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SHAUGHNESSEY NO.

REVIEW NO.

EEB BRANCH REVIEW

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

DATA ACCESSION NO(S). _____

PRODUCT MANAGER NO. R. Mountfort

PRODUCT NAME Goal 1.6E

COMPANY NAME Rohm and Haas Company

SUBMISSION PURPOSE Proposed EUP for use on rice

SHAUGHNESSEY NO.	CHEMICAL, FORMULATION	% A.I.
<u>111601</u>	<u>Oxyfluorfen</u>	<u>19.4%</u>

(1)

EEB EUP REVIEW

GOAL 1.6E

100 Experimental Use Label Information

100.1 Pesticide Use

Herbicide to be used experimentally on rice for an early preplant treatment.

100.2 Formulation Information

Goal 1.6E is 19.4% oxyfluorfen

100.3 Application Methods, Directions, Rates

Goal 1.6E herbicide would be applied at 0.62 to 2.5 pints (0.12 to 0.5 lbs. a.i.) per acre. It would be applied to unflooded soil at least 14 days prior to planting.

100.4 Target Organism

Barnyard grass, Bulrush, Dayflower, Ducksalad, Red Rice, Hemp sesbania, waterhyssop.

100.5 Precautionary Labeling

No "Environmental Hazards" label statement was provided with the EUP proposal. The following use restriction was mentioned: Do not apply when weather conditions favor drift. Avoid drift to all non-target areas. Goal 1.6E is phytotoxic to plant foliage.

100.6 Proposed EUP Program

100.6.1 Objectives

1. Initiate the necessary residue and environmental studies to satisfy the requirements for commercial registration.
2. Define the effectiveness of Goal herbicide for the control of problem weeds in rice.
3. Evaluate the utility of Goal herbicide for weed control and crop safety in reduced tillage rice culture.

100.6.2 Date, Duration

A one year study, 1985. Rohm and Haas originally requested a two year program, but RD only wants a one year EUP addressed.

100.6.3 Amount Shipped, Geographical Distribution

<u>State</u>	<u>Pounds a.i.</u>	<u>Acres</u>
California	25	50
Arkansas	6.25	12.5
Louisiana	6.25	12.5
Mississippi	6.25	12.5
Texas	6.25	12.5
Total	50	100

101 Hazard Assessment

101.1 Discussion

This EUP involves applying 0.5 lbs. a.i. per acre to 100 acres in 5 states. The treatment is to dry (unflooded) soil and is at least 14 days preplant; one application per year.

Goal is presently registered on numerous crops with large acreages including stone fruits, corn, cotton and soybeans.

Goal tends to bind tightly to soil. The lowest fish LC50 is 200 ppb (Bluegill); the Daphnia magna LC50 is 1.5 ppm. The fathead minnow early life stage MATC is >38<74 ppb. The oyster LC50 is >32 ppb; the shrimp LC50 is 31.7 ppb.

101.2 Likelihood of Adverse Effects to Nontarget Organisms

The maximum expected residues in discharge water from fields are 2.5 to 3 ppb, decreasing to less than 0.1 ppb in a week. This is based on an extrapolation from a previous field study with a pesticide having similar chemical properties.

Considering the expected residues and the low acreage involved, it is unlikely that this EUP would have an unreasonable adverse effect on any aquatic or estuarine organisms.

Based on the use rate and the low toxicity of goal to birds and mammals, this EUP should have minimal effects on terrestrial organisms.

101.3 Endangered Species

This EUP is not expected to have an effect on endangered species because of the low use rate and subsequent low expected environmental residues compared to its' toxicity and the low acreage involved.

101.4 Adequacy of Toxicity Data

The available data were adequate to complete this risk assessment.

However, the following data would be needed before Goal could be registered for use on rice.

1. An estuarine fish 96-hour LC50.
2. An oyster 96-hour shell deposition study. The oyster study submitted was supplemental because no LC50 could be calculated.
3. A field residue monitoring study. This study must include sampling the water discharged from a treated rice field, and water and sediment from the receiving water body. The receiving water must be sampled within 20 feet of, and downstream from, the outflow of the discharge water and also further downstream. Sampling must begin at the initiation of the first discharge event and continue throughout the season. A detailed description of the study and the study area would be required. This study was discussed with representatives of Rohm and Haas and would be conducted during this proposed EUP.

Further data may be required for a rice registration, including a full field study with biological monitoring, depending on the results of the above data.

101.5 Adequacy of Labeling

The EUP label should have the same Environmental Hazards Statement that appears on the registered Goal 1.6E label.

"Do not apply directly to water. Do not contaminate water by cleaning of equipment or disposal of wastes.

This pesticide is toxic to aquatic invertebrates, aquatic plants, wildlife and fish. Use with care when applying in areas frequented by wildlife or adjacent to any body of water or wetland area. Do not apply when weather conditions favor drift or erosion from the target areas."

103 Conclusions

EEB has completed a risk assessment of the proposed EUP program for use of Goal on rice. Based on the available data, EEB concludes that the proposed EUP would provide for no significant increase in exposure or acute or chronic risks to nontarget organisms.

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