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

OCT 28 1983

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM:

SUBJECT: PP# 3E2819. Chlorpyrifos in or on the crop group brassica leafy vegetables. Amendment of 7/13/83.

FROM: Jesse E. Mayes, Chemist
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

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

TO: Hoyt Jamerson, PM 43
Registration Division (TS-767)

and

Toxicology Branch
Hazard Evaluation Division (TS-769)

The petitioner submitted an amendment in response to our letter of July 5, 1983 (Hoyt Jamerson). The amendment included summary of residue data for chlorpyrifos on turnip greens and references to support the petitioner's contention that turnip greens is an adequate substitute for mustard greens as a representative crop for leafy vegetables in the brassica leafy vegetable crop group.

In our review of June 8, 1983 (J. Mayes) we indicated that additional data were needed for leafy vegetables which would reflect studies in representative growing regions and would reflect the recommended usage.

Turnip Green Data

The turnip green data consisted of summary data which was originally submitted with PP# 0E2411. Residue studies were conducted in New Hampshire, Michigan and Washington in which applications of Lorsban 15G and Lorsban 4E were made at the rate of 1.65 fl oz ai/1,000 ft row. Two applications were made: 15G incorporated in the soil at planting and 4E applied to soil at thinning (30-43 days before harvest). Total residues of parent and metabolite in turnip tops ranged from <0.03 to 0.7 ppm and turnip roots, 0.16 to 1.6 ppm.

These data do not reflect the proposed usage of chlorpyrifos on brassica leafy vegetables as indicated in PP#3E2819 (See discussion in memo of 6/8/83, J. Mayes).

As proposed in that petition, the 15G is to be applied at-planting at a rate of 4.6-9.2 fl oz/1000' and the 4E at-planting or at transplanting at a rate of 1.6-2.75 fl oz/1000', with a 30 day minimum PHI, and only one application per season.

As indicated in our earlier review, data which reflect the proposed use are needed. Also, data reflecting studies in other growing regions are necessary.

Turnip Green Substitue for Leafy Crop

Regarding flexible usage of turnip green data to support the leafy vegetable data requirement, while we do not reject the concept, it does not appear to be applicable in this instance because of the variance in proposed usage. [The insecticide is either incorporated into the soil or applied later to the soil at thinning or after harvest of the turnip tops. In both of these applications the turnip roots we involved in the residue picture as would not be the case for the leafy vegetables listed in the crop grouping requested. As indicated above, the turnip tuber accounted for most of the residue found.]

Hence, we reiterate our conclusion that additional data are needed for leafy vegetables reflecting the proposed use in a broader representative growing area.

We recommend against establishment of the proposed tolerance until these deficiencies are resolved.

TS-769:RCB:J.Mayes:cdw:CM#2:Rm810X77324:10/26/83
cc: R.F., Circu, Reviewer, TOX EEB, EAB, PP# 3E2819, FDA, Robert Robert Tompson
RDI: Maxie Jo Nelson, 10/26/84; R. Schmitt, 10/26/83