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

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JUN 7 1983

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: PP#3G2782/FAP3H5375. Thiodicarb on field and sweet corn. Amendment of February 16, 1983.

FROM: Sami Malak, Chemist
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

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

TO: Jay S. Ellenberger (PM#12)
Insecticide-Rodenticide Branch
Registration Division (TS-767)

and

Toxicology Branch
Hazard Evaluation Division (TS-769)

Union Carbide Corporation responded to the deficiencies listed in the thiodicarb review of April 1, 1983 which are:

1. The proposed 0.05 ppm temporary tolerance for corn grain was found to be inadequate for which we recommended a 0.1 ppm tolerance level.

2. The proposed 60 ppm temporary tolerance for field corn forage and fodder was found to be inadequate for which we recommended a 150 ppm tolerance level.

In addition, for full registration we advised the petitioner to propose a tolerance in or on sweet corn forage and fodder because we considered the feeding restriction against these commodities impractical.

In response to deficiency #1, the petitioner submitted a revised Section F proposing a 0.1 ppm tolerance for corn grain. Therefore, deficiency #1 is resolved.

In response to deficiency #2, the petitioner retained the original proposal of 60 ppm tolerance for field corn forage and fodder instead of our recommendation of 150 ppm. In our April 1, 1983 memo, we rejected the petitioner's argument to discard 3% of the samples as statistical outliers at the 99% confidence level. This was further supported by data on sweet corn forage showing thiodicarb residues in the range of 100-150 ppm in several samples and 150-260 ppm in 1.8% of the samples.

In response to our comments, the petitioner recognized the higher residues in sweet corn forage as being the result of the intensive treatment schedule, a maximum of 7.5 lbs. ai/A season and 0-day PHI as opposed to a maximum of 4.0 lbs. ai/A season and 28 day PHI for field corn. Because of the expected high residues, a grazing restriction against sweet corn forage and fodder was imposed on the label.

Based on residue data from sweet corn forage showing thiodicarb levels of 113-142 ppm at equal dosage and PHI's to those of field corn, we continue to recommend against the establishment of the proposed 60 ppm temporary tolerance for field corn forage and fodder. The petitioner is advised to revise Section F to propose a 150 ppm tolerance level for field corn forage and fodder. This conclusion is consistent with that of conclusion 3(a) of PP#3F2773 (memo of A. Smith, April 11, 1983), although both reviews were completed independently (same data for both the temporary and permanent tolerances).

The petitioner also disagreed with our permanent tolerance requirement of a tolerance for sweet corn forage and fodder and cited the Registration Guidelines, Subdivision O, Table II, pages 44 and 57 (October 82) which states that sweet corn forage is under control of the grower and thus subject to label restrictions against feeding. In this regard we refer the petitioner to page 9 of the Guidelines where it clearly states that a restriction against feeding corn forage or fodder is impractical because of the major economic importance of corn forage and fodder. Table II, page 44 contains a typographical error in the sweet corn forage feed column. The letter (G) was inadvertently placed after forage and incorrectly indicates control by grower. This error will be corrected and on errata sheet issued.

Our conclusion to proposed a tolerance for sweet corn forage and fodder for full registration is consistent with conclusion 3(b) of PP#3F2773 (memo of A. Smith, April 11, 1983), although both reviews were completed independently (same data for both the temporary and permanent tolerances). The question as to the practicality of a restriction against feeding sweet corn forage and fodder to livestock is best resolved in the permanent tolerance petition (PP#3F2773).

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Conclusions

The following conclusions address the previously cited deficiencies.

1. Residues of thiodicarb and its metabolites in or on corn grain resulting from the proposed use will not exceed the proposed tolerance of 0.1 ppm.

2. Residues of thiodicarb and its metabolites in or on corn forage and fodder resulting from the proposed use will exceed the proposed tolerance of 60 ppm. We reiterate that a tolerance level of 150 ppm would be more appropriate.

Recommendation

For the reason stated in Conclusion 2, we recommend against the proposed tolerances.

For a favorable recommendation, the petitioner should be advised to revise Section F to propose a temporary tolerance of 150 ppm for corn forage and fodder instead of the proposed 60 ppm.

cc: R.F.
Circu
Reviewer
FDA
TOX
EEB
EAB
PP# 3G2782/FAP 3H5375
Robert E. Thompson (Res. Triangle Park, NC)
RDI:Section Head:RJH:Date-5/9/83:RDS:Date-5/9/83:DCR-17941
TS-769:RCB-22:Reviewer-S.Malak:efs:Rm-810:CM#2:x77377:5/11/83

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SECTION F

TEMPORARY TOLERANCES

Permanent residue tolerances have not been established, so the following temporary pesticide tolerances are proposed:

COMMODITY	TOLERANCE
Corn, forage	60 ppm
Corn, fodder	60 ppm
Corn, grain	0.1 ppm
Corn, fresh (including sweet K + CWHR)	1.5 ppm

Data to support the proposed temporary tolerances are hereby incorporated by reference:

> A Petition Proposing Tolerances for Residues of Thiodicarb and its Toxic Metabolite, Methomyl in or on Field Corn and Sweet Corn. Submitted on October 13, 1982.