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NEW PESTICIDE REVIEW

DATE: 4/3/78 4/23/78
IN ENT ENT
FROM A. WIEDLICH ENVIRONMENTAL CHEMISTRY EFFICACY

FILE OR REG. NO. 7969-EUP-10

PETITION OR EXP. PERMIT NO. 8G2068

DATE DIV. RECEIVED

DATE OF SUBMISSION

DATE SUBMISSION ACCEPTED

TYPE PRODUCT(S): I, D, H, (E), N, P, S

PRODUCT MGR. NO. L. Zink (SRS)

PRODUCT NAME(S) Ronilan

COMPANY NAME Basf Wyandotte Corp.

SUBMISSION PURPOSE Use on strawberries

CHEMICAL & FORMULATION 3-(3,5-dichlorophenyl)-5-ethenyl
-2,4-oxazolidinedione
(Bas 352 F, vinclozolin, Ronilan)

1.0 Introduction

1.1 This is our first review of vinelozolin; the proposed common name for the active component in the product RONILAN.

1.2 The applicant proposes to continue the experimental program started in '75, with applications in '78 as follows:

<u>ai (lbs)</u>	<u>Acreage</u>	<u>States</u>
1,325	15,000	California
200	16,000	Florida
175	7,200	Oregon
150	5,200	Mississippi
125	570	Maryland
100	3,500	Washington
100	1,300	N.Y. and N.J.
100	1,100	Illinois
50	300-2000	AR, IN, LA, MO, NC, PA, TN, TX, VA
25	600-1300	KY, OK, WI
<u>3,000</u>	<u>49,700</u>	

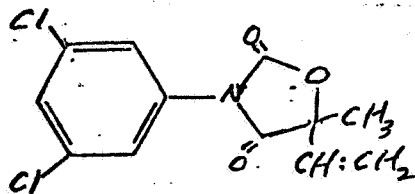
1.2 Nomenclature

3-(3,5-dichlorophenyl)-5-ethenyl-5-methyl-2,4-oxazolidinedione

3-(3,5-dichlorophenyl)-5-methyl-5-vinyl-1,3-oxazolidine-2,4-dione

Formula: $C_{12}H_9NO_3Cl_2$ (M. Wt 286.1)

Structure:



E. Physical-Chemical Properties

The technical product (93%) is white, has an aromatic odor and melts at 103°C. At 20°C the density is CA 1.5 and the vapor pressure $0.1 \cdot 10^{-6}$ M.bar.

Solubility in water: 3 ppm

The n-octanol-water partitioning coefficient is about 1,000 (on the n-octanol side).

2.0 Directions for Use (strawberries)

"...The first application should be made not later than 10% primary bloom...subsequent applications...below."

		lbs P(50% ai)/Acre	
MOISTURE CONDITIONS	Spray Interval (Days)	1st Year Plants Or Sparse Foliage	Dense Foliage
FOR ALL AREAS EXCEPT FLORIDA:			
Frequent natural moisture (rain, fog, dew) or when using sprinkler irrigation (high disease pressure)	7-9	1.0	1½-2
Limited natural moisture infrequent sprinkler irrigation (low disease pressure)	10-14	1.0	1½-2
FOR FLORIDA:			
(Winter Production)	3-5	1.0	1½-2

*Use spray interval throughout the bearing cycle. Retreatment is recommended as soon as possible after extended wet periods (periods lasting more than 24 hrs.), and then the recommended schedule should be resumed.

Do not apply RONILAN during rain. Wait until conditions are such that the spray can dry on the plants.

3.0 Discussion of Data

Data have not been validated for registration.

3.1 "Investigation of the Degradation of Bas 352F in Soil."

The aerobic study was conducted for 240-days at 20°C on a standard loamy sand (2.5% OM; 40% wet, pH 6.8) spiked with Bas 352F(14c-phenyl) at 7.0 ppm. The data shows about 99.5% of the Applied Remained After 45-days either bound (38%), as metabolite B(10%)*, OR AS extractable parent (37%).

*For nomenclature see Sect. 3.2.

3.2 "Investigation into the Hydrolytic Stability of Vinclozolin as a Function of pH Value and Temperature."

pH	<u>Parent-half-life*</u>		<u>Products (3)**</u>	
	<u>25°C</u>	<u>45°C</u>	<u>B</u>	<u>E</u>
9	14 min	15 min	41	9
6	55 hrs	10 hrs	41	9
3	70 day	12 day	4	46

* Averages for concentrations of 0.18 and 1.8 ppm.

** Estimates from data at 25°C.

<u>Product</u>	<u>Chemical</u>
B	3,5-dichlorophenylcarbamic acid
E	N-(3,5-dichlorophenyl)-2-hydroxy-2-methyl-3-butenic acid amide

4.0 Recommendations

4.1 The directions for use require multiple treatments. Therefore, we will need at the time of registration the maximum number of applications or maximal rate per season.

4.2 The applicant indicates not all growing areas are replanted to strawberries. In lieu of rotational crop data, and on the basis of the aerobic soil metabolism study, a label restriction is needed; "Do not rotate with other crops for 12 months following the last application."

4.3 The environmental chemistry data required by Section 3 of the Regulations will be needed at time of registration; see the attached sheet. The submitted data have not been validated for registration.

REPLY 6/20/78

E.B. Brittin 6/16/78 *E.B. Brittin*
Environmental Chemistry Section
EEE Branch

