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REVIEWER

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

APR 20 1988

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Bifenthrin G Petition Extension - Walnuts

TO: Mr. George LaRocca, PM 15
Registration Division (TS-767C)

FROM: Byron T. Backus, Toxicologist Byron T. Backus
Toxicology Branch (TS-769C) 4/18/88

THROUGH: Marcia van Gemert, Ph.D.
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Toxicology Branch (TS-769C)

and

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Branch Chief
Toxicology Branch (TS-769C)

EPA Record No. 215011

Project No. 8-0591

5G 3238

Tox. Chem. 463F

Action Requested:

Review and comment on a G petition extension request involving use of a total amount of 160 lbs of the active Bifenthrin on walnuts and extension of the existing temporary tolerance for walnuts.

Comments and Recommendations:

1. Currently, Bifenthrin is classified as a category C oncogen with a $Q^* = 5.4 \times 10^{-2}$ $(mg/kg/day)^{-1}$.

2. Previously (TB memorandum of June 23, 1987), risk values of 1.08×10^{-7} and 3.17×10^{-10} (from one-year exposure) were calculated for applicator exposure associated with open and closed loading systems respectively and proposed product use on walnuts. These risk values were based on exposures to 0.051 (open loading) and 1.5×10^{-4} (closed loading) mg/kg/yr; these exposure levels were

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provided to TB by EAB (memorandum of May 28, 1987). However, in a memorandum dated December 14, 1987, M. Jones recalculated applicator risks for mixer/loaders and use on cotton, noting that the exposures given in the EAB review of May 28, 1987 for mixer/loaders did not take into account the amount of acreage that would be treated; a similar situation would exist for walnuts. An additional factor to be taken into account would be the upper limit (0.554) for dermal absorption. Assuming 30 acre walnut orchards, the previously calculated risk values would be increased by a factor of 16.6 (30 x 0.554). The risk for one-year exposure of a mixer/loader to an open loading system would then be 1.8×10^{-6}, and for a closed loading system would be 5.3×10^{-9}. It is noted that these are extremely conservative estimates, as the 55.4% dermal absorption rate represents a maximum potential value.

4. The dietary risk characterizations associated with the temporary tolerance were covered in a TB memo of June 23, 1987.

5. The Toxicology Branch has no objections to extension of this G petition provided product labeling stipulates the use of closed loading systems.