

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

APR 26 1994

Gregory R. Watson, Ph.D.
 Ciba-Geigy Corporation
 P.O. Box 18300
 Greensboro, NC 27419-8300

5438
 238
 0154857

Dear Dr. Watson:

Subject: EPA Reg. No. 100-617
 Tilt Fungicide
 EPA Reg. No. 100-737
 Tilt Gel Fungicide
 Amendments Dated March 22, 1993

Your letter of March 22, 1993 accompanied amendment forms for the two cited products and requested that a claim for control of black sheath rot be added to the labeling of each.

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable subject to the comment listed below. A stamped copy for each product, Tilt and Tilt Gel, is enclosed for your records. One copy of the finished labeling of both products must be submitted prior to releasing the products for shipment.

Note that this acceptance of your label does not relieve you of your obligation to comply with the Worker Protection Standard. If any of your products are covered by this standard, you are required to submit, and receive the Agency's approval by April 21, 1994, a revised label reflecting the required label statements of 40 CFR 156, published in the FEDERAL REGISTER on August 21, 1992 (57FR 38102). Further guidance will be issued. According to 40 CFR 156, subpart K: "No product to which this subpart applies shall be distributed or sold without amended labeling by any registrant after April 21, 1994". Please call 1-800-777-2185 if you have any labeling questions regarding the Worker Protection Standard.

CONCURRENCES

SYMBOL	7505C						
SURNAME	DGreenway						
DATE	4/26/94						

Our records indicate that Worker Protection Standard label revisions were submitted and accepted for both of the cited products. The finished labeling requested above should incorporate the approved Worker Protection Standard language.

Should you have questions or concerns, please contact me or call Denise Greenway on (703) 305-5542.

Sincerely yours,


Steve Robbins
Acting Product Manager (21)
Fungicide-Herbicide Branch
Registration Division (7505C)

Enclosures

7505C:DGreenway:DLG:4/26/94:305-5542:B:BLKSHROT.TLT

MASTER LABEL
(INCLUDES ALL USES)

ACCEPTED
with COMMENTS
In EPA Letter Dated

Tilt®

FUNGICIDE

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
100-617

For control of certain diseases in celery, cereals,
grasses grown for seed, pecans and sugarcane

Active Ingredient: Propiconazole:	
1-[[2-(2,4-dichlorophenyl)-4-propyl- 1,3-dioxolan-2-yl]methyl]-1H-1,2,4- triazole	41.8%
Inert Ingredients:	58.2%
Total:	100.0%

One Gallon
U.S. Standard Measure

KEEP OUT OF REACH OF CHILDREN.

WARNING

See additional precautionary statements
and directions for use inside booklet.

EPA Reg. No. 100-617
EPA Est. 100-AL-1

CGA 72L9

[GANNONC.LABELT]TILTML5 - 3/1/93

DIRECTIONS FOR USE AND CONDITIONS OF SALE AND WARRANTY

IMPORTANT: Read the entire Directions for Use and the Conditions of Sale and Warranty before using this product. If terms are unacceptable, return the unopened product container at once.

Conditions of Sale and Warranty

The Directions for Use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with 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 Ciba-Geigy or the Seller. All such risks shall be assumed by the Buyer.

Ciba-Geigy warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use subject to the inherent risks referred to above. Ciba-Geigy makes no other express or implied warranty of Fitness or Merchantability or any other express or implied warranty. In no case shall Ciba-Geigy or the Seller be liable for consequential, special, or indirect damages resulting from the use or handling of this product. Ciba-Geigy and the Seller offer this product, and the Buyer and user accept it, subject to the foregoing Conditions of Sale and Warranty, which may be varied only by agreement in writing signed by a duly authorized representative of Ciba-Geigy.

DIRECTIONS FOR USE

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

General Information

Tilt is a broad spectrum fungicide for the control of certain diseases in wheat, barley, rye, rice, celery, sugarcane, pecans, and in grasses grown for seed.

Important: Do not use in nurseries, on turf, landscape plantings, or as a tree injection.

FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR DISEASE CONTROL, OR ILLEGAL RESIDUES.

Spray Equipment

Thorough coverage is necessary to provide good disease control.

To avoid spray drift, do not apply when conditions favor drift beyond the target area. Avoid spray overlap, as crop injury may occur.

Equip sprayers with nozzles that provide accurate and uniform application. Be certain that nozzles are the same size and uniformly spaced across the boom. Calibrate sprayer before use.

Use a pump with capacity to (1) maintain 35-40 psi at nozzles, and (2) provide sufficient agitation in tank to keep mixture in suspension - this requires recirculation of 10 percent of tank volume per minute. Use a jet agitator or liquid sparge tube for agitation. Do not air sparge.

Although Tilt is an emulsifiable concentrate, it is suggested that screens be used to protect the pump and to prevent nozzles from clogging. Screens placed on suction side of pump should be 16-mesh or coarser. Do not place a screen in the recirculation line. Use 50-mesh or coarser screens between the pump and boom, and where required, at the nozzles. Check nozzle manufacturer's recommendations.

For more information on spray equipment and calibration, consult sprayer manufacturers and state recommendations. For specific local directions and spray schedules, consult the current state agricultural experiment station recommendations.

Aerial Application: For those crops where aerial applications are indicated, apply in a minimum of 5 gals. of water/A unless specified otherwise. 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. Flagmen and loaders should wash thoroughly before eating, drinking, or smoking, and at the end of each day's operation.

Ground Application: Apply Tilt by ground equipment in a minimum of 15 gals. of water/A.

Chemigation: Do not apply this product through any type of irrigation system.

Mixing Instructions

Wear rubber gloves and a long-sleeved shirt when mixing and loading this product. Prepare no more spray mixture than is required for the immediate operation. Thoroughly clean spray equipment before using this product. Agitate the spray solution before and during application. Rinse spray tank thoroughly with clean water after each day's use and dispose of pesticide rinseate by application to an already treated area.

Important: For wheat, barley, rye, and rice, custom applicators must use a closed system for mixing and loading this product.

Tilt Alone: Add 1/2 to 2/3 of the required amount of water to the spray or mixing tank. With the agitator running, add the Tilt to the tank. Continue agitation while adding the remainder of the water. Begin application of the spray solution after the Tilt has completely dispersed into the mix water. Maintain agitation until all of the mixture has been sprayed.

Tilt + Tank Mixtures: Tilt is usually compatible with all tank mix partners listed on this label. To determine the physical compatibility of Tilt with other products, use a jar test. 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 liquid flowables, 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.

Add 1/2 to 2/3 of the required amount of water to the spray or mixing tank. With the agitator running, add the tank mix partner into the tank. Allow the material to completely dissolve and disperse into the mix water. Continue agitation while adding the remainder of the water and the Tilt to the spray tank. Allow the Tilt to completely disperse. Spray the mixture with the agitator running.

If using Tilt in a tank mixture, observe all directions for use, crops/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 should be followed. This product should not be mixed with any product which 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.

Rotational Crops

Soybeans may be planted as a double crop following a cereal crop which has been treated with Tilt. Do not use hay, forage, or fodder from the soybean crop as any component of animal feed or bedding.

To avoid possible illegal residues, do not plant any other crop intended for food, grazing, or any component of animal feed or bedding within 105 days of Tilt application to the preceding crop, unless the second crop appears on this label.

Celery

For control of early blight (Cercospora) and late blight (Septoria), apply 4 fl. oz. of Tilt/A on a 7-day schedule either by ground or aerial application. If desired, Tilt may be tank-mixed with an appropriate spreader-sticker. In California, apply Tilt on a 14-day schedule for control of late blight.

Notes: To avoid possible illegal residues, (1) Do not apply more than 16 fl. oz. of Tilt/crop (4 applications) and (2) Do not apply during the last 14 days before harvest.

Cereals

Wheat, Barley, Rye

In wheat, barley, and rye, Tilt controls rusts (Puccinia spp.), powdery mildew (Erysiphe spp.), leaf blight and glume blotch (Septoria spp.), tan spot (Pyrenophora tritici-repentis), Helminthosporium leaf blight, barley scald (Rhynchosporium secalis) and net blotch (Pyrenophora teres). Apply 4 fl. oz. of Tilt/A by ground or aerial application. Highest yields are normally obtained when Tilt is applied to the emerging flag leaf. Tilt can be applied until the ligule of the flag leaf emerges. (Feekes growth stage 8). Do not apply after this growth stage to avoid possible illegal residues. Tilt may be applied earlier if disease symptoms appear (especially applicable to barley). Make only one application per season.

For control of foot rot (Pseudocercospora sp.), apply 4 fl. oz. of Tilt/A plus half rates of other EPA-registered fungicides such as Benlate®, Mertect® and Topsin® M. Apply at tillering but before elongation has occurred.

Do not graze or feed livestock treated forage or cut the green crop for hay or silage. After harvest the straw may be used for bedding or feed.

Rice

In rice, Tilt controls sheath blight (Rhizoctonia solani), brown leaf spot (Helminthosporium oryzae), narrow brown leaf spot and brown blotch (Cercospora oryzae), leaf smut (Entyloma oryzae), sheath spot (Rhizoctonia oryzae) and black sheath rot (Gaeumannomyces graminis). Tilt also suppresses stem rot (Sclerotium oryzae). Apply Tilt on either of the following schedules as an aerial spray in 5-10 gals. of water/A:

- A. 6 fl. oz./A at first internode elongation (up to 2-inch panicle) and repeat at swollen boot. Make the second application 10-14 days after the first application, but before the boot splits and head emerges. Tilt provides best control of sheath blight when the first application is applied at disease appearance in the field. The first application is recommended when 5 percent or fewer of the tillers are infected.
- B. 10 fl. oz./A at first internode elongation (up to 2-inch panicle). The 10 oz. rate is recommended if greater than 10 percent of the tillers are infected with sheath blight. If disease reappears, use another registered fungicide for the second application.

Important: To avoid possible illegal residues 1) Do not apply to stubble or ratoon crop rice; 2) Do not use in rice fields where commercial farming of crayfish will be practiced; 3) Do not drain water from treated rice fields into ponds used for commercial catfish farming; 4) Do not use water drained from treated fields to irrigate other crops; and 5) Do not use in California.

Endangered Species Restrictions: The use of Tilt (propiconazole) on rice is restricted to protect the endangered fat pocketbook pearly mussel (Potamilus capax) and its habitat. Use is prohibited in the following areas of Arkansas:

Mississippi County - Within the basin that drains directly into the Right Hand Chute of Little River, south of Big Lake National Wildlife Refuge.

Poinsett County - Between Crowley's Ridge and the levee east of the Right Hand Chute of Little River and the St. Francis Flood-

way. Use is also prohibited west of Rt. 140 and north of Rt. 63 at the siphon near Marked Tree. Except that the prohibited area does not include the area bounded by Arkansas highway 373 on the west, highway 63 on the east and highway 14 on the south.

Cross, St. Francis, and Lee Counties: Between Crowley's Ridge and the levee east of the Right Hand Chute of Little River and the St. Francis Floodway as far south as the confluence of L'Anquille River (Lee County).

Grasses Grown for Seed (Nebraska, Oregon, Washington, Idaho, and Minnesota only)

Tilt controls rusts (*Puccinia* spp.), powdery mildew, and *Selenophoma* stem eyespot in perennial ryegrass, fescues, bluegrass, orchardgrass, and/or wheatgrasses.

Mix 4-8 fl. oz. of Tilt (maximum 4 fl. oz. on bluegrass) in a minimum of 20 gals. of water/A for ground application, or in a minimum of 10 gals. of water/A for aerial application. Apply when powdery mildew and *Selenophoma* infections or rust pustules are noticeable and increasing in number, in late spring or early summer. Repeat at 14-21 day intervals. To maximize control under severe rust pressure, use the higher rate of 8 fl. oz./A (except on bluegrass), and make applications at 14 day intervals until the seed is mature. Do not apply more than 32 fl. oz. of Tilt per acre per growing cycle. Make the last application at least 20 days before seed matures. For bluegrass, it is important to begin application early in the growing season.

Important: To avoid possible illegal residues, do not: 1) feed hay cut within 20 days of the last application or 2) graze treated areas within 140 days of the last application.

Pecans (bearing)

For control of pecan scab, downy spot, liver spot, vein spot, Zonate leaf spot and fungal leaf scorch, apply Tilt in a regular spray program beginning at bud break when young leaves are unfolding. Continue applications while small nuts are forming, repeating at two-week intervals as needed, not exceeding four applications per growing season. Do not apply after shuck-split. Do not graze livestock in treated areas or cut treated cover crops for feed.

Apply Tilt in sufficient water to obtain good coverage, using a minimum spray volume of 50 gals./A by ground. For ground applications, the applicator must be in a closed cab during application.

Pecan Scab - South (AL, AR, FL, GA, KY, LA, MO, MS, NC, SC and TN): Apply 4 fl. oz./A on a 14-day schedule during bud break and pre-pollination sprays. Apply 8 fl. oz./A during nut forma-

tion and cover sprays.

Pecan Scab - Southwest (AZ, NM, OK and TX): Apply 4 fl. oz./A on a 14-day schedule during bud break and pre-pollination sprays. Apply 6 fl. oz./A in case bearer and cover sprays.

Foliar Diseases: Tilt may be applied for control of mid- to late-season foliar diseases (such as Zonate leaf spot, fungal leaf scorch, vein spot, and downy spot) at 4 fl. oz./A with the recommended rate of Super Tin® in the cover sprays. Observe all directions, precautions, and limitations on the labels for these products.

For pecans, Tilt is compatible with most insecticides labeled for use on pecans such as diazinon 50W, diazinon AG500, Zolone® 3E, dimethoate, Supracide® 2E and carbaryl 50W. Do not mix Tilt with Cyprex® on pecans, because crop injury may occur.

Endangered Species Restrictions: The use of any pesticide in a manner that may kill or otherwise harm endangered or threatened species or adversely modify their habitat is a violation of federal laws. The use of this product in pecans is controlled to prevent death or harm to endangered species. Do not use Tilt in the following counties:

State	Counties		
Alabama	Colbert Greene Jackson Lamar	Lauderdale Limestone Madison Marshall	Morgan Pickens Sumter
Arkansas	Clark Clay Cross	Dallas Hot Springs Randolph	Sharp St. Francis
Kentucky	Ballard Butler Green	Hart Livingston McCracken	Taylor Warren
Tennessee	Bedford Decatur Hardin	Lincoln Marshall Maury	Perry Sequatchie
Missouri	Gasconade Jefferson Miller	Osage Ripley St. Louis	Wayne
Mississippi	Lowndes	Monroe	Noxubee

Pecans (nonbearing)

Apply 4.0-5.5 fl. oz. of Tilt/A in sufficient water to obtain good coverage for control of pecan scab, downy spot, brown leaf spot, liver spot, vein spot, Zonate leaf spot, and fungal leaf scorch. Begin applications at bud break and repeat at 2-4 week intervals as needed. Do not exceed four applications per growing season. For ground applications, the applicator must be in a closed cab during application. Do not graze livestock in treated areas. Observe endangered species restrictions noted above in the bearing pecan section.

Sugarcane (Hawaii only)

For control of pineapple disease of sugarcane (Ceratocystis paradoxa) apply Tilt to cut seed pieces using 0.75 fl. oz. (22 ml) per 100 gals. of water (1:17,000). Treatments can be applied in either a cold or hot water dip. Do not use treated seed pieces for food or feed purposes. Dispose of spent dip solution according to state and federal regulations.

Cold Water Dip - Immerse seed pieces to give thorough wetting, remove and allow to drain.

Hot Water Dip - Maintain water temperature at 52°C. Soak the seed pieces for 20-30 minutes, remove and allow to drain.

Storage and Disposal

Pesticide Disposal

Do not contaminate water, food or feed by storage or disposal. Pesticide wastes may be toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of federal law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

Container Disposal

Triple rinse container (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, by incineration, or, if allowed by state and local authorities, by burning. Stay out of smoke from burning containers.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372 day or night.

Precautionary Statements

Hazards to Humans and Domestic Animals

WARNING

This product may cause skin sensitization reactions in certain individuals. Wear rubber gloves and a long-sleeved shirt when mixing or handling this product. Remove contaminated clothing and wash before reuse.

Causes eye irritation. Do not get in eyes, on skin, or on clothing. Harmful if swallowed, inhaled, or absorbed through skin. Wash thoroughly with soap and water after handling. Avoid breathing spray mist.

Statement of Practical Treatment

If in eyes: Flush with plenty of water. Get medical attention if irritation persists.

If on skin: Wash with plenty of soap and water. Get medical attention if irritation persists.

If swallowed: Do not induce vomiting. Promptly drink a large quantity of milk, egg whites, or gelatin solution. If these are not available, drink large quantities of water. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.

If inhaled: Move victim to fresh air.

Note to Physician: There is no specific antidote for this product. Induce emesis or lavage stomach, taking care to avoid aspiration of stomach contents into lungs. Give a saline laxative and supportive therapy.

Environmental Hazards

This pesticide is toxic to fish. Do not apply directly to water, 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 wash waters. Refer to product labeling for use restrictions to protect endangered species.

Physical or Chemical Hazards

Do not use, pour, spill, or store near heat or open flame.

Tilt® trademark of Ciba-Geigy Corporation
U.S. Patent No. 4,079,062

Benlate® trademark of E. I. duPont de Nemours & Co. (Inc.)

Cyprex® trademark of American Cyanamid

Mertect® trademark of Merck and Co., Inc.

Super Tin® trademark of Griffin Ag Products Co., Inc.

Supracide® trademark of Ciba-Geigy

Topsin® trademark of Pennwalt Corporation

Zolone® trademark of Rhone-Poulenc

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Ciba Plant Protection
Ciba-Geigy Corporation
Greensboro, North Carolina 27419

CGA 72L9

Administrative Amendment
February 23, 1993 - Black
sheath rot in rice.

[GANNONC.LABELT]TILTML5 - 3/1/93

Back Page of Booklet

Tilt®

FUNGICIDE

For control of certain diseases in celery, cereals, grasses grown for seed, pecans, and sugarcane

Active Ingredient: Propiconazole:	
1-[[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl]methyl]-1H-1,2,4-triazole	41.8%
Inert Ingredients:	58.2%
Total:	100.0%

See directions for use in attached booklet.

EPA Reg. No. 100-617
EPA Est. 100-AL-1

Tilt® trademark of Ciba-Geigy Corporation
U.S. Patent No. 4,079,062

©1993 Ciba-Geigy Corporation

One Gallon
U.S. Standard Measure

KEEP OUT OF REACH OF CHILDREN.

WARNING

Precautionary Statements

Hazards to Humans and Domestic Animals

This product may cause skin sensitization reactions in certain individuals. Wear rubber gloves and a long-sleeved shirt when mixing or handling this product. Remove contaminated clothing; and wash before reuse.

Causes eye irritation. Do not get in eyes, on skin, or on clothing. Harmful if swallowed, inhaled, or absorbed through skin. Wash thoroughly with soap and water after handling. Avoid breathing spray mist.

Statement of Practical Treatment

If in eyes: Flush with plenty of water. Get medical attention if irritation persists.

If on skin: Wash with plenty of soap and water. Get medical attention if irritation persists.

If swallowed: Do not induce vomiting. Promptly drink a large quantity of milk, egg whites, or gelatin solution. If these are not available, drink large quantities of water. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.

If inhaled: Move victim to fresh air.

Note to Physician: There is no specific antidote for this product. Induce emesis or lavage stomach, taking care to avoid aspiration of stomach contents into lungs. Give a saline laxative and supportive therapy.

Environmental Hazards

This pesticide is toxic to fish. Do not apply directly to water, 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 wash waters. Refer to product labeling for use restrictions to protect endangered species.

Physical or Chemical Hazards

Do not use, pour, spill, or store near heat or open flame. In event of spill, fire, or other emergency, call 1-800-888-8372 day or night.

Chemigation

Do not apply this product through any type of irrigation system.

Ciba Plant Protection
Ciba-Geigy Corporation
Greensboro, North Carolina 27419

CGA 72L9

Ciba-Geigy

[GANNONC.LABELT] TILTML5 - 3/1/93

Tilt Fungicide

Changes made in typed label:

3/16/82

1. Specified rubber gloves and long sleeves.
2. Added bluegrass.
3. Deleted "Although it is unnecessary ..." in the Aerial Application Section.

11/24/82

1. ™ to ®.
2. Added Minnesota.
3. Clarified powdery mildew timing.
4. Revised Storage and Disposal.

12/13/83

1. Revised format of booklet front panel.
2. Revised Storage and Disposal section per PR Notice 83-3.

3/14/84

Added orchardgrass and Selenophoma stem eyespot, revised Spray Equipment section and Mixing Procedures, revised Storage and Disposal section and Precautionary Statements.

6/16/87

Added wheat, barley, rye, rice and sugarcane. Made minor changes in spray equipment section. Added irrigation system prohibition per PR Notice 87-1. Added "drinking or smoking" to aerial procedures wash thoroughly statement. Added "and/" in the Grasses Grown for Seed section. Added "livestock" to the feeding restriction in the Grasses Grown for Seed section. Changed "product" to "pesticide" in the Environmental Hazards section. Added endangered species referral to Environmental Hazards section per PR Notices 87-4 and 87-5.

7/22/87

Revised endangered species restriction.

3/3/88

Changed red fescue and chewings fescue to fescues, added wheat grasses, revised rice section (add suppression of stem rot, better define application time), and added "Do not contaminate water when disposing of equipment wash waters."

8/2/88

Revised Endangered Species wording under Rice according to EPA directive received 8/1/88.

10/17/88

Incorporated administrative amendments accepted September 12, 1988.

06/14/89

Incorporated relaxed grazing restriction in grass grown for seed section. Added new language in conditions of sale section and corrected the emergency response telephone number.

12/91

Added definition of Feekes growth Stage 8.

04/08/92

Revised Rotational Crops section to allow double-cropping of soybeans after cereals, clarified rotational interval for other crops.

05/08/92

Removed 0°F storage temperature minimum, revised mixing instructions, reformatted Precautionary Statements, removed references to Du-Ter.

2/10/93

Added directions for use for celery and added logo changes.

2/23/93

Administrative amendment to add sheath black rot on rice.