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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

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OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

SECTION 18 EXEMPTION FOR USE OF VINCLOZOLIN ON SNAP BEANS

To: R. Cool, PM Team 41 (H7505C)
From: R. W. Cook, Chemist, *RWC*
Tolerance Petition Section I,
Chemistry Branch I Tolerance Support
Health Effects Division (H7509C)

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Tolerance Petition Section I
Chemistry Branch - Tolerance Support
Health Effects Division (H-7509C)

EPA Reg. No.: 93-PA-0001
DP Barcode: D187995
CBTS: 11351
Chemical: Vinclozolin
Trade Name: Ronilan® 50DF
Registration: EPA Reg. No. 7969-85

The Pennsylvania Department of Agriculture requests a Specific Exemption to control gray mold Botrytis cinerea on snap beans in Pennsylvania.

Section 18 exemptions for vinclozolin have been reviewed previously in Chemistry Branch (or Residue Chemistry Branch):

- 92-WA-0015: Succulent Snap Beans
- 90-OR-08: Succulent Snap Beans
- 89-WI-09: Succulent Snap Beans
- 86-OR-03: Succulent Snap Beans
- 85-WA-06: Lima Beans
- 84-OR-08: Snap Beans
- 83-OR-18: Snap Beans
- 83-WA-09: Snap Beans

PP9F3762 and FAP9H5585 proposing tolerances for residues of vinclozolin in succulent beans are currently in reject status, pending establishment of tolerances for residues of vinclozolin in meat and milk resulting from vinclozolin residues in succulent bean waste fed to livestock. Currently, there is no established tolerance for residues of vinclozolin in or on snap beans, nor are there established tolerances for residues in meat and milk resulting from the proposed use on snap beans.

In addition, a new vinclozolin metabolite has recently been detected in a peanut metabolism study (see memo of 8/18/1992 under PP9F3762); CBTS referred available information on the new metabolite to Tox Branch for consideration.

In 1991, there were about 6600 acres of snap beans for processing planted in PA. Up to 3000 acres (approximately 50 growers) in Centre, Colombia, Lycoming, Montour, Northumberland, Snyder, Union and York would need to be treated with vinclozolin in 1993 if conditions favor disease development.

RECOMMENDATION

TOX considerations permitting, CBTS has no objection to the issuance of this Section 18 exemption. An agreement should be made with FDA regarding the legal status of the treated snap beans in interstate commerce. The use restrictions as noted under the section Use Directions should be imposed on this section 18 exemption.

CONCLUSIONS

1. The metabolism of vinclozolin in/on snap beans is adequately understood. The residues of concern are 3-(3,5-dichlorophenyl)-5-ethenyl-5-methyl-2,4 oxazolidinedione and its metabolites containing the 3,5-dichloroaniline moiety. Recently, a new peanut metabolite has been reported, however, the toxicological concern for the new metabolite is under consideration.

2. The metabolism of vinclozolin in/on ruminants is adequately understood. The residues of concern are 3-(3,5-dichlorophenyl)-5-ethenyl-5-methyl-2,4 oxazolidinedione and its metabolites containing the 3,5-dichloroaniline moiety. Pending further consideration of the new peanut metabolite, the residue of concern in ruminants may include the new metabolite.

No poultry feed items are associated with this use. Therefore secondary residues are not expected to occur in poultry and eggs as a result of this proposed use.

3. Adequate methods are available for the enforcement of the current tolerance in plants. Method I in PAM Vol. II may be used for enforcement purposes. Analytical methods for the enforcement of vinclozolin residues in meat and milk, submitted in conjunction with PP9F3750, have not been shown to be adequate in EPA laboratories.

4. Analytical reference standards for vinclozolin are available from the pesticide repository in RTP. Reference standards for the new peanut metabolite are not currently

available.

5. CBTS anticipates that residues of vinclozolin are not likely to exceed 3 ppm in green snap beans or 10 ppm in snap bean processing waste.

There are no established tolerances for residues of vinclozolin in meat, milk, poultry and eggs. Secondary residues of vinclozolin and its metabolites are expected up to 0.06 ppm in milk, 0.1 ppm in fat, 0.06 in meat (described as 'muscle' in 1992 Section 18 for this same chemical), 0.75 ppm in liver, and 0.22 ppm in kidney of cattle as a result of feeding snap bean processing waste to cattle.

No poultry feed items are associated with this use. Therefore secondary residues are not expected to occur in poultry and eggs as a result of this proposed use.

6. The residue data used in the evaluation of this Section 18 request were generated by the petitioner of PP9F3762 (BASF Corp.) and by contract laboratories: Hazleton Laboratories, Inc., Madison, WI, and Landis Associates, Placerville, CA.

Use Directions:

The proposed use of vinclozolin as Ronilan 50 DF EPA Reg No. 7969-85 involves 2 applications of 0.5 to 0.75 lbs. a.i./A. (1.5 pounds Ronilan 50 DF). This use is substantially similar to the use pattern proposed in PP9F3762, currently in reject status. A maximum of 3000 acres are proposed for application, depending upon the severity of disease. We believe the previously imposed 9 day preharvest interval for applications of 0.5 lbs. a.i./A and 14 day preharvest interval for applications of 0.75 lbs. a.i./A. are still appropriate and should be imposed. Likewise, the animal feeding restrictions ('Bean hay from treated fields may not be fed to livestock and livestock may not be grazed on treated fields') previously imposed are appropriate and should be imposed.

Residue Data:

No residue data are submitted with this Section 18.

Based upon residue data submitted under PP9F3762, currently in reject status, residues of vinclozolin and its metabolites are not likely to exceed 3 ppm in green snap beans or 10 ppm in snap bean processing waste.

In PP9F3762, residues of vinclozolin are reported in a total of 16 samples of seeds and pods of succulent beans (8 samples

each of snap beans and lima beans), ranging from 0.38 to 2.4 ppm by ground application equipment, from 0.41 to 0.86 ppm by aerial equipment, and 0.73 to 0.95 ppm by irrigation equipment. None of these studies were conducted in Pennsylvania.

Meat, Milk, Poultry and Eggs:

There are no established tolerances for residues of vinclozolin in meat, milk, poultry and eggs.

Green snap bean processing waste may be fed to cattle at levels up to 20% and to swine up to 10%. A ruminant feeding study conducted under PP5F3237 (vinclozolin in peanuts, meat, milk, poultry, and eggs) at feeding levels of 3 and 15 ppm. Assuming bean processing waste containing 10 ppm of vinclozolin and its metabolites were fed to livestock at 20% feeding level, the animal dietary burden would be 2.0 ppm (10 ppm x 20% = 2.0 ppm). Using data from the 3 ppm animal feeding level, CBTS has previously concluded that residues of vinclozolin and its metabolites are not likely to exceed 0.06 ppm in milk, 0.1 ppm in fat, 0.06 in meat, 0.75 ppm in liver, and 0.22 ppm in kidney of cattle as a result of feeding snap bean processing waste to cattle.

Additional Information

This Section 18 request is essentially the same as previous Section 18 granted to Pennsylvania in 1992.

RDI: RSQuick:3/2/93:RLoranger:3/2/93
cc: RF, SF, circu., Section 18 file, rcook, R. Griffin