217507
RECORD NO.

121001
SHAUGHNESSEY NO.

2
REVIEW NO.

EEB REVIEW

DATE: IN 4-6-88 OUT 4/15/88

FILE OR REG. NO 88-NE-01

PETITION OR EXP. NO.

DATE OF SUBMISSION 3-11-88

DATE RECEIVED BY HED 4-05-88

RD REQUESTED COMPLETION DATE 4-18-88

EEB ESTIMATED COMPLETION DATE 4-18-88

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 (Sethoxydin)

COMPANY NAME State of Nebraska

SUBMISSION PURPOSE Proposed § 18 for use on field corn

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

EEB REVIEW

Sethoxydim

100.0 Submission Purpose and Label Information

100.1 Submission Purpose and Pesticide Use

Emergency exemption request by the State of Nebraska to control infestations of Shatter cane in corn fields, using Poast (sethoxydim).

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

16 ounces/acre (0.2 lb ai/A) by ground equipment.

100.4 Target Organisms

Shatter cane (Sorghum bicolor), a nuisance grass species.

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. The emergency exemption request is for the 1988 growing season involving an estimated 1,200,000 acres. The requesting State agency indicates that 120,000 acres may actually be treated.

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 chracterized 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).

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Following a single application at 0.2 lb ai/A maximum expected residues would range from 48 ppm on short rangegrass to 11.6 ppm on forage (insects). These values are significantly below mallard duck and bobwhite quail LC_{50} values.

Aquatic

Sethoxydin is practically non-toxic to freshwater fish (bluegill sunfish LC_{50} > 100 ppm) and slightly toxic to aquatic invertebrates (Daphnia LC_{50} 75.7 ppm). Assuming a worst case scenario with a direct application to water at 0.2 lb ai, the concentration in 6 acre feet of water would be 12.2 ppb. This level is substantially below that necessary to adversely effect aquatic organisms.

With a half-life < 4 days in soil and water, repeated applications are not expected to result in acute or chronic exposure.

101.3 Endangered Species Considerations

Exposure to endangered species is not anticipated. The criterias for endangered species are not exceeded. The cropland cluster (e.g., corn) list the solano grass in California as the only endangered plant species at risk from pesticide use on croplands.

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 emergency exemption request by the State of Nebraska to control shattercane in corn fields. There is no anticipation of exposure to nontarget organisms, including endangered species.

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