EF Br Files

195229
RECORD NO.

121001
SHAUGHNESSEY NO.

18
REVIEW NO.

EEB REVIEW

DATE: IN 5-12-87 OUT 5-22-87

FILE OR REG. NO 87-MN-05

PETITION OR EXP. NO.

DATE OF SUBMISSION 5-5-87

DATE RECEIVED BY HED 5-7-87

RD REQUESTED COMPLETION DATE 5-22-87

EEB ESTIMATED COMPLETION DATE 5-22-87

RD ACTION CODE/TYPE OF REVIEW 510

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

DATA ACCESSION NO(S).

PRODUCT MANAGER NO. D. Stubbs (41)

PRODUCT NAME(S) Poast

COMPANY NAME State of Minnesota

SUBMISSION PURPOSE Proposed §18 for use on snap beans in Minnesota

SHAUGHNESSEY NO.	CHEMICAL, & FORMULATION	% A.I.
121001	Poast	18%

EEB REVIEW

Sethoxydim

100.0 Submission Purpose and Label Information

100.1 Submission Purpose and Pesticide Use

Emergency exemption request by State of Minnesota, Department of Agriculture to use Poast on snap beans for post-emergent wild proso millet control on 600 acres in the Hastings, Cannon Falls, and Northfield, Minnesota Area.

100.2 Formulation and Information

EPA Reg. No. 7969-58
Sethoxydim 18%
Inert Ingredients . . 82%
One gallon contains 1.5 lb ai.

100.3 Application Methods, Directions, Rates

0.5 pint/acre (0.1 lb ai/A) by either ground or aerial equipment.

100.4 Target Organisms

Wild proso millet (Panicum milliaceum L.)

100.5 Precautionary Labeling

No labeling was submitted for review.

101 Hazard Assessment

101.1 Discussion

Poast is currently registered for use as a foliar treatment for grass control on soybeans, virginia pine (forest), ornamental herbaceous plants, nursery stock, and nonfood crops.

101.2 Likelihood of Adverse Effects to Non-target Organisms

Terrestrial

The toxicity data available suggest that sethoxydin is practically non-toxic to mammals based on an acute oral LD_{50} of > 2,000 mg/kg for rats and > 5,000 mg/kg for mice. With an LD_{50} of > 2,000 mg/kg for the mallard duck, sethoxydin may be characterized as practically non-toxic on an acute oral basis. The chemical also has a low order of toxicity on a dietary basis for avian species (LC_{50} > 5,000 ppm for bobwhite quail and mallard duck).

Following a single application at 0.1 lb ai/A (0.5 pints), maximum expected residues would range from 24 ppm on short rangegrass to 5.8 ppm on forage (insects). These values are significantly below mallard duck and bobwhite quail LC_{50} values.

With a half-life of < 4 days in soil and water (< 1 day in direct sunlight) an additional application at .28 lb ai/A to control newly emerged grasses would not pose any greater risk than the initial application.

Aquatic

Sethoxydin is practically non-toxic to freshwater fish, LC_{50} > 100 ppm, and slightly toxic to aquatic invertebrates, LC_{50} 75.7 ppm. Assuming a direct application to water at 0.1 lb ai, the concentration in 6 acre feet of water would be 6.1 ppb. This level is substantially below that necessary to adversely effect aquatic organisms.

101.3 Endangered Species Considerations

There is no anticipation of adverse exposure to listed threatened/endangered species. There are no listed plant species in Minnesota.

101.4 Adequacy of Toxicity Data

The available data is adequate for making hazard assessments.

101.5 Adequacy of Labeling

The request indicated that the federally registered label will be utilized for precautionary statements. Review of EEB chemical files indicate that the label bears appropriate labeling.

103 Conclusion

EEB concurs with the proposed Section 18 use of Poast to treat wild proso millet in Minnesota. The concurrence is based upon toxicity profile, limited acreage, and limited use of the pesticide product.

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