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

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

APR 2 _ 1992

Memorandum:

SUBJECT: 92-WA-0015. Section 18 Exemption for the Use of Vinclozolin (Ronilan®) on Succulent Snap Beans. EPA Reg. Nos. 7969-53 (WP) and 7969-85 (DF) (No MRID #, CBTS #9474, Barcode # D175145).

FROM: Jerry B. Stokes, Chemist
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TO: R. Cool/L. Pemberton, PM #41
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and

Toxicology Branch
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The Washington State Department of Agriculture has declared an emergency and requests a Section 18 Exemption to allow the use of vinclozolin, [3-(3,5-dichlorophenyl)-5-ethenyl-5-methyl-2,4-oxazolidinedione], on succulent snap beans (both fresh and processed) to control Botryis gray mold and Sclerotina white mold.

Tolerances are established (§ 40 CFR 180.380) for the residues of vinclozolin and its metabolites containing the 3,5-dichloroaniline moiety in/on head lettuce (10.0 ppm), leaf lettuce (10.0 ppm) onions, dry bulb (1.0 ppm), raspberries (10.0 ppm), stonefruits (25.0 ppm), and strawberries (10.0 ppm). Tolerances are also established for imported Beligan endive tops (5.0 ppm), bell peppers (3.0 ppm), grapes (25.0 ppm), kiwifruit (6.0 ppm),

cucumbers (1.0 ppm) and tomatoes (3.0), but there are no US registrations. No meat, milk, poultry, or egg tolerances are established. Food additive tolerances are established (§ 40 CFR 185.1850) for prunes (75.0 ppm) for US registration and for grape pomace (dried, 42.0 ppm) and raisins (30.0 ppm) to cover imported uses. A request for a 3.0 ppm tolerance for vinclozolin and its metabolites containing the 3,5-dichloroaniline moiety in/on r.a.c. succulent snap beans and a 10.0 ppm feed additive tolerance for succulent snap bean cannery waste is being reviewed in connection with PP#9F3762.

Vinclozolin is a list B chemical under the FIFRA reregistration process and has completed CBRS's Phase 4 Review (See memo of 11/21/90, L. Cheng). A Registration Standard has not been issued for vinclozolin.

Conclusions/Comments:

1. The metabolism of vinclozolin in plants and animals is adequately understood for the proposed use. The residues of concern are vinclozolin, [3-(3,5-dichlorophenyl)-5-ethenyl-5-methyl-2,4-oxazolidinedione] and its metabolites containing the 3,5-dichloroaniline moiety.

2. The GLC method using electron capture detection as Method I in PAM II is adequate for enforcement purposes. Analytical standards are available from the Pesticide and Industrial Chemical Repository at Industrial Park, NC.

3. The combined residues of vinclozolin and its metabolites containing the 3,5-dichloroaniline moiety are not expected to exceed 3.0 ppm in/on the r.a.c. succulent snap beans and 10.0 ppm in/on succulent snap bean cannery waste as a result of this Section 18.

4a. There are no established tolerances for meat, milk, poultry, or eggs.

4b. Succulent snap bean cannery waste can be fed to cattle (20%) and swine (10%) in this Section 18, but livestock are not to be grazed on treated fields and the bean hay from the treated fields is not to be fed to livestock. Succulent bean cannery waste is not considered a poultry feed item.

4c. Residues of vinclozolin and its metabolites are not expected to exceed 0.06 ppm in milk, 0.1 ppm in cattle fat, 0.06 ppm in muscle, 0.75 ppm in cattle liver, and 0.22 ppm in cattle kidney as a result of this proposed Section 18, provided a label restriction against feeding succulent snap bean vines and hay to cattle is in effect. No secondary residues of vinclozolin would be expected in poultry or eggs for this Section 18.

5. No Craven data were reviewed for this Section 18 request.

Recommendation:

TOX considerations permitting, CBTS has no objection to this Section 18 emergency exemption. An agreement should be made with the FDA regarding the legal status of the treated succulent snap beans, both fresh and processed, in commerce.

Detailed Considerations:

Formulation:

The proposed formulations of vinclozolin are Ronilan® WP or DF [EPA Reg Nos. 7969-53 (WP) and 7969-85 (DF)] registered by BASF Corporation. This product contains 50% of the active ingredient.

Proposed use:

A maximum of 1000 acres of succulent snap beans will be treated with 2000 lb. of vinclozolin in Washington state. The proposed rate is 1.0 lb. (0.5 lb. a.i.)/A in a minimum of 5 gallons of water by air or 40 gallons by ground rigs. Applications must be made approximately 7 days apart, and must take place when at least 20% of the plants have one bloom open. A maximum of two applications may be made per season. The proposed PHI is 9 days. The proposed effective application time is June 15 through September 15.
In this Section 18, the livestock are not to be grazed on treated fields and the bean hay from the treated fields is not to be fed to livestock.

Nature of the Residue:

No plant or animal metabolism studies were submitted with this request. Metabolism data were previously reviewed in PP#5F3237/FAP#5H5465. For the purposes of this Section 18 request only, CBTS considers the metabolism of vinclozolin adequately understood. The residues of concern are vinclozolin, [3-(3,5-dichlorophenyl)-5-ethenyl-5-methyl-2,4-oxazolidinedione] and its metabolites containing the 3,5 dichloroaniline moiety.

Analytical Method:

The GLC method using electron capture detection as Method I in PAM II is adequate for enforcement purposes. Analytical standards are available from the Pesticide and Industrial Chemical Repository at Industrial Park, NC.

Residue Data:

No residue data are submitted with this request. However, residue data were previously submitted in PP#5F3237/FAP#5H5465. The

available data show 2 applications at a rate of 1.0 lb. a.i./A/application (2X the proposed rate for 92-WA-0015).

Rate of Application lb. a.i./A (# days between 2 appl.)	PHI days	Vinclozolin residues, ppm snap beans	cannery waste
1.0 + 1.0 (13)	13	1.5	NA
1.0 + 1.0 (17)	17	0.6	NA
1.0 + 1.0 (16)	16	0.3	NA
1.0 + 1.0 (14)	14	0.5	NA
1.0 + 1.0 (14)	14	1.2	NA
1.0 + 1.0 (15)	15	0.2	NA
1.0 + 1.0 (9)	9	0.6	NA

NA: not available

Data were also submitted in PP#9F3762. The available data show a single application at a rate of 1.0 lb. a.i./A/application (2X the proposed rate for 92-WA-0015).

Rate of Application lb. a.i./A, type	PHI days	Vinclozolin residues, ppm snap beans	cannery waste
1.0/ground	14	0.6	NA
1.0/ground	14	0.4	0.9
1.0/ground	14	0.5	NA
1.0/ground	14	0.7	NA
1.0/ground	14	2.4	9.8
1.0/aerial	14	0.6	NA
1.0/aerial	14	0.8	2.5
1.0/irrigate	14	0.9	1.7
1.0/irrigate	14	0.7	NA

NA: not available

Based upon these data CBTS concludes that residues of vinclozolin and its metabolites containing the 3,5-dichloroaniline moiety will not exceed 3.0 ppm in succulent snap beans and 10.0 ppm in succulent snap bean cannery waste in this Section 18.

Meat, Milk, Poultry, and Eggs:

Succulent snap beans are not used as an animal feed, but the succulent snap bean cannery waste is an animal feed item. This cannery waste may be fed to beef and dairy cattle upto 20% and to swine upto 10%. In this Section 18, the livestock are not to be grazed on treated fields and the bean hay from the treated fields is not to be fed to livestock.

Based upon the results of a ruminant feeding study (PP#5F3237/FAP#5H5465):

Commodity	Feeding dose	
	3 ppm	15 ppm
milk	0.06	0.23
fat	0.10	0.63
muscle	0.06	0.30
kidney	0.22	1.2
liver	0.75	2.9

The maximum dietary burden for beef and dairy cattle resulting from the feeding 20% cannery waste would be 2.0 ppm (10 ppm X 0.2). Therefore, residues of vinclozolin are not expected to exceed 0.06 ppm in milk, 0.1 ppm in cattle fat, 0.06 ppm in muscle, 0.75 ppm in cattle liver, and 0.22 ppm in cattle kidney as a result of this proposed Section 18, provided a label restriction against feeding treated succulent snap bean vines and hay to cattle is in effect.

Succulent bean cannery waste is not considered a poultry feed item. No secondary residues of vinclozolin would be expected in poultry or eggs for this Section 18.

cc: J. Stokes (CBTS); R. Griffin (CBTS); C. Furlow (PIB/FOD); vinclozolin Section 18 F.; vinclozolin S.F.; R.F.; Circulation (7)
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