

US EPA ARCHIVE DOCUMENT

Date Out of EFB: APR 23 1982

To: Henry M. Jacoby
Product Manager 21
Registration Division (TS-767)

From: Dr. Willa Garner, Chief *W*
Review Section No. 1
Environmental Fate Branch
Hazard Evaluation Division (TS-769)

Attached please find the environmental fate review of:

Reg./File No.: 100-607

Chemical: Metalaxyl [N-(2,6-dimethylphenyl-N-methoxyacetyl)alanine -
methyl ester]

Type Product: Fungicide

Product Name: Ridomyl

Company Name: Ciba-Geigy

Submission Purpose: Review of 10th Groundwater Monitoring Study.

ZBB Code: other

ACTION CODE: 571

Date In: 2/26/82

EFB # 211

Date Completed: 4/23/82

TAIS (level II)

Days

60

4

Deferrals To:

X Ecological Effects Branch

X Toxicology Branch

81

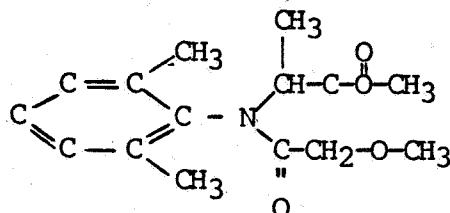
1.0 INTRODUCTION

Metalaxyl (Ridomyl) is currently registered for use as a fungicide on tobacco, conditional to the conducting of environmental monitoring studies in the States of Florida and Maryland.

To date, nine reports have been submitted on monitoring at the University of Maryland's Experimental Farm, in Upper Marlboro. See previous reviews for additional background details.

This submission (Accession # 246773, January 28, 1982) is the 10th in this series.

2.0 STRUCTURE



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

3.0 DIRECTIONS FOR USE

See previous reviews.

4.0 DISCUSSION

This report contains analytical results for metalaxyl in soil and well water, collected at 108, 122, 137 and 150 days following the second application of Ridomil 2E on June 5, 1981, and should be considered supplementary to the tables provided in the earlier interim report (October 5, 1981 - Accession # 246160).

Data indicate that reduction in soil levels of Ridomil continues to occur. Residues at depths greater than 18" did not exceed 0.01 ppm at 137 days. Residues in water from selected wells did not exceed 2.1 ppb.

Rainfall at this test site for the current year's monitoring was reportedly very close to normal for this area of the country.

5.0 CONCLUSIONS

Reported data (inclusive of the current submission) have shown that metalaxyl tends to move fairly quickly through soil profiles soon after application, but to a more limited degree thereafter. We therefore concur with the registrant that the monitoring to date has been ample to demonstrate only minor impact on groundwater.

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6.0

RECOMMENDATION

Monitoring at the Maryland site may be discontinued.

We defer to Toxicology Branch on the significance of very low part-per-billion levels of Metalaxyl or of its acid degradate in drinking water.

We defer to Ecological Effects Branch on the significance of very low part-per-billion levels of Metalaxyl or of its acid degradate in estuarian waters (only a remote possibility under the proposed use situation).

Pending these deferrals, we agree that the conditions associated with the registration of Ridomil on Tobacco have been satisfied.

7.0

RESPONSE TO QUESTIONS

Several questions (handwritten note) were raised by the PM (Jacoby) relative to the status of Ridomil.

7.1

Q. What is the reason for terminating the study? Do we have enough data to rely on mathematical models for future uses?

A. It is our understanding that the study in Upper Marlboro, Maryland is ongoing, and is to be continued by Ciba/Geigy until its planned conclusion this June. Since we have previously run the PESTAN leaching model, fundamental physical and chemical data bases should be adequate.

7.2

Q. What are the detectable residues? Parent? Hydroxy metabolite?

A. See previous reviews for results of the various studies. Gene Holt and Will Nixon of Ciba/Geigy have confirmed verbally (personal communication on 4/22/82) that (based on analysis of soil and water samples from the Maryland site at 30, 60 and 90 days following the most recent application) none of the samples subjected to GC/MS showed detectable residues of the acid degradate in any samples. A copy of the report could be made available to the Agency upon request.

7.3

Q. Have you theorized what the worst case residue picture would be in ground water? What would this mean to an individual's exposure? What would this mean to fish? to wildlife?

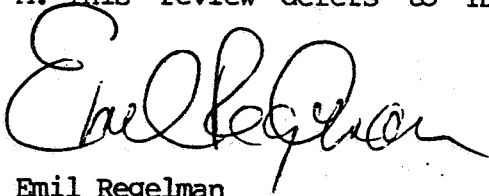
A. What is meant by "worst case"? Significance of individual exposure is a question which should be referred to Toxicology Branch. Exposure of fish and wildlife is an EEB question.

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7.4

Q. Have you sent your results to TB/HED for determination as to toxicological significance?

A. This review defers to TB and EEB for their consideration.



Emil Regelman
Chemist
EFB/HED (TS-769)
April 23, 1982

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