

264-825

05-28-2010

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

May 28, 2010

Melvin K. Tolliver
Registration Product Manager
Bayer CropScience LP
2 T.W. Alexander Drive
Research Triangle Park, NC 27709

Subject: Proline™ 480 SC Fungicide
EPA Registration Number 264-825
Your application submitted December 3, 2008 for PRIA R170 New Use (Decision No. D403612) and Prothioconazole Pesticide Petition No. 8F7485 (Decision No. D403615): Cereal Crop Group 15 & 16 (except Sweet Corn, Sorghum, Rice) & Sweet Corn

Dear Mr. Tolliver,

The label amendment referred to above (label version dated 5/27/10), submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable provided you submit two copies of a final printed label complying with the changes described herein within 45 days of the date of this letter, and satisfy the other conditions.

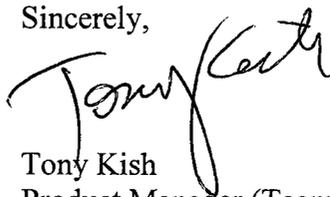
1. On page 3, under "General Information" in the second line delete "cereal crop group" because its members are already listed. Delete the left parentheses before "buckwheat" and the right parenthesis after "rye". Also delete "(chickpeas, lentils)" because they are members of the dry shelled pea and bean group which is listed.
2. On page 5 under "Use Directions For Specific Crops" make the same changes as in #1 above.
3. As per EPA letter dated 4/9/09 for EPA Reg 264-825, by May 1, 2011, submit a valid immunotoxicity study which satisfies guideline requirement 870.7800. An immunotoxicity study is required to meet current guideline requirements. The previously submitted immunotoxicity study (MRID 42626438) in the mouse is part of the existing data base, but this study as reported does not satisfy the current guideline requirements for an immunotoxicity study.
4. In the Agency's risk assessment for 1,2,4-triazole and its metabolites triazole alanine, and triazole acetic acid, dated February 7, 2006 (see docket number 2005-0497 at

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Proline™ 480 SC Fungicide
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<http://www.regulations.gov>), the Agency identified additional data that are needed for triazole-derivative active ingredients like prothioconazole which have the 1,2,4,-triazole ring. The Agency plans to issue a Data Call-In for all triazole-derivative active ingredients which will identify all data needs for these active ingredients listed in the February 7, 2006 risk assessment. The Data Call-In will not address data needs that are related to parent-only data requirements.

A copy of the label stamped "Accepted with Comments" is enclosed for your records. Should you have any questions please contact Tawanda Maignan at (703) 308-8050 or via e-mail at Maignan.Tawanda@epa.gov.

Sincerely,



Tony Kish
Product Manager (Team 22)
Fungicide Branch
Registration Division (7504P)

ACCEPTED
with COMMENTS
In EPA Letter Dated

MAY 28 2010

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.

264-825

GROUP	3	FUNGICIDE
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PROLINE™ 480 SC Fungicide

For control of specified diseases on listed crops.

Active Ingredient: Prothioconazole, 2-[2-(1-Chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-1,2-dihydro-3H-1,2,4-triazole-3-thione.....	41.0%
Inert Ingredients:	59.0%
Contains 4 pounds Prothioconazole per gallon	100.0%

EPA Reg. No. 264-825

EPA Est.

STOP - Read the label before use
KEEP OUT OF REACH OF CHILDREN
CAUTION

For MEDICAL And TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577

For PRODUCT USE Information Call 1-866-99BAYER (1-866-992-2937)

FIRST AID

IF SWALLOWED:	<ul style="list-style-type: none"> • Immediately call a poison control center or doctor for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF INHALED:	<ul style="list-style-type: none"> • 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.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> • 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:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.

For MEDICAL Emergencies Call 24 Hours A Day 1-800-334-7577.

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

NOTE TO PHYSICIAN: No specific antidote. Treat symptomatically.

PRECAUTIONARY STATEMENTS

HAZARD (TO HUMANS AND DOMESTIC ANIMALS)

CAUTION

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

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Personal Protective Equipment

Applicators and other handlers must wear:

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

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

Engineering Control Statements

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.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Wash the outside of gloves before removing.

ENVIRONMENTAL HAZARDS

This product is toxic to estuarine/marine invertebrates, and freshwater/estuarine/marine aquatic plants. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

Prothioconazole-dethio (a degradate of prothioconazole) is known to leach through soil into ground water under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.

Drift and runoff are hazardous to aquatic organisms in water adjacent to treated areas. This product has a high potential for runoff for several months or more after application. Poorly draining soils and soils with shallow watertables 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.

DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the 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 and notification to workers (as applicable). 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 48 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
- Chemical-resistant gloves made of any waterproof material.
- Shoes plus socks

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STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If container is leaking, invert to prevent leakage. If the container is leaking or material is spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides below. In spill or leak incidents, keep unauthorized people away. You may contact the Bayer CropScience Emergency Response Team for decontamination procedures or any other assistance that may be necessary. The Bayer CropScience Emergency Response Telephone No. is 1-800-334-7577.

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

Container Disposal: Non-refillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) 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 $\frac{1}{4}$ 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.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Offer for recycling, if available. If not recycled, then puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

GENERAL INFORMATION

PROLINE™ 480 SC Fungicide is a broad-spectrum systemic fungicide for the control of Ascomycetes, Basidiomycetes and Deuteromycetes diseases in a variety of crops including barley, canola, cereal crop group (buckwheat, millet, oats, rye), corn, dry shelled pea and bean crop subgroup (chickpeas, lentils), peanuts, rapeseed, Indian rapeseed, field mustard, crambe, soybean, sugar beets, triticale and wheat. Under conditions conducive to extended infection periods or high disease pressure, additional fungicide applications beyond the number allowed by this label may be needed. Under these conditions use another fungicide registered for the crop/disease. Equipment must be properly calibrated before use.

Resistance Management Statement

PROLINE 480 SC FUNGICIDE is a Group 3 fungicide which exhibits no known cross-resistance to other fungicide groups. However, fungal pathogens are known to develop resistance to products with the same mode of action when used repeatedly. Any fungal population may contain or develop individuals that are resistant to PROLINE 480 SC FUNGICIDE and other Group 3 fungicides. If Group 3 fungicides are used repeatedly in the same field or in successive years as the primary method of control for targeted diseases, the resistant isolates may eventually dominate the fungal population. 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 rotation 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.

Spray Equipment/Volumes

PROLINE 480 SC FUNGICIDE may be applied by either ground, aerial and/or chemigation application equipment. Refer to the USE DIRECTIONS FOR SPECIFIC CROPS section of this label for approved applications for each crop.

Apply in a minimum of 10 gallons of spray solution per acre by ground sprayer. Apply in a minimum of 5 gallons of spray solution per acre by aircraft spray equipment unless stated differently elsewhere in this label. Check equipment calibration frequently. Complete coverage and uniform application are essential for the most effective results, especially when lower spray volumes are applied. If necessary, increase the spray volume per acre for complete crop coverage.

Mixing Procedures

Prepare no more spray mixture than is necessary for the immediate operation. Thoroughly clean spray equipment before using this product. Maintain maximum agitation throughout the spray operation. Do not let the spray mixture stand overnight in the spray tank. Flush the spray equipment thoroughly following each use and apply the rinsate to the previously treated area or dispose of the rinsate according to local regulations.

PROLINE 480 SC FUNGICIDE Alone: Add $\frac{1}{2}$ of the required amount of water to the mix tank. With the agitator running, add the PROLINE 480 SC FUNGICIDE to the tank. Continue agitation while adding the remainder of the water. Begin application of the solution after the product has completely and uniformly dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

PROLINE 480 SC FUNGICIDE + Tank-Mix Partners: Add $\frac{1}{2}$ of the required amount of water to the mix tank. Start the agitator running before adding any of the tank-mix partners. In general, tank-mix partners should be added in this order: products packaged in water-soluble

packaging, wettable powders, wettable granules (dry flowables), liquid flowables, liquids and emulsifiable concentrates. Always allow each tank-mix partner to become fully and uniformly dispersed before adding the next product. Provide sufficient agitation while adding the remainder of the water. Maintain agitation until all of the mixture has been applied.

When using PROLINE 480 SC FUNGICIDE in tank mixtures, all products in water-soluble packaging should be added to the tank before any other tank-mix partner, including PROLINE 480 SC FUNGICIDE. Allow the water-soluble packaging to completely disperse before adding any other tank-mix partner to the tank.

If using PROLINE 480 SC FUNGICIDE in a tank mixture, observe all directions for use, crop/sites, use rates, dilution ratios, precautions, and limitations; which appear on the tank-mix product label. No label dosage rate must be exceeded, and the most restrictive label precautions and limitations must be followed. This product must not be mixed with any product that prohibits such mixing. Tank mixtures or other applications of products are permitted only in those states in which the products are registered.

PROLINE 480 SC FUNGICIDE is compatible with most insecticide, fungicide, herbicide and foliar nutrient products. However, the physical compatibility of PROLINE 480 SC FUNGICIDE with tank-mix partners should be tested before use. To determine the physical compatibility of PROLINE 480 SC FUNGICIDE with other products, use a jar test, as described below.

Using a quart jar, add the proportionate amounts of the products to 1 qt. of water. Add wettable powders and water-dispersible granular products first, then liquids, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank. For further information contact your local Bayer CropScience representative.

The crop safety of all potential tank mixes including additives and other pesticides on all crops has not been tested. Before applying any tank mixture not specifically recommended on this label, the safety to the target crop should be confirmed. To test for crop safety, apply PROLINE 480 SC FUNGICIDE to the target crop in a small area and in accordance with label instructions for the target crop.

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.

Chemigation Application: Apply PROLINE 480 SC FUNGICIDE through irrigation equipment only to crops for which chemigation is specified on this label.

PROLINE 480 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, linear, 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 nonuniform 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 water-source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being 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 PROLINE 480 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 PROLINE 480 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 PROLINE 480 SC FUNGICIDE required to treat the area covered by the irrigation system. Add the required amount of PROLINE 480 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 PROLINE 480 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 PROLINE 480 SC FUNGICIDE solution has cleared the sprinkler head.

Solid Set and Moving Wheel Irrigation Equipment

When applying PROLINE 480 SC FUNGICIDE through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution. Determine the amount of PROLINE 480 SC FUNGICIDE required to treat the area covered by the irrigation system. Add the required amount of PROLINE 480 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 PROLINE 480 SC FUNGICIDE solution has cleared the last sprinkler head.

Adjuvants: PROLINE 480 SC FUNGICIDE is recommended to be used with a registered non-ionic surfactant at the lowest recommended labeled rate for most crops. Refer to the individual crop recommendations for those specific uses where a surfactant is not recommended.

Recommendations to Avoid Spray Drift

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 non-target 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 temperature inversion exists. If inversion conditions are suspected, consult with local weather services before making an application.

ROTATIONAL RESTRICTIONS

Treated areas may be replanted with any crop specified on this label as soon as practical after last application. For crops not listed on this label, do not plant back within 30 days of last application.

USE DIRECTIONS FOR SPECIFIC CROPS

PROLINE 480 SC FUNGICIDE provides control or suppression of many important diseases of barley, canola, cereal crop group (buckwheat, millet, oats, rye), corn, the dry shelled pea and bean crop subgroup (including chickpeas, lentils), peanuts, rapeseed, Indian rapeseed, field mustard, crambe, soybean, sugar beets, triticale and wheat. 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.

RECOMMENDED APPLICATIONS		
CROP	DISEASE CONTROLLED	RATE OF PROLINE 480 SC FUNGICIDE
Barley	Fusarium Head Blight (<i>Fusarium</i> spp.) (Suppression Only)	5.0 to 5.7 fl oz. per acre
	Leaf and Stem Diseases: Net Blotch (<i>Pyrenophora teres</i>) Powdery Mildew (<i>Blumeria graminis</i> f. sp. <i>hordei</i>) Rusts (<i>Puccinia</i> spp.) Scald (<i>Rhynchosporium secalis</i>) Spot Blotch (<i>Cochliobolus sativus</i>)	2.8 to 4.3 fl oz. per acre
<p>Application Directions</p> <p>PROLINE 480 SC FUNGICIDE may be applied by either ground, aerial or chemigation application equipment. For aerial applications made prior to heading (prior to Feekes Growth Stage 10.5), apply a minimum of 2 gpa spray solution. For aerial applications made at the heading growth stage or later, apply in a minimum of 5 gpa spray solution. Chemigation use is allowed only for applications made prior to heading.</p> <p>Fusarium Head Blight (Suppression Only): The optimal time to apply PROLINE 480 SC FUNGICIDE is as a preventative foliar spray when barley heads on the main stem are fully emerged (~ Feekes Growth Stages 10.5). Spray equipment must be set to provide good coverage to barley heads. For thorough coverage of barley head using ground application equipment, it is recommended to use forward and backward mounted nozzles or nozzles that have a two-directional spray. Nozzles should be operated within the spray pressure directions suggested by the manufacturer.</p> <p>Leaf and Stem Diseases: Apply PROLINE 480 SC FUNGICIDE as a preventive foliar spray when the earliest disease symptoms appear on the leaves or stems. Barley fields should be observed closely for early disease symptoms, particularly when susceptible varieties are planted and/or under prolonged conditions favorable for disease development.</p>		
<p>General Comments: Apply up to two (2) applications of PROLINE 480 SC FUNGICIDE per year. Repeat applications using a 14-day spray interval if conditions remain favorable for continued or increasing disease development. For optimum disease control, the lowest labeled rate of a spray surfactant should be tank mixed with PROLINE 480 SC FUNGICIDE.</p> <p>A maximum of 9.37 fl oz. of PROLINE 480 SC FUNGICIDE may be applied per acre per year. Do not apply within 32 days of harvest.</p>		

RECOMMENDED APPLICATIONS		
CROP	DISEASE CONTROLLED	RATE OF PROLINE 480 SC FUNGICIDE
Canola	Sclerotinia Stem Rot (<i>Sclerotinia sclerotiorum</i>)	4.3 to 5.7 fl oz. per acre
	<p>Application Directions</p> <p>PROLINE 480 SC FUNGICIDE may be applied by either ground, aerial or chemigation application equipment. Apply PROLINE 480 SC FUNGICIDE when the canola crop is in the 20 - 50% bloom stage. This will be approximately 4-8 days after the canola crop begins to flower. Best protection will be achieved when the fungicide is applied prior to petals beginning to fall, and will allow for the maximum number of petals to be protected. The 4.3 fl oz. per acre rate is the recommended rate for most canola crops, however, the higher rate is recommended for fields with a history of heavy disease pressure or for dense crop stands. Good spray coverage of the plants is essential.</p>	
<p>General Comments: Apply up to two (2) applications of PROLINE 480 SC FUNGICIDE per year. Repeat applications as needed using a 14-day spray interval if conditions remain favorable for continued or increasing disease development.</p> <p>A maximum of 11.4 fl oz. of PROLINE 480 SC FUNGICIDE may be applied per acre per year. PROLINE 480 SC FUNGICIDE may be applied until the 50% bloom stage. This will be when the canola crop is at its maximum yellow color, and prior to significant petal fall. Do not apply within 36 days of harvest.</p>		

RECOMMENDED APPLICATIONS		
CROP	DISEASES CONTROLLED	RATE OF PROLINE 480 SC FUNGICIDE
Buckwheat Millet, pearl Millet, proso Oats Rye	Rusts (<i>Puccinia</i> spp.) Application Directions Apply PROLINE 480 SC as a preventive foliar spray when the earliest disease symptoms appear on the leaves or stems. Fields should be observed closely for early disease symptoms, particularly when susceptible varieties are planted and/or under prolonged conditions favorable for disease development.	5 to 5.7 fl oz. per acre
<p>General Comments: Apply only one application per year. Applications may be made by ground or aerial spray equipment. A maximum of 5.7 fl oz. of PROLINE 480 SC may be applied per acre per year. Do not apply within 30 days of harvest.</p>		

RECOMMENDED APPLICATIONS		
CROP	DISEASE CONTROLLED	RATE OF PROLINE 480 SC FUNGICIDE
CORN (Field Corn, Field Corn Grown for Seed, Sweet Corn and Popcorn)	Anthracnose Leaf Blight (<i>Colletotrichum graminicola</i>) Eye Spot (<i>Aureobasidium zeae</i>) Gray Leaf Spot (<i>Cercospora zeae-maydis</i>) Northern Corn Leaf Blight (<i>Setosphaeria turcica</i>)* Northern Corn Leaf Spot (<i>Cochliobolus carbonum</i>)* Southern Corn Leaf Blight (<i>Cochliobolus heterostrophus</i>)* Rust (<i>Puccinia</i> spp.) *The above diseases are also known as Helminthosporium leaf blights	5.7 fl oz. per acre
<p>General Comments: PROLINE® 480 SC may be applied by either ground, aerial or chemigation application equipment. For aerial applications, PROLINE 480 SC may be applied using a minimum of 2 gpa spray solution.</p> <p>Apply PROLINE 480 SC at the first sign of disease. Repeat applications as needed on a 7- to 14-day interval if favorable conditions for disease development persist. Application of PROLINE 480 SC is not recommended at times when corn is under severe environmental stress conditions.</p> <p>Do not apply more than 22.8 fl. oz. of PROLINE 480 SC per acre per crop. For field corn, field corn grown for seed and popcorn, do not apply within 14 days of harvest for grain and fodder. Forage may be harvested the same day of application. For sweet corn, do not apply within 14 days of harvest for fodder. Sweet corn ears and forage may be harvested the same day of application.</p>		

RECOMMENDED APPLICATIONS		
CROP	DISEASE CONTROLLED	RATE OF PROLINE 480 SC FUNGICIDE
Chickpea	Ascochyta Blight (<i>Ascochyta</i> spp.) Application Directions PROLINE 480 SC FUNGICIDE may be applied by either ground, aerial or chemigation application equipment. Apply PROLINE 480 SC FUNGICIDE at the first sign of disease. Use the higher use rate when conditions are favorable for severe disease pressure and/or when growing susceptible varieties.	5.0 to 5.7 fl oz. per acre
<p>General Comments: Apply up to three (3) applications of PROLINE 480 SC FUNGICIDE per year. Repeat applications as needed using a 10- to 14-day spray interval if conditions remain favorable for continued or increasing disease development. To optimize disease control, the lowest labeled rate of a spray surfactant should be tank-mixed with PROLINE 480 SC FUNGICIDE.</p> <p>A maximum of 17.1 fl oz. of PROLINE 480 SC FUNGICIDE may be applied per acre per year. Allow a minimum of 7 days from the last application until cutting or swathing the crop for harvest.</p>		

RECOMMENDED APPLICATIONS		
CROP	DISEASE CONTROLLED	RATE OF PROLINE 480 SC FUNGICIDE
Dried Shelled Peas and Beans Subgroup (except soybeans)	Rust (<i>Uromyces appendiculatus</i>) White Mold (<i>Sclerotinia sclerotiorum</i>)	5.7 fl oz. per acre
<p><i>Lupinus</i> spp. (Grain, Sweet, White and White Sweet lupins)</p> <p><i>Phaseolus</i> spp. (Field, Kidney, Dry lima, Navy, Pinto and Tepary beans)</p> <p><i>Vigna</i> spp. (Adzuki bean, Blackeyed pea, Catjang, Cowpea, Crowder pea, Moth bean, Mung bean, Rice bean, Southern pea and Urd bean)</p> <p>Dry broad bean</p> <p>Guar</p> <p>Lablab bean</p> <p><i>Pisum</i> spp. [Pea (including Field pea) and Pigeon pea]</p>	<p>Application Directions</p> <p>PROLINE 480 SC FUNGICIDE may be applied by either ground, aerial or chemigation application equipment. For ground applications, apply in a minimum of 20 gpa.</p> <p>For rust control, apply PROLINE 480 SC FUNGICIDE at the first sign of disease. For white mold control, apply PROLINE 480 SC FUNGICIDE at 25% flower.</p>	
<p>General Comments: Apply up to three (3) applications of PROLINE 480 SC FUNGICIDE per year. Repeat applications as needed using a 5- to 14-day spray interval if conditions remain favorable for continued or increasing disease development. To optimize disease control, the lowest labeled rate of a spray surfactant should be tank-mixed with PROLINE 480 SC FUNGICIDE.</p> <p>A maximum of 17.1 fl oz. of PROLINE 480 SC FUNGICIDE may be applied per acre per year. Allow a minimum of 7 days from the last application until cutting or swathing the crop for harvest.</p>		

RECOMMENDED APPLICATIONS		
CROP	DISEASE CONTROLLED	RATE OF PROLINE 480 SC FUNGICIDE
Lentils	Ascochyta Blight (<i>Ascochyta</i> spp.)	4.3 to 5.7 fl oz. per acre
	<p>Application Directions</p> <p>PROLINE 480 SC FUNGICIDE may be applied by either ground, aerial or chemigation application equipment.</p> <p>Apply PROLINE 480 SC FUNGICIDE at early flower or at the first sign of disease. Use the higher use rate when conditions are favorable for severe disease pressure and/or when growing less disease resistant varieties.</p>	
<p>General Comments: Apply up to three (3) applications of PROLINE 480 SC FUNGICIDE per year. Repeat applications as needed using a 10- to 14-day spray interval if conditions remain favorable for continued or increasing disease development. To optimize disease control, the lowest labeled rate of a spray surfactant should be tank-mixed with PROLINE 480 SC FUNGICIDE.</p> <p>A maximum of 17.1 fl oz. of PROLINE 480 SC FUNGICIDE may be applied per acre per year. Allow a minimum of 7 days from the last application until cutting or swathing the crop for harvest.</p>		

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RECOMMENDED APPLICATIONS		
CROP	DISEASE CONTROLLED	RATE OF PROLINE 480 SC FUNGICIDE
	Sclerotinia Stem Rot (<i>Sclerotinia sclerotiorum</i>)	4.3 to 5.7 fl oz. per acre
Rapeseed Indian rapeseed Field mustard Crambe	Application Directions PROLINE 480 SC FUNGICIDE may be applied by either ground, aerial or chemigation application equipment. Apply PROLINE 480 SC FUNGICIDE when the crop is in the 20 - 50% bloom stage. Utilize the higher rate for fields with a history of heavy disease pressure or for dense crop stands. Good spray coverage of the plants is essential.	
General Comments: Apply up to two (2) applications of PROLINE 480 SC FUNGICIDE per year. Repeat applications as needed using a 14-day spray interval if conditions remain favorable for continued or increasing disease development. A maximum of 11.4 fl oz. of PROLINE 480 SC FUNGICIDE may be applied per acre per year. PROLINE 480 SC FUNGICIDE may be applied until the 50% bloom stage. Do not apply within 36 days of harvest.		

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RECOMMENDED APPLICATIONS		
CROP	DISEASE CONTROLLED	RATE OF PROLINE 480 SC FUNGICIDE
Peanut	In-furrow and Banded Cylindrocladium Black Rot (<i>Cylindrocladium crotalariae</i>) (Suppression Only)	0.4 fl oz. per 1000 row feet (5.7 fl oz. per acre)
	Soil-Borne Sclerotium Rot (<i>Sclerotium rolfsii</i>) (White Mold, Southern Blight, Southern Stem Rot) Rhizoctonia Limb Rot, Peg Rot, Pod Rot (<i>Rhizoctonia solani</i>) Cylindrocladium Black Rot (<i>Cylindrocladium crotalariae</i>) (Suppression Only)	5.7 fl oz. per acre
	Foliar Early Leaf Spot (<i>Cercospora arachidicola</i>) Late Leaf Spot (<i>Cercosporidium personatum</i>) Leaf Rust (<i>Puccinia arachidis</i>) Web Blotch (<i>Phoma arachidicola</i>) Leaf Scorch and Pepper Spot (<i>Leptosphaerulina crassiasca</i>)	5.0 to 5.7 fl oz. per acre
<p>Application Directions</p> <p>PROLINE 480 SC FUNGICIDE may be applied by either ground, or aerial application equipment.</p> <p>In-furrow and Banded Spray Program: Apply 5.7 fl oz. per acre (0.4 fl oz. per 1000 row feet if on 36 inch spacing) in the furrow at planting. PROLINE 480 SC FUNGICIDE may also be applied in a 4- to 6- inch band over the row at or near emergence.</p> <p>Foliar Disease Spray Program: Apply the specified rate in a preventive spray schedule. Apply up to four (4) sprays using a 14-day interval. Use the higher use rate when conditions are favorable for severe disease pressure and/or when growing less disease resistant varieties.</p> <p>Soil-Borne Disease Spray Program: For optimum control of the specified soil-borne diseases, four consecutive applications of PROLINE 480 SC FUNGICIDE must be made at 14-day intervals. In a typical 7 spray application program beginning 30-40 days after planting or as recommended by the local Extension Service, PROLINE 480 SC FUNGICIDE should be applied for sprays 3, 4, 5 and 6. Applications of fungicides with a different mode of action should be made prior to and following applications of PROLINE 480 SC FUNGICIDE to discourage development of resistant strains of fungi. Use PROLINE 480 SC FUNGICIDE in conjunction with cultural practices that are known to reduce the severity of soil-borne diseases, such as proper crop rotation practices.</p> <p>For control of soil-borne diseases when using a Leaf Spot Advisory Program schedule, apply PROLINE 480 SC FUNGICIDE in the first advisory spray in July and continue PROLINE 480 SC FUNGICIDE applications at 14-day intervals.</p> <p>PROLINE 480 SC FUNGICIDE must be carried by rainfall or irrigation into the root and pod zone for control of root and pod rots caused by <i>Sclerotium rolfsii</i> and <i>Rhizoctonia solani</i>. Drought conditions will decrease the effectiveness of PROLINE 480 SC FUNGICIDE against the root and pod rots.</p>		
<p>General Comments: Apply up to four (4) applications of PROLINE 480 SC FUNGICIDE per year, including the in-furrow and banded applications. When planting varieties with good to excellent levels of resistance to foliar diseases, the application interval may be extended up to 21 days in the absence of soil borne diseases. A maximum of 22.8 fl oz. of PROLINE 480 SC FUNGICIDE may be applied per acre per year. PROLINE 480 SC FUNGICIDE may be applied up to 14 days before harvest. Do not feed hay or threshings or allow livestock to graze in treated areas.</p>		

RECOMMENDED APPLICATIONS		
CROP	DISEASE CONTROLLED	RATE OF PROLINE 480 SC FUNGICIDE
Soybean	Asian Soybean Rust (<i>Phakopsora pachyrhizi</i>)	2.5 – 3.0 fl oz. per acre
	Frog Eye Leaf Spot (<i>Cercospora sojina</i>)	
	Powdery Mildew (<i>Microsphaera diffusa</i>)	
<p>General Comments: PROLINE 480 SC FUNGICIDE may be applied by either ground, aerial or chemigation application equipment. For aerial application, apply in a minimum spray volume of 2 gpa.</p> <p>Apply PROLINE 480 SC FUNGICIDE as a broadcast, preventative foliar spray or at first visible symptoms of the disease. Repeat applications on a 10- to 21-day spray interval if environmental conditions are favorable for continued disease development. Use of the higher rate and shorter spray intervals are recommended when disease pressure is severe. Surfactants should not be tanked mixed with PROLINE 480 SC FUNGICIDE.</p> <p>General Comments: Applications may not be made within 21 days of harvest. Do not apply more than 3 applications per season. Do not apply more than 9 fl oz. of PROLINE 480 SC FUNGICIDE per acre per use season.</p>		

RECOMMENDED APPLICATIONS		
CROP	DISEASE CONTROLLED	RATE OF PROLINE 480 SC FUNGICIDE
Sugar beets	Foliar Diseases	5.0 to 5.7 fl oz. per acre
	Cercospora Leaf Spot (<i>Cercospora beticola</i>)	
	Powdery Mildew (<i>Erysiphe polygoni</i>)	
	Soil-borne diseases	5.7 fl oz. per acre
	Rhizoctonia Stem Canker, Root Rot, Crown Rot (<i>Rhizoctonia solani</i>)	
<p>Application Directions:</p> <p>PROLINE 480 SC FUNGICIDE may be applied by either ground, aerial or chemigation application equipment.</p> <p>Foliar disease control: Apply PROLINE 480 SC FUNGICIDE at the first sign of disease. Use the higher use rate and shorter intervals when conditions are favorable for severe disease pressure and/or when growing less disease resistant varieties.</p> <p>Soil-borne disease control: Apply PROLINE 480 SC FUNGICIDE in a seven-inch band at the 4-leaf to row closure growth stage.</p>		
<p>General Comments: Apply up to 3 applications of PROLINE 480 SC FUNGICIDE per year. Repeat applications as needed using a 14- to 21-day spray interval depending on disease pressure. Use a 14-day spray interval under normal to heavy disease pressure and a 21-day spray interval under light disease pressure.</p> <p>To optimize disease control, the lowest labeled rate of a spray surfactant may be tank-mixed with PROLINE 480 SC FUNGICIDE.</p> <p>A maximum of 17.1 fl oz of PROLINE 480 SC FUNGICIDE may be applied per acre per crop year. Allow a minimum of 7 days from the last application before harvesting.</p> <p>PROLINE 480 SC FUNGICIDE is a Group 3 fungicide. To limit the potential for development of disease resistance:</p> <ul style="list-style-type: none"> • Alternate every application of PROLINE 480 SC FUNGICIDE with a non-Group 3 fungicide. 		

RECOMMENDED APPLICATIONS		
CROP	DISEASE CONTROLLED	RATE OF PROLINE 480 SC FUNGICIDE
Wheat (spring, durum and winter)	Fusarium Head Blight (<i>Fusarium</i> spp.) (Suppression Only)	5.0 to 5.7 fl oz. per acre
Triticale	Leaf and Stem Diseases Powdery Mildew (<i>Blumeria graminis</i> f. sp. <i>tritici</i>) Rusts (<i>Puccinia</i> spp.) Septoria Leaf and Glume Blotch (<i>Septoria tritici</i>) Stagonospora Blotch (<i>Stagonospora nodorum</i>) Tan Spot (<i>Pyrenophora tritici-repentis</i>)	4.3 to 5.0 fl oz. per acre
Application Directions PROLINE 480 SC FUNGICIDE may be applied by either ground, aerial or chemigation application equipment. For aerial application made prior to early flower (prior to Feekes Growth Stage 10.51, apply a minimum of 2 gpa spray solution. For aerial applications made at the early flower growth stage or later, apply in a minimum of 5 gpa spray solution. Chemigation use is allowed only for applications made prior to early flower. Fusarium Head Blight (Suppression Only): The optimal time to apply PROLINE 480 SC FUNGICIDE is as a preventative foliar spray at early flower (Feekes Growth Stage 10.51). Spray equipment must be set to provide good coverage to wheat heads. For thorough coverage of the wheat head using ground application equipment, use forward and backward mounted nozzles or nozzles that have a two-directional spray. Operate nozzles within the spray pressure directions suggested by the manufacturer. Leaf and Stem Diseases: Apply PROLINE 480 SC FUNGICIDE as a preventive foliar spray when the earliest disease symptoms appear on the leaves or stems. Wheat fields should be observed closely for early disease symptoms, particularly when susceptible varieties are planted and/or under prolonged conditions favorable for disease development.		
General Comments: Apply up to two (2) applications of PROLINE 480 SC FUNGICIDE per year. Repeat applications using a 14-day spray interval if conditions remain favorable for continued or increasing disease development. For optimum disease control, the lowest labeled rate of a spray surfactant should be tank mixed with PROLINE 480 SC FUNGICIDE. A maximum of 9.37 fl oz. of PROLINE 480 SC FUNGICIDE may be applied per acre per year. Do not apply within 30 days of harvest.		

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