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

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OFFICE OF  
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Review of Daphnia Life Cycle and Mallard Reproduction Studies. *James W. Akerman 3/15/91*

FROM: James W. Akerman, Chief  
Ecological Effects Branch  
Environmental Fate and Effects Division (H-7507-C)

TO: George La Rocca, PM 15  
Insecticides and Rodenticides Branch  
Registration Division (H-7505-C)

The Ecological Effects Branch (EEB) has completed the review of the Daphnia Life Cycle Study Review on June 21, 1990.

PP321: Daphnia magna. Life cycle study using a flow through system. Submitted by: ICI Americas, Inc. Performed by: ICI Agro Chemicals, Jealotts Hill Research Station, Bracknell, Berkshire, UK.

Based on the data submitted, EEB is unable to ascertain if this study is scientifically sound. There are significant discrepancies that need to be addressed. The study authors should refer to section 14 .A for a detailed list of the discrepancies. The primary concerns include: the study authors were unclear as to whether or not the residues reported in the solvent control and the control were technical material or background radiation. In addition, the measured concentrations within the treatment levels varied so much that the guidelines in the 1988 ASTM-1193-87 are not met. The study authors should also be more explicit as to the study method used for delivering the test material and the dilution water within the test vessels.

ICI Americas Inc. has submitted a response to this review, which is currently under review by EEB.

EEB also completed the review of the mallard reproduction study on 7/25/90.

Beavers, J.B. , K.A. Hoxter and M.J. Jaber. 1989. PP321: A One Generation Reproduction Study with the Mallard (Anas platyrhynchos). Prepared by Wildlife International LTD., Easton, Maryland. Project No. 123-143. Submitted by ICI Americas, Inc. MRID NO. 415121-01.

The results from the study indicate that the study is scientifically sound , however, there are discrepancies that need to be addressed by the study authors. Therefore, the study was classified as supplemental. The study authors or the registrant should report the chemical properties of Hexaconazole, since the mallards used in this avian reproduction study were maintained in the same room as the Hexaconazole treated pens. This study design is using one control group for two studies is not recommended in the future.

ICI Americas Inc. has submitted a response to this review, which is currently under review by EEB.

Since data evaluation records have been completed on both of the studies, there is no need to review the progress reports. If you have any further questions, please feel free to contact Candy Brassard at 557-1392.