1-19-83

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

JAN 19 1983

MEMORANDUM

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

SUBJECT: 83-FL-08. Proposed Section 18 exemption for the use of Bayleton on squash in Florida.

FROM: Edward Zager, Chemist
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

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

TO: Emergency Response Section
Registration Division (TS-767)

and
Toxicology Branch
Hazard Evaluation Division (TS-769)

The Florida Department of Agriculture and Consumer Services requests a Section 18 exemption for the use of triadimefon (Bayleton) to control powdery mild ew on squash in Florida. It is estimated that a maximum of 10,000 lbs act will be used on 14,800 acres of squash during the 1982-83 growing season.

Section 18 exemptions for a similar use on cucurbits, but involving a lower rate of application than proposed here, have been issued previously (see R. Loranger's memo of 4/18/82).

PP#0E2393 and PP#0F2349 proposing tolerances for residues of Bayleton (1-(4-chlorophenoxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-1-yl)-2-butanone and its metabolite KWG 0519 (β-(4-chlorophenoxy) - -(1,1-dimethylethyl)-1H-1,2,4-triazol-1-ethanol in or on cucumbers at 0.1 ppm and melons at 0.2 ppm are currently in reject status due to questions concerning analytical methodology and the high variability of the residue data.

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The proposed use calls for a maximum of 4 ground or aerial applications at the rate of 2-4 oz act/A in a minimum of 20 gallons of water per acre with a 30 day PHI.

The metabolism of Bayleton in cucumbers was discussed in our review of PP#0E2393 (A. Smith, 12/2/80). For the purpose of this emergency use we consider the residue of concern in cucurbits to be Bayleton and its metabolite KWG 0519. Since conjugates of those two components are not expected to exceed 20% of the total residue in squash the GC method determining only free residues is satisfactory for this Section 18.

Residue data for cucumber and cantaloupes grown in Mexico are summarized below (from PP#'s 0E2393 and 0F2349). The application rates were 1.8 or 1.75 oz ai/A. The numbers represent the total of parent plus the KWG 0519 metabolite as a function of PHI. Controls were <0.01 ppm for cucumbers and <0.01-0.11 ppm for cantaloupes.

	Total residues (ppm)		
	0 day	5 days	15 days
Cucumbers	<0.01-0.09	<0.01-0.04	<0.01-0.02
Cantaloupes	0.03-0.13	0.05-0.08	0.03-0.11

Based on the above data we estimate that residues of Bayleton plus KWG 0519 will not exceed 0.2 ppm in or on squash from the proposed use.

Since no feed items are involved in this use, there will be no secondary residues in meat, milk, poultry and eggs.

Conclusions

1. Residues of Bayleton and its metabolite KWG 0519 will not exceed 0.2 ppm in or on squash as a result of the proposed use.

2. The proposed use will not lead to secondary residues in meat, milk, poultry and eggs.

Recommendation

TOX considerations permitting, we have no objections to the proposed Section 18 exemption. An agreement should be made with FDA regarding the legal status of treated squash in commerce.

cc: R.F., Circu, Reviewer, Bayleton S.F., Section 18 S.F.(Bayleton)
TOX
RDI:Section Head:RJH:Date:1/18/83:RDS:Date:1/18/83
TS-769:RCB:Reviewer:E.Zager:LDT:X77324:CM#2:RM:810:Date:1/18/83