

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

NOV 29 2011

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

SUBJECT ProlineTM 480 SC Fungicide, EPA Reg No 264-825

Decision Number(s) 425708

Your PRIA Application Dated December 11, 2009

Use on Nursery Seed and Seedlings of Conifers and Hardwoods

Dear Mr Tolliver,

The label amendment(s) referred to above (label version dated 6/24/11), 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

- 1 Change all table headings from "Recommended Applications" to "Application Directions" and the seed section to "Application Directions for Seed Treatment" which are more enforceable wording, then delete the second "Application Directions" in each table body which are not needed Also change each table's "General Comments" headings to the following heading "Other Requirements"
- On page 15, in the "Labeling of Treated Seed", after "chemical resistant gloves" Add the following "When opening this bag or loading/pouring the treated seed, wear a long-sleeved shirt, long pants, shoes, socks, and chemical resistant gloves. After the seeds have been planted, 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 soil or other planting media, the Worker Protection Standard allows workers to enter the treated area without restriction if there will be no worker contact with the treated seeds in the soil or with the planting media."
- On page 4 under "Chemigation Application", this label allows connection to public water systems, therefore add the missing sections from PRN 87-1 for chemigation systems connected to public water systems (ie section VI -A and B, section VII sprinkler chemigation, etc

ProlineTM 480 SC Fungicide EPA Reg No 264-825 Page 2 of 2

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

Sincerely,

Cynthia Giles-Parker, Chief

CA Julis-parker

Fungicide Branch

Registration Division (7504P)

Under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, for the pesticide registered under EPA Reg No 264-825

GROUP



FUNGICIDE

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 3*H* 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 <u>MEDICAL</u> And <u>TRANSPORTATION</u> Emergencies <u>ONLY</u> Call 24 Hours A Day 1 800 334 7577

For <u>PRODUCT USE</u> Information Call 1 866 99BAYER (1 866 992 2937)

FIRST AID

IF SWALLOWED	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	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	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 eye
	Call a poison control center or doctor for treatment advice
	For MEDICAL Emergencies Call 24 Hours & Day 1 800 224 7577

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.

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/estuarines/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 desthio (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 d contains requirements for the protection of agricultural workers on farms forests nurseries and greenhouses and handle's 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 12 hours

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

Coveralls

· Chemical resistant gloves made of any waterproof material

Shoes plus socks

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 ¼ full with water and recap Shake for 10 seconds Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal Drain for 10 seconds after the flow begins to drip Repeat this procedure two more times

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 buckwheat canola corn crambe dry shelled pea and bean crop subgroup field mustard. Indian rapeseed millet oats peanuts rapeseed rice rye soybean sugar beets triticale wheat conifer and hardwood nursery seeds and seedlings and seed treatment applications on alfalfa barley dried shelled pea and bean (except for soybean) subgroup rice soybeans 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 1 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 a capplied of 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 ½ 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 ½ 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 emusifiable 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 buckwheat canola corn crambe dry shelled pea and bean crop subgroup field mustard. Indian rapeseed rice millet oats peanuts rapeseed rye soybean sugar beets triticale wheat conifer and hardwood nursery seeds and seedlings and seed treatment applications on alfalfa barley dried shelled pea and bean (except for soybean) subgroup rice soybean 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		
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	2 8 to 4 3 fl oz per acre
	Net Blotch (Pyrenophora teres)	
	Powdery Mildew (Blumeria graminis f sp hordei)	
	Rusts (<i>Puccinia</i> spp)	
	Scald (Rhynchosporium secalis)	
	Spot Blotch (Cochliobolus sativus)	
	Application Directions	
	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.	
	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.	
	Leaf and Stem Diseases Apply PROLINE 480 SC FUNGICID disease symptoms appear on the leaves or stems Barley fie symptoms particularly when susceptible varieties are planted disease development	elds should be observed closely for early disease

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 32 days of harvest

RECOMMENDED	APPLICATIONS	
CROP	DISEASE CONTROLLED	RATE OF PROLINE 480 SC FUNGICIDE
Canola	Sclerotinia Stem Rot (Sclerotinia sclerotiorum)	4 3 to 5 7 fl oz per acre
	Application Directions PROLINE 480 SC FUNGICIDE may be applied by either a Apply PROLINE 480 SC FUNGICIDE when the canola approximately 4 8 days after the canola crop begins to	crop is in the 20 50% bloom stage. This will be
	fungicide is applied prior to petals beginning to fall and protected. The 4.3 fl oz per acre rate is the recommende is recommended for fields with a history of heavy disease coverage of the plants is essential.	d will allow for the maximum number of petals to be drate for most canola crops however the higher rate

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 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

CROP	DISEASES CONTROLLED	RATE OF PROLLINE 480 SC FUNGICIDE
Buckwheat Millet pearl Millet proso Oats Rye	Rusts (<i>Puccinia</i> spp) Glume Blotch (<i>Stagonospora nodorum</i>) Head Blight or Scab (<i>Fusarium graminearum</i>) – Suppression Powdery Mildew (<i>Erysiphe graminis</i>) Rusts (<i>Puccinia</i> spp) Scald (<i>Rynchosporium secalis</i>) Speckled Blotch (<i>Septoria avenae Septoria tritici</i>) Spot Blotch (<i>Bipolaris sorokiniana</i>) Tan Spot or Yellow leaf Spot (<i>Pyrenophora tritici repentis</i>)	5 to 5 7 fl oz per acre
	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.	

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

CROP	DISEASE CONTROLLED	RATE OF PROLINE 480 SC FUNGICIDE
CORN (Field Corn Field Corn Grown for Seed Sweet Corn and Popcorn)	Anthracnose Leaf Blight (Colletotrichum graminicola) Eye Spot (Aureobasidium zeae) Gray Leaf Spot (Cercospora zeae maydis) Northern Corn Leaf Blight (Setosphaeria turcica) Northern Corn Leaf Spot (Cochliobolus carbonum)* Southern Corn Leaf Blight (Cochliobolus heterostrophus) Rusts (Puccinia spp)	5 7 fl oz per acre
	*The above diseases are also known as Helminthosporium leaf blights	

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.

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.

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

CROP	DISEASE CONTROLLED	RATE OF PROLINE 480 SC FUNGICIDE	
Chickpea	Ascochyta Blight (Ascochyta spp)	5 0 to 5 7 fl oz per acre	
	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.		

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.

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

RECOMMENDED APPLICATIONS		
СКОР	DISEASE CONTROLLED	RATE OF PROLINE 480 SC FUNGICIDE
Dried Shelled Peas and Beans Subgroup (except soybeans)	Ascochyta Blight (<i>Ascochyta pinodes</i>) Rust (<i>Uromyces appendiculatus</i>) White Mold (<i>Sclerotinia sclerotiorum</i>)	5 7 fl oz per acre
Lupinus spp (Grain Sweet White and White Sweet lupins) Phaseolus spp (Field Kidney Dry lima Navy Pinto and Tepary beans)	Application Directions PROLINE 480 SC FUNGICIDE may be application application equipment. For ground of 20 gpa.	
Vigna spp (Adzuki bean Blackeyed pea Catjang Cowpea Crowder pea Moth bean Mung bean Rice bean Southern pea and Urd bean)	For rust control apply PROLINE 480 SC FUNG For white mold control apply PROLINE 480 SC F	
Dry broad bean Guar		
Lablab bean Pisum spp [Pea (including Field pea) and Pigeon pea]		

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.

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

CROP	DISEASE CONTROLLED	RATE OF PROLINE 480 SC FUNGICIDE	
Lentils	Ascochyta Blight (Ascochyta spp)	4 3 to 5 7 fl oz per acre	
	Application Directions		
	PROLINE 480 SC FUNGICIDE may be applied by either ground aerial or chemigation application equipment		
	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.		

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.

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

CROP	DISEASE CONTROLLED	RATE OF PROLINE 480 SC FUNGICIDE
	Sclerotinia Stem Rot (Sclerotinia sclerotiorum)	4 3 to 5 7 fl oz per acre
Rapeseed	Application Directions	
Indian rapeseed	PROLINE 480 SC FUNGICIDE may be applied by either ground aerial or chemigation application equipment	
Field mustard	Apply PROLINE 480 SC FUNGICIDE when the crop is in the 20 50% bloom stage. Utilize the higher rate for	
Crambe	fields with a history of heavy disease pressure or for dense crop stands Good spray coverage of the plants 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 until the 50% bloom stage
Do not apply within 36 days of harvest
PROLINE 480 SC FUNGICIDE may be applied until the 50% bloom stage
Do not apply within 36 days of harvest

RECOMMENDED A	PPLICATIONS	
CROP	DISEASE CONTROLLED	RATE OF PROLINE 480 SC FUNGICIDE
Peanut	In furrow and Banded	0 4 fl oz per 1000 row feet
	Cylindrocladium Black Rot (<i>Cylindrocladium crotalariae</i>) (Suppression Only)	(5 7 fl oz per acre)
	Soil Borne	5 7 fl oz per acre
	Sclerotium Rot (<i>Sclerotium rolfsii</i>) (White Mold Southern Blight Southern Stem Rot)	
	Rhizoctonia Limb Rot Peg Rot Pod Rot (Rhizoctonia solani)	
	Cylindrolcadium Black Rot (Cylindrocladium crotalariae) (Suppression Only)	
	Foliar	50 to 57 floz per acre
	Early Leaf Spot (Cercospora arachidicola)	
	Late Leaf Spot (Cercosporidium personatum)	
	Leaf Rust (Puccinia arachidis)	
	Web Blotch (Phoma arachidicola)	
	Leaf Scorch and Pepper Spot (Leptosphaerulina crassiasca)	
	Application Directions	
	PROLINE 480 SC FUNGICIDE may be applied by either ground or aerial application equipment	
	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 row 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	
	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.	
	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 fungicides with a cultural practices that are known to reduce the severity of soil borne diseases such as proper crop rotation practices.	
	For control of soil borne diseases when using a Leaf Spot Adv FUNGICIDE in the first advisory spray in July and continue P day intervals	
	PROLINE 480 SC FUNGICIDE must be carried by rainfall or root and pod rots caused by <i>Sclerotium rolfsii</i> and <i>Rhizocto</i> effectiveness of PROLINE 480 SC FUNGICIDE against the ro	onia solani Drought conditions will decrease the

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.

RECOMMEN	DED APPLICATIONS		
CROP	DISEASE CONTROLLED	RATE OF PROLINE® 480 SC	
Rice	Sheath/Stem Diseases	4 5 fl oz per acre	
	Sheath Blight (Rhizoctonia solani)		
	Foliar Diseases		
	Brown Spot (Cochliobolus miyabeanus)		
	Narrow Brown Leafspot (Cercospora oryzae)		
	Leaf Smut (Entyloma oryzae)		
	False smut (Ustilaginoidea virens)		
	Application Directions		
	Apply PROLINE® 480 SC Fungicide at initial sign of disease. Exact timing for rice disease control is dependent on rice growth stage rice variety, the type of disease to be controlled and disease severity. Applications typically will occur from panicle differentiation to late boot. Consult with your local extension personnel or Bayer. Crop Science representative to determine if treatment is needed.		

General Comments Apply only one application of PROLINE® 480 SC Fungicide per year Application may be made by ground or aerial spray equipment

A maximum of 4 5 fl oz of PROLINE® 480 SC Fungicide may be applied per acre per crop year

Do not apply PROLINE® 480 SC Fungicide later than 70% panicle emergence from the boot Do not apply within 40 days of harvest Not for use in California

CROP	DISEASE CONTROLLED	RATE OF PROLINE 480 SC FUNGICIDE
Soybean	Asıan Soybean Rust (Phakopsora pachyrhızı)	25-30 fl oz per acre
	Frog Eye Leaf Spot (Cercospora sojina)	
	Powdery Mildew (<i>Microsphaera diffusa</i>)	
	Sclerotinia Stem Rot also known as White Mold (Sclerotinia sclerotiorum) (Suppression Only) (Only in the states of Illinois Indiana Iowa Michigan Minnesota Nebraska North Dakota Ohio South Dakota and Wisconsin)	30 – 43 fl oz per acre
	Application Directions 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. 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.	
	Sclerotinia Stem Rot (Suppression Only) (Only in the states of Illinois Indiana Iowa Michigan Minnesota Nebraska North Dakota Ohio South Dakota and Wisconsin) Apply PROLINE 480 SC FUNGICIDE as a broadcast foliar spray at R1 (beginning bloom) when conditions are favorable for disease development. A sequential treatment of PROLINE 480 SC FUNGICIDE may be made at R3 (beginning pod) PROLINE 480 SC FUNGICIDE may be applied by ground or air. Apply in a minimum of 10 gallons of spray solution per acre by ground sprayer or in a minimum of 5 gallons of spray solution per acre by aircraft spray equipment.	

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 (Cercospora beticola)		
	Powdery Mildew (Erysiphe polygoni)		
	Soil borne diseases	5 7 fl oz per acre	
	Rhizoctonia Stem Canker Root Rot Crown Rot (Rhizoctonia solani)		
	Application Directions		
	PROLINE 480 SC FUNGICIDE may be applied by either ground aerial or chemigation application equipment		
	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.		
	Soil borne disease control Apply PROLINE 480 SC FUNGICIDE in a seven inch band at the 4 leaf to row closure growth stage		

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.

To optimize disease control the lowest labeled rate of a spray surfactant may be tank mixed with PROLINE 480 SC FUNGICIDE

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

PROLINE 480 SC FUNGICIDE is a Group 3 fungicide. To limit the potential, for development of disease resistance

Alternate every application of PROLINE 480 SC FUNGICIDE with a non Group 3 fungicide

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	4 3 to 5 0 fl oz per acre	
	Powdery Mildew (Blumeria graminis f sp tritici)		
	Rusts (Puccinia spp)		
	Septoria Leaf and Glume Blotch (Septoria tritici)		
	Stagonospora Blotch (Stagonospora nodorum)		
	Tan Spot (Pyrenophora tritici repentis)		
	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 earlies 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

CROP	DISEASE CONTROLLED	RATE OF PROLINE 480 SC FUNGICIDE
Alfalfa	Seed rot and damping off caused by Rhizoctonia	0 48 fl oz per 100 lbs seed
Beans and Peas	Seed rot and damping off caused by Rhizoctonia	(15 g aı per 100 kg seed)
(dried) including	Fusarium and Pythium	APPLICATION RATE PER 100 LBS
Soybean	Seed decay	0 016 0 32 fl oz per 100 lbs seed
(Crop Group 6 C)	,	(5 10 g ai per 100 kg seed)
Soybean Adzukı Bean Blackeyed Pea Broad Bean Catjang		APPLICATION RATE PER SEED (based on 300 seed per lbs soybean only)
Chickpea Cowpea Crowder Pea Field Bean Field Pea Guar Kidney Bean Lablab Bean Lentil Lima Bean Moth Bean Mung Bean Navy Bean Pigeon Pea Pinto Bean Rice Bean Southern Pea Tepary Bean Urd Bean		0 0075 0 015 mg aı per seed
Cereal grains	Common bunt	0 016 0 32 fl oz per 100 lbs seed
Barley	Covered smut	(5 10 g ai per 100 kg seed)
Triticale	False loose smut	(5 To g all per 100 kg seed)
Wheat	 Flag smut	
Rice (see rice	Leaf stripe	
section in this table)	Loose smut	
(able)	Stinking smut	
	Stem smut	
	True loose smut	
	Seed rot pre emergence damping off and seedling blight caused by soilborne Rhizoctonia solani Fusarium Cochliobolus	
	Seed decay	
	Common root rot foot rot and crown rot (early season suppression)	
	Rust Septoria and powdery mildew (early season suppression)	
Rice	Seed rot and damping off caused by Rhizoctonia and Fusarium	0 016 0 32 fl oz per 100 lbs seed
	Seed decay	(5 10 g ai per 100 kg seed)

Application Directions for Seed Treatments

Not for direct application to seeds in a hopper box planter box or slurry box. Apply using standard slurry or mist type seed treatment equipment. Uniform application of seed is necessary to ensure seed safety and best disease protection. Product should be diluted with sufficient water to ensure complete seed coverage. Consult a seed treatment specialist regarding slurry rates recommended for the crop to be treated with Proline 480 SC Fungicide. For best results apply to high quality properly cleaned seed.

Rice

Do not plant treated rice seed directly into a flooded field. Do not soak treated rice seed

This product does not contain colorant. The purchaser of this product is responsible for ensuring that all seed treated with this product are adequately dyed with a suitable color to prevent its accidental use as food for man or feed for animals. Refer to 21CFR part 2.25. Any colorant added to treated seed must be cleared for use under 40CFR. Part 153.155.

Labeling of Treated Seed

Federal law requires that bags containing treated seeds shall be labeled with the following information

This seed has been treated with Prothioconazole Do not use for feed food or oil purposes. Store away from feeds and foodstuffs When opening this bag or loading/pouring the treated seed, wear long sleeved shirt, long pants, shoes, socks and chemical resistant gloves.

CROP	DISEASE CONTROLLED	RATE OF PROLINE 480 SC FUNGICIDE
Nursery seedlings of Shortleaf Loblolly Slash Longleaf and other pines and other Conifers and Hardwoods	Fusiform rust	5 0 fl oz per acre
	(Cronartium quercum f sp fusiforme)	
	Pitch canker	
	(Fusarium spp)	
	Rhizoctonia foliar blight	
	(Rhizoctonia spp)	
Nursery seeds of Shortleaf Loblolly Slash Longleaf and other pines and other Conifers and Hardwoods	Fusiform rust	10 fl oz per 50 lbs seed
	(Cronartium quercum f sp fusiforme)	
	Pitch canker	
	(Fusarıum spp)	

Not intended for use in forest planting or established woodlands

The crop safety and mix compatibility on all tree species and in tank mixes with other products (spray surfactants fertilizers insecticides etc.) has not been confirmed. Bayer CropScience recommends small scale testing with your planned use pattern. The user assumes all risks with the use of this product on trees.

Tree Seedling Application Directions Foliar disease control Apply PROLINE 480 SC FUNGICIDE preventatively or at the first sign of disease using ground equipment only Repeat applications as needed using a 14 to 21 day spray interval depending on your region Consult your local extension agent on locally recommended spray intervals. Use shorter intervals when conditions are favorable for severe disease pressure and/or when growing less disease resistant varieties. To optimize disease control, the lowest labeled rate of a spray surfactant may be tank mixed with PROLINE 480 SC FUNGICIDE. A maximum off 25 fl oz of PROLINE 480 SC FUNGICIDE may be applied per acre per crop year.

Tree Seed Treatment Directions Apply specified dosage to seed in a commercial treater or other suitable tumbler apparatus. Allow to mix for at least 10 minutes. Thoroughly air dry before sowing. Do not use treated seed for food or feed purposes. Seed that has been treated with this product that is then packaged or bagged for future use must contain the following labeling on the outside of the seed package or bag. Treated Seed — Do not Use for Food. Feed. or Oil Purposes. When opening this bag or loading/pouring the treated seed wear a long sleeved shirt. Iong pants, shoes, socks, and chemical resistant gloves. After the seeds have been planted, 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 soil or other planting media, the Worker Protection Standard allows workers to enter the treated area without restriction if there will be no worker contact with the treated seeds in the soil or planting media.

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IMPORTANT READ BEFORE USE

Read the entire Directions for Use Conditions Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable return the unopened product container at once

By using this product user or buyer accepts the following Conditions Disclaimer of Warranties and Limitations of Liability

CONDITIONS The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

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