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SHAUGHNESSY NO.

REVIEW NO.

EEB REVIEW

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PETITION OR EXP. PERMIT NO. _____

DATE OF SUBMISSION 09/23/88

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

DATA ACCESSION NO(S). _____

PRODUCT MANAGER NO. R. Mountfort (23)

PRODUCT NAME(S) Isoxaban Technical (1471-RLI)

Gallery 75 DF (1471-RLO)

COMPANY NAME Elanco Products Co.

SUBMISSION PURPOSE Submission of phytotoxicity data in
response to previous EEB review

SHAUGHNESSY NO.	CHEMICAL & FORMULATION	% A.I.
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 28

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Review of Phytotoxicity Data for Isoxaban (Gallery 75 DF)

FROM: Charles R. Lewis *Charles R. Lewis 12/28/88*
Ecological Effects Branch
Environmental Fate and Effects Division (TS-769C)

THRU: *Douglas J. Urban*
Douglas J. Urban, Acting Branch Chief
Ecological Effects Branch
Environmental Fate and Effects Division (TS-769C) *12/28/88*

TO: Richard F. Mountfort, PM 23
Fungicide-Herbicide Branch
Registration Division (TS-767C)

Ecological Effects Branch (EEB) has reviewed the data submitted October 7, 1988 by Elanco Products Co. and has concluded that no additional phytotoxicity data are required to support the current proposed uses. The following is a brief summary of our review:

° Tier I Vegetative Vigor Testing 122-1

Data indicate that isoxaban applied postemergence at 8.0 lb ai/A to seven species of plants resulted in only moderate stunting to two, slight stunting to three, and no injury to the remaining species. Since Gallery 75 DF is applied at 1.0 lb ai/A, the potential foliar hazard to non-target plants from drift following ground application is considered minimal.

The Guidelines requirement for Tier I Vegetative Vigor testing has been satisfied. Tier II testing is not required.

° Tier I Seed Germination/Seedling Emergence 122-1

Of the twenty plant species tested March 29, 1979 at 1.0 lb ai/A, eleven did not emerge, six exhibited reduced emergence, one was stunted, and two showed no injury when the soil surface was sprayed immediately after planting.

The Guidelines requirement for Tier I testing has been satisfied. Tier II testing is required.

° Tier II Seed Germination/Seedling Emergence 123-1

The emergence data originally submitted has been reviewed again in conjunction with the recently submitted data and found to satisfy the Guidelines requirement. Based on these data, 1% drift following a ground application of 1.0 lb ai/A would result in 0.01 lb ai being deposited outside the treatment area. Soil concentrations would be 0.04 ppm to a depth of 0.5 inch, 0.02 ppm to a depth of 1.0 inch, and 0.01 ppm to a depth of 2.0 inches (assuming complete soil distribution). Of the 17 species for which EC₂₅ values were calculated for preplant incorporation only cocklebur, jimsonweed, and soybean would have a >25% effect at the 0.5 inch depth. At 1.0 inch, EC₂₅ values for jimsonweed and cocklebur would be less than the soil concentrations, while at the 2.0 inch depth only the value for cocklebur is less than the soil concentration.

Based on this information, the germination or emergence of certain species of nontarget plants adjacent to the treatment area could be adversely affected from drift following ground application. Consequently, the following statement should be added to the label:

"Drift may result in reduced germination or emergence of nontarget plants adjacent to treated area."

Concerning the hazard to endangered or threatened species, EPA is developing a program to reduce or eliminate exposure to a point where use does not result in jeopardy. The Agency will issue notice of any necessary labeling revisions when the program is developed.

No additional labeling is being required at this time.

The Guidelines requirement for Tier II seed germination/seedling emergence testing has been satisfied. No further testing is required at this time.