

US EPA ARCHIVE DOCUMENT



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

APR 19 1982

OFFICE OF  
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: 82-WA-11. Proposed emergency use of vinclozolin (Ronilan) on caneberries.

FROM: Richard Loranger, Chemist *Richard A. Loranger*  
Residue Chemistry Branch  
Hazard Evaluation Division (TS-767)

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

TO: Emergency Response Section  
Registration Division (TS-769)

and

Toxicology Branch  
Hazard Evaluation Division (TS-769)

The Washington Department of Agriculture is requesting a Section 18 exemption for the use of vinclozolin (Ronilan) on caneberries to control botrytis fruit rot.

Permanent tolerances are established for residues of the fungicide 3-(3,5-dichlorophenyl)-5-ethenyl-5-methyl-2,4-oxazolidinedione and its metabolites containing the 3,5-dichloroaniline moiety in or on kiwifruit and strawberries at 10 ppm.

Multiple applications of 0.5-1 lb ai/A in a minimum of 100 gallons spray per acre are requested at 7-10 day intervals. The first application is to be no later than 5% bloom (ca. May 10). The PHI is to be 7 days. A maximum application rate of 9 lb ai/A/season is specified. A maximum of 1500 acres are to be treated. Most of this acreage is planted with red raspberries with the remainder distributed among blackberries, boysenberries, loganberries and youngberries.

Based on metabolism studies using  $^{14}\text{C}$  ring labelled vinclozolin on grapes and strawberries we have previously concluded that the residue of concern consists of the parent compound and its metabolites containing the 3,5-dichloroaniline moiety (J. Onley, PP#1E2457, 4/27/81).

The only residue data available for caneberries are from a study in 1981 on evergreen blackberries in Cornelius, Oregon. The residues, presumably determined as parent plus dichloroaniline metabolites, are summarized below for 1-2 applications of 1-2 lb ai/A as a function of PHI.

| lb ai/A | Ppm residue |        |
|---------|-------------|--------|
|         | 1.5 days    | 7 days |
| 1.0     | 5.3         | 1.9    |
| 2.0     | 10.4        | 4.2    |
| 1.0+1.0 | 6.0         | 3.2    |
| 1.0+2.0 | 12.5        | 5.2    |

Although this study does not reflect the requested number of multiple applications, we do have available such data for strawberries (PP#'s 8G2068 and 9F2205). The data in PP#8G2068 supported a 5 ppm temporary tolerance with maximum residues of 2.90 ppm, 4.20 ppm and 7.80 ppm immediately after multiple applications of 0.5, 1.0 (1X) and 2.0 (2X) lb ai/A, respectively (G. Makhijani, 1/19/79). Additional data for a permanent tolerance in PP#9F2205 resulted in a request for a 10 ppm tolerance. Twenty one applications of 0.75 lb ai/A (0.75X) at 3-7 day intervals produced residues of 0.47-6.64 ppm (parent equivalents) 0-7 days after treatments in Florida. In California maximum residues 0-7 days following 12 applications of 1 lb ai/A and 2 lb ai/A were 3.47 ppm and 7.8 ppm, respectively, in 1977 and 3.66 ppm and 6.89 ppm in 1978 (M. J. Nelson, 7/23/79).

Based on the above data we estimate that residues of vinclozolin plus its 3,5-dichloroaniline metabolites in or on caneberries from the proposed emergency could range up to 10 ppm.

Since no feed items are involved with this use, there is no concern with residues in meat and milk.

Conclusions and Recommendation

1. Residues of vinclozolin plus its 3,5-dichloroaniline metabolites in or on caneberries from the proposed use will not exceed 10 ppm.
2. There will be no problem with secondary residues in meat, milk, poultry and eggs as no feed items are involved in this use.

We have no objections to the granting of this Section 18 exemption, toxicological considerations permitting. An agreement is needed with FDA concerning the legal status of treated caneberries in commerce.

cc: R.F., Circu, Reviewer, TOX, Sec. 18 S.F. Vinclozolin S.F.  
RDI:Section Head:RJH;Date:4/15/82;RDS:Date:4/15/82  
TS-769:RCB:Reviewer:R.Loranger:LDT:X77324:RM:810:Date:4/19/82