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

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OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: EPA Reg. Nos. 100-626*, -639. Additional data and amended labels for metalaxyl seed treatments. Accession Number 258986. [RCB# 117, 118]

FROM: ~~Richard Loranger~~, Chemist *R. Loranger*
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THRU: Andrew Rathman, Section Head *AR*
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TO: Henry Jacoby, PM 21, HFB
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CIBA-GEIGY Corporation has submitted revised labels for the metalaxyl seed treatment products Apron 2E and Apron 25W. They have also provided residue data on sunflowers reflecting the higher rate (3.5 oz ai per 100 lbs seed) requested for that commodity and several grains (see 9/22/83 R. Loranger memo).

The proposed labels for both products have changed since our 9/22/83 review. In addition, each product has a separate label for seeds intended for export. First, we will discuss the uses for export seeds and the new residue data. This will be followed by a discussion of the domestic uses of each product.

Seeds for Export

Both the Apron 25W and Apron 2E labels state "For use only by commercial seed treaters on seed intended for export". The seeds to be treated are corn, millet, sorghum, and sunflowers. The rates for each product are 1-3.5 oz ai per 100 lbs seed for all four crops. Our previous memo noted that these uses would require supporting residue data for at least two grains and sunflowers.

The new study in the present submission involved treatment of sunflower seeds with 3.5 oz ai per 100 lbs seed. The metalaxyl was uniformly labeled with C14 in the phenyl ring and used to prepare a 2E formulation for coating the seeds. The seeds were planted in Nebraska and the resulting stalks harvested 60 days later and at crop maturity. The head and seeds were also collected at maturity. All crop samples contained detectable radioactivity (0.037-0.053 ppm) but at levels "too low for reliable quantitation".

*Product Manager put wrong Reg. No. (-628) on "bean sheet".

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The above results are similar to those obtained when sunflowers were treated at lower rates of 0.5 and 2.0 oz ai per 100 lbs seed. In those studies all samples were observed to contain activity at levels too low for reliable quantitation (<0.028 - <0.074 ppm)(see 6/15/83 P. Errico review in PP#3F2827). Since the same amounts of radioactivity were observed from all 3 rates in sunflowers and the high (3.5 oz) rate is requested for use on export seeds only, we are willing to accept the requested uses on sunflowers and the three grains (sorghum, corn, millet) in the absence of data on the grains at the 3.5 oz rate. The 0.1-ppm tolerances for grain crops and sunflowers (latter established by 11/22/85 Federal Register notice) are adequate to cover any trace residues which might occur. However, if CIBA-GEIGY wishes to register the 3.5 oz or higher rates on crops other than sunflowers in the U.S., we will require residue data on representative crops of those groups to show that established tolerances are still adequate.

Domestic Seed Treatments

The domestic label for Apron 2E includes uses on soybeans and grain sorghum at 0.25-0.5 oz ai per 100 lbs seed and on sunflowers at 2 oz ai/100 lbs seed. These three seed treatments are covered by tolerances of 0.1 ppm on seed and pod vegetables, grain crops, and sunflowers (latter established 11/22/85). Therefore, we have no objections to the requested label for the 2E product.

The Apron 25W label contains a greater number of domestic uses. A maximum of 0.5 oz ai per 100 lbs seed is requested for cotton, forage grasses, forage legumes, garden beets (including sugar beets), grain crops, grasses for turf, seed and pod vegetables, and soybeans. Higher rates are requested for peas (1.25 oz ai), sorghum (1.0 oz ai), and sunflowers (2 oz ai). The turf grass use qualifies as a non-food use. The higher rate (1-2 oz ai) seed treatments are covered by tolerances and supporting residue data in PP#3F2827. With the recent establishment of tolerances for beets and sunflowers, all of the remaining uses are covered with the exception of sugar beets. The beet tolerance only includes garden beets. The garden beet data in PP#3F2827 are adequate to establish a tolerance on the closely related sugar beets (P. Errico, 6/15/83); however, such a tolerance has not been proposed. Therefore, we recommend against inclusion of the sugar beet use on the 25W label at this time. All other uses are acceptable.

CONCLUSIONS AND RECOMMENDATION

1. For the purpose of treating seeds for export only, we consider the available data adequate to show that metalaxyl residues in sunflowers and the grains sorghum, corn, and millet will not exceed the 0.1 ppm tolerances.
2. There is no tolerance for residues of metalaxyl on sugar beets, whose seeds are to be treated with Apron 25W.

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3. With the exception of sugar beets, all the proposed domestic seed treatments with metalaxyl are covered by appropriate tolerances.

For the reason noted in Conclusion 2 we can not recommend for acceptance of the Apron 25W domestic label. The registrant must propose establishment of 0.1 ppm tolerances for residues of metalaxyl on sugar beets and sugar beet tops or delete sugar beets from the label. We have no objections to acceptance of the Apron 2E domestic label and the export labels of both products.

CIBA-GEIGY should also be notified that if they wish to register the 3.5 oz or higher rates on crops other than sunflowers in the U.S., we will require residue data on representative crops of those groups to show that established tolerances are adequate.

cc: Circu
RF
Metalaxyl SF
Metalaxyl amended use
PMSD/ISB
Loranger

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TS-769:RCB:R.Loranger:557-7324:ral(3):CM#2:RM.810:Date:1/13/86