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

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OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

SUBJECT: 82-MD-01 and 82-DE-01. Section 18 exemption for the use of Bayleton on wheat.

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

Edward Zager

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

and

Toxicology Branch
Hazard Evaluation Division (TS-769)

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

[Signature]

The Maryland and Delaware Departments of Agriculture request Section 18 exemptions for the use of Bayleton 50 WP (50% active ingredient) on wheat to control powdery mildew.

In our review of PP#1G2432 (memo of John M. Worthington, 3/29/80), we recommended for the proposed temporary tolerance for residues of Bayleton [1-(4-chlorophenoxy)-3,3-dimethyl-1-(1H-1,2,4 triazol-1-yl)-2-butanone] and its metabolite, β -(4-chlorophenoxy)- α -(1,1-dimethylethyl)-1H-1,2,4-triazol-1-ethanol (KWG 0519) in or on wheat grain at 0.1 ppm. The use pattern for the experimental program which involved two applications of 1-4 oz act/A and a 60 day PHI, is different than those proposed in the current submission.

Temporary tolerances for residues of Bayleton and its metabolite KWG 0519 have been established at 0.01 ppm in milk, eggs and the meat, fat and meat byproducts of cattle, goats, hogs, horses, poultry and sheep. These will expire on Dec. 31, 1982.

In Maryland the proposed use calls for 1-2 air or ground applications at the rate of 1-2 oz act/A with a 30 day PHI. It is estimated that 6500 acres of wheat will be treated between March 1 and June 30, 1982.

In Delaware the proposed use calls for 1-2 air or ground applications at the rate of 2-4 oz act/A in a minimum of 45 gal of spray/A for ground applications and in a minimum of 5 gal spray/A by air. There will be a 30 day PHI. It is estimated that 2000 acres of wheat will be treated between March and June of 1982.

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The metabolism of Bayleton in small grains and animals was discussed in the review of PP#1G2432 (memo of J. Worthington, 2/25/81). For the purpose of these Section 18 uses we consider the residue of concern in wheat and animal tissues to be Bayleton and its metabolite KWG 0519.

Residue data from 13 studies in 7 states and Canada reflecting 2 applications of 4-6 oz act/A (up to 3x the maximum proposed use) were submitted in PP#1G2432. Residues of Bayleton and its metabolite KWG 0519 in or on wheat grain ranged from <0.02 ppm - 0.09 ppm at PHI's of 13-76 days.

Based on the above data we estimate that residues of Bayleton and its metabolite KWG 0519 will not exceed 0.1 ppm in or on wheat grain as a result of the proposed uses.

No residue data are available for wheat forage, fodder and straw.

Meat, Milk, Poultry and Eggs

Feeding studies were discussed in our review of FAP#1H5282 and at that time we concluded that the appl² and grape uses would fall under Category 2 of 180.6(a). Thus, in conjunction with those uses which would result in a dietary burden of approximately 2 ppm, we recommended for the establishment of a temporary 0.01 ppm tolerance for residues in milk, eggs and the meat, fat and meat byproducts of cattle, goats, hogs, horses, poultry and sheep.

Provided a restriction against the feeding treated wheat forage, fodder and straw is added to the Section 18 labels the uses proposed here will not contribute significantly to the existing dietary burden. Therefore, it is our judgement that the above meat, milk, poultry and egg tolerances will be adequate to cover any secondary residues resulting from the uses proposed here.

Conclusions

1. Residues of Bayleton and its metabolite KWG 0519 will not exceed 0.1 ppm in or on wheat grain as a result of the proposed uses.
2. Provided a restriction against the feeding of treated wheat forage, fodder and straw to livestock is added to the Section 18 labels, secondary residues of Bayleton and KWG-0519 in milk, eggs and the meat, fat and meat byproducts of cattle, hogs, horses, poultry and sheep will not exceed the established 0.01 ppm temporary tolerance.

Recommendation

TOX considerations permitting and provided a restriction against the feeding of treated wheat forage, fodder and straw to livestock is added to the Section 18 labels, we have no objections to the proposed Section 18 exemptions.

cc: Bayleton S.F.
Section 18 S.F.
R.F.
Circu
Reviewer
TOX

TS-769:Reviewer:E.Zager:LDT:X77324:CM#2:RM:810:Date:1/13/82
RDI:Section Head:RJH:Date:1/12/82:RDS:Date:1/12/82