

Shaughnessy No.: 122101

Date Out of EFGWB: FEB 22 1989

TO: S. Lewis/Lois Rossi, PM 21  
Registration Division (TS-767C)

FROM: Emil Regelman, Supervisory Chemist  
Environmental Chemistry Review Section #2  
Environmental Fate and Ground Water Branch/EFED (TS-769C)

THRU: Hank Jacoby, Chief (acting)  
Environmental Fate and Ground Water Branch/EFED (TS-769C)

Attached, please find the EFGWB review of . . .

Reg./File #: 100-617

Chemical Name: Propiconazole; 1-[2-(2,4-dichlorophenyl)4-propyl-1,3-  
dioxolan-2-ylmethyl]-1H-1,2,4-triazole.

Type Product: Fungicide

Product Name: Tilt

Company Name: Ciba-Geigy

Purpose: Application for permanent group tolerance on grass, hay and  
forage, and to remove feeding and grazing restrictions for  
grasses grown for seed.

Date Received: 12-1-88 Action Code: 400

Date Completed: 2-21-88 EFGWB # (s): 90182

Total Reviewing time (decimal days): 0.9 days

Deferrals to: Ecological Effects Branch, EFED  
Science Integration & Policy Staff, EFED  
Non-Dietary Exposure Branch, HED  
Dietary Exposure Branch, HED  
Toxicology Branch, HED

1. CHEMICAL:

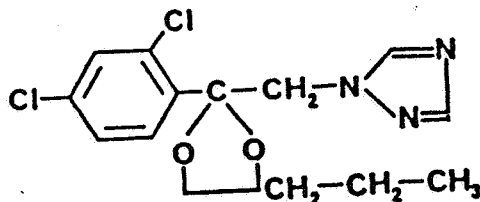
Common Name: Propiconazole

Chemical Name: 1-[2-(2,4-dichlorophenyl)4-propyl-1,3-dioxolan-2-ylmethyl]-1H-1,2,4-triazole

Trade Names: Tilt; Embolden; Banner

Company: Ciba-Geigy

Structure:



Formulations: 5.6 lb/gal EC (Tilt) and 1.125 EC (Banner)

Physical/Chemical properties:

|                    |  |
|--------------------|--|
| Empirical formula: | $C_{15}H_{17}O_2N_3Cl_2$                                   |
| Molecular weight:  | 341  |
| Physical state:    | pale liquid  |
| Boiling point:     | 180 deg. C. at 0.1 mm Hg                                   |
| Solubility:        | 110 ppm in water; well miscible with most organic solvents |

2. STUDY/ACTION TYPE:

Application for permanent group tolerance on grass, hay and forage, and for a removal of feeding and grazing restrictions on grasses grown for seed.

3. STUDY IDENTIFICATION: N/A

4. REVIEWED BY:

A. Reiter, Chemist  
Environmental Chemistry Review Section II  
EFGWB/EFED/OPP

*A. Reiter*

Date: February 21, 1989

5. APPROVED BY:

E. Regelman, Supervisory Chemist  
Environmental Chemistry Review Section II  
EFGWB/EFED/OPP

*E. Regelman*

Date: FEB 22, 1989

6. CONCLUSIONS:

EFGWB guidelines are not applicable to the setting of tolerances or of feeding/grazing restrictions.

7. RECOMMENDATION:

EFGWB acknowledges the application for a group tolerance and for a removal of feeding and grazing restrictions. We have no grounds to withhold concurrence.

8. BACKGROUND:

A. Introduction:

Propiconazole is a broad spectrum foliar fungicide with systemic and eradivative properties registered for use on pecan trees (both bearing and nonbearing), wheat, barley, rye, and to grasses grown for seed.

The following environmental fate studies (and results) have been considered fulfilled by EAB:

- ° hydrolysis (stable)
- ° aqueous photolysis (rapid with sensitizers;  $t_{1/2} < 1$  day)
- ° soil photolysis (none over 24 hr period)
- ° aerobic soil metabolism ( $t_{1/2} = 10$  wks)
- ° mobility, adsorption/desorption (tightly bound to soil)
- ° mobility, column leaching (little propensity of both aged and non-aged residues to leach)
- ° fish accumulation (BCF 24X in muscle; depuration almost complete in 2 weeks).

The following studies were required postregistration based upon a letter from the registrant to H. Jacoby dated 4/15/85:

- ° aerobic aquatic metabolism
- ° anaerobic aquatic metabolism.

The registrant estimated completion by September 1986. They have not as yet been received by EAB for review.

In the current action, the registrant has applied for a permanent group tolerance on grass, hay and forage, and for a removal of feeding and grazing restrictions on grasses grown for seed.

B. Directions for use:

According to the approved label received by RD on 6/22/88 propiconazole may be applied at 0.11 to 0.22 lb ai/A in 20 gal of water per application to pecans (bearing); 0.11 to 0.15 lb ai/A to pecans (non-bearing) up to four applications per season; one application at 0.11 lb

ai/A to wheat, barley, and rye; and, up to two applications at 0.16 to 0.275 lb ai/A on rice. The proposed rate for peanuts grown in AL, FL, GA, or TX is 0.07 lb ai/A at 10-14 days intervals for a maximum of four applications per season. For peanuts grown in VA, NC, or Ok the rate is approx. 0.043 lb ai/A with similar restrictions.

9. DISCUSSION OF INDIVIDUAL TESTS OR STUDIES: not applicable.
10. COMPLETION OF ONE-LINER: not applicable; updated 8/1/88.
11. CBI APPENDIX: not applicable.