

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: February 17, 1978

SUBJECT: PP#7E1949 - Dimethoate in cherries, proposal for a minor crop tolerance of 2 ppm. Caswell#358 Oregon State University Corvallis, Oregon

FROM: D. Ritter, Toxicologist  
TOX/RD WH-567

DLR 2/21/78

TO: C. Fletcher, Minor Uses Officer  
SRS/RD WH-567

THRU: Chief, TOX/RD

WH-567

F 2/22/78

Recommendation:

A hazard evaluation on Dimethoate can not be made.

Bases for the Recommendation:

1. There are no long-term feeding/oncogenicity studies, and we have thus no means to evaluate the oncogenic potential. Furthermore the following tentative facts are in evidence. Carcinogenicity studies performed in Germany and at NCI indicate a cancer potential for Dimethoate (DM).
2. A number of investigators have determined that DM is mutagenic in bacterial and mammalian systems. (Numerous references may be found in the RPAR published in FR 42:176, 9/12/77).
3. DM is in RPAR status.

Detailed considerations:

1. Long-term studies have never been submitted in support of DM tolerances. Studies available include:
  - °Dog 90 day feeding NEL = 9 ppm (ChE inhibition)
  - °Rat 90 day feeding NEL = 32 ppm (ChE inhibition)
  - °Mouse reproduction NEL = 50 ppm
  - °Hen demyelination negative up to 130 ppm.
  - °Human Volunteer studies demonstrate no ChE effect following oral ingestion of 0.04 mg/kg/day for four weeks.

For further discussion of toxicity data please see the D. L. Ritter review of 10/22/75, PP#6F1663.

2. Further consideration of this proposal awaits the submission of the missing long-term TOX data.