Date Out EFB:

APR 5 1982

To: Product Manager
TS-767

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

Attached please find the environmental fate review of:

Reg./File No.: 2139-EUP-23

Chemical: Thidiazuron

Type Product: Herbicide

Product Name: Dropp

Company Name: Nor-Am

Submission Purpose: Review merit of ULV treatment with Dropp in an oil carrier

ZBB Code: ?

ACTION CODE: 714

Date in: 3/25/82

EFB # 254

Date Completed: 4/2/82

TAIS	Days
61	1

Deferrals To:

_____ Ecological Effects Branch

_____ Residue Chemistry Branch

_____ Toxicology Branch

Chemical: Thidiazuron (Dropp) (2139-122)

Company: NOR-AM Agricultural Products Inc.

A petition amendment was submitted to increase the acreage of the current EUP by 4900 acres. This is desired to test for residues in connection with an added use of ULV aerial application of DROPP to cotton in vegetable oil.

The reviews of DROPP aerial application in water were determined to be acceptable on 8/14/81 (EEB files).

The four reviews provided with this submission were for Fundal (chlordimeform). They were submitted in order that a comparison of water versus oil carrier could be made. The four submissions were determined to be acceptable. The extent of drift was more influenced by the type of nozzles and their orientation than by the carrier. Also the thermal conditions and moisture content of the air near the ground had some effect.

1. Fan nozzles tended to produce particles that drifted farther than did jet nozzles with disc.

2. A forward orientation produced particles that drifted farther.

3. The lower temperatures and higher relative humidities tended to allow greater recordable drift.

There is no indication how much material drifted as an aerosol and therefore was not deposited on the cards.

Though the four studies were acceptable in and of themselves, i.e. for FUNDAL, additional studies using DROPP in oil will be necessary to evaluate the extent of its drift versus that of DROPP in water.

Robert W. Holst, Ph.D.
Plant Physiologist
Environmental Fate Branch, HED

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Chemical: Chlordimeform (Fundal 4EC) Acc. No: 247057 through 60

Company: NOR-AM Agricultural Products

Reviewer: Robert W. Holst, Ph.D., Plant Physiologist
Section 2, Environmental Fate Branch, HED, OPP

Date of Review: 2 April 1982

Basic Information:

Study No:		333/288	333/289	333/292	333/293
Temp:	F	95	96	81	81
Rel. Hum:	%	35	30	63	63
Wind Spd:	mph	4.5	7	5	4
Wind Dir:		WNW	WNW	S	S
Noz Type:		D4-46	D1.5-13	Fan 8-46	Fan 8002
Noz Ort:		Down back 30°	Down forward 135°	Down 90°	Back 0°
Press:	psi	50	50	25	40
HT:	ft	8-12	8-12	6-10	6-10
A/C SPD:	mph	105	105	120	120
APPL:	ai/A	0.125 lb	0.125	0.125	0.125
Appl. Dir.		N & S	N & S	E & W	E & W
ADD:		In water + Pydrin	In veg. oil + Pydrin	In water + Pydrin	In oil + Pydrin
GPA:		2	1 qt	2	1 qt
Date of Appl:		7/14/81	7/31/81	9/25/81	9/25/81
Location:		Lexington, MS	Lexington, MS	Shaw, MS	Shaw, MS

Distance vs. Quantity: (Amt. lbs. a.i./A)

25'	Upwind	<0.001	<0.001	<0.001	<0.001
___	Center	0.1	0.14	0.21	0.05
___	Downwind edge	_	0.06	0.28	0.03
___	50'	0.007	0.05	0.03	0.04
___	100'	<0.001	0.04	0.02	0.006
___	150'	<0.001	0.02	0.004	0.001
___	200'	<0.001	<0.001	0.004	0.003
___	250'	<0.001	<0.001	0.004	0.003
___	300'	<0.001	<0.001	0.003	<0.001
___	400'	<0.001	<0.001	<0.001	<0.001
	1000'	<0.001	<0.001	<0.001	<0.001

Notes: (Diagram of application and collection devices, etc.)

Note: 3 passes made for each over same swath.

Oil is cottonseed oil.

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