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

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OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: 83-WA-09. Proposed Section 18 exemption for the use of vinclozolin on snap beans in Washington.

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 State of Washington Department of Agriculture requests a Section 18 exemption for the use of vinclozolin (Ronilan, 3-(3,5-dichlorophenyl)-5-ethenyl-5-methyl-2,4-oxazolidinedione) to control gray mold on snap beans (fresh and processed crops).

The proposed use calls for up to two aerial or ground applications at the rate of 0.5 lb act/A with a 17 day PHI. The petitioner indicates that the vines will be left in the field and will not be fed to livestock. For a further assurance on explicit restriction against using treated bean vines or hay for livestock feed should be added to the Section 18 label.

The metabolism of vindowolin in plants was recently discussed in our review of PP#2F2650 (K. H. Arne memo of 6/11/82). The residue of concern consists of parent plus metabolites containing the 3,5-dichloroaniline moiety.

Residue data submitted with this request were apparently obtained by an analytical method which involves release of 3,5-dichloroaniline from vinclozolin and its metabolites which contain this moiety by alkaline hydrolysis and simultaneous steam distillation, chloroform partition for clean-up and analysis by GC-EC of the acylated derivative of 3,5-dichloroaniline. Reported recoveries from beans fortified with 0.05-5 ppm vinclozolin ranged from 76-86%. The method has been found adequate for enforcement purposes (see the above cited memo).

The submitted residue data reflect 3 studies from Oregon. Following 2 applications at the rate of 1 lb act/A (2X), residues of vinclozolin and its 3,5-dichloroaniline containing metabolites ranged from 0.24-0.68 ppm in or on snap beans at PHI's of 9-17 days.

Based on these limited data we estimate that residues of vinclozolin and its 3,5-dichloroaniline containing metabolites will not exceed 1 ppm in or snap beans as a result of the proposed use.

Meat, Milk, Poultry and Eggs

Provided a restriction against the use of treated bean vines and hay is imposed on this use, there will be no problem with secondary residues in meat, milk, poultry and eggs resulting from this use.

Conclusions

1. Residues of vinclozolin and its 3,5-dichloroaniline containing metabolites will not exceed 1 ppm in or on snap beans as a result of the proposed use.
2. Provided a restriction against feeding treated snap bean vines and hay to livestock is imposed on this use, there will be no problem with secondary residues in meat, milk, poultry and eggs from this use.

Recommendation

TOX considerations permitting and provided a restriction against feeding treated snap bean vines and hay to livestock is imposed on this use, we have no objections to the issuance of this Section 18 exemption. An agreement should be made with FDA regarding the legal status of the treated beans in commerce.

cc: Vinclozolin S.F.
Section 18 S.F.
R.F.
Circu
TOX
Edward Zager

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