

US EPA ARCHIVE DOCUMENT

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

6-13-79

DATE: 6/13/79

SUBJECT: Registration No. 241-243; PROWL herbicide: Additional use, PROWL preplant incorporated in transplanted tobacco.

FROM: Edward Brittin, Chemist, Residue Chemistry Branch, HED (TS-769)

TO: Product Manager #25 (R. Taylor), Registration Division (TS-767)

Thru: Acting Chief, Residue Chemistry Branch *A. D. Schmitt*

Formulated with four pounds of pendimethalin per gallon, the subject product has been accepted for use on field corn, cotton, and soybeans. Appropriate residue data, accession volume #237965, have been submitted (4/5/79) in support of the use on tobacco.

Direction for Use

Depending upon the texture of the soil, geographical region, and the nature of the infesting weed, PROWL is applied as a broadcast spray to transplant tobacco acerages at rates of 1.5 pt to 3.0 pt (0.75 to 1.5 lb ai) per acre. Within seven day of the application and prior to planting, PROWL is soil incorporated.

Conclusions

The submitted data are sufficient to support the proposed use. Since the product is registered, additional product chemistry data will not be required. Based on the submitted studies, residues of pendimethalin in cured tobacco by the proposed use would be less than the sensitivity of the analytical method, 0.1 ppm. Residue in the cigarette smoke would be considerably lower than 0.1 ppm and were not reported.

Recommendations

RCB recommends favorably for the proposed use.

Detailed Considerations

Product Chemistry

The data supporting the current registration are also sufficient to support the amended use on tobacco; the manufacturing and formulation data were reviewed with PP# 5F1566.

Residue Chemistry
Analytical Methodology

The reported residue of pendimethalin per se were adequately determined. Cyanamid's procedures for this residue in the tobacco, green and cured, and in the smoke condensate are not essentially different from the methodology (GLC-EC) reviewed with petition 5F1556 which established the Prowl tolerances in or on cottonseed.

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Cyanamid's current report C-602 validates these procedures, M-550 and M-576, for residues of pendimethalin per se, to 0.1 ppm. Recoveries from tobacco samples fortified with 0.1 to 20 ppm of the ai ranged from approximately 75% to 119%. The reported residues were determined at Cyanamid's Laboratory at Princeton, N. J.

Residues in Field Tobacco

The residues reported from all locations were less than 0.1 ppm, the sensitivity of Method M-550. The testing sites (6) were in the major tobacco states; Georgia, Kentucky, Virginia, Pennsylvania, and North Carolina.

Residues resulting from the proposed use would not exceed those reported, since the data are for flue cured tobacco varieties and include sampling of the first primed lower leaves of plants treated at an exaggerated rate, 2.0 lb of the ai per acre. The treatment to sampling intervals ranged from 68 to 138 days, the PHI normally approximates 80 days.

Residues in Cigarette Smoke

Since the detected (Method M-550) residue in cured tobacco was <0.1 ppm, data for residues in the smoke were not submitted and are not needed.

E. B. Brittin
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