



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

 57
 OPP OFFICIAL RECORD
 HEALTH EFFECTS DIVISION
 SCIENTIFIC DATA REVIEWS
 EPA SERIES 361

NOV 22 1988

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM:

 SUBJECT: EPA Reg. #100-639
 [RCB #4219]
 [MRID: None]

 Metalaxyl[APRON®-25W FUNGICIDE]:
 Treated corn seed as a feed item.

 FROM: William L. Anthony
 Special Registration Section II
 Dietary Exposure Branch
 Health Effects Division (TS-769)

William L. Anthony

 THRU: Ed Zager, Section Head
 Special Registration Section II
 Dietary Exposure Branch
 Health Effects Division (TS-769)

E. Zager

 TO: Lois Rossi, PM #21
 Fungicide-Herbicide Branch
 Registration Division

Ciba-Geigy, Agricultural Division, Greensboro, NC in cooperation with Gustafson, Inc., a seed-treating company, is investigating the possible use of excess corn seed that had been treated with metalaxyl for use as a feed for beef and dairy cattle.

The formulation, APRON®-25 W FUNGICIDE, contains 25 % of the active ingredient, Metalaxyl [N-(2,6-dimethylphenyl)-N-(methoxyacetyl)alanine methyl ester]. The inerts are cleared under 40 CFR §180.1001.

Currently, tolerances for the combined residues of the parent and its metabolites containing the 2,6-dimethylaniline moiety, and N-(2-hydroxy methyl-6-methyl)-N-(methoxyacetyl)-alanine methyl ester, each expressed as metalaxyl, in/on grain crops are established under 40 CFR §180.408 at 0.1 ppm. A Registration Standard for Metalaxyl was issued June 22, 1987.

Registered Use

The current seed-treatment label [APRON®-25 W FUNGICIDE, EPA Reg. #100-639] permits 0.15 to 0.30 ai/kg of seed. This corresponds to a maximum of 300 ppm ai per Kg seed. The above tolerances for the residues of metalaxyl in/on grain

- 2 -

were established, however, on the basis that metalaxyl be applied to cover seed treatment where the treated seed is to be planted and harvested. The label contains a restriction on the use of treated seed for food, feed, or oil.

Residues

No new residue data was submitted with this request.

The registrant had raised the following question. Is there a margin of safety to allow the feeding of treated corn seed to beef and dairy cattle?

The established 0.1 ppm tolerance for grain crops is to cover residues in grain grown from the treated seed and not the seed itself. Studies submitted in PP #2695 indicate much higher residues in the treated seed. Concentrations of 284 to 336 ppm were found in the treated seed of rice, peanuts, soybeans, navy beans, peas, and sweet corn.

Available feeding studies have been completed at lower intake levels up to 75 ppm in livestock diet. It is likely that the established meat and milk tolerances could be exceeded as the result of using treated seed for food.

Conclusion and Recommendation

The registrant has misconstrued the applicability of the established 0.1 ppm tolerance since the tolerance is intended to cover residues in the crop grown from treated seeds. The actual residues in the treated seed itself may be much higher, since the grain may have been treated by other pesticides registered for seed treatment only.

The use of treated seeds for feed could result in residues exceeding the established tolerances in meat and milk. Consequently, we recommend against the use of treated seed for animal feed.

CC: Reviewer;SF,Metalazxyl[APRON®]:RF;PMSB/ISB;Circulation.

RDI:E.Zager,Sec.Head,11/7/88;R.Schmitt,11/7/88.

TS-769:W.Anthony;wa;CM-2;Rm.812;X557-4351;11/8/88.