UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 2 4 2006

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Usage Report Package in Support of Registration/Reregistration for the Fungicide Prothioconazole, (PC Code 113961), [BEAN DP # 326851]

FROM: Jihad Alsadek, Ph.D. Jihad A. Alsadek
Science Information & Analysis Branch
Biological and Economic Analysis Division (7503C)

THRU: Steve Jarboe, Team Leader Jihad A. Alsadek for
Science Information & Analysis Branch
Biological and Economic Analysis Division (7503C)

TO: Lana Coppolino
Fungicide Branch
Registration Division (7505C)

Reviewer: Alan Halvorson

Attached is a usage report for the chemical prothioconazole. The report projects percent crop treated for new uses for prothioconazole and compares them with what the registrant has provided. The report included in this package is electronically transmitted to Reviewers or Team Members in the Office of Pesticide Programs (OPP) in support of the Reregistration and/or Registration process and designed to help in the scientific assessments of this chemical. This report is written in various formats (Corel, Lotus 1-2-3, MS Word, Excel, Adobe Acrobat), so it is advised to open or save each report to view or print from the appropriate program.

For questions, comments and other usage or label use information requests, please contact the name(s) listed on the memorandum header, the **OPP Usage and Label Use Team** (our group e-mail address in Lotus Notes), or: Jihad Alsadek (308-8140), Jenna Carter (308-8370), Steve Jarboe (308-8105), Sharlita Harris (308-8147), or Rafael Prieto (308-8152). You can also complete the feedback form at your convenience. The Usage and Label Use Team (ULUT) looks forward to hearing from you.

Note: If the BEAD usage report (SLUA or otherwise) is more than two (2) years old, please check with the **OPP Usage and Label Use Team** (also our e-mail address) to determine if there is more recent usage data available.

The **Usage** report(s) electronically-transmitted through Lotus Notes links include:

Projected Percent Crop Treated (PPCT)

Attachment(s):

F:\USER\jalsadek\
ProthioconazolePPCT.

cc: Tony Kish
Barry OKeefe

*** For EPA/OPP Internal Use Only***

The analysis, in the table, shows how we project prothioconazole use on new crops. First we check market leaders, in the same pesticide type of the chemical in question, for each new crop in the public database USDA/NASS, averaging over three years if available, two in case data are available for only two years, and one year if data are only available for one year. The highest of the three/two years will be used for the maximum. In the case of only one observation available, we use this number for both average and maximum. If data are not available through NASS we look into another database (Doane), and use the same methodology for identifying the average and the maximum for each crop. For canola, Doane showed no usage of any fungicide for the period 1995-2004, and USDA did not survey canola.

Projecting Percent Crop Treated (PCT) for Prothioconazole on an Assortment of Crops

Crop	Source	Leading Chemical	Year of Data	BEAD Avg. PCT	BEAD Max. PCT	Bayer Projection
Barley	USDA	Propiconazole	2003	3	3	4
Canola	Doane	No Fungicides Used	1995-2004	-	-	8
Peanuts	USDA	Chlorothalonil	1999, 2004	72	77	24
Dry Beans/Peas	Doane	Thiophanate-Methyl	2002, 2003, 2004	7	9	3
Rice	USDA	Azoxystrobin	2000	17	17	4
Soybeans	USDA	Azoxystrobin	2002,2004	0.5	1.0	3
Sugar Beets	Doane	Tetraconazole	2002, 2003, 2004	50	52	18
Spring Wheat	USDA	Tebuconazole	2000, 2002, 2004	8	12	5
Winter Wheat	USDA	Propiconazole, Pyraclostrobin, Tebuconazole	2000, 2002, 2004	0.5	1.0	1

Prepared by: Jihad Alsadek, 703-308-8140
February 23, 2006

Customer's Name: Lana Coppolino
Chemical Name: Prothioconazole
PC Code: 113961
Delivered Product: Projected Percent Crop Treated (PPCT)

We appreciate your feedback. This helps us provide you with a better service. Feedback, in a paragraph, is acceptable too.

1. Did you receive the reports in a timely manner?
   Yes No

2. Were the data reports helpful in your preliminary review of this chemical (and its associated registrations)?
   Yes No

   If your answer is No, how could the reports be improved to better help you in your review of this chemical?
   Please type your answer here:

3. Were the reports understandable?
   Yes No

   If No, please explain.
   Please type your answer here:

4. How do you use the Usage Data Reports and the Label Use (LUIS) Reports?
   Please type your answer here:

5. Do you have any additional comments or questions?
   Please type your answer here:

6. What is your Division/Branch?
   Please type your answer here:

Please respond to:

OPP Usage and Label Use Team

Decision #: 341716

DATA PACKAGE BEAN SHEET

DP #: (326851)

Date: 06-Mar-2006

* * * Registration Information * * *

Registration: 264-IEU - PROTHIOCONAZOLE TECHNICAL FUNGICIDE

Company: 264 - BAYER CROPSCIENCE LP

Risk Manager: RM 22 - Tony Kish - (703) 308-9443 Room# CM-2 249

Risk Manager Reviewer: Lana Coppolino LCOPPOLI

Sent Date: Calculated Due Date: 20-Jun-2007 Edited Due Date:

Type of Registration: Product Registration - Section 3

Action Desc: (R01) NEW AI;FOOD USE;Reduced Fee: Linked to PRIA Application;

Ingredients: 113961, Prothioconazole(97.7%)

* * * Data Package Information * * *

Expedite: Yes ● No Date Sent: 14-Feb-2006 Due Back:

DP Ingredient: 113961, Prothioconazole

DP Title: PCT for prothioconazole

CSF Included: Yes ● No Label Included: ● Yes No Parent DP #:

Assigned To	Date In	Date Out	
Organization: BEAD / SIAB	14-Feb-2006	24-Feb-2006	Last Possible Science Due Date: 22-Dec-2006
Team Name:			Science Due Date:
Reviewer Name: Alsadek, Jihad	14-Feb-2006	24-Feb-2006	Sub Data Package Due Date:
Contractor Name:			

* * * Studies Sent for Review * * *

No Studies

* * * Additional Data Package for this Decision * * *

Printed on Page 2

* * * Data Package Instructions * * *

Please estimate projected total percentage of crop that is treated with prothioconazole, specifically the number of acres that are treated at least once with this chemical.

In the final report please explain how these estimates are made. Please note that HED needs this report as soon as possible. Please advise as to a timeframe for completion of this request.

Section F of the petition with the listed commodities is attached as well as the registrants estimates. Please let me know if you need more information. Call Lana with any questions, 305-0086.

Decision #: 341716

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Date: 14-Feb-2006

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Assigned To	Date In	Date Out	
Organization: BEAD / SIAB			Last Possible Science Due Date: ~~22-Dec-2006~~
Team Name:			Science Due Date:
Reviewer Name: Jihad Alsadek	2/16/06	2/24/06	Sub Data Package Due Date:
Contractor Name:			

* * * Studies Sent for Review * * *

No Studies

* * * Additional Data Package for this Decision * * *

Printed on Page 2

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DP#: (326851) *** * * Additional Data Package for this Decision * * *** *Decision#: (341716)*

DP #	Division/Branch	Date Sent	Date Due	Instructions?	CSF	label
303308	RD / TRB	27-May-2004	27-May-2005	○ Yes ○ No	● Yes ○ No	● Yes ○ No
303308	RD / FB	27-May-2004	27-May-2005	○ Yes ○ No	● Yes ○ No	● Yes ○ No
303437	RD / TRB	01-Jun-2004	01-Jun-2005	○ Yes ○ No	○ Yes ● No	○ Yes ● No
303437	RD / FB	01-Jun-2004	01-Jun-2005	○ Yes ○ No	○ Yes ● No	○ Yes ● No
303488	EFED / ERB4	01-Jun-2004	22-Dec-2006	○ Yes ○ No	○ Yes ● No	● Yes ○ No
303488	RD / FB	01-Jun-2004	22-Dec-2006	○ Yes ○ No	○ Yes ● No	● Yes ○ No
303508	HED / RAB3	01-Jun-2004	22-Dec-2006	○ Yes ○ No	○ Yes ● No	● Yes ○ No
303508	RD / FB	01-Jun-2004	22-Dec-2006	○ Yes ○ No	○ Yes ● No	● Yes ○ No
303571	RD / TRB	02-Jun-2004	02-Jun-2005	○ Yes ○ No	○ Yes ● No	○ Yes ● No
303571	RD / FB	02-Jun-2004	02-Jun-2005	○ Yes ○ No	○ Yes ● No	○ Yes ● No
303578	HED / RAB3	02-Jun-2004	22-Dec-2006	○ Yes ○ No	● Yes ○ No	● Yes ○ No
303578	RD / FB	02-Jun-2004	22-Dec-2006	○ Yes ○ No	● Yes ○ No	● Yes ○ No
303579	HED / RAB3	02-Jun-2004	22-Dec-2006	○ Yes ○ No	● Yes ○ No	● Yes ○ No
303579	RD / FB	02-Jun-2004	22-Dec-2006	○ Yes ○ No	● Yes ○ No	● Yes ○ No
306938	BEAD / IO	19-Aug-2004	22-Dec-2006	○ Yes ○ No	○ Yes ● No	○ Yes ● No
306938	RD / FB	19-Aug-2004	22-Dec-2006	○ Yes ○ No	○ Yes ● No	○ Yes ● No
309007	HED / RAB3	07-Oct-2004	22-Dec-2006	○ Yes ○ No	○ Yes ● No	○ Yes ● No
309007	HED / RAB3	07-Oct-2004	22-Dec-2006	○ Yes ○ No	○ Yes ● No	○ Yes ● No
309008	HED / RAB3	07-Oct-2004	21-Nov-2007	○ Yes ○ No	○ Yes ● No	○ Yes ● No
309008	HED / RAB3	07-Oct-2004	21-Nov-2007	○ Yes ○ No	○ Yes ● No	○ Yes ● No
310780	EFED / ERB4	22-Nov-2004	22-Dec-2006	○ Yes ○ No	○ Yes ● No	○ Yes ● No
310780	RD / FB	22-Nov-2004	22-Dec-2006	○ Yes ○ No	○ Yes ● No	○ Yes ● No
312027	HED / RAB3	07-Jan-2005	22-Dec-2006	○ Yes ○ No	○ Yes ● No	○ Yes ● No
312027	HED / RAB3	07-Jan-2005	22-Dec-2006	○ Yes ○ No	○ Yes ● No	○ Yes ● No
312633	EFED / ERB4	01-Feb-2005	08-Feb-2005	○ Yes ○ No	○ Yes ● No	○ Yes ● No
312633	RD / FB	01-Feb-2005	08-Feb-2005	○ Yes ○ No	○ Yes ● No	○ Yes ● No
315315	RD / TRB	23-Mar-2005	06-May-2005	○ Yes ○ No	○ Yes ● No	○ Yes ● No
315315	RD / FB	23-Mar-2005	06-May-2005	○ Yes ○ No	○ Yes ● No	○ Yes ● No
318440	HED / RAB3	22-Jun-2005	22-Dec-2006	○ Yes ○ No	○ Yes ● No	○ Yes ● No
318440	HED / RAB3	22-Jun-2005	22-Dec-2006	○ Yes ○ No	○ Yes ● No	○ Yes ● No
319586	EFED / ERB4	25-Jul-2005	22-Dec-2006	○ Yes ○ No	○ Yes ● No	○ Yes ● No
319586	BEAD / ECL	25-Jul-2005	22-Dec-2006	○ Yes ○ No	○ Yes ● No	○ Yes ● No
324659	EFED / ERB4	19-Dec-2005	22-Dec-2006	○ Yes ○ No	○ Yes ● No	○ Yes ● No
324659	RD / FB	19-Dec-2005	22-Dec-2006	○ Yes ○ No	○ Yes ● No	○ Yes ● No
324660	EFED / ERB4	19-Dec-2005	22-Dec-2006	○ Yes ○ No	○ Yes ● No	○ Yes ● No
324660	RD / FB	19-Dec-2005	22-Dec-2006	○ Yes ○ No	○ Yes ● No	○ Yes ● No
324696	RD / TRB	21-Dec-2005	22-Dec-2006	○ Yes ○ No	○ Yes ● No	○ Yes ● No
324696	RD / FB	21-Dec-2005	22-Dec-2006	○ Yes ○ No	○ Yes ● No	○ Yes ● No
326305	EFED / ERB4	02-Feb-2006	28-Apr-2006	○ Yes ○ No	○ Yes ● No	○ Yes ● No
326305	RD / FB	02-Feb-2006	28-Apr-2006	○ Yes ○ No	○ Yes ● No	○ Yes ● No

SECTION F

Proposed Tolerances for Prothioconazole

Tolerances are proposed for residues of the fungicide prothioconazole, 2-[2-(1-Chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-1,2-dihydro-3*H*-1,2,4-triazole-3-thione and its desthio metabolite, in or on the following commodities:

COMMODITY	PROPOSED TOLERANCE (PPM)
Barley, grain	0.2
Barley, hay	7.0
Barley, straw	2.0
Barley, pearled barley	0.2
Barley, bran	0.4
Black mustard, seed	0.1
Borage, seed	0.1
Canola, seed	0.1
Crambe, seed	0.1
Field mustard, seed	0.1
Flax, seed	0.1
Grain, aspirated fractions	13.0
Indian mustard, seed	0.1
Indian rapeseed	0.1
Pea and bean, dried shelled, except soybean, subgroup	0.8
Peanut, nutmeat	0.02
Peanut, hay	5.0
Peanut, meal	0.3
Rapeseed, seed	0.1
Rice, grain	0.25
Rice, straw	1.5
Rice, hulls	1.0
Wheat, grain	0.06
Wheat, forage	7.0
Wheat, hay	4.0
Wheat, straw	2.3

COMMODITY	PROPOSED TOLERANCE (PPM)
Wheat, bran	1.5
Wheat, germ	0.15

Tolerances are proposed for residues of the fungicide prothioconazole, 2-[2-(1-Chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-1,2-dihydro-3*H*-1,2,4-triazole-3-thione, its desthio and 4-hydroxy metabolites, and conjugates that can be converted to these three compounds by acid hydrolysis in or on the following commodities:

COMMODITY	PROPOSED TOLERANCE (PPM)
Milk	0.006
Cattle, fat	0.1
Cattle, meat	0.01
Cattle, meat byproducts	1.2

March 28, 2005

Prothioconazole Anticipated Percent Crop Treated

Crop	Planted Acres	Maximum Anticipated Prothioconazole Treated Acres	% Crop Treated	Products Displaced and % of That Products Acres
Barley	6,000,000	213,000	4	Tebuconazole, 90%
Canola	900,000	70,000	8	Vinclozolin, 30% Boscalid, 30%
Peanuts	1,400,000	325,000	24	Tebuconazole, 50%
Pulse Crops	2,000,000	50,000	3	Chlorothalonil, 20% Azoxystrobin, 10% Pyraclostrobin, 10%
Rice	3,000,000	100,000	4	Stratego (trifloxystrobin + propiconazole), 25% Azoxystrobin, 5%
Soybeans	75,000,000	2,000,000	3	Tebuconazole, 15% Tetraconazole, 15%
Sugar Beets	1,400,000	250,000	18	Tetraconazole, 33%
Wheat, Spring	18,000,000	900,000	5	Tebuconazole, 60%
Wheat, Winter	40,000,000	75,000	1	Tebuconazole, 60%

Prothioconazole Technical Fungicide

For use in the manufacture of fungicides

ACTIVE INGREDIENT: Prothioconazole, 2-(2-(1-chlorocyclopropyl)-3-(2-Chlorophenyl)-2-hydroxypropyl)-2,4-dihydro-3H-1,2,4-triazole-3-thione	97.7%
INERT INGREDIENTS:	2.3%
TOTAL:	100%

EPA Reg. No. 264-XXX **EPA Est. No.**

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 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 SWALLOWED:	• *Immediately call a poison control center or doctor for treatment advice.* • Do not induce vomiting unless told to do so by a poison control center or doctor. • Have person sip a glass of water if able to swallow. • 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 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 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 is available. Treat symptomatically.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Harmful if absorbed through the skin, swallowed, or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes, and clothing, and avoid breathing dust. Wash thoroughly with soap and water after handling, and before eating, drinking, chewing gum, or using tobacco. Remove contaminated clothing and wash before reuse.

ENVIRONMENTAL HAZARDS

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to the discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

STORAGE & 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 the container is leaking or material spilled for any reason or cause, carefully sweep material into a pile. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Dispose of pesticide as directed 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: Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by state and local authorities. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner.

DIRECTIONS FOR USE

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

Detailed information on chemical and physical properties and other formulating recommendations for Prothioconazole are available upon request from Bayer CropScience. Obtain and read this information before undertaking the formulation of Prothioconazole in order to avoid formulation hazards and insure a satisfactory finished product.

Labeling for products formulated from this product must conform to that which is currently registered with the U.S. Environmental Protection Agency. For specific information on federally registered uses, contact Bayer CropScience. Any variance from the federally registered labeling for products containing Prothioconazole will have to be supported by data provided by the formulator.

Prothioconazole Technical Fungicide is intended for formulation into end-use products for:

1) **Terrestrial Food Crops:** Barley, Canola, Dried shelled pea and bean (except soybean) subgroup, Oilseed crop group (except sunflower and safflower), Peanuts, Rice, and Wheat.
2) Uses for which USEPA has accepted the required data and/or citations of data that the formulator has submitted in support of registration.
3) Uses for experimental purposes that are in compliance with USEPA requirements

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 should 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. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: BAYER CROPSCIENCE MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. BAYER CROPSCIENCE DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE'S ELECTION, THE REPLACEMENT OF PRODUCT.

NET WEIGHT:

Bayer CropScience

Bayer CropScience LP
P.O. Box 12014, 2 T.W. Alexander Drive
Research Triangle Park, North Carolina 27709
1-866-99BAYER (1-866-992-2937)

GROUP 3 FUNGICIDE

PROLINE® 480 SC Fungicide

For control of specified diseases on various 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-XXX **EPA Est.**

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KEEP OUT OF REACH OF CHILDREN
CAUTION

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

FIRST AID

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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 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

HAZARDS 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.

ENVIRONMENTAL HAZARDS

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.

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. 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 24 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 may be disposed on on site or at an approved waste disposal facility.

Container Disposal: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or 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 is a broad-spectrum systemic fungicide for the control of Ascomycetes, Basidiomycetes and Deuteromycetes diseases in a variety of crops including barley, canola, dry bean crop group (chickpeas, lentils, etc.), oilseed crop group, peanuts, rice

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.

Resistance Management Statement

PROLINE® 480 SC 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 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 may be applied by either ground or aerial application equipment. 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. 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 Alone: Add ½ of the required amount of water to the mix tank. With the agitator running, add the PROLINE® 480 SC 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 + 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.

* **Note:** When using PROLINE® 480 SC 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. Allow the water-soluble packaging to completely disperse before adding any other tank-mix partner to the tank.

If using PROLINE® 480 SC 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 should 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 referenced on this label are permitted only in those states in which the referenced products are registered.

PROLINE® 480 SC is compatible with most insecticide, fungicide, herbicide and foliar nutrient products. However, the physical compatibility of PROLINE® 480 SC with tank-mix partners should be tested before use. To determine the physical compatibility of PROLINE® 480 SC 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 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: Do not apply this product through any type of irrigation system.

Adjuvants: PROLINE® 480 SC 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 provides control or suppression of many important diseases of barley, canola, the dry bean crop group (including chickpeas, lentils, etc.), the oilseed crop group, peanuts, rice 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
Barley	Fusarium Head Blight (*Fusarium* spp.) (Suppression Only)	4.3 to 5.7 fl oz per acre
	Leaf and Stem Diseases Net Blotch (*Pyrenophora teres*) Scald (*Rhynchosporium secalis*) Spot Blotch (*Cochliobolus sativus*)	2.8 to 4.3 fl oz per acre
	Application Directions **Fusarium Head Blight (Suppression Only):** Apply PROLINE® 480 SC as a preventative foliar spray within the time period when 70 to 100% of the barley heads on the main stem are fully emerged (~ Feekes Growth Stages 10.3 to 10.5) when weather conditions are favorable for disease development and up to 3 to 5 days after full head emergence). Spray equipment must be set up to provide good coverage to barley heads. To achieve thorough barley head coverage using ground application equipment, it is recommended to use forward and backward mounted nozzles or nozzles that have a two-directional spray, such as Twinjet nozzles. Nozzles should be operated within the spray pressure recommendations suggested by the manufacturer **Leaf and Stem Diseases:** Apply PROLINE® 480 SC 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	

General Comments: Apply up to two (2) applications of PROLINE® 480SC per year. Repeat applications as needed using a 7 to 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. Applications may be made by ground or aerial spray equipment.

A maximum of 9.37 fl oz. of PROLINE® 480 SC may be applied per acre per crop year. PROLINE® 480 SC may be applied up to the point where barley heads are in the full flower growth stage (Feekes 10.52). Do not apply within 32 days of harvest.

RECOMMENDED APPLICATIONS

CROP	DISEASE CONTROLLED	RATE OF PROLINE® 480 SC
Canola	Sclerotinia Stem Rot (*Sclerotinia sclerotiorum*)	4.3 to 5.7 fl oz. per acre

Application Directions

Apply PROLINE® 480 SC 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

General Comments: Apply up to two (2) applications of PROLINE® 480 SC per year. Repeat applications as needed using a 5 to 7 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. Applications may be made by ground or aerial spray equipment.

A maximum of 11.4 fl oz. of PROLINE® 480 SC may be applied per crop year. PROLINE® 480 SC 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.

RECOMMENDED APPLICATIONS

CROP	DISEASE CONTROLLED	RATE OF PROLINE® 480 SC
Chickpea	Ascochyta Blight (*Ascochyta* spp.)	4.3 to 5.7 fl oz. per acre

Application Directions

Apply PROLINE® 480 SC 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 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. Applications may be made by ground or *aerial spray equipment.*

A maximum of 17.1 fl oz. of PROLINE® 480 SC may be applied per acre per crop year. Allow a minimum of 7 days from the last application until cutting or swathing the crop for harvest.

RECOMMENDED APPLICATIONS

CROP	DISEASE CONTROLLED	RATE OF PROLINE® 480 SC
Dried Shelled Peas and Beans Subgroup	White Mold (*Sclerotinia sclerotiorum*)	4.3 to 5.7 fl oz. per acre
Lupinus spp. (Grain, Sweet, White and White Sweet lupins)	**Application Directions**	
Phaseolus spp. (Field, Kidney, Dry lima, Navy, Pinto and Tepary beans)	Apply PROLINE® 480 SC 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.	
Vigna spp. (Adzuki bean, Blackeyed pea, Catjang, *Cowpea, Crowder pea, Moth bean, Mung bean, Rice* bean, Southern pea and Urd bean)		
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 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. Applications may be made by ground or aerial spray equipment.

A maximum of 17.1 fl oz. of PROLINE® 480 SC may be applied per acre per crop year. Allow a minimum of 7 days from the last application until cutting or swathing the crop for harvest.

RECOMMENDED APPLICATIONS

CROP	DISEASE CONTROLLED	RATE OF PROLINE® 480 SC
Lentils	Ascochyta Blight (*Ascochyta* spp.)	4.3 to 5.7 fl oz. per acre
	Application Directions	
	Apply PROLINE® 480 SC 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 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. Applications may be made by ground or aerial spray equipment.

A maximum of 17.1 fl oz. of PROLINE® 480 SC may be applied per acre per crop year. Allow a minimum of 7 days from the last application until cutting or swathing the crop for harvest.

RECOMMENDED APPLICATIONS		
CROP	DISEASE CONTROLLED	RATE OF PROLINE® 480 SC
Oilseed Crop Subgroup Rapeseed (canola varieties only – see specific instructions for canola) Rapeseed Indian rapeseed Indian mustard Field mustard Black mustard Flax Crambe Borage	Sclerotinia Stem Rot (*Sclerotinia sclerotiorum*)	4.3 to 5.7 fl oz. per acre
	Application Directions Apply PROLINE® 480 SC 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 per year. Repeat applications as needed using a 5 to 7 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. Applications may be made by ground or aerial spray equipment. A maximum of 11.4 fl oz. of PROLINE® 480 SC may be applied per crop year. PROLINE® 480 SC may be applied until the 50% bloom stage. Do not apply within 35 days of harvest.		

RECOMMENDED APPLICATIONS		
CROP	DISEASE CONTROLLED	RATE OF PROLINE® 480 SC
Peanut	**Soil-Borne** Sclerotium Rot (*Sclerotium rolfsii*) (White Mold, Southern Blight, Southern Stem Rot) Rhizoctonia Limb Rot, Peg Rot, Pod Rot (*Rhizoctonia solani*) Cylindrolcadium Black Rot (*Cylindrocladium crotalariae*) (Suppression Only)	5.7 fl oz. per acre
	Foliar 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*)	5.0 to 5.7 fl oz. per acre
	Application Directions **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. For optimum control of foliar diseases such as leaf spots, leaf rust, web blotch, and pepper spot, the lowest label recommended rate of a spray surfactant may be tank-mixed with PROLINE® 480 SC. **Soil-Borne Disease Spray Program:** For optimum control of the specified soil-borne diseases, four consecutive applications of PROLINE® 480 SC 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 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 to discourage development of resistant strains of fungi. Use PROLINE® 480 SC in conjunction with 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 Advisory Program** schedule, apply PROLINE® 480 SC in the first advisory spray in July and continue PROLINE® 480 SC applications at 14 day intervals. PROLINE® 480 SC must be carried by rainfall or irrigation into the root and pod zone for control of root and pod rots caused by *Sclerotium rolfsii* and *Rhizoctonia solani*. Drought conditions will decrease the effectiveness of PROLINE® 480 SC against the root and pod rots.	
General Comments: Apply up to four (4) applications of PROLINE® 480 SC per year. 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 may be applied per crop season. PROLINE® 480 SC may be applied up to 14 days before harvest. Do not feed hay or threshings or allow livestock to graze in treated areas. Applications may be made by ground or aerial spray equipment.		

RECOMMENDED APPLICATIONS

CROP	DISEASE CONTROLLED	RATE OF PROLINE® 480 SC
Rice	**Sheath/Stem Diseases**	4.56 fl oz. per acre
	Sheath Blight (*Rhizoctonia solani*)	
	Foliar Diseases	
	Brown Spot (*Cercospora oryzae*)	
	Narrow Brown Leafspot (*Cercospora oryzae*)	
	Leaf Smut (*Entyloma oryzae*)	
	False smut (*Ustilaginoidea virens*)	
	Application Directions Apply PROLINE® 480 SC 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. Under severe disease conditions or when conditions are favorable for continued disease development, a second application of PROLINE® 480 SC may be made as late as 70% panicle emergence from the boot.	

General Comments: Apply up to two (2) applications of PROLINE® 480 SC per year. For optimum disease control, the lowest labeled rate of a spray surfactant may be tank-mixed with PROLINE® 480 SC. Applications may be made by ground or aerial spray equipment.

A maximum of 9.12 fl oz. of PROLINE® 480 SC may be applied per acre per crop year.

Do not apply PROLINE® 480 SC later than 70% panicle emergence from the boot. Do not apply within 40 days of harvest.

RECOMMENDED APPLICATIONS

CROP	DISEASE CONTROLLED	RATE OF PROLINE® 480 SC
Wheat (spring, durum and winter)	Fusarium Head Blight (*Fusarium* spp.) (Suppression Only)	4.3 to 5.7 fl oz. per acre
	Leaf and Stem Diseases	4.3 to 5.0 fl oz. per acre
	Leaf Rust (*Puccinia recondita* f.sp. *tritici*)	
	Septoria Leaf and Glume Blotch (*Septoria tritici, S. nodorum*)	
	Stem Rust (*Puccinia graminis*)	
	Tan Spot (*Pyrenophora trifici-repentis*)	
	Application Directions **Fusarium Head Blight (Suppression Only)**: Apply PROLINE® 480 SC within the time period from when at least 75% of the wheat heads on the main stem are fully emerged (~ Feekes Growth Stages 10.4) to when 50% of the heads on the mainstem are in flower (~ Feekes Growth Stage 10.52). Optimal timing of application may be at or around 15% flower (~ Feekes 10.51). Spray equipment must be set up to provide good coverage to wheat heads. To achieve thorough wheat head coverage using ground application equipment, it is recommended to use forward and backward mounted nozzles or nozzles that have a two-directional spray, such as Twinjet nozzles. Nozzles should be operated within the spray pressure recommendations suggested by the manufacturer. **Leaf and Stem Diseases:** Apply PROLINE® 480 SC as a preventive foliar spray of 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 per year. Repeat applications as needed using a 7 to 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. Applications may be made by ground or aerial spray equipment.

A maximum of 9.37 fl oz. of PROLINE® 480 SC may be applied per acre per crop year. PROLINE® 480 SC may be applied up to the point where wheat heads are in the full flower growth stage (Feekes 10.52). Do not apply within 30 days of harvest.

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.

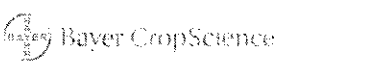
CONDITIONS: The directions for use of this product are believed to be adequate and should be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as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

DISCLAIMER OF WARRANTIES: BAYER CROPSCIENCE MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. BAYER CROPSCIENCE DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE'S ELECTION, THE REPLACEMENT OF PRODUCT.

NET CONTENTS:

Proline is a registered trademark of Bayer



Bayer CropScience LP
P.O. Box 12014, 2 T.W. Alexander Drive
Research Triangle Park, North Carolina 27709
1-866-99BAYER (1-866-992-2937)

Proline 480 SC Fungicide (PENDING) Submitted 3/31/04

Bayer

READ THE LABEL BEFORE USING

PROTHIOCONAZOLE
TECHNICAL FUNGICIDE
For Use in Manufacturing, Formulating, or Repackaging

NET CONTENTS: BULK

GUARANTEE: PROTHIOCONAZOLE: 2-[2-(1-Chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-1,2-dihydro-3H-1,2,4-triazole-3-thione.....97.7%

REGISTRATION NO.: xxxxx PEST CONTROL PRODUCTS ACT

REFER TO THE MSDS FOR FURTHER INFORMATION

DIRECTIONS FOR USE:
To be used only in the manufacturing, formulation or repackaging of a pest control product registered under the Pest Control Products Act. Read technical bulletin for manufacturing details.

PRECAUTIONS:
KEEP OUT OF REACH OF CHILDREN AND UNAUTHORIZED PERSONNEL: Avoid contact with skin, eyes or clothing. Wash thoroughly after using or before eating, drinking or smoking. Wear clean protective clothing, including chemical resistant gloves, goggles and respirator when handling manufacturing product.

FIRST AID: Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.
EYES: If product is splashed in eyes, immediately flush eyes with plenty of water for 15 - 20 minutes, holding the eyelids open. If irritation occurs, contact a poison control centre, or take patient to hospital with this label.
SKIN: If the technical comes into contact with skin and clothes, remove all contaminated clothing, wash skin with soap and water for 15 – 20 minutes and dress in clean clothing. If skin irritation occurs, contact a poison control centre, or take the patient to hospital with this label.
INGESTION: If swallowed, no specific intervention is indicated, as the compound is not likely to be hazardous by ingestion. Call a physician, contact a poison control centre, or take the individual to hospital with this label if necessary.
INHALATION: In case of inhalation, remove patient from the site of exposure to fresh air.

TOXICOLOGICAL INFORMATION:
Treat symptomatically. Medical personnel should contact Aventis' Medical Information Services, toll-free:**1-800-334-7577.**

STORAGE:
Do not contaminate water, food, or feed by storage or disposal. Store tightly sealed original container in a cool, dry area away from feed, seeds, plants and foodstuffs.

DECONTAMINATION & DISPOSAL:
Canadian formulators using this product should dispose of unwanted active material and containers according to municipal or provincial regulations. For additional details and information on clean up of spills, contact the provincial regulatory agency and the manufacturer.

NOTICE TO USER:
This control product is to be used only in accordance with the directions on this label. It is an offence under the Pest Control Products Act to use a control product under unsafe conditions.

NOTICE TO BUYER:
Seller's guarantee shall be limited to the terms set out on the label, and subject thereto, the buyer assumes the risk to persons or property arising from the use or handling of this product and accepts the product on that condition.

FOR FURTHER INFORMATION, CONTACT:
Bayer CropScience Inc.
Suite 100, 3131-114th Avenue S.E.
Calgary, Alberta
T2Z 3X2

GROUP 3 FUNGICIDE

Bayer CropScience

Bayer

NET CONTENTS:
2, 8.1, 10 and 101 LITRES and BULK

PROLINE® 480 SC Foliar Fungicide

For Control Of Diseases in Chickpeas, Lentils, Canola, Dry Beans Wheat & Barley

AGRICULTURAL

SYMBOL Triple Rinse

CAUTION – POISON
CAUTION – EYE IRRITANT

REGISTRATION NUMBER: **XXXXX**
PEST CONTROL PRODUCTS ACT

GUARANTEE:
Prothioconazole 480 g/L

READ THE LABEL BEFORE USING
KEEP OUT OF REACH OF CHILDREN

Bayer CropScience Inc.
Suite 100, 3131-114th Avenue SE
Calgary, AB
T2Z 3K2

For product information and in case of spills, poisoning, fire or other emergencies, call 1-888-283-6847

PROLINE 480 SC Foliar Fungicide

Table of Contents: Section Number:

For more information contact:

Bayer CropScience Inc.
Suite 100, 3131-114th Avenue SE
***Calgary*, AB**
T2Z 3K2

GENERAL INFORMATION

Section 1: The Product

For control of foliar diseases in chickpeas, lentils, canola, dry beans wheat & barley. PROLINE 480 SC *is a broad-spectrum systemic fungicide for the control of Ascomycetes, Basidiomycetes and Deuteromycetes* diseases in a variety of crops including barley, canola, dry bean crop group (chickpeas, lentils, etc.), oilseed crop group, peanuts, rice and wheat.

SAFETY AND HANDLING

Section 2: Precautions, Protective Clothing and Equipment, and Re-entry Restriction.

PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN. Harmful if swallowed, inhaled or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, and clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, or smoking. If product comes in contact with clothing, remove all contaminated clothing, wash skin with soap and water and dress in clean clothing. Launder applicator clothing separate from other laundry. DO NOT re-enter treated fields until 24 hours post-application. If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., contact 1-866-375-4648 or www.cropro.org/.

PROTECTIVE CLOTHING AND EQUIPMENT:

- *During mixing, loading, clean-up and repair activities, workers must wear long pants, long-sleeved* shirts, boots, chemical resistant gloves and safety goggles or a face shield.

Section 3: First Aid and Toxicological Information

FIRST AID:

If swallowed: Have patient drink 1 or 2 glasses of water. 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. Call a physician or contact a poison control centre.
If in eyes: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention, or contact a poison control centre.
If on skin: Wash with plenty of soap and water. Remove contaminated clothing.
***If inhaled:** In case of inhalation, remove patient from the site of exposure. Give supportive care.*
Seek medical attention immediately if toxicity or irritation persists.
Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION:

Treat symptomatically.
Medical Personnel should contact Bayer's Medical Information Services. Toll-Free: 1-800-334-7577.

OILSEED CROPS (Canola, Rapeseed, Mustard)			
CROP	**DISEASE**	**RATE**	**TIMING**
Oilseed Crop Subgroup: Canola Rapeseed Indian rapeseed Indian mustard Field mustard Black mustard Flax Crambe Borage	Sclerotinia Stem Rot (*Sclerotinia sclerotiorum*)	Apply PROLINE 480 SC Foliar Fungicide at 150 - 200 gai/ha (315 - 420 ml/ha)	Apply PROLINE 480 SC Foliar 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 315 ml/ha 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.
To optimize disease control, the lowest labelled rate of a spray surfactant must be tank-mixed with PROLINE 480 SC Foliar Fungicide. Applications may be made by ground or aerial spray equipment. A maximum of 840 mL/ha of PROLINE 480 SC Foliar Fungicide may be applied per crop year. PROLINE 480 SC Foliar Fungicide may be applied until the 50% bloom stage. This will be when the canola crop is at its maximum yellow colour, and prior to significant petal fall. Do not apply within 36 days of harvest.			

PULSE CROPS (Chickpeas, Lentils)			
CROPS	**DISEASE**	**RATE**	**TIMING**
Chickpeas Lentils	Ascochyta Blight (*Ascochyta spp.*)	Apply PROLINE 480 SC Foliar Fungicide at 150 – 200 gai/ha (315 – 420 ml/ha)	Apply PROLINE 480 SC Foliar Fungicide 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 Foliar Fungicide per year. Repeat applications as needed using a 10 to 14-day spray interval if conditions remain favourable for continued or increasing disease development. To optimize disease control, the lowest labelled rate of a spray surfactant must be tank-mixed with PROLINE 480 SC Foliar Fungicide. Applications may be made by ground spray equipment only. A maximum of 1.26L/ha of PROLINE 480 SC Foliar Fungicide may be applied per acre per crop year. Allow a minimum of 7 days from the last application until cutting or swathing the crop for harvest.			

PULSE CROPS (Dried Shelled Peas and Beans)			
CROPS	**DISEASE**	**RATE**	**TIMING**
Dried Shelled Peas and Beans Subgroup: *Phaseolus* spp. Field bean, Kidney bean, Dry lima bean, Navy bean, Pinto bean, *Vigna* spp. Dry broad bean *Pisum* spp. Pea (incl. Field pea) *Lupinus* spp. Lupins (grain, sweet, white and sweet white)	White Mold (*Sclerotinia sclerotiorum*)	Apply PROLINE 480 SC Foliar Fungicide at 150 – 200 gai/ha (315 420 ml/ha)	Apply PROLINE 480 SC Foliar Fungicide. Apply at early to mid bloom (30-50%) 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 Foliar Fungicide per year. Repeat applications as needed using a 5- to 7-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 must be tank-mixed with PROLINE 480 SC Foliar Fungicide. Applications may be made by ground or aerial spray equipment. A maximum of 1.26L/ha of PROLINE 480 SC Foliar Fungicide may be applied per acre per crop year. Allow a minimum of 7 days from the last application until cutting or swathing the crop for harvest.			

Section 8: Resistance Management

Resistance Management:
For resistance management, **PROLINE 480 SC Foliar Fungicide** is a Group 3 fungicide. Any fungal population may contain individuals naturally resistant to this product and other Group 3 fungicides. The resistant biotypes may dominate the fungal population if these fungicides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay fungicide resistance:

- Alternate with fungicides having a different mode of action other than Group 3 every 7 to 10 days after each application of **PROLINE 480 SC Foliar Fungicide**.
- A maximum of three applications per year.
- Fungicide use should be based on an integrated pest management (IPM) program that includes scouting and record keeping and considers cultural, biological, and other chemical control practices.
- Monitor efficacy of all fungicides used in the disease management program against the target pathogen and record other factors that may influence fungicide performance and/or disease development.
- Contact the local extension specialist or certified crop advisors for any additional pesticide resistance-management and IPM recommendations for specific site and pest problems in the area.
- For further information or to report suspected resistance, contact a Bayer CropScience representative at 1-888-283-6847 or at bayercropscience.com.

Section 9: Application Precautions

GROUND APPLICATION:

1. Use well-maintained and calibrated conventional spray equipment, which provides adequate and uniform coverage.
2. Apply PROLINE 480 SC Foliar Fungicide in a minimum of 100 L water/ha.
3. Spray screens should be no finer than 50 mesh.
4. Ensure that the by-pass line discharges at the bottom of the tank to minimize foaming.
5. Maintain pressure at no less than 275 kPa to ensure good foliage penetration and coverage.
6. Provincial buffer zones that are greater than the above buffer zone should be respected.
7. DO NOT apply more than 1.26 L/ha of PROLINE 480 SC Foliar Fungicide in a year. When using PROLINE 480 SC Foliar Fungicide, do not apply more than three times in a year to support sound resistance management strategies.
8. If spray mixture remains in the tank overnight, or for long periods during the day, agitate thoroughly prior to application.

AERIAL APPLICATION-GENERAL INFORMATION:

1. Apply only by fixed-wing or rotary aircraft equipment which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.
2. Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. If you have questions, call 1-877-938-3737 or obtain technical advice from the distributor or your provincial agricultural representative.
3. Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices.
4. Apply PROLINE 480 SC Foliar Fungicide in a minimum of 50 L of water/ha.
5. To ensure proper coverage and distribution and to minimize drift, check to see that swath width and droplet size are adequate, and that wind velocities are low.
6. Use mechanical flaggers only.

AERIAL APPLICATION-USE PRECAUTIONS:

1. Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage.
2. Apply only under conditions of good practice specific to aerial application as outlined in the *Basic Knowledge Requirements for Pesticide Education in Canada: Applicator Core and Aerial Module*, developed by CAPCO.

AERIAL APPLICATION- OPERATOR PRECAUTIONS:

1. **DO NOT** allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted.
2. It is desirable that the pilot has communication capabilities at each treatment site at the time of application.
3. The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label.
4. All personnel on the job site must wash hands and face thoroughly before eating and drinking.
5. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.

Section 10: Mixing Instructions

Mixing Instructions:
PROLINE 480 SC Foliar Fungicide must be applied with properly calibrated, clean equipment.
Prior to adding PROLINE 480 SC Foliar Fungicide to the spray tank, ensure that the spray tank is thoroughly clean.

PROLINE 480 SC Foliar Fungicide applied alone.

- Add one-half of the required amount of water to the spray or mixing tank and start agitation.
- Add the required quantity of **PROLINE 480 SC Foliar Fungicide** to the water and complete filling with water to the required total volume.
- Maintain agitation throughout mixing and spraying.
- PROLINE 480 SC Foliar Fungicide should be thoroughly dispersed prior to the addition of a non-ionic surfactant. PROLINE 480 SC Foliar Fungicide is recommended to be used with a registered non-ionic surfactant, such as Agral 90 or AgSurf at 0.125% vol/vol.

Section 11: Pre-harvest Interval

Crop	PHI
Barley	30
Canola	36
Oilseed Crop Group	36
Dried Shelled Peas and Beans(Subgroup 6C)	7
Chickpea	7
Lentils	7
Wheat (spring, durum, and winter)	30

Section 12: Notices

Notice to User:
This control product is to be used only in accordance with the directions on this label. It is an offence under the *Pest Control Products Act* to use a control product under unsafe conditions.

Notice to Buyer:
Seller's guarantee shall be limited to the terms set out on the label, and subject thereto, the buyer assumes the risk to persons or property arising from the use or handling of this product, and accepts the product on that condition.

For more information contact:

Bayer CropScience Inc.
Suite 100, 3131-114th Avenue SE
Calgary, AB
T2Z 3K2

Lana
Coppolino/DC/USEPA/US
02/21/2006 07:38 AM

To Barry OKeefe/DC/USEPA/US@EPA
cc Cynthia Giles-Parker/DC/USEPA/US@EPA, Paula Deschamp/DC/USEPA/US@EPA
bcc Jihad Alsadek/DC/USEPA/US
Subject Re: Prothioconazole -Percent crop treated and market share

Barry -
See the message below from the registrant regarding PCT. They have no information that would update the table sent in March 2005. DP 326851 was sent to BEAD on 2/14/06. L

Lana Coppolino
U.S. Environmental Protection Agency
Office of Pesticide Programs (7505 C)
Registration Division
Fungicide Branch
(703) 305-0086
----- Forwarded by Lana Coppolino/DC/USEPA/US on 02/21/06 07:23 AM -----

Mel Tolliver
<mel.tolliver@bayercropscience.com>
02/17/06 07:53 AM

To Lana Coppolino/DC/USEPA/US@EPA
cc
Subject Re: More clarification on prothioconazole crops

Lana,
This is further to the telephone message I left for you. [redacted] For pulse crops, this
includes chickpeas, dried shelled peas and beans, and lentils on our proposed label. Residue data to support this use are from dried shelled pea and bean data
contained in MRID 46246221. We have no marketing or sales data on the individual
crops under the broad category pulse crops. The 3% crop treated listed in our March 28, 2005 table is Bayer's guess of the market share we could reasonably expect based in the current chlorothalonil, azoxystrobin and pyraclostrobin registrations and our knowledge of the diseases and the growers willingness to use prothioconazole based on disease control and price.

For the oil crops, the only residue data we have are on canola (MRID 46246215).
This data was submitted to support use on canola. IR-4 encouraged us to include
in our application the oil crop subgroup listed on our label. This does not contain sunflowers nor other oil crops that sunflower data would support. Again,
as with the pulse crops, Bayer has no sales or marketing data on the individual
crops. The 8% crop treated listed in our March 28, 2005 table is Bayer's guess of the market share we could reasonably expect based in the current Vinclozolin
and Boscalid registrations and our knowledge of the diseases and the growers willingness to use prothioconazole based on disease control and price.

Mel Tolliver
Registration Product Manager, Fungicides
Bayer CropScience
Phone: (919) 549-2631
Fax: (919) 549-2545

Barry OKeefe/DC/USEPA/US

Barry OKeefe/DC/USEPA/US
02/17/06 10:44 AM

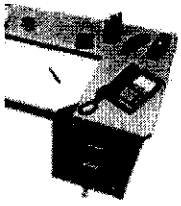
To Cynthia Giles-Parker/DC/USEPA/US@EPA
cc Paula Deschamp/DC/USEPA/US@EPA, Lana Coppolino/DC/USEPA/US@EPA
Subject Re: Prothioconazole -Percent crop treated and market share

Cynthia,

I have already spoken extensively with Lana Coppolino concerning our additional needs. However, to clarify the picture for you I will summarize the issues. The need is for anticipated percent crop treated information/projected market share, since no crops are receiving applications yet. Bayer submitted such data/information in 2005, which BEAD has been working on. However, there were two issues with the data. First, Bayer submitted data for two crops that they have not yet submitted petitions for, i.e., soybeans and sugar beets. BEAD (Jihad Alsadek) inquired as to whether these crops should be included in their analysis. I instructed Lana to instruct BEAD to include these crops, since we will eventually need

these data. Secondly, I requested that Lana inquire with Bayer to try to get a more extensive/great breakdown of the data already submitted for canola and pulse crops. Our residue chemists do not believe that the canola data (8% CT) will cover for all crops in the oil seed crops subgroup (rapeseed, indian rapeseed, indian mustard, field mustard, flax, crambe, and borage), and therefore, some crops in that subgroup may be set at 100% CT in the dietary risk assessment DEEM program. The same situation holds for the pulse crop data (3% CT) where we are not sure if this number can be used for all crops; i.e., chickpea, lentils, and dried shelled peas & beans subgroup.

Barry
308-8035
Cynthia Giles-Parker/DC/USEPA/US



Cynthia
Giles-Parker/DC/USEPA/US
02/16/06 12:44 PM

To Barry OKeefe/DC/USEPA/US@EPA
cc
Subject Prothioconazole -Percent crop treated and market share

Barry,

At the production meeting on yesterday, we were asked to send a bean to BEAD to get percent crop/market share numbers for Prothioconazole. Please send us a message identifying what you need for each crop. Once we get this information, RD will create a bean for this information. Thanks

13544

R136862

Chemical:	Prothioconazole
	PC Code: 113961
HED File Code:	71000 BEAD Usage Data Report
Memo Date:	4/19/2006
File ID:	DPD326851
Accession #:	412-07-0026

HED Records Reference Center
12/22/2006