PMSD/TSB

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

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OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM:

SUBJECT: ID #90-0R-05. Chlorothalonil [BRAVO®]: Section 18 exemption request for hazelnuts grown in the State of Oregon. [DEB:#6292] [MRID:n/a].

FROM: William L.Anthony, Chemist
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THRU: F. B. Suhre, Section Head
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TO: S. Stanton, PM #41
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and
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The Oregon Department of Agriculture has requested an emergency exemption under Section 18 of FIFRA as amended, for use of the fungicide, chlorothalonil [BRAVO®-720], EPA Reg.#50534-188, to control Eastern Filbert Blight [Anisogramma anomala] on hazelnuts [Corylus avellana].

BRAVO®-720 contains 54% chlorothalonil [6 lb ai/gal] and is a product of the Fermenta ASC Corp., Mentor, OH.

A maximum of 11,000 acres (out of a total of 28,460 acres of hazelnuts grown in the State of Oregon) are to be treated with a maximum of 15,125 gallons of BRAVO®-720 [90,750 lb ai]. The requested exemption is from leaf bud break (3/15/90) through early shoot elongation [4/30/90]. No application will be made after 5/30/90.

Tolerances

Tolerances are established [40 CFR 180.275] for residues of chlorothalonil and its 4-OH-metabolite on several raw agricultural commodities ranging from 0.05 to 15 ppm. There are no permanent or

temporary tolerances for residues of chlorothalonil in/on hazelnuts [filberts]. However, a temporary tolerance for residues of chlorothalonil and its metabolite in/on almonds and almond hulls, respectively, expired 12/31/84; also a temporary tolerance for residues of the same did exist for pecans at 0.02 ppm, which expired 12/3/86. A permanent petition for use of chlorothalonil in/on pecans is currently in reject status [Memo: PP #7F3471, J. Stokes, 8/16/88], because new food tolerances will not be considered until the Chorothalonil FRSTR is completed.

Proposed Use

This Section 18 calls for a maximum of two applications of BRAVO®-720, (one a leaf bud break and the other 2 to 4 weeks later) at the rate of 5.5 pts BRAVO®-720 (4.125 lb ai)/A. For ground application, sufficient water should be used to thoroughly wet the tree canopies, requiring as much as 400 gallons of water per acre. Application by air may also be applied at the same rate in at least 20 gallons of water per acre.

Restrictions: Nut shell waste may not be fed to livestock. Do not apply more than twice a year, with a maximum application of 8.25 lb ai/A/season. There will be a 120 day PHI.

Metabolism

In connection with a permanent tolerance petition for use of chlorothalonil on pecans, DEB/RCB previously concluded that the nature of the residue is adequately understood, [PP #7F3471, J. Stokes, 8/13/87]. For purposes of this Section 18 only, chlorothalonil and its 4-OH metabolite are the residues of concern.

Residue Data

No residue data for chlorothalonil and its metabolite are available in/on hazelnuts(filberts). However, residue data are available for chlorothalonil in/on pecans. Since hazelnuts and pecans are both members of the same crop group, pecan residue data will be utilized to estimate chlorthalonil residues in/on hazelnuts resulting from the proposed Section 18.

Pecans: Residue data were submitted from a total of nine field experiments located in seven growing areas, viz., AR, AL, FL, GA, MS, TX, & SC. The crops were treated with ground equipment at a rate ranging from 1.3 to 3.1 lb ai/A at intervals of 14 days or less. The number of applications ranged from 4 to 10 with PHI from 36 to 146 days.

Results: No detectable residues (<0.01 ppm) of chlorothalonil and its 4-OH-metabolite were found in the nutmeat of any pecan crop treated with the fungicide at the maximum rate of 3.1 lb ai/A and a minimum PHI of 36 days; no detectable residues of hexachlorobenzene [HCB] (<0.003 ppm) or penta-chlorobenzonitrile [PCBN] (<0.005 ppm) were found following the

maximum rate at a 36 day PHI. [Memo: PP #7F3471, J. Stokes,8/13/87.

In summary, the above residue data reflects a total treatment of 3.1 lb ai/A x 10 = 31.0 lbs or almost 4x the maximum amount of chlorothalonil permitted for the growing season under this Section 18 request, i.e., a total of 8.25 lb ai/A/per season.

Based on this data, we would not expect the combined residues of chlorothalonil and its metabolite to exceed 0.05 ppm in/on the nutmeat of hazelnuts as a result of the proposed use.

Analysis

Method I in Pesticide Analytical Manual, Vol.II may be used for enforcement purposes.

Meat,Milk,Poultry, and Eggs

Hazelnuts (filberts) are not a feed item, therefore no secondary residues should result in these commodities.

Conclusion

(1) No tolerance has been established for residues of chlorothalonil and its 4-OH-metabolite in/on hazelnuts (filberts).

(2) For purposes of this Section 18, the metabolism of chlorothalonil in hazelnuts is adequately understood. The residues of concern are chlorothalonil and its 4-OH-metabolite.

(3a) The combined residues of chlorothalonil and its metabolite are not likely to exceed 0.05 ppm in/on the nutmeat of hazelnuts, as a result of this proposed Section 18.

(3b) Residue levels are expected to be non-detectable for hexachlorobenzene (<0.003 ppm) and for pentachloro-benzonitrile (<0.005 ppm) as the result of the proposed use on hazelnuts (filberts).

(4) Hazelnut shells and waste are not feed items, therefore no secondary residues are anticipated in meat, milk, poultry, and eggs.

(5) Method I in the Pesticide Analytical Manual, Vol.II is adequate for enforcement. Analytical Reference Standards for chlorothalonil and its 4-OH-metabolite are available from the Pesticide & Industrial Chemicals Repository at Industrial Park, NC.

Recommendation

TOX considerations permitting, DEB has no objection to this Section 18 request. An agreement should be made with FDA regarding the legal status of the treated commodity in commerce.

CC: Reviewer;RF;SF(Chlorothalonil[BRAVO®]);Sec.18 file;PMSD/ISB; circulate;DRES.
RDI: FBS,2/21/90;LC,2/21/90;EZ,2/22/90.
H7509c:W.Anthony,wla;CM-2,Rm.812:X557-4351;2/22/90.