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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: Metolachlor on Tree Nuts. Amendment of 10/23/84.

FROM: K. H. Arne, Chemist *Arne*  
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Hazard Evaluation Division (TS-769)

THRU: Charles L. Trichilo, Ph.D., Chief  
Residue Chemistry Branch  
Hazard Evaluation Division (TS-769)

TO: Richard Mountfort, PM Team No. 23  
Registration Division (TS-767)

and

Toxicology Branch  
Hazard Evaluation Division (TS-769)

In our most recent memo concerning this petition (2/14/84, K. Arne), RCB recommended for the metalochlor tolerances that Monsanto had proposed for tree nuts (0.1 ppm) and almond hulls (0.3 ppm). These tolerances have not been established. The petitioner now wishes to amend the proposed use on tree nuts to allow two rather than one application at a rate of 2-4 lb a.i./A. Residue data supporting this change have been submitted and are discussed below. Since higher residues were uncovered in almond hulls the tolerance proposed for that commodity has been raised to 0.5 ppm.

Proposed Use

The originally proposed use involved one application (2-4 lb a.i./A) of metolachlor in the spring when weeds were not present, and residue data in support of this reflected PHI's of 123-243 days (see memo of 1/9/84, K. Arne). The proposed use now submitted allows the same rate to be applied twice, the second application as close as 30 days before harvest. The restrictions are the same as described in our 2/14/84 (K. Arne) memo.

Residue Data

Two residue studies each were conducted for almonds, walnuts, and pecans. All trials were conducted in California except those for pecans, which were from Mississippi and New Mexico. No residues were found in any nutmeat samples as a result of 1x (4 lb a.i./A) or 2x rates (PHI's = 30-39 days).

Data for almond hulls are summarized below:

<u>Rate</u> (lb a.i./A)	<u>No.</u> (appls.)	<u>PHI</u> (days)	<u>Residues (ppm)</u>		<u>Total</u>
			<u>CGA 37913</u>	<u>CGA 49751</u>	
4	2	34	0.18	0.09	0.27
8	2	34	0.71	0.43	1.14
4	2	30	0.2	<0.05	0.2

The proposed use results in residues less than the proposed tolerances (0.5 ppm) for almond hulls, but when a 2x application was made the residues in hulls were greater than twice the proposed tolerance.

The use now proposed is significantly different than the original; the PHI has been reduced to 30 days, and the amount of metolachlor that may be applied has been doubled. Because of this and because of the high residues on almond hulls as a result of a 2x application RCB requires additional residue data for almonds. Four to six additional residue trials representing the maximum use and minimum PHI should be conducted, and hulls and nut meats should be analyzed for residues. If detectable residues are uncovered in nutmeats, then additional field trials on walnuts and pecans may be needed. The additional residue data requested are primarily needed to better establish a tolerance level for almond hulls.

Conclusions and Recommendations

The additional residue data now submitted are too limited to support the newly proposed use. RCB requires four to six additional residue studies on almonds. These studies should represent the maximum use and minimum PHI, and hulls and nutmeats should be analyzed for residues. If detectable residues are uncovered on almond nutmeats, then additional studies on pecans and almonds may be needed. These additional residue data are primarily needed to better establish a tolerance level for almond hulls.

Other Considerations

An International Residue Limit Status sheet is attached. No Codex, Mexican, or Canadian tolerances are established for residues of metolachlor or tree nuts. Thus the question of compatibility does not arise.

cc:R.F., Circu, Reviewer, TOX, EAB, EEB, PP#3F2958/Metolachlor  
RDI:JHOnley:1/7/85:RDSchmitt:1/7/85  
TS-769:CM#2:RM810:X7484:KArne:wh:1/7/84