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

FEB 24 1986

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: 2935-UEA. Lorsban® 30 Flowable. Seed treatment registration on delinted cottonseed. RCB No. 186.

FROM: Linda S. Propst, Chemist *Linda S. Propst*
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

THRU: Andrew R. Rathman, Section Head *ARR*
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

TO: Jay Ellenberger, Product Manager #12
Insecticide-Rodenticide Branch
Registration Division (TS-767)

Wilbur-Ellis is requesting to register their chlorpyrifos product Lorsban® 30 Flowable as a seed treatment on cotton (delinted seed only).

A tolerance has been established for the combined residues of the pesticide chlorpyrifos (O,O-diethyl O-(3,5,6-trichloro-2-pyridyl) phosphorothioate and its metabolite 3,5,6-trichloro-2-pyridinol (TCP) in or on cottonseed at 0.5 ppm (40 CFR 180.342). In addition, a tolerance of 0.5 ppm for combined residues of chlorpyrifos and TCP residues in or on cottonseed is currently pending in which residues of chlorpyrifos per se are not to exceed 0.2 ppm (PP#3F2884/3H5396).

Lorsban® 30 Flowable is currently registered for seed treatment on field beans, green beans, kidney beans, lima beans, navy beans, snap beans, edible soybeans, string beans, wax beans, field corn, sweet corn, cucumbers, lentils, black-eyed peas, cow peas, field peas, garden peas and pumpkins, using 2.75 fluid ounces of Lorsban® 30 (0.92 oz. a.i.) per hundred weight of seed.

The proposed use would apply 5.5 fluid ounces of Lorsban® 30 Flowable (1.85 oz. a.i.) per 100 pounds of seed as a slurry treatment prior to planting. Disperse the required amount of Lorsban® in a water solution containing a 0.5% by weight of an acceptable sticking agent. Use 15-25 fluid ounces of solution for each 100 pounds of seed to be treated. Mix the slurry with the seed using a rotating blender or auger mixing equipment that will ensure each seed is uniformly coated.

There were no residue data reflecting the proposed seed treatment on cottonseed submitted with this request.

Residue data for snap beans and lima beans were submitted in connection with PP#4F1445. Both snap beans and lima beans were grown from seed treated with 1 oz ai/100 lb seed and 3 oz ai/100 lb seed. Lima beans showed no detectable residues (<0.05 ppm) at harvest (70-110 days after planting). Lima bean forage exhibited residues of <0.05 - 0.75 ppm at 22-28 days after planting; 0.05 - 0.29 ppm at 42-59 days and <0.05 ppm at 73-110 days. Snap beans had no detectable residues (<0.05 ppm) at harvest (55-61 days after planting). Snap bean forage exhibited residues of <0.05-0.37 ppm, at 16-31 days after planting, from 1 oz ai/100 lbs of seed. Residues at harvest (41-61 days) in snap bean forage were 0.05 - 0.49 ppm from 1 oz ai/100 lbs of seed.

We note that the majority of residues are found in or on the bean forage and not the seed. Since our files indicate (memo 11/79, Norma Whetzel) that gin trash and cotton forage are not generally regarded as feed items, we are not concerned with the residue levels occurring in these commodities as a result of the proposed use. However, we believe a restriction against the feeding/grazing of cotton forage should be placed on the label.

Translating the above residue data from snap beans and lima beans to cottonseed, we conclude that the combined residues of chlorpyrifos and its metabolite TCP occurring as a result of the proposed use will not exceed the established tolerance of 0.5 ppm in or on cottonseed.

Conclusions and Recommendations

The combined residues of chlorpyrifos and its metabolite TCP occurring as a result of the proposed seed treatment will not exceed the 0.5 ppm tolerance established for cottonseed.

Providing a grazing/feeding restriction for cotton forage is placed on the label, we could recommend for the proposed seed treatment.

Note to PM - The 2/29/84 Chlorpyrifos Registration Standard concluded that the available data do not fully support the established tolerance for the combined residues of chlorpyrifos and TCP in or on cottonseed. The additional data required include residues in or on cottonseed at harvest following five applications (the average no. of treatments/year of chlorpyrifos countrywide; Qualitative Use Assessment for Chlorpyrifos. G. F. Ludvik and E. D. Thomas, EPA, OPP, 1982) of the 4 lb/gal EC formulation at 1 lb ai/A. Data for both aerial and ground application must be submitted. Tests should be conducted in CA (28%); percent of contribution to total U.S. cottonseed productions given in parentheses (Agricultural Statistics, 1981, p. 114).

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Since the requested residue data involves foliar applications and an adequate geographical representation of the cotton growing areas, this data gap is not relevant to the proposed seed treatment.

cc: Reading File, Subject File, Circulation, Amended Registration,
Reviewer, PMSD/ISB
RDI: A. R. Rathman, 2/20/86; R. D. Schmitt, 2/21/86;
TS-769:RCB:LSP:lsp:CM#2:Rm810:557-7324:2/21/86