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

MAR 24 1986

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: EPA Reg. No. 7969-58. Poast® (sethoxydim) on sugarbeets. Revised labelling. Accession No. 261077. RCB No. 472.

FROM: Linda S. Propst, Chemist
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THRU: Andrew R. Rathman, Section Head
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TO: Robert Taylor, PM 25
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Registration Division (TS-767)

The Agricultural Chemicals Group of the BASF Wyandotte Corporation proposed in a letter dated April 12, 1985 that the label of Poast® Herbicide be revised by restricting the feeding of sugar beet tops. Residue data showing over-tolerance residues of Poast® on sugar beet tops was submitted with that letter.

In our memo of 9/12/85 (L. Propst), we had no objections to the feeding restriction and recommended for the revised labelling.

Tolerances have been established for the combined residues of the herbicide 2-[1-(ethoxyimino)butyl]-5-[2-(ethylthio)propyl]-3-hydroxy-2-cyclohexene-1-one and its metabolites containing the 2-cyclohexene-1-one moiety (calculated as the herbicide) in or on sugar beet roots at 0.1 ppm, sugar beet tops at 0.2 ppm, in the fat, meat and meat by-products of cattle, goats, hogs, horses, poultry, and sheep at 0.2 ppm, in eggs at 0.5 ppm, and in milk at 0.05 (N) ppm (40 CFR 180.412). In addition, a feed additive tolerance of 0.5 ppm has been established for sugar beet molasses.

The registrant now proposes that we re-review the data and remove the feeding restriction because of the economic inconvenience to sugar beet growers.

The data submitted on 4/12/85 reflected three side-by-side studies comparing residue levels on sugar beet roots and tops resulting from ground applications versus residue levels resulting from aerial applications. Whether applied by air or ground equipment,

Poast® was applied at currently registered rates. Total residues in all sugar beet roots were <0.1 ppm. However, total residues of Poast® resulting in or on sugar beet tops from either ground or aerial applications exceeded the established tolerance of 0.2 ppm. Maximum total residues detected in sugar beet tops were 1.75 ppm from the ground applications and 0.71 ppm from the aerial applications. To avoid illegal residues which would exceed the established tolerance of 0.2 ppm in or on sugar beet tops, the registrant asked that the feeding of sugar beet tops treated with Poast® be restricted until such time as additional residue data could be generated to determine an appropriate tolerance level to cover all residues of Poast® occurring in or on sugar beet tops as a result of the currently registered uses.

We have analyzed the newer data and the data submitted in the original submission (PP#3F2950). The original submission contained a total of nine field trials. In four of the trials a single application of 0.5 lb ai/acre was made (two applications permitted). Residues in these studies ranged from <0.05 - 0.1 ppm. Of the remaining five studies, three reflect 2 applications of 0.5 lb ai/acre each and two studies showed a single application using 1 lb ai/acre. The PHI's ranged from 220-298 days in the three studies reflecting two 0.5 lb ai/acre applications. No data on sugar beet tops were obtained from the studies reflecting the 1 lb application rate (PHI's in these studies were 112-155 days).

In the newer data all three samples reflect 2 applications of of 0.5 lb ai/acre with PHI's ranging from 101-121 days.

When one reviews all the data it becomes obvious that the original submission contained no data reflecting realistic PHI's of 3-4 months where the maximum amount of product was applied. Consequently, it is not surprising that the newer data showed much higher residues. Therefore, we believe that the restriction should remain in place or a higher (2 ppm) tolerance be proposed by the company.

Conclusions and Recommendations

From the residue data submitted on 4/12/85, we again conclude that residue levels of Poast® on sugar beet tops may exceed the established tolerance level of 0.2 ppm as a result of the currently registered uses.

The registrant should be advised that no amount of additional residue data will negate the valid data previously submitted showing overtolerance residues of Poast® on sugar beet tops occurring as a result of the currently registered uses.

The registrant should be further advised that he may choose to continue restricting the feeding of sugar beet tops to livestock or to alleviate the economic hardship to the sugar beet growers he may choose to submit a petition requesting a tolerance of 2.0

ppm to cover residues of Poast® which may occur on sugar beet tops as a result of the currently registered uses.

The potential for secondary residues in meat, milk, poultry, and eggs will not be appreciably affected since a 2 ppm tolerance on sugar beet tops is considerably lower than for other feed items (cottonseed at 5 ppm, soybeans at 10 ppm).

cc: Reading File, Subject File, Amended Use File, Circulation, Reviewer
RDI: A. R. Rathman, 3/20/86; R. D. Schmitt, 3/20/86
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