7-3-84

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

JUL 3 1984

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: EPA Reg. No. 464-448. Amended registration for chlorpyrifos on alfalfa.

FROM: Linda S. Propst, Chemist
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

THRU: Charles L. Trichilo, Chief
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

TO: Jay Ellenberger, Product Manager #12
Insecticide-Herbicide Branch
Registration Division (TS-767)

Dow Chemical Company is requesting an amended registration for the chlorpyrifos formulation Lorsban® 4E to allow for more than one application per crop cutting.

Tolerances have been established (40 CFR 180.342) for combined residues of the pesticide chemical chlorpyrifos (O,O-diethyl O-(3,5,6trichloro-2-pyridyl)phosphorothioate and its metabolite 3,5,6trichloro-2-pyridinol (TCP) in or on alfalfa forage (green) at 4.0 ppm and in or on alfalfa hay at 15.0 ppm.

The currently registered use for Lorsban® 4E on alfalfa allows for Lorsban® 4E on alfalfa allows for application rates up to 1 lb active/acre. Do not cut or graze treated alfalfa within 14 days after application of 0.5 lbs active/acre nor within 21 days after application at rates above 0.5 lbs active/acre. Do not make more than 4 applications per year.

The proposed amended use would allow for Lorsban® 4E to be applied more than once per crop cutting not to exceed more than 1 lb active per crop cutting. Do not apply to more than 4 crop cuttings per year. Do not cut or graze treated alfalfa within 14 days after application of 0.5 lbs active/acre nor within 21 days after application at rates above 0.5 lbs active/acre.

There was no submission of residue data.

None of the residue data available in our files reflect multiple applications per crop cutting. However, data submitted

in conjunction with PP#OF2281 show that combined residues of chlorpyrifos and TCP in or on alfalfa ranged from 0.2 ppm - 4.0 ppm 14 days after receiving a single application of 0.5 lbs active/acre. Concentration factors from forage to hay ranged from 1.6X to 3.7X. From this data we conclude that combined residues of chlorpyrifos and TCP may exceed the established tolerances as a result of the proposed amended registration.

In the absence of data reflecting residues resulting from multiple applications using the maximum recommended dosage with the minimum 14 day PHI, we are unable to recommend appropriate tolerances to cover combined residues of chlorpyrifos and TCP which may occur in or on alfalfa forage or alfalfa hay as a result of the proposed use.

CONCLUSIONS AND RECOMMENDATIONS

Combined residues of chlorpyrifos and TCP may exceed the established tolerances in or on alfalfa forage and alfalfa hay as a result of the proposed amended use.

Therefore, we recommend against the proposed amended registration. In the absence of residue data reflecting the proposed use we are unable to recommend appropriate tolerances for alfalfa forage and alfalfa hay. To give this request further consideration, the registrant should be advised to provide us with data reflecting residues on the green forage and on the cured hay of alfalfa resulting from two applications using 0.5 lbs active/acre per application 14 days after the last treatment.

cc: R.F., Amended Use File, Circu., Reviewer
RDI: A.R.Rathman, 7/2/84; R.D.Schmitt, 7/2/84
TS-769:RCB:LSP:lsp:CM#2:Rm 810: 7/3/84:X77324