UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

4-11-97

MEMORANDUM

SUBJECT: Isoxaflutole: Review of Eco-Toxicity Studies for New Chemical Registration
DP Barcode D225503, D232445

Betsy
E/ GRIM

FROM: Elizabeth M. Leovey, Chief
Environmental Risk Characterization Branch
Environmental Fate and Effects Branch (7505C)

TO: Joanne Miller, PM-23
Registration Division (H7506)

The Environmental Risk Characterization Branch has reviewed 3 studies submitted by Phone-Poulenc Ag Co., Research Triangle, NC. These studies were submitted under DP Barcode D225503 and D232445 for section 3 registration of Isoxaflutole.

Review of Submitted Studies
The following is a brief summary of the submitted studies:

- **CITATION:** Authors: Rodgers, M. H.
  Title: RPA 202248 Subacute Dietary Toxicity (LC_{50}) to the Bobwhite Quail
  Study Completion Date: December 8, 1995
  Laboratory: Huntingdon Life Sciences Ltd.
  Sponsor: Rhone-Poulenc Ag Company
  Laboratory Report ID: RNP 479
  MRID No.: 43940302

This study is scientifically valid and meets all the guidelines for avian acute dietary study.

Results Synopsis
LC_{50}: >5230 ppm ai NOEL: 5230 ppm ai

Classification of study: Core

●**CITATION:** Authors: Hoberg, J. R.
Title: RPA 201772- Determination of Effects on Seed Germination, Seedling Emergence and Vegetative Vigor of Ten Plant Species
Study Completion Date: November 17, 1994
Laboratory: Springborn Laboratories, Wareham, MA
Sponsor: Rhone-Poulenc Ag Company, Research Triangle, NC
Laboratory Report ID: SLI Report # 94-4-5234, SLI Study # 10566.0194.6326.610
MRID No.: 43573242
DP Barcode: D225503

This study is scientifically valid and meets all the guidelines for seedling emergence study but not for the vegetative vigor study.

Results Synopsis

Germination Study: Most sensitive species: Soybean
Most sensitive parameter: radicle length
EC_{25}: 0.18 lb ai/A; EC_{50}= 0.41 lb ai/A; NOEC = 0.098 lb ai/A

Seedling Emergence Study:
Most sensitive monocot: onion
Most sensitive parameter: shoot length
EC_{25}: 0.01576 lb ai/A EC_{50}: 0.03785 lb ai/A
NOEL: 0.012 lb ai/A Slope= 1.77

Most sensitive dicot: turnip
Most sensitive parameter: shoot length
EC_{25}: 0.00047 lb ai/A EC_{50}: 0.00112 lb ai/A
NOEL: 0.00011 lb ai/A Slope= 1.79

Classification of Germination and Seedling Emergence studies: CORE

Vegetative Vigor Study:
Most sensitive monocot: oat
Most sensitive parameter: shoot weight
EC_{25}: 0.00210 lb ai/A
NOEL: 0.00048 lb ai/A

Most sensitive dicot: turnip
Most sensitive parameter: root weight
EC_{25}: 0.00001 lb ai/A
NOEL: <0.00001 lb ai/A

Classification of Vegetative Vigor study: SUPPLEMENTAL for all species due to lack of raw data. Raw data refers to individual plant measurements.

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Ryegrass and lettuce species have negative slopes with an irregular dose response. Confidence in the data on these two species is very low. If raw data does not allow an estimation of the EC values, then the **lettuce and ryegrass need to be retested.**

GUIDELINE DEVIATIONS

1. No raw data were submitted to run statistical test between reps and derive an EC_{25} and EC_{05} values from a continuous data program (Nuthatch).

2. Irregular dose response for lettuce and ryegrass.

If you have any questions, please do not hesitate to contact Mike Davy at 305-7081.