4-24-81

113501
SHAUGHNESSEY NO.

REVIEW NO.

EEB BRANCH REVIEW

DATE: IN 4/10/81 OUT 4-24-81

FILE OR REG. NO. 100-607

PETITION OR EXP. PERMIT NO.

DATE OF SUBMISSION 2/19/81

DATE RECEIVED BY HED 4/9/81

RD REQUESTED COMPLETION DATE 6/24/81

EEB ESTIMATED COMPLETION DATE

RD ACTION CODE/TYPE OF REVIEW 315/Amendment - - Nonfood Use

TYPE PRODUCT(S): I, D, H, F, N, R, S Fungicide

DATA ACCESSION NO(S).

PRODUCT MANAGER NO. H. Jacoby (21)

PRODUCT NAME(S) Ridomil 2E

COMPANY NAME CIBA-CEIGY

SUBMISSION PURPOSE Proposed conditional registration of use in conifer nurseries

SHAUGHNESSEY NO.	CHEMICAL, & FORMULATION	% A.I.
113501	Metalaxyl	
	N-(2,6-dimethylphenyl)-N-(methoxyacetol) alanine methylester	25.11%
		284

100.0 Pesticide Use

This review evaluate the hazards associated with the use of Ridomil® 2E (metalaxyl) on conifer nurseries to control Phytophthora root rot.

100.1/.2 Application Method, Directions and Rates

In addition to the general instructions on the label the following information is proposed for conifers.

General Information: Ridomil is a systemic fungicide for use in conifer nurseries for the control of Phytophthora root rot.

Seed beds and plug plantings:

Apply 2 1/2 pts. (.625 lb. a.i.) Ridomil in at least 50 gal. water per acre in the spring and again in the fall.

2-0 Transplants:

Apply 5 pts (1.25 lb. a.i.) in at least 50 gal water per acre in the spring and again in the fall.

100.3 Precautionary Labeling

The signal word is Danger.

Other precautionary statements regarding wildlife include: Keep out of lakes, streams or ponds. Apply only as specified on this label. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water by cleaning of equipment or disposal of wastes.

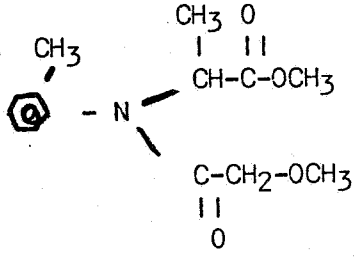
101.0 Chemical and Physical Properties

101.1 Chemical name
N-(2,6-dimethylphenyl)-N-(methoxyacetyl) alanine methyl ester

101.2 Common name

metalaxyl

101.3 Structural Formula



~~282~~
2

101.4 Molecular Weight 279.34

101.5 Physical State
Technical= odorless tan powder or brown solid material
Formulation= brown liquid.

101.6 Solubility: (From 6.6-80 EFB Review)
Technical CGA-48988 is soluble as follows (20°C):

Water	0.7%
MeOH	65%
$MeCl_2$	75%
Benzene	55%
Isopropanol	27%

102.0 Behavior in the Environment

For information on behavior see the 1-21-80 Leitzke review and subsequent EFB reports.

Some concern was expressed by Leitzke regarding metalaxyl's ability to leach and get into ground water. Laboratory test indicate the compound's ability to leach, however field data to date do not show that ground water contamination to be a problem.

103.0 Toxicological Properties

Where possible general toxicological catogories are used in this review in an effort to conserve paper and time. Specific data are listed in previous reviews.

Mammals:

Rat	acute	oral LD50	(35% wp) = 1656 mg/kg
"		"	(50% wp) = 1438 mg/kg
"	Dermal		(50% wp) no irritation LD50>3170 mg/kg
Rabbit	eye irritation		(50% wp) slight corneal opacity on day 1, returned to normal on day 2
Rabbit	skin irritation		(50% wp) skin normal @ 72 hrs. primary irritation index = 0.3

Birds

Acute oral = slightly toxic to birds
Dietary = practically non-toxic

Aquatic Organisms

Fish: technical is practically non-toxic
formulation is moderately toxic

invertebrates: technical is slightly toxic
formulation is moderately toxic

~~283~~

3

104.0 Discussion

This material is being evaluated for use in conifer nurseries at the rate of 1.25 lb. a.i./acre. Surface residues at this rate are estimated at 375 ppm after application. Residues in the plant tissue are unknown. Soil residues for this use (using measured values for tobacco and the citrus studies which utilized a higher application rate) should not exceed 7.4 ppm.

This use pattern does not pose a significant hazard to wildlife because of the cultural practices utilized in the nurseries.

Toxicological consideration: As Section 103.0 summarized the toxicity of metalaxyl varies from slightly toxic to practically non-toxic. Considering the use pattern and application rates, it is unlikely that wildlife will be able to consume enough pesticide to cause a significant hazard.

104.1.1 Likelihood of exposure to nontarget organisms.

Due to the importance placed on the plants grown in there nurseries and the protection given to then, it is unlikely that wildlife has the opportunity to graze in the nursery area.

104.1.2 Endangered Species Considerations

As stated above, because the nursery areas exist as an extensive monoculture it is unlikely that endangered species are found in the vacinity of the nurseries.

104.1.3 Additional Date Required

Previous reviews indicate that all data requirements have been satisfied. Environmental Fate Branch currently has a leaching study in progress to determine the extent of chemical movement under actual use conditions.

107.0 Conclusions

The Ecological Effects Branch has no objection to the proposed label ammendment which allows Ridomil 2E to be used in conifer nurseries.

John Tice
Fish & Wildlife Biologist, EEB

6-24-81

for Harry Craven
Section, Head, EEB

6/24/81

Clayton Bushong
Chief, Ecological Effects Branch

6/24/81

285
5