PMSD/ISB

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

JUN 19 1989

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: 89-NM-02. Section 18 Specific Exemption. Sethoxydim on Green Beans. No MRID #. DEB # 5423.

FROM: Leung Cheng, Chemist
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THRU: Francis Suhre, Acting Section Head
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TO: D. Stubbs/S. Stanton, PM Team 41
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The New Mexico Department of Agriculture has requested a Section 18 specific exemption for the use of Poast to control Johnsongrass in green beans. The active ingredient is 2-(1-(ethoxyimino)butyl)-5-(2-(ethylthio)propyl)-3-hydroxy-2-cyclohexen-1-one or sethoxydim.

The proposed use would allow a first application at 0.28 lb ai/A when plant growth (Johnsongrass) is 6"-10". A subsequent application at 0.19 lbs ai/A for regrowth at the 4"-8" stage if necessary would also be allowed. A maximum of 0.47 lb ai/A per year is permitted. Applications would be by ground equipment only. A preharvest interval of 15 days is imposed. There are no grazing restrictions.

DEB previously concluded that residues of sethoxydim and its metabolites will not exceed 5.0 ppm in or on lima beans, and 40 ppm in or on bean forage and hay as a result of one application by ground equipment of sethoxydim at 0.28 lb ai/A per season and a PHI of 30 days (89-IA-01, F. Toghrol, 5/26/89).

Also, in that review, DEB concluded that the established tolerances for residues of sethoxydim in meat, fat and meat by-products of cattle, goats, hogs, horses, poultry (except for poultry meat byproducts) and sheep at 0.2 ppm, and milk at 0.05 ppm are adequate to cover the residues resulting from this proposed use. Residues in or on eggs and poultry meat byproducts

are not expected to exceed 2.0 ppm resulting from this (89-IA-01) proposed use.

Tolerances for residues of sethoxydim and its metabolites in or on succulent beans at 5.0 ppm, bean forage at 10 ppm, and bean hay at 50 ppm are pending (PP8F3640, H. Fonouni, 11/4/88).

Tolerances for the residues of sethoxydim and its metabolites containing the 2-cyclohexene-1-one moiety, calculated as sethoxydim, are established in or on various raw agricultural commodities including alfalfa forage and hay at 40.0 ppm; meat, meat by-products, and fat at 0.2 ppm, milk at 0.05 ppm, and eggs at 0.5 ppm [40 CFR 180.412].

The metabolic nature of sethoxydim in plants and animals is adequately understood. The residues to be regulated are the parent compound and its metabolites containing the 2-cyclohexen-1-one moiety (PP8F3640, H. Fonouni, 11/4/88).

No residue data have been submitted with this Section 18 request. However, residue data were discussed in PP8F3640. Following split applications at 0.5 and 0.3 lb ai/A and PHI's of 10-35 days, residues ranged from <0.2-3.6 ppm in green beans, from <1-5.8 ppm in bean forage, and from <1-40 ppm in bean hay (89-IA-01, F. Toghrol, 5/26/89).

On the basis of the above data, DEB estimates that residues of sethoxydim are not likely to exceed 5 ppm in green beans, 10 ppm in bean forage, and 40 ppm in bean hay as a result of the NM proposed use (same residue levels as those estimated for the 89-IA-01 proposed use).

Analytical method # 30 (Method I), described in PAM II, is adequate for enforcement purposes.

Since the residue estimates resulting from this (NM) use are the same as those for the 89-IA-01 proposed use, DEB likewise concludes that the secondary residues are not expected to exceed 2 ppm in poultry meat byproducts and eggs, and not expected to exceed 0.2 ppm in meat, and poultry (except meat by-products) and not to exceed 0.05 ppm in milk.

CONCLUSIONS AND RECOMMENDATION

1. The residues to be regulated in this Section 18 request are the parent compound and its metabolites containing the 2-cyclohexen-1-one moiety.

2. A method is available for determining sethoxydim residues in peas resulting from this proposed use. The method is Method I (# 30) in PAM II.

3. Residues of sethoxydim are not expected to exceed 5 ppm in or on green beans, 10 ppm in or on bean forage, and 40 ppm in or on hay a result of the proposed use.

4. The established tolerances for residues of sethoxydim in meat, fat and meat by-products of cattle, goats, hogs, horses, poultry (except for poultry meat byproducts) and sheep at 0.2 ppm, and milk at 0.05 ppm, are adequate to cover the residues resulting from this proposed use; and residues in or on eggs and poultry meat byproducts are not expected to exceed 2.0 ppm resulting from the proposed use.

5. Reference standards are available from the Pesticides and Industrial Chemicals Repository at RTP, NC.

TOX considerations permitting, DEB has no objections to this Section 18 request. An agreement should be made with FDA regarding the legal status of the treated commodities in commerce.

cc:Circ, RF, Section 18 F, Cheng, S. Stanton (SACB), Schmitt (DEB deputy), PMSD/ISB
RDI:FSuhre:6/19/89:EZager:6/19/89
TS-769:DEB:CM#2:Rm810:Cheng:6/16/89:1: