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

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R.F.

Memorandum

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Subject: 89-LA-02. Section 18 Specific Exemption for the Use
of Pendimethalin (Prowl^R, EPA Reg. No. 241-243)
on Sugarcane
No Accession Number / No MRID Number
DEB #4926

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The Louisiana Commissioner of Agriculture, Bob Odom, requests a Section 18 Specific Exemption authorizing applications of the herbicide pendimethalin (Prowl^R 4lbs a.i./gallon, EPA Reg. No. 241-243) on sugarcane to control itchgrass and browntop panicum.

Permanent tolerances have been established (40 CFR 180.361) for residues of the herbicide pendimethalin, [N-(1-ethylpropyl)-3,4-dimethyl-2,6-dinitrobenzeneamine] and its metabolite 4-[(1-ethylpropyl)amino]-2-methyl-3,5-dinitrobenzyl alcohol (Cl-202,347) on various raw commodities ranging from 0.1 ppm for lima beans (dry, snap) to 0.25 ppm on peanut hulls.

The proposed use includes a maximum of two applications (preemergence and layby) between March 1st and June 30th of 1989. The herbicide would be applied to 40,000 acres at a maximum of 6 pints (3 lbs a.i.)/acre. Incorporation of the herbicide would be by rainfall, if adequate rainfall were received within seven days of application, or a rolling cultivator.

A Section 18 Specific Exemption was granted to the Louisiana Commissioner of Agriculture on March 3, 1987 for the use of pendimethalin (Prowl^R) on 40,000 acres of sugarcane to control itchgrass and brown panicum (see memo M. Metzger, 3/3/87). The

proposed use involved two applications of the herbicide at 2-4 pints (1-2 lbs a.i.)/A/application. This recent request is the same as the 1987 request with the exception of the increase to 6 pints (3 lbs a.i.)/A/application.

No residue studies were submitted with this request; however, three residue studies submitted with PP#3F2765 were reviewed by R. Cook (1/14/83). These studies, which analyzed for the parent compound only, showed residues of <0.05 ppm for 1 and/or 2 treatments ranging from 2.0 to 4.0 lbs a.i./A/application. The ¹⁴C metabolism study (Ibid.) showed residues of ¹⁴C activity <0.01 ppm from 2 treatments (preemergence and layby) at 3 lbs a.i./A/application. For the purposes of this Section 18, these residue data are considered adequate (see memo M. Metzger, 3/3/87).

No metabolism or residue data have been submitted since the Section 18 granted March 3, 1987. Our conclusions remain unchanged even though the application rate has been increased since the estimated maximum level of residues was set high enough to cover the use proposed in this current Section 18 request. The combined residues of pendimethalin and its metabolite, Cl 202,347, are not likely to exceed 0.1 ppm in/on sugarcane, bagasse, molasses, or refined sugar as a result of the proposed use.

Conclusions

- (1) The metabolism of pendimethalin has not been adequately delineated; however, for the purposes of this Section 18 only, the residues of concern are the parent and the metabolite, Cl 202,347.
- (2) Analytical methodology is available for enforcement purposes. The methods available include; M-1212, M-1208, M-1207 in PP#3F2765 (Acc. No. 071166) for the parent; and PAM II, methods II and IV for Cl 202,347.
- (3) The combined residues of pendimethalin and its metabolite are not likely to exceed 0.1 ppm in/on sugarcane, bagasse, molasses or refined sugar as a result of the proposed use.
- (4) Since no residues of pendimethalin were detected in animal feed items associated with the proposed use, we conclude that secondary residues are not likely in eggs, milk, or in the meat, fat and meat by-products of cattle, goats, hogs, horses, poultry, and sheep as a result of the proposed use.
- (5) Analytical reference standards are available from the Pesticides and Industrial Chemicals Repository.

Recommendations

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

cc:RF, Circ, Section 18 F, PMSD/ISB, Stanton (SACB), JSmith,
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