

pm21

100-617

1 of 12

DRAFT

ACCEPTED

APR 9 1992

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

Tilt®

Fungicide

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

Active Ingredient:

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%

©1992 CIBA-GEIGY Corporation

One Gallon
U.S. Standard Measure

KEEP OUT OF REACH OF CHILDREN.

WARNING

See additional precautionary statements at end of booklet.

See directions for use inside booklet.

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

Tilt® trademark of CIBA-GEIGY
U.S. Patent No. 4,079,062

Agricultural Division
CIBA-GEIGY Corporation
Greensboro, North Carolina 27419

CGA 72L9

[GANNONC.LABELT]TILT-MASTER-DRAFT - 04/7/92

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 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, sugarcane, pecans, and in grasses grown for seed.

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.

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.

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 Procedures

(1) Wear rubber gloves and a long-sleeved shirt when mixing and loading this product. (2) Be sure sprayer is clean; if it is contaminated with any material, crop injury or sprayer clogging may result. (3) Fill tank 1/4-1/2 full with clean water, and start agitation. (4) Be certain that the agitation system is working properly and creates a rippling or rolling action on the liquid surface. (5) Add product to the tank. For wheat, barley, rye, and rice, custom applicators must use a closed system for mixing and loading this product. (6) Complete filling tank, maintaining sufficient agitation at all times to ensure surface action. This applies to both spray and nurse tanks. (7) Do not leave tank mixtures in the tank without adequate agitation. Always maintain agitation to avoid separation and buildup of residues. If a residue starts to build up in tank, drain and clean with strong detergent and ammonia solution and rinse thoroughly with clean water. (8) Immediately after use, clean sprayer thoroughly by flushing system with water containing a detergent and rinse with clean water.

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.

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. ozs. 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. (Feeke's 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. ozs. 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) and sheath spot (Rhizoctonia oryzae). 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. ozs./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. ozs./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.

Notes: 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 Floodway. 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. ozs. of Tilt (maximum 4 fl. ozs. 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. ozs./A (except on bluegrass), and make applications at 14 day intervals until the seed is mature. Do not apply more than 32 fl. ozs. 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.

Notes: 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. ozs./A on a 14-day schedule during bud break and pre-pollination sprays. Apply 8 fl. ozs./A during nut formation and cover sprays.

Pecan Scab - Southwest (AZ, NM, OK and TX): Apply 4 fl. ozs./A on a 14-day schedule during bud break and pre-pollination sprays. Apply 6 fl. ozs./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. ozs./A with the recommended rate of Duter® or 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. ozs. 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

Store at temperatures above 0°F. 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.

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.

First Aid: If in eyes, flush with plenty of water and get medical attention if irritation persists. If on skin, wash with plenty of soap and water. Get medical attention if irritation persists. If swallowed, drink promptly 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. Do not induce vomiting. Call a physician or Poison Control Center immediately. In case of inhalation exposure, move 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. Do not contaminate water by cleaning of equipment or disposal of wastes. 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
U.S. Patent No. 4,079,062

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

Cyprex® trademark of American Cyanamid for dodine

Du-Ter® trademark of Griffin Ag Products Co. for triphenyltin hydroxide

Mertect® trademark of Merck and Co., Inc. for thiabendazole

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

Supracide® trademark of CIBA-GEIGY for methidathion

Topsin® trademark of Pennwalt Corporation for thiophanate-methyl

Zolone® trademark of Rhone-Poulenc for phosalone

©1992 CIBA-GEIGY Corporation

Agricultural Division
CIBA-GEIGY Corporation
Greensboro, North Carolina 27419

CGA 72L9

11 of 12

Back Page of Booklet

Tilt®

Fungicide

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

Active Ingredient:

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%

Tilt contains 3.6 lbs. active
ingredient per gallon.

See directions for use in attached booklet.

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

Tilt® trademark of CIBA-GEIGY

U.S. Patent No. 4,079,062

©1992 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.

12/12

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.

First Aid: If in eyes, flush with plenty of water and get medical attention if irritation persists. If on skin, wash with plenty of soap and water. Get medical attention if irritation persists. If swallowed, drink promptly 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. Do not induce vomiting. Call a physician or Poison Control Center immediately. In case of inhalation exposure, move 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. Do not contaminate water by cleaning of equipment or disposal of wastes. 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.

Store at temperatures above 0°F.

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

Agricultural Division
CIBA-GEIGY Corporation
Greensboro, North Carolina 27419

CGA 72L9

CIBA-GEIGY

[GANNONC.LABELT] TILT-MASTER-DRAFT - 4/7/92