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

SEP 3 1987

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: PP#6F3405 - Sethoxydim on Sugar Beet Tops - Amendment of April 1, 1987 Submitting Additional Residue Data for Lifting Feeding Restriction (Accession No. 40145601, RCB No. 2529)

FROM: V. Frank Boyd, Ph.D., Chemist
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Hazard Evaluation Division (TS-769C)

TO: Robert J. Taylor, PM 25
Fungicide-Herbicide Branch
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and

Toxicology Branch
Hazard Evaluation Division (TS-769C)

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

BASF Corporation Chemicals Division, Agricultural Chemicals Group, requests removal of the geographic restriction from the Poast® label, "sugar beet tops may be fed to livestock only in the states of CA, AZ and NM." This restriction was necessitated by the lack of residue data on sugar beet tops from other parts of the United States (PP6F3405, memorandum of F. Boyd, April 1, 1987). In the April 1, 1987 memorandum, RCB recommended for a tolerance of 3.0 ppm, with expiration date, and a geographic label restriction for sethoxydim residues in sugar beet tops. The 3 ppm tolerance was established by the Final Document publication on April 8, 1987 in 40 CFR Part 180.

Present Recommendations

RCB can now recommend, if EAB and TOX considerations permit, for a permanent tolerance of 3.0 ppm sethoxydim residues on sugar beet tops, without any geographic label restrictions regarding the feeding of tops.

Detailed Considerations

RCB's memorandum of April 1, 1987 recommended the following:

1. For a tolerance with an expiration date, RCB will recommend that a 3.0 ppm sethoxydim tolerance be established on sugar beet tops, if EAB and TOX considerations permit.

2. For a permanent tolerance, the petitioner will need to provide sample storage information, the mode of application(s) and other field trial information, GLC chromatograms, and raw data in order to substantiate the 1985 residue data. If these residue data are substantiated, then a revised Section B should be proposed without any geographical label restrictions.

Recommendation 2 is considered as a deficiency. In response to this deficiency, the petitioner has submitted the current amendment.

Petitioner's Response

1. Sample storage information is submitted for all 1985-86 Residue Field Trial samples. All samples were received frozen and in good condition. The samples were maintained at less than -5 °C until analyzed. Storage time for the samples prior to analysis was 6 to 10 months. A storage stability study for sethoxydim residues in alfalfa forage is submitted. Adequate stability of the metabolites (85% or greater) is documented for the alfalfa forage containing weathered residues stored for 16 months at -5 °C.

2. Mode of application and other field trial information is submitted for each of the 1985-86 Residue Field Trials. All applications to sugar beets were by ground application in these recent trials.

3. GLC chromatograms and raw data from the analyses of the 1985-86 residue samples are submitted.

4. Residue data submitted are from trials using the proposed labeled application of 0.5 + 0.5 lb ai/A and harvested at 87 to 98 days (label limits to 100 days PHI). A single exception is the Idaho trial in which a single application of 0.5 lb ai/A was used. These data are from a total of 16 field trials, California (8), Minnesota (1), North Dakota (1), Michigan (1), Texas (2), Colorado (1), Nebraska (1), and Idaho (1).

   A single application in the Idaho trial resulted in 0.98 ppm residues at 89 days following application. The remaining trials received the maximum of 0.5 + 0.5 lb ai/A of Poast and resulted in < 0.10 to 0.52 ppm total residues at a 87- to 98-day PHI.

5. Revised Section B labeling is submitted with deletion of the sugar beet tops restriction "sugar beet tops may be fed to livestock only in the states of CA, Az and NM."

RCB's Response and Conclusions

1. Sample storage information and storage stability data are adequate.
2. Mode of application and other field trial information are complete for the 1985-86 trials.

3. GLC chromatograms and raw data can be used to determine the efficiency of the method and to assure that the calculated data are validated by the raw data.

4. The residue data submitted are of sufficient quantity and distribution to be representative of the sugar beet growing areas in the United States. With a maximum residue of 0.52 ppm at < 100 days PHI, the residue levels in all 16 field studies are well below the previously submitted data.

   Older data generated in 1984 were presented and reviewed in the memorandum of September 25, 1986, F. Boyd, PP#6F3405. These studies included three California trials of side-by-side aerial and ground application. These data included the maximum residues reported to date from the proposed label use with

1.75 ppm at a 104-day PHI, from ground application. In these studies, residues from ground vs. aerial application were approximately 2X greater.

From all 19 studies performed according to the proposed use, the maximum residue of 1.75 ppm at a 104-day PHI indicates that the tolerance of 3.0 ppm established for sethoxydim residues in sugar beet tops would not be exceeded by the proposed use in sugar beets.

cc: Circu, R.F., PP#6F3405, TOX, PMSD/ISB, F.Boyd
RDI:J.H. Onley:8/24/87:R.D. Schmitt:8/25/87.
RCB:TS-769:F. Boyd:CM#2:Rm 804:7-7484:8/24/87:Edit by:mt:8/28/87