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

4-13-88 RF

MEMORANDUM

APR 13 1988

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

SUBJECT: PP#6F3419: Bayleton Residues In Or On Rotational Crops. Amendment of 12/7/87 (RCB #3313, #3314 and #3315).

FROM: W. T. Chin, Chemist
Tolerance Petition Section III
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

W. T. Chin

THRU: Philip V. Errico, Section Head
Tolerance Petition Section III
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

Philip V. Errico

TO: Lois A. Rossi, PM #21
Fungicide-Herbicide Branch
Registration Division (TS-767)

and

Toxicology Branch
Hazard Evaluation Division (TS-769)

SUMMARY OF DEFICIENCIES REMAINING TO BE RESOLVED

The petitioner is requested to submit residue data on rotational crops reflecting 1.0 lb active bayleton/A/season and the minimum recommended plant back period; or limit a maximum bayleton rate to 0.5 lb active bayleton/A/season for grasses grown for seed.

Depending on the resolution of deficiency "6a", deficiency "6c" is conditionally resolved.

Residue data on peanuts rotated 12 months after the purposeful use should be submitted for review. If no residues are found in peanuts planted back to fields having had exaggerated levels of active ingredient equal to the theoretical maximum concentration factor in a peanut processed product, then, no processing study is necessary. Otherwise, a processing study is still needed using peanuts bearing real residues. The residue field trial at exaggerated rates should be conducted in major peanut growing areas.

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RECOMMENDATION

RCB continues to recommend against the proposed rotational crop tolerances for the combined residues of the fungicide bayleton and its metabolites containing chlorophenoxy and triazole moieties (expressed as the fungicide) because of the deficiencies specified above.

BACKGROUND

Mobay Chemical Corp. has proposed amending 40 CFR 180.410 by establishing rotational crop tolerances for the combined residues of the fungicide bayleton, 1-(4-chlorophenoxy)-3,3-dimethyl-1-(1H azol-1-yl)-2-butanone, and its metabolites containing chlorophenoxy and triazole moieties (expressed as the fungicide) in or on the raw agricultural commodities listed below:

<u>Rotational Crops</u>	<u>Proposed Tolerance (ppm)</u>
Legume vegetables group, succulent (including pods) and dry.....	0.05
Foliage of legume vegetables group	
vines, green.....	1.0
hay.....	0.1
Corn forage, green.....	0.1
Corn kernel plus cob with husk removed.....	0.1
Corn, fodder, dry.....	0.05
Corn, kernel, dry.....	0.01
Cottonseed	0.02
Lettuce	0.01
Peanuts (meats).....	0.01
Peanuts hulls.....	0.01
Peanuts vines, (dry).....	0.01
Potatoes.....	0.05
Sorghum, grain.....	0.01
Sorghum, fodder and forage.....	0.1

RCB has recommended against the proposed tolerances because of the reasons identified in Conclusions "6a", "6c" and 7 of Sami Makak's 7/17/87 memo.

PRESENT CONSIDERATIONS

In response to the deficiencies identified above, John S. Thornton of Mobay Chemical Corp. submitted an amendment which includes a cover letter dated 12/7/87 to Lois A. Rossi of EPA with revised Sections B and F. No new data were submitted. The deficiencies specified above are restated below, followed by the petitioner's responses and RCB's comments/conclusions.

Deficiency "6a"

"Since the test dosage reflects 0.5X the maximum registered dosage of 1 lb act/A on grasses grown for seed, RCB is unable to conclude on the adequacy of the proposed tolerances for residues of bayleton in/on rotational crop commodities. Residue data on rotational crops are needed following two applications of bayleton, each at 0.5 lb act/A, reflecting the minimum plant-back interval (PBI) and PHI's. Alternatively, bayleton rates on grasses grown for seed can be limited to a maximum of 0.5 lb act/A/ season."

The Petitioner's Response to Deficiency "6a"

The petitioner revised the registered labeling which previously read:

ROTATIONAL CROPS

"Treated areas may be replanted with any crop specified on this label as soon as practical after last application. For crops not on this label, the following plant-back intervals should be observed."

to read as follows:

"Treated areas may be replanted with any crop specified on this label as soon as practical after last application. In areas where grasses grown for seed were treated with more than 1 pound of BAYLETON 50% Wettable Powder per acre per season, all crops may be planted 12 months or later after the last application of BAYLETON without any restrictions. For crops not on this label, the following plant-back intervals should be observed."

J. S. Thornton in his cover letter explains that "This would align the maximum labelled use rate on all crops to 16 oz of (formulated) product per acre per season with the results of the residue data on file and allow a 14-day plant-back interval as specified on the enclosed amended draft label."

RCB's Comment/Conclusion on the Petitioner's Response to Deficiency "6a"

RCB considers that the revised statement on rotational crops is not supported by residue data generated from rotational crops planted 12 months after the last application. Therefore, the petitioner is requested to submitted residue data on rotational crops following two applications of bayleton, each at 0.5 lb act/A, reflecting the minimum plant-back interval (PBI) and PHI's. Alternatively, bayleton rates on grasses grown for seed can be limited to a maximum of 0.5 lb act/A/season. RCB concludes that deficiency "6a" is still outstanding.

Deficiency "6c"

"From the submitted data, it is apparent that bayleton residue (also proposed rotational crop tolerances) vary by more than a factor of 5 from residues for other commodities in the legume vegetables and forage of legume vegetables crop. for this reason, and to comply with the Section given in 40 CFR 180.34(f)(5): "If maximum residues (tolerance) for the representative crops vary by more than a factor of 5 from the maximum value observed for any crop in the group, a group tolerance will ordinarily not be established. In this case, individual crop tolerances, rather than group tolerances, will normally be established." The petitioner is advised to revise Section F and propose tolerances for commodities within the legume vegetables group as follows:

<u>Commodities</u>	<u>Tolerance (ppm)</u>
Legume vegetables (succulent or dried) group	0.05
Foliage of legume vegetables (succulent only) group	1.0
Foliage of legume vegetables (dried and straw only) group..	0.1
Corn, fresh (inc. sweet K + CWHR).....	0.1
Corn, grain.....	0.01
Corn, forage.....	0.1
Corn, fodder.....	0.1
Cottonseed	0.02
Cotton forage.....	0.5
Lettuce	0.01
Peanuts	0.01
Peanuts, forage.....	1.0
Peanuts, hay.....	0.1
Peanuts, hulls.....	0.01
Potatoes.....	0.05
Sorghum, grain.....	0.01
Sorghum, forage.....	0.1
Sorghum, fodder.....	0.1

The Petitioner's Response to Deficiency "6c"

The petitioner submitted a revised Section F with the requested changes.

RCB's Comment/Conclusion on the Petitioner's Response to Deficiency "6c"

It should be pointed out that the rotational crop tolerances advised by RCB in the above deficiency "6c" are based on the following understandings: (1) The crops with the registered purposeful use will be treated with a maximum rate of 0.5 lb active bayleton/A/season; and (2) for grasses grown for seed, requirements specified in deficiency "6a" above must be met. Therefore, RCB concludes that deficiency "6c" is conditionally resolved.

Deficiency 7

"In the absence of real residues in peanuts used in the processing study, we are unable to conclude if bayleton concentrates in the processed fractions of oil crops. Accordingly, an additional processing study is needed in which the seed of an oil crop contains real residues from exaggerated rates of application. Until a processing study is submitted and evaluated, we are unable to recommend for establishment of the requested tolerances for peanuts, and peanut forage, hay and hulls."

The Petitioner's Response to Deficiency 7

J. S. Thornton in his cover letter indicated that in lieu of conducting an additional processing study on peanuts with exaggerated rates of application, peanuts are kept on a 12-month rotation (i.e. delete peanuts from the 14-day plant-back list).

RCB's Comment/Conclusion on the Petitioner's Response to Deficiency 7

Residue data on peanuts rotated 12 months after the purposeful use should be submitted for review. If no residues are found in peanuts planted back to fields having had exaggerated levels of active ingredient equal to the theoretical maximum concentration factor in a peanut processed product, then, no processing study will be necessary. Otherwise, a processing study is still needed using peanuts bearing real residues. The residue field trial at exaggerated rates should be conducted in major peanut growing areas.

cc: Circu., R.F., PP#6F3419, PM#21, W.T.Chin, EAB, EEB, TOX, PMSD-ISB
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TS-769: RCB: CM#2, RM812,557-4352, W.T.Chin,wc(4/14/87)