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

MAY 3 1982

OFFICE OF  
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

Subject: PP#1F2575/FAP#1H5322 Chlorpyrifos on citrus. Amendment  
of 3/29/82

From: Karl Arne, Chemist *K. Arne*  
Residue Chemistry Branch  
Hazard Evaluation Division (TS-769)

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

To: Jay Ellenberger, PM No. 12  
Registration Division (TS-767)

and

Toxicology Branch  
Hazard Evaluation Division (TS-769)

In our review of this petition (memo of 3/4/82, K. Arne) we recommended against the proposed tolerances. For a favorable recommendation we required the following:

1. A revised Section B in which a minimum time period of 30 days between applications is imposed or additional residue data reflecting 2 applications (especially data reflecting low volume applications).
2. A revised Section F in which the following tolerances are proposed.
  - a. citrus fruit 2 ppm
  - b. dried citrus pulp 15 ppm
  - c. citrus oil 40 ppm

With this amendment the petitioner has submitted a revised Section B in which a 30 day minimum between applications is imposed. The use pattern is also changed. The maximum amount of chlorpyrifos allowed per season has been lowered from 30 pts. (15 lb. a.i.)/A to 15 pts (7.5 lb a.i.)/A. The petitioner has done this in an attempt to lower the tolerances for citrus to 1 ppm, dried citrus pulp to 5 ppm and citrus oil to 25 ppm. Since these are the originally proposed tolerance, no revised Section F has been submitted.

The revised Section B indicates that two applications to a total of 15 pts. (7.5 lb a.i.) Lorsban 4E/A/season may be made. The maximum rate per application is 7 pts. (3.5 lb. a.i.)/A except in California where a 12 pt. (6 lb. a.i.)/A application is needed to control scales.

In the submitted data the highest residue found at 21 days was 2.6 ppm resulting from a low volume application of 25 pt. (12.5 lb. a.i.)/A to oranges. This rate is slightly over 2X that proposed for California citrus. We calculate that residues from the 12 pt. application at a 21 day PHI could be up to 1.3 ppm; for the 7 pt. application we would expect residues, at 21 days, of less than 1 ppm. Based on a 12 pt. application and a 21 day PHI the 1 ppm tolerance cannot be supported.

The petitioner wishes to impose a longer PHI for treatments above 7 pints/A in order to reduce the tolerance level to 1 ppm (telecom R. Bischoff Dow, and K. Arne, RCB 4/9/82). We consider this a reasonable approach and, based on residue studies for chlorpyrifos on several crops, we conclude that a 35 day PHI would allow applications of 7-12 pts./A and still insure residues of less than 1 ppm. We have been assured by Jim Wallace, Riverside County, California Extension Service Agent, that a 35 day PHI would be practical (telecom 4/27/82). The petitioner has indicated that a revised Section B in which a 35 day PHI for applications greater than 7 pts./A is imposed will be submitted (telecom R. Bischoff, Dow and K. Arne, RCB 4/25/82).

#### Recommendation

We recommend against the proposed tolerances. Further consideration awaits submission of a revised Section B in which a 35 day PHI is imposed for applications of greater than 7 pts./A.

TS-769:RCB:KArne:vg:CM#2:Rm810:X77324:5/3/82  
 cc: RF, Circ, Arne, Thompson, FDA, TOX, EEB, EFB, PP#1F2575/FAP#1H5322  
 RDI: Quick, 4/28/82; Schmitt, 3/28/82