

113201  
SHAUGHNESSEY NO.

⑨  
REVIEW NO.

EEB BRANCH REVIEW

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TYPE PRODUCT(S): I, D, H, F, N, R, S Fungicide

DATA ACCESSION NO(S).

PRODUCT MANAGER NO. H. Jacoby (21)

PRODUCT NAME(S) Ronilan Fungicide

COMPANY NAME BASF Wyandotte Corporation

SUBMISSION PURPOSE Proposed Conditional Registration of Lettuce Use

SHAUGHNESSEY NO. CHEMICAL, & FORMULATION Z A.I.

## Environmental Safety Review

Pesticide Name: Ronilan® Fungicide 50 W  
(Vinclozolin)

### 100.1 Pesticide Use

Ronilan is a contact fungicide for the control of sclerotinia "drop" (watery soft rot) of lettuce.

### 100.2 Formulation Information

Active Ingredient  
3-(3,5-Dichlorophenyl)-5-Ethenyl-5-Methyl-2,4-  
Oxazolidinedione.....50%  
Inert Ingredients.....50%

### 100.3 Application Methods, Directions, Rates

Time and Rate of Application: For control of sclerotinia "drop" up to three applications may be made under certain conditions in one season as specified in the rate table below. Do not disturb soil after application. Do not apply Ronilan within 14 days of harvest.

| Application | Timing | Rate LB Product/Acre  |                        |
|-------------|--------|-----------------------|------------------------|
|             |        | *Low Disease Pressure | *High Disease Pressure |

Direct Seeded Lettuce  
Application should be made immediately (within 2 days) after thinning.

First

Transplanted Lettuce  
Application should be made 7-10 days after transplanting

1

1-2

Second

Application should be made 14 days after first spray if cool, wet conditions (which favor disease) occur for periods lasting 48 hours or more.

Third

Application should be made 14 days after second spray if conditions favoring disease occur.

\*Based on previous history of disease infestation in the field or adjacent fields.

Method of Application: Application should be made with not less than 100 gallons of spray solution per acre (broadcast basis) to obtain thorough coverage of the lower leaves, plant stem and bed surface. An operating pressure of 50-100 PSI is recommended. Use cone or flat fan nozzles. Flood type nozzles should not be used. To apply RONILAN to one row beds spray booms should have at least 2 nozzles per row. For two row beds use three nozzles or more per bed.

1004. Target Organism

Sclerotinia "drop" (watery soft rot) on lettuce

100.5 Precautionary Labeling

Environmental Hazards

Do not apply directly to lakes, ponds or streams. Do not contaminate water by cleaning of equipment or disposal of wastes.

101 Physical and Chemical Properties

Refer to vinclozolin file (113201)

102 Behavior in the Environment

Refer to vinclozolin file (113201)

103 Toxicological Properties

Toxicological data submitted are summarized as follows. (From previous review by Ann Stavola, 8-5-'81)

| <u>Species</u> | <u>Result</u>                | <u>Test Substance</u> | <u>Validation Category</u> |
|----------------|------------------------------|-----------------------|----------------------------|
| Bobwhite quail | LD <sub>50</sub> >2150 mg/kg | 96.5% AI              | Core                       |
| Bobwhite quail | LC <sub>50</sub> >5620 ppm   | 96.5% AI              | Core                       |
| Mallard        | LC <sub>50</sub> >5620 ppm   | 96.5% AI              | Core                       |
| Bluegill       | LC <sub>50</sub> = 47.3 ppm  | 96.5% AI              | Suppl.                     |
| Rainbow trout  | LC <sub>50</sub> = >18 ppm   | 96.5% AI              | Suppl.                     |
| <u>Daphnia</u> | LC <sub>50</sub> = 4 ppm     | 96.5% AI              | Core                       |

104.0 Hazard Assessment

104.1 Discussions

Vinclozolin is currently registered as a contact fungicide for control of Botrytis and Monilia diseases in grape, rape, soft fruits, vegetables and ornamentals (From Farm Chemical Handbook, 1981). Available toxicological data show that Vinclozolin is non-toxic to avian species tested, but slightly toxic to bluegill (LC<sub>50</sub> = 47.3 ppm) as well as rainbow trout (LC<sub>50</sub> = 18 ppm), and moderately toxic to daphnia (LC<sub>50</sub> = 4 ppm). Highest

expected residues of this pesticide on leafy vegetables and insects are 125 and 58 ppm respectively based on the maximum application rate of 2 lb (50% a.i.) per acre. Possible concentration of this pesticide in the 6-inch body of water, with the inadvertent direct application at the maximum rate, will be 0.734 ppm and hence exceed 1/10 of the daphnia's LC<sub>50</sub> (i.e. 4 ppm). However, possible hazard to aquatic invertebrates is unlikely due to its poor water solubility (less than 1 ppm), poor hydrolytic stability (a half-life of 61 hr. at 25°C and pH 6), and the proposed field application in the lettuce field.

104.3 Endangered Species

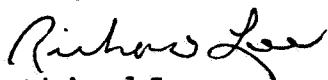
Based on available toxicological data, no acute hazards are expected.

105. Conclusions

EEB has completed an incremental risk assessment [3(c)(7) Finding] of the proposed conditional registration of Ronilan for use on lettuce. Based upon the available data EEB concludes that the proposed use provides for no significant increase in exposure or acute risks to non-target organisms.

Modify the current Environmental precautionary labeling to read:

"Do not apply directly to wetlands and other water bodies (eg. lakes, streams, ponds or canals). Do not contaminate water by cleaning of equipment or disposal of wastes."

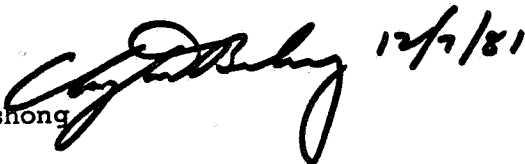


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