123304

Date Out EFB: MAR 10 1982

To: Product Manager 15 LaRocca
TS-767

From: Dr. Willa Garner
Chief, Review Section No. 1
Environmental Fate Branch

Attached please find the environmental fate review of:

Reg/File No: 618-EUP-RN

Chemical: MK-936

Type Product: Insecticide

Product Name: Avermectin B_1

Company Name: Merck Sharp & Dohme

Submission Purpose: Use on fire ants. Comments on review.

ZBB Code: other

ACTION CODE: 701

Date in: 3/4/82

EFB #: 222

Date completed: MAR 10 1982

TAIS (level II)	Days
52	1

Deferrals To:

_____ Ecological Effects Branch

_____ Residue Chemistry Branch

_____ Toxicology Branch

1.0 INTRODUCTION

Merck Sharp & Dohme has submitted supplemental data concerning the environmental fate of avermectin B_1. These data contain analyses of the soils used in the aerobic soil metabolism study. Acc. No. 246358.

2.0 MK-936: Avermectin B_1

See figure for structure.

3.0 DISCUSSION

EFB's review of 2/5/82 identified two data gaps which needed to be satisfied before EFB would consider concurring with the proposed avermectin EUP.

The data gaps identified were

- o Hydrolysis study - EFB continues to wait for the completion of this study and its submission for review.
- o Aerobic soil metabolism study - EFB continues to wait for the final draft of this study which should include identification of the major metabolites formed. EFB has received the analysis of the soils used in the study and is satisfied with this supplemental data.

4.0 RECOMMENDATION

EFB cannot concur with the EUP until

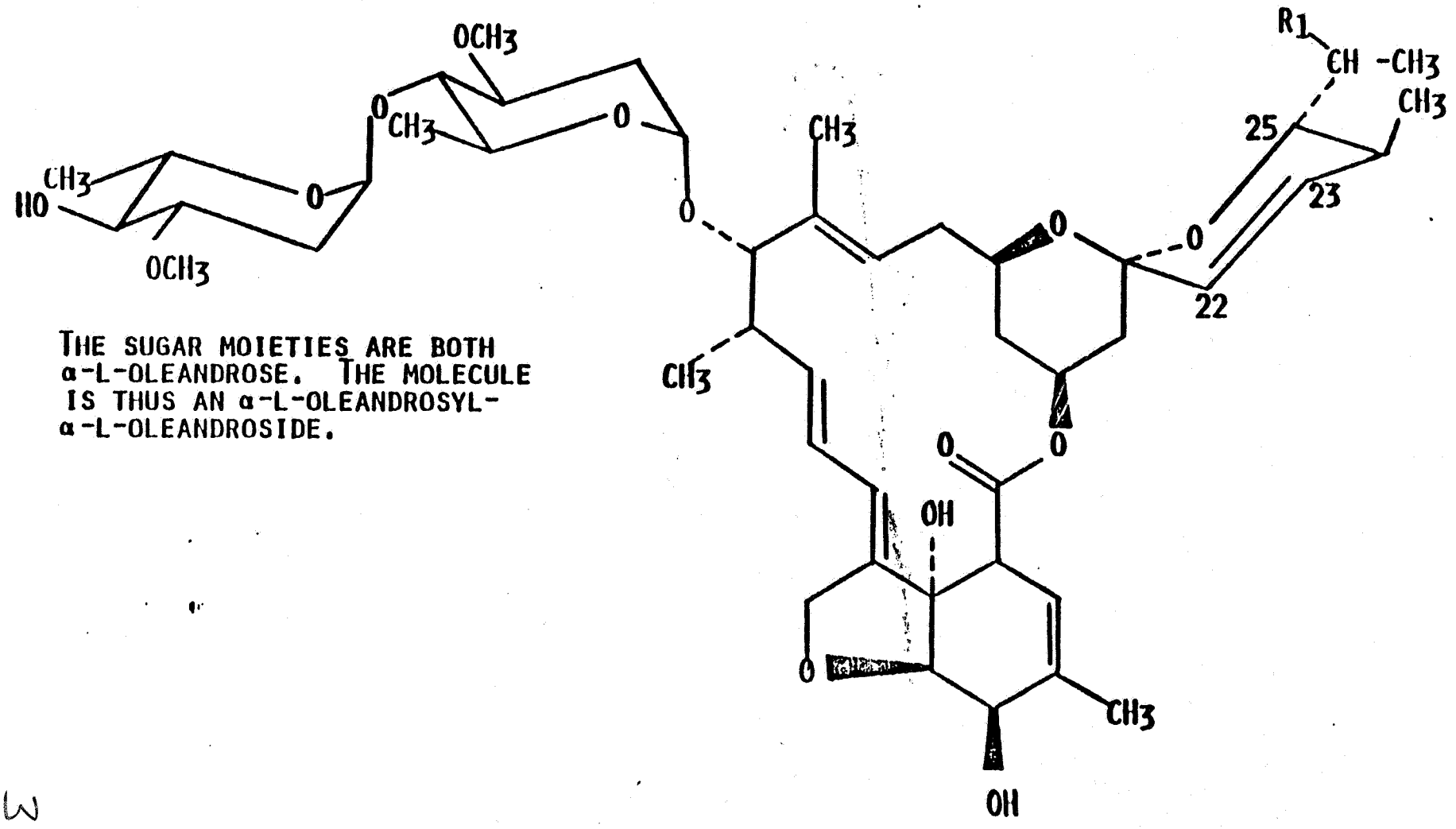
1. The hydrolysis study is completed and submitted for review.
2. The aerobic soil metabolism study is submitted in its final form and includes the identification of the major metabolites formed.

Richard V. Moraski
Review Section No. 1
Environmental Fate Branch

MK-936

AVERMECTIN B_1

L-676,863



THE SUGAR MOIETIES ARE BOTH α-L-OLEANDROSE. THE MOLECULE IS THUS AN α-L-OLEANDROSYL-α-L-OLEANDROSIDE.

$R_1 = C_2H_5 \geq 80\%$ (AVERMECTIN B_{1A}, L-676,895)