US EPA ARCHIVE DOCUMENT

113201
SHAUGHNESSY NO.

21
REVIEW NO.

EEB BRANCH REVIEW

DATE: IN 3/20/85 OUT 3/26/85

FILE OR REG. NO. 85-OR-03

PETITION OR EXP. PERMIT NO.

DATE OF SUBMISSION 3/13/85

DATE RECEIVED BY HED 3/19/85

RD REQUESTED COMPLETION DATE 4/10/85

EEB ESTIMATED COMPLETION DATE 4/10/85

RD ACTION CODE/TYPE OF REVIEW 510/Section 18

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

DATA ACCESSION NO(S).

PRODUCT MANAGER NO. D. Stubbs (41)

PRODUCT NAME(S) Ronilan 50W

COMPANY NAME Oregon Dept. of Agriculture

SUBMISSION PURPOSE Proposed Section 18 for use on snap beans

SHAUGHNESSY NO.	CHEMICAL & FORMULATION	% A.I.
113201	3-(3,5-Dichlorophenyl)-5-	
	ethenyl-5-methyl-2,4-	
	oxazolidinediione	50%
	Inert Ingredients	50%

EEB Review

100 Submission Purpose and Label Information

100.1 Submission Purpose and Pesticide Use

The Oregon Department of Agriculture requests an Emergency Exemption (Section 18) to use Ronilan 50W (vinclozolin) fungicide for the control of *Botrytis* gray mold of snap beans.

100.2 Formulation Information

Active Ingredients:
3-(3,5-Dichlorophenyl)-5-ethenyl-5-methyl-2,
4-oxazolidinediione.....50%

Inert Ingredients:.....50%

100.3 Application Methods, Directions, Rates

Rate of application is to be 1.0 pound of Ronilan 50W (0.5 lb active ingredient) per application with a maximum of two applications. If two treatments are necessary a maximum of 40,000 pounds of active ingredient will be needed to treat an estimated 20,000 acres of beans. Applications of Ronilan 50W will be made in 40-100 gallons of water per acre using ground application equipment or in a minimum of 15 gallons of water when using aerial application equipment.

100.4 Target Organism

Gray mold, (*Botrytis cinerea*)

100.5 Precautionary Labeling

ENVIRONMENTAL HAZARDS: Do not apply directly to wetlands and other water bodies. Do not contaminate water by cleaning of equipment or disposal of wastes.

101 Proposed Section 18 Program

101.1 Nature and Scope of Emergency

At present, registered pesticides are no longer providing effective control of Botrytis on snap beans. Registered fungicides include Benlate, Captan and Bravo. The existing population of Botrytis has developed a high degree of resistance to Benlate. Also, when Benlate is used to control white mold (Sclerotinia spp.), the Benlate causes measurable increases in gray mold infections. Captan may give 25 percent control of mold with a minimum of two applications, but often the second application cannot be made in many fields due to extensive vine growth. Ronilan is the only fungicide for gray mold control in Oregon; the efficacy of Ronilan is 70-90%. The second best control is a combination of Benlate-Captan which may give up to 25% control. One field of beans that was treated with the Benlate-Captan combination sustained an 80% loss of crop. The efficacy of Bravo is poor and appears to be declining; fieldmen report Bravo is less effective than the Benlate-Captan combination.

Cultural practices, such as crop rotation and proper spacing of rows to avoid overcrowding, will reduce Botrytis damage, but do not provide acceptable control.

At this time there are no significantly disease-resistant bean varieties available.

101.2 Date/Duration

From June 1, 1985 to September 15, 1985

101.3 Treatment Area

As per the 1985 request, about 20,000 acres in the state of Oregon will be treated.

102 Hazard Assessment

102.1 Dicussion

Ronilan 50W will be applied to snap beans at 1.0 pound/acre (0.5 lb ai) with a maximum of two (2) applications. The pesticide will be applied by ground equipment and/or aerial application equipment.

102.2 Likelihood of Adverse Effects to Nontarget Organisms

Terrestrial Species

The major commercial snap bean production in Oregon is in the Willamette Valley. This area reports mammals, quail, pheasants and various songbirds using the fields for food and cover. Some exposure is, therefore, likely to occur but the relatively low toxicity of the product to birds and mammals and the maximum of two (2) applications constitute a minimal exposure to terrestrial organisms. The hazard posed by this Section 18 to terrestrial organisms is considered negligible.

Aquatic Organisms

An estimated environmental concentration indicated that runoff problems are minimal, and even if direct application to water occurs by aerial application the hydrolytic half-life at 25° C and pH 6 is only 61 hours. Minimal exposure of aquatic organisms to this pesticide is expected from this Section 18.

102.3 Endangered Species Consideration

No Federally listed endangered species are expected to be jeopardized by this Section 18.

103 Conclusion

EEB has completed a risk assessment for an emergency use of Ronilan 50W fungicide for the control of *Botrytis* gray mold in snap beans in the state of Oregon. Based upon the available data and use information EEB concludes that the proposed exemption provides for minimal hazards to nontarget organisms.

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