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

SEP 26 1986

MEMORANDUM

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

SUBJECT: UT-860004. 24(c) Registration for Dimethoate on Cherries in Utah. Accession Number 264752. RCB No 1428.

FROM: Leung Cheng, Chemist
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

THRU: Edward Zager, Section Head, SRS II
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

TO: William Miller, PM #16
Insecticide-Rodenticide Branch
Registration Division (TS-767)

FMC Corporation is requesting a Section 24(c) registration for its product Dimethoate 267 (EPA Reg No 279-2821) be used on cherries in the state of Utah.

A tolerance has been established for total residues of the insecticide dimethoate [0,0-dimethyl S-(N-methylcarbamoylmethyl)-phosphorodithioate] including its oxygen analog [0,0-dimethyl S-(N-methylcarbamoylmethyl)phosphorothioate] in or on cherries at 2 ppm [40CFR180.204].

According to the review by L. Propst (UT840005, 8/31/84), the above tolerance is a "regional" tolerance with all supporting residue data generated in the state of Oregon.

The label would allow a single application of 1.5 pint Dimethoate 267 (0.5 lb ai) per 100 gallons of water as a full dilute spray with a maximum of 400 gallons of spray volume per acre. A pre-harvest interval of 21 days is specified. There is also a restriction against feeding cover crops or grazing in treated orchards.

Residue data generated in Utah were submitted. Cherry trees received single dimethoate treatments each equivalent to 0.02 lb ai per tree. Total residues on pitted cherry fruit ranged from 0.52-1.28 ppm when sampled 21 days after treatment, and 0.41-0.64 ppm when sampled 28 days after treatment. Controls contained less than 0.05 ppm total residues. Recovery values obtained for the parent compound were 100% at 0.05 ppm, 93% at 0.15 ppm and

84% at 0.25 ppm fortifications. Those values for the oxygen analog were 60% at 0.05 ppm, 100% at 0.15 ppm and 88% at 0.25 ppm fortifications. Storage stability data showed 88% recovery for the parent compound and 99% recovery for the oxygen analog over a 5-month period at -20°C. Residue and storage values were not corrected for recoveries.

In a telephone conversation (9/24/86) with Dr. Jay Karren of Utah State University, the field investigator, he stated that 0.375 pint of the formulated product was mixed with water in a 25 gallon container. The resulting mixture was sprayed on 6 cherry trees (which means about 4 gallons spray mixture per tree), and there were about 108 sour cherry trees grown in an acre in Utah. We thus conclude the residue trial was conducted at the proposed use rate.

The established tolerance of 2 ppm will be adequate to cover the total residues of dimethoate including its oxygen analog on cherries as a result of this Section 24(c) use.

Conclusion and Recommendation

The established tolerance of 2 ppm will be adequate to cover the total residues of dimethoate including its oxygen analog on cherries as a result of this Section 24(c) use.

We recommend for this 24(c) registration for the use of Dimethoate 267 on cherries in Utah.

cc: Circ, RF, SF, 24(c) F, Cheng, PMSD/ISB
RDI: EZager:9/25/86:RDSchmitt:9/25/86
TS-769:LCheng:CM#2:RM810:Date:9/26/86:557-7324:7

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