1-4-85

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

JUN 4 1985

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: PP# 4E3088. [RCB #644] Bayleton on Caneberries. Amendment of January 11, 1985. (No Accession Number).

FROM: Linda L. Kutney, Chemist
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

THRU: Karl Arne, Acting Section Head
Tolerance Petition Section III
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

TO: Hoyt Jamerson, PM #43
Registration Division (TS-767)

and

Toxicology Branch
Hazard Evaluation Division (TS-769)

In our review of August 1, 1984 (L. Kutney), we said that before a favorable recommendation could be made for this petition, Section B should be revised to include the proposed method(s) of application. We recommended that the proposed label be submitted to clarify the intended use pattern(s). If the proposed method of application was to include both aerial and ground applications, this should be specified on the proposed label and in Section B.

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Section B has been changed to include the restricted use pattern, "Apply by ground equipment only." The petitioner should correct the spelling of the word, "apply" on the label. We consider this deficiency resolved.

In our Addendum of 9/20/84, PP# 4E3088 (L. Kutney) we noted that effective March 21, 1984, tolerances for the combined residues of the fungicide Bayleton and its metabolites containing chlorophenoxy and triazole moieties should be expressed as the Bayleton fungicide (See the Federal Register, Vol.49, #56, p. 10547).

The updated, correct tolerance expression has been proposed in Section F. This deficiency is resolved.

However, data has been submitted for Bayleton [1-(4-chlorophenoxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-1-yl)-2-butanone] and its KWG-0519 metabolite, [beta-(4-chlorophenoxy)-alpha-(1,1-dimethylethyl)beta-(1H-1,2,4-triazol-1-yl)-1-ethanol], only. No data has been submitted for Bayleton's other two metabolites, KWG-1323, [1-(4-chlorophenoxy)3,3-dimethyl-1(1H-1,2,4-triazol-1-yl)-4-hydroxyl-2-butanone] and KWG-1342, [4-(4-chlorophenoxyl)-4-(1H-1,2,4-triazol-1-yl)-2,2-dimethyl-1,3-butandiol]. Additional residue data from California should be submitted for Bayleton on caneberries, for all compounds included in the tolerance expression, which reflect the maximum proposed use and the maximum number of applications proposed.

RCB has requested a method trial for Bayleton and its metabolites, KWG-0519 (also a fungicide in its own right, Baytan), KWG-1323 and KWG-1342, containing chlorophenoxy and triazole moieties, in or on tomatoes and milk in conjunction with the review of PP# 4F3148/FAP# 4H5443. Based on the successful completion of the method trial of the method developed by the Mobay Chemical Corporation entitled, Residue Analysis Procedure for Bayleton and Metabolites in Barley and Wheat, (Method #80488), we suggest that this method be used to submit data on all the compounds included in the tolerance expression.

In addition, the petitioner should note that because tolerances for the fungicides Bayleton and Baytan share common residues of concern, namely Baytan, if tolerances are established for caneberries for both fungicides, the total amount of these fungicides shall not yield more residue than that permitted by the higher of the two tolerances, calculated as Baytan, according to Section

180.3 of the 40 Code of Federal Regulations.

We also commented that the crop grouping "caneberries" was not listed in §180.34(f) of the 40 Code of Federal Regulations and was therefore not an authorized, official crop grouping. We requested the petitioners submit a revised Section F listing the berries to be included in the caneberry grouping. We stated that the tolerance proposed should read, "tolerances are proposed for combined residues of the fungicide 1-(4-chlorophenoxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-1-yl)-2-butanone and its metabolites beta-(4-chlorophenoxy)-alpha-(1,1-dimethylethyl)-beta-(1H-1,2,4-triazol-1-yl)-1-ethanol (KWG-0519) in or on the raw agricultural commodities blackberries, boysenberries, dewberries, loganberries, raspberries and youngberries at 1.0 part per million."

✓ Caneberries have been defined as blackberries, boysenberries, dewberries, loganberries, raspberries, youngberries, and varieties of these (40 CFR 180.1 (h)), as amended in 49 FR 45839, 11/21/84. We consider this deficiency resolved.

In our earlier review we stated that one study on one commodity from one state was insufficient residue ✓ data to recommend for the requested tolerances. We requested the petitioner submit additional residue data on blackberries and raspberries from the major producing states of Oregon and Washington. These residue studies should be conducted at the maximum proposed use and minimum PHI. We also stated that these residue studies should include the maximum application rates and the maximum number of applications proposed as well as pre-harvest intervals (PHI's) which are less than or equal to the proposed three day PHI.

→ No additional data were submitted with this amendment. Data were submitted earlier (See memo of 8/1/84) for two different varieties of raspberry grown in California and treated at 1X (2 oz a.i./A) and 1 1/2X (3 oz. a.i./A) application rates. A maximum of two applications were made, although the directions permitted four applications per year. Residues for Bayleton were all $\leq$ 0.46 ppm and for the alcohol metabolite, KWG-0519, were all $\leq$0.17, for PHI's of 0, 7, and 16 days (a PHI of 3 days was proposed).

The petitioner has proposed the label restriction, "based on available residue data, this use is limited to California only." According to a 2/17/84 letter from

Peter R. Bristow, Associate Plant Pathologist, Washington State University, powdery mildew is not a problem in caneberries grown in the Pacific Northwest and Bayleton will not be needed in these areas.

A new Residue Chemistry Branch policy (See Memorandum by Charles L. Trichilo of 4/26/85 entitled, "Definition and Classification of Minor Crops") includes members of the caneberries group in the List of Minor Agricultural Commodities. In this policy statement, Dr. Trichilo announced that, "tolerances may be established for.... (minor) crops using limited geographical residue chemistry data for only the state or region in which adequate data are available." We therefore accept the label restriction but Section B should be revised to state, "This use is limited to California only," in place of "based on available residue data, this use is limited to California only."

Adequate residue data must still be provided to support the proposed tolerance for Bayleton on caneberries grown in California. Additional residue data must be provided for raspberries and at least one other member of the caneberry group grown in California, which reflect the maximum proposed use, maximum number of applications and minimum PHI. All residues of concern should be measured; these include the parent compound, 1-(4-chlorophenoxy)-3,3-dimethyl-1-(1H-1,2,4-triazole-1-yl)-2-butanone and its free and conjugated metabolites beta-(4-chlorophenoxy)-alpha-(1,1-dimethylethyl)-beta-(1H-1,2,4-triazol-1-yl)-1-ethanol (KWG-0519), 1-(4-chlorophenoxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-1-yl)-4-hydroxyl-2-butanone (KWG-1323), and 4-(4-chlorophenoxyl)-4-(1H-1,2,4-triazol-1-yl)-2,2-dimethyl-1,3-butanediol (KWG-1342).

An International Residue Limit Status sheet is attached. Codex tolerances for Bayleton and its alcohol metabolite have been established on raspberries at 0.2 ppm. U.S. data indicate that a higher National tolerance of 1.0 ppm is necessary. This compatibility problem with the Codex tolerance cannot be resolved.

Recommendation

We continue to recommend against the proposed tolerance of 1.0 ppm Bayleton, and its metabolites containing the cholorophenoxy and triazole moieties, in or on caneberries,

in California only, until additional residue data is provided for raspberries and at least one other member of the caneberry group grown in California, which reflect the maximum proposed use, maximum number of applications and minimum PHI. Samples should be analyzed for parent, and its metabolites, KWG-0519, KWG-1323, and KWG-1342. We can draw no conclusion concerning the adequacy of the proposed tolerance until the review of the additional data.

Based on the successful completion of the method trial of the method developed by the Mobay Chemical Corporation entitled, Residue Analysis Procedure for Bayleton and Metabolites in Barley and Wheat, (Method # 80488), we suggest that this method be used to submit data on all the compounds included in the tolerance expression.

We also request that Secion B be revised to state, "This use is limited to California only" instead of, "Based on available residue data, this use is limited to California only."

In addition, the petitioner should note that because tolerances for the fungicides Bayleton and Baytan share common residues of concern, if tolerances are established for caneberries for both fungicides, the total amount of these fungicides shall not yield more residue than that permitted by the higher of the two tolerances, calculated as Baytan, according to Section 180.3 of the 40 Code of Federal Regulations.

TS-769:RCB:L.Kutney:CM#2:Rm710:X73043:5/10/85
cc: R.F., Circu, Kutney, TOX, EEB, EAB, PP#4E3088, FDA, Robert Thompson, PMSD/ISB (Bill Grosse)
RDI: Arne, 6/3/85; Schmitt, 6/3/85,

INTERNATIONAL RESIDUE LIMIT STATUS

Linda L. Kutney
6/27/84
F. Ives 6/28/84

CHEMICAL Bayleton (Triadimefon) PETITION NO. 4E3088

CCPR NO. 133

PROPOSED U.S. TOLERANCES
Caneberries 1.0 ppm

CODEX STATUS

☐ NO CODEX PROPOSAL
STEP 6 OR ABOVE

RESIDUE (IF STEP 9): Sum of Triadimefon and 1-(4-chlorophenoxy)-3,3-dimethyl-1-(1,2,4-triazol-1-yl)butanol ("triadimenol")

RESIDUE: 1-(4-chlorophenoxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-1-yl)-2-butanone + metabolite beta-(4-chlorophenoxy-alpha-(1,1-dimethylethyl)-1H-1-1,2,4 triazole ethanol

CROP(S)	LIMIT (MG/KG)
Raspberries	0.2

CROP(S)	TOL. (PPM)
Caneberries	1.0

CANADIAN LIMIT

RESIDUE: _____

CROP	LIMIT (PPM)
NONE	

MEXICAN TOLERANCIA

RESIDUE: _____

CROP	TOLERANCIA (PPM)
NONE	

NOTES:

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