5-14-82

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

MAY 14 1982

MEMORANDUM

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

SUBJECT: 82-MS-10. Section 18 exemption for the use of Bayleton (triadimefon) on wheat.

FROM: Richard Loranger, Chemist R. Loranger
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

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

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

and

Toxicology Branch
Hazard Evaluation Division (TS-769)

The Department of Agriculture and Commerce of Mississippi requests a specific exemption for the use of Bayleton 50 WP (triadimefon) to control leaf and stem rust on wheat.

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 that proposed in the current submission (21 day PHI).

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.

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Two to four ounces ai per acre are to be applied when disease symptons first appear. If symptons reappear additional applications may be made with a maximum of 8 oz ai/A/season. The PHI is 21 days. A total of 25,000 lb ai are to be applied to 50,000 acres from April 9 through May 10.

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.

Only one residue study in PP#1G2432 reflected a PHI as short as 21 days (or less). Two applications of 4 oz ai Bayleton/A (1X) 13 days before harvest produced combined residues of parent plus the KWG 0519 metabolite of 0.09 ppm in wehat grain. The remaining trials had longer PHI's (44-76 days) and involved two applications of 4-6 oz ai/A (versus two applications of 2-4 oz ai/A requested). Total residues were <0.02-0.07 ppm in grain.

Based on the above data we estimate that residues of Bayleton and its metabolite KWG 0519 will not exceed 0.2 ppm in or on wheat grain as a result of the proposed use. This is higher than the 0.1 ppm level set in earlier Section 18 requests (MD, DE, OH) since the proposed use involves two applications (versus 1 in Ohio) and a shorter PHI (versus MD-DE 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 apple 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 of treated wheat forage, fodder and straw is added to the Section 18 label the use 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 use proposed here.

Conclusions

1. Residues of Bayleton and its metabolite KWG 0519 will not exceed 0.2 ppm in or on wheat grain as a result of the proposed use.

2. Provided a restriction against the feeding of treated wheat forage, fodder and straw to livestock is added to the Section 18 label, 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 label, we have no objections to the proposed Section 18 exemption. An agreement should be made with FDA regarding the legal status of treated wheat in commerce.

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

RDI:Section Head:RJH:Date:5/3/82:RDS:Date:5/4/82
TS-769:RCB:Reviewer:R.Loranger:LDT:X77324:CM#2:RM:810:Date:5/11/82