and application speeds are critical for maximum efficacy. Select nozzles that deliver Fine to Medium droplets and operate them within the pressures specified by the manufacturer. Adjust application speeds to allow for canopy penetration and coverage of the leaf surface. Be certain that

nozzles are the same size and uniformly spaced across the boom. Calibrate the sprayer before use and replace worn or damaged nozzles.

Use a pump with sufficient agitation capacity in the tank to keep the mixture in suspension. This requires recirculation of 10% of the tank volume per minute. Use jet agitators or a liquid spurge tube for vigorous agitation.

Use screens to protect the pump and to prevent nozzles from clogging. Check nozzle manufacturer's recommendations.

For information on spray equipment and calibration, consult sprayer manufacturer's and/or state recommendations.

For specific local directions and spray schedules, consult the current state agricultural experiment station recommendations.

#### USE RESTRICTIONS

- Under certain conditions conducive to extended infection periods, additional fungicide applications beyond the number allowed by this label may be needed. Under these conditions, use another fungicide registered for the crop/disease.
- Do not apply more than 2 sequential applications of Delaro 325 SC Fungicide or any other QoI Group 11 fungicide without alternation with a fungicide from another group.
- Not registered for aerial application in New York State.

Refer to the specific use directions and restrictions in each Crop table.

#### FUNGICIDE RESISTANCE MANAGEMENT (FRM) RECOMMENDATIONS

The active ingredients in Delaro 325 SC Fungicide belong to two different chemistry classes.

Prothioconazole belongs to the DMI (Group 3) class of chemistry which exhibits no known cross resistance to other chemical classes. Prothioconazole may exhibit cross resistance to other Group 3 fungicides, such as propiconazole and myclobutanil.

Trifloxystrobin belongs to the QoI (Group 11) class of chemistry which exhibits no known cross-resistance to other chemical classes. Trifloxystrobin does exhibit cross-

resistance to other Group 11 fungicides, such as azoxystrobin, pyraclostrobin, and kresoxim-methyl. The NA-QoI Working Group has established the following general guidelines for the maximum number of applications of a Group 11-containing fungicide. In addition to that, the maximum number of applications may be restricted to a specific limit on a particular crop (see crop specific recommendations). Follow the specific crop recommendations that limit the total number of sprays on a crop and the required alternations with fungicides from other resistance management groups. In situations requiring multiple fungicide sprays, develop season-long spray programs for Group 11 containing fungicides. In programs in which pre-mixes of a Group 11 fungicide with a fungicide of another Group are utilized, such as with Delaro 325 SC Fungicide, the number of Group 11 fungicide QoI-containing applications should be no more than 1/2 of the total number of fungicide applications per season.

Fungal pathogens are known to develop resistance to products with the same mode of action when used repeatedly. Because resistance development cannot be predicted, the use of this product should conform to resistance management strategies established for the crop and use area. Such strategies may include rotating and/or tank mixing with products having different modes of action or limiting the total number of applications per season. Contact your local extension specialist, certified crop advisor, and/or manufacturer for fungicide resistance management and/or integrated disease management recommendations for specific crops and pathogen populations. Bayer CropScience encourages responsible resistance management to ensure effective long-term control of the fungal diseases on this label.

## CHEMIGATION

Delaro 325 SC Fungicide alone or in combination with other pesticides which are registered for application through irrigation systems, may be applied through irrigation systems. Apply this product only through center pivot, solid set, hand move, or moving wheel irrigation systems. Do not apply this product through any other type of irrigation system. 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 systems 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.

#### Operating Instructions

1. The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent watersource contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quickclosing check-valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended.

#### Center Pivot Irrigation Equipment

Notes: (1) Use only with drive systems which provide uniform water distribution. (2) Do not use end guns when chemigating Delaro 325 SC Fungicide through center pivot systems because of non-uniform application.

Determine the size of the area to be treated. Determine the time required to apply 1/8-1/2 inch of water over the area to be treated when the system and injection equipment are operated at normal pressures as recommended by the equipment manufacturer. When applying Delaro 325 SC Fungicide through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution. Run the system at 80-95% of the manufacturer's rated capacity. Using water, determine the injection pump output when operated at normal line pressure. Determine the

amount of Delaro 325 SC Fungicide required to treat the area covered by the irrigation system. Add the required amount of Delaro 325 SC Fungicide and sufficient water to meet the injection time requirements to the solution tank. Make sure the system is fully charged with water before starting injection of the Delaro 325 SC Fungicide solution. Time the injection to last at least as long as it takes to bring the system to full pressure. Maintain constant solution tank agitation during the injection period. Continue to operate the system until the Delaro 325 SC Fungicide solution has cleared the sprinkler head.

#### Solid Set, Hand Move, and Moving Wheel Irrigation Equipment

When applying Delaro 325 SC Fungicide through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution. Determine the amount of Delaro 325 SC Fungicide required to treat the area covered by the irrigation system. Add the required amount of Delaro 325 SC Fungicide into the same quantity of water used to calibrate the injection period. Operate the system at the same pressure and time interval established during the calibration. Stop injection equipment after treatment is completed. Continue to operate the system until the Delaro 325 SC Fungicide solution has cleared the last sprinkler head.

#### SPRAY DRIFT MANAGEMENT

Do not make applications when conditions favor drift beyond the target application area. When drift may be a problem, take measures to reduce drift, including:

1. Do not spray if wind speeds are or become excessive. Do not spray if wind speed is 15 mph or greater. If nontarget crops are located downwind, use caution when spraying if wind is present. Do not spray if winds are gusty.
2. Use caution when conditions are favorable for drift (high temperatures, drought, low relative humidity).
3. Do not apply when a temperature inversion exists. If inversion conditions are suspected, consult with local weather services before making an application.

#### ROTATIONAL CROPS

Delaro 325 SC Fungicide is labeled for use on the following crops: Chickpea, Corn, Dry Peas, Lentils, Soybean, and Sugar beets.

- 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.

- For crops not listed on this label, or for crops for which no tolerances for the active ingredient have been established, a 30 day plant-back interval must be observed.

## SPECIFIC CROP DIRECTIONS

Delaro 325 SC Fungicide provides control or suppression of several important diseases of Chickpea, Corn, Dry Peas, Lentils, Soybean, and Sugar beets. When reference is made to disease suppression, suppression can mean either erratic control from good to fair, or consistent control at a level below that obtained with the best commercial disease control products.

### Limitations, Restrictions, and Exceptions

#### CHICKPEA

##### Product Instructions

- Begin fungicide applications preventatively and continue as needed on a 10- to 14-day interval. Use the shorter intervals when conditions are favorable for severe disease pressure.

##### Application Restrictions

- If growing for animal feed, do not apply within 7 days of cutting or swathing of the crop for forage.
- Do not exceed 0.28 lbs prothioconazole per acre per year, or 0.24 lbs trifloxystrobin per acre per year.
- Do not make more than 2 applications of Delaro 325 SC Fungicide per year.

##### Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

##### Pre-Harvest Interval

30 days

##### Restricted Entry Interval

12 hours

##### Timings

[When conditions are favorable for severe disease pressure.](#)