3-8-85

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

MAR 8 1985

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: EPA Reg. No. 464-448. Amended registration of chlorpyrifos (Lorsban™ 4E) for use (in tank mix w/spray oil) on citrus. Letter of Dec. 4, 1984 (no accession number) [RCB No. 514].

FROM: Kenneth W. Dockter, Chemist
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

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

TO: Jay S. Ellenberger, PM# 12
Insecticide-Rodenticide Branch
Registration Division (TS-767)

In our latest memo concerning the use of the insecticide chlorpyrifos (tradename Lorsban 4E) on citrus we stated total residues may exceed the established tolerance as a result of concentrate (with or without added oil) spray applications (S. Malak, 8/16/84). We recommended the registrant (Dow Chemical USA) either propose a higher tolerance or explain the reported high values. Finally, we advised, "seasonal variations due to climatological conditions are not an adequate explanation".

In response the registrant has submitted "related" weather data to justify these reported high values. In the accompanying letter Mr. Robert F. Bischoff states the excessive residues associated with concentrate sprays are a function of treatment timing and related weather. Mr. Bischoff claims, "cooler temperatures combined with unusually low rainfall were responsible for the excessive residues", and that "these weather conditions, in combination, are not expected to occur when LORSBAN 4E is used ... on citrus fruits".

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The following is a summary of the weather data:

Weather Data for Davis, CA

Year	Rainfall (1)	Temp. (2)
1984	1.64	40
3	12.27	40
2	8.44	35
1	4.93	40
80	12.89	40
79	10.31	37
8	13.27	40(dd)
7	2.23	37 ""
6	1.00	36
1975	6.45	38

(1) - Jan/Feb total (in.)
(2) - " " mean min. (°F at 8 am)
(dd) - disparate data

This weather data does not support the registrant's aforementioned claim; it does not explain the reported high (residues) values. Furthermore, as we previously advised (op. cit.), "seasonal variations due to climatological conditions are not an adequate explanation".

Conclusion and Recommendation

The proposed use of Lorsban 4E concentrate sprays at the registered rate on citrus may result in over tolerance residues. The submitted weather data is not an adequate explanation for the reported high residues. Thus, we continue to recommend against this amended registration. Consequently, the registrant will have to petition for a higher tolerance or revise the use pattern to lower residues.

cc: R.F., Circu., Reviewer, Chlorpyrifos S.F., Amended Use File.
RDI:Section Head:ARRathman:3/5/85:RDSchmitt:3/5/85
TS-769:RCB:Reviewer:KWDockter:557-7484:CM#2:RM:800:3/4/85

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