

US EPA ARCHIVE DOCUMENT

098301



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Date Out EFB: 31 AUG 1984

To: Jay Ellenberger  
Product Manager 12  
Registration Division (TS-767)

From: Samuel M. Creeger, Chief *SMC*  
Review Section No. 1  
Exposure Assessment Branch  
Hazard Evaluation Division (TS-769)

Attached please find the environmental fate review of:

Reg./File No.: 264-330, -331

Chemical: Aldicarb

Type Product: I/N

Product Name: TEMIK

Company Name: Union Carbide

Submission Purpose: Use on grapes in CA only

ZBB Code: 3(c)(7)

ACTION CODE: 336

Date In: 4/10/84

EAB # 4286, 4287

Date Completed: 31 AUG 1984

TAIS (level II)

Days

63

1

Deferrals To:

           Ecological Effects Branch

           Residue Chemistry Branch

           Toxicology Branch

## 1. INTRODUCTION

1.1 Union Carbide is requesting registration of aldicarb on grapes for use in California only. An earlier EAB evaluation (Jan. 7, 1982; S. Malak) for the proposed use had indicated ground water contamination would be unlikely due to the depth to ground water being 250-500 feet and the existence of a cemented hardpan at 33 inches below the surface.

1.2 The laboratory degradation studies and field dissipation studies submitted in this package (acc. no. 072457) were not reviewed at this time since similar studies with similar results have been received and reviewed previously. However, this data should be resubmitted to EAB for evaluation.

## 2. DIRECTIONS FOR USE

2.1 See the Jan. 7, 1982 review. (Rate is 4 lb ai/A).

## 3. DISCUSSION

3.1 In speaking with Mr. Ralph Allison of the California Department of Water Resources (916-445-2356), the following information was gathered regarding the principal grape-growing counties in California:

County	Acres planted to grapes (1980)	Feet to ground water in grape-growing area		ETAW <sup>1</sup> (ft)	Irrigation applied (ft)
		Range	Average		
Fresno	214,000	20-150	50	2.0	3.5
Kern	80,700	60-500	290	2.2	3.1
Madera	67,000	50-160	80	2.1	3.6
Merced	21,000	20-160	40	2.0	3.4
Monterey	36,000	20-200	90	1.2	1.8
Napa	23,800	1-70		0.8	1.0
Riverside	13,600	0-83	30		5.5
(Coachella Valley)					
(Coastal area)				1.5	2.3
San Bern.	12,700	120-200	180	1.5	2.3
San Joaquin	64,600	8-150		1.8	2.6
Sonoma	23,000	2-55		0.7	0.8
Stanislaus	27,000	10-150	30	1.9	3.2
Tulare	81,000	30-400	110	2.1	3.5

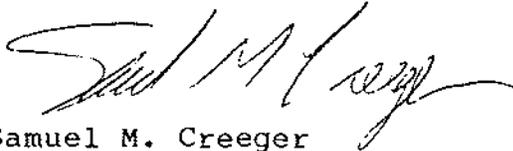
<sup>1</sup> ETAW = evapotranspiration of applied water.

Information in this table is in obvious contradiction to the Jan. 7, 1982 review.

"Irrigation applied" minus "ETAW" equals "recharge" plus "runoff". From the table, some of the irrigation water is recharging the ground water despite the presence of a hardpan. Therefore, the hardpan must not be continuous.

4. CONCLUSIONS/RECOMMENDATIONS

4.1 The possibility of aldicarb residues reaching ground water when used as proposed on grapes in California is likely in some California counties.



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August 31, 1984  
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