



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

10-29-84

OCT 29 1984

MEMORANDUM

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

SUBJ: PP#1G2471, EUP Extension for Chlorothalonil on Almonds.

FROM: Allan Reiter, Chemist *AR*
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THRU: Edward Zager, Section Head *Edward Zager*
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The SDS Biotech Corp., Painsville, OH (formerly Diamond Shamrock Corp., Cleveland, OH) is requesting an extension of their EUP (50534-EUP-21) for the use of BRAVO 500[®] (40.4% chlorothalonil, tetrachloroisophthalonitrile, EPA No. 50534-8) on almonds. The permit would encompass the period 11/1/84 to 11/1/86. A temporary tolerance of 0.05 ppm for residues of chlorothalonil and its 4-hydroxy metabolite in/on almonds expires on 12/31/84.

The purpose for this extension is: a) to compare the efficacy of aerial vs. ground applications of BRAVO for controlling disease on almond trees, and b) to compare the efficacy of BRAVO for controlling Coryneum blight (Shothole) at various application rates.

The petitioner proposes to use BRAVO 500 for both ground and aerial applications at 2.3 to 4.2 lb a.i./A in 15-400 gal water/A (ground) or in 20 gal water/A (aerial). The number of proposed applications is limited to four: dormant tree, pink bud, bloom and at petal fall or calyx split. The only restriction is not to allow livestock to graze on treated areas. Application is limited to a total of 34,924 lbs. maximum over 3,000 acres in seven California counties. Application for brown rot, blossom and twig blight, scab, and jacket rot is at pink bud with a second application at half to full bloom. Application for Shothole is at leaf fall in autumn and a second application the following spring when leaves first emerge from bud; also, at petal fall or calyx split to prevent nut infections.

This use pattern is identical to the one previously approved (Amendment to Sec. F of 11/22/83) except that four rather than three applications will be made. The additional application would occur at the early season foliage or "green tip" stage. Although Section G-3 of the EUP states "two to five applications per season", a telecon to SDS confirmed that this would not be done in normal practice and definitely not in the proposed testing program (ref. memo. of telecon, 10/25/84 by this reviewer).

The proposed temporary tolerances for confirmed residues of chlorothalonil and its 4-hydroxy metabolite for almonds and related r.a.c.'s are as follows:

<u>ppm</u>	<u>item</u>
0.05	almonds
0.2	almond hulls
0.05	meat, fat and meat by-products from cattle, goats hogs, horses and sheep
0.1	milk

These were approved as temporary tolerances for a EUP (54034-EUP-21) in 47 FR 14428 (4/11/84). There are no poultry feed items involved in this use; therefore, no temporary tolerances are needed for poultry and eggs.

No new residue data were submitted with this EUP request. RCB had previously concluded that the proposed tolerance of 0.05 ppm for residues of chlorothalonil and its 4-hydroxy metabolites in/on almonds would be adequate (PP# 1G2471, memo. of N. Dodd, 11/17/81). Data available for only three applications of chlorothalonil at both 1X and 2X show that no residue of the fungicide, its 4-hydroxymetabolite or the two impurities, PCBN (pentachlorobenzonitrile) and HCB (hexachlorobenzene) occur in almond nut meat; detection limits were <.03 ppm, <.03 ppm, <.005 ppm and <.008 ppm, respectively. For shells and hulls, the residue ranged from not detected to 0.12 ppm for chlorothalonil, and none detected for the 4-hydroxymetabolite and impurities. Since the proposed additional (fourth) application of the fungicide occurs relatively early in the growing season (early season foliage or "green tip") and before bloom, it is doubtful that it would contribute to the residue on either the nutmeat or shell/hull.

Conclusions

1. Residues resulting from the described use of chlorothalonil on almonds, almond hulls, meat, fat and meat by-products and milk should not exceed the temporary tolerances set for the herbicide and its 4-hydroxy metabolite as long as the number of applications is limited to four and they occur as proposed in the EUP. These are as follows:

<u>ppm</u>	<u>item</u>
0.05	almonds
0.2	almond hulls
0.05	meat, fat and meat by-products from cattle, goats hogs, horses and sheep
0.1	milk

2. There will be no problem with secondary residues in poultry and eggs since there are no poultry feed items involved.

Recommendation

RCB recommends for approval of the EUP extension for use of chlorothalonil on almonds provided that the number of applications be limited to the four stated in Section G of the request, i.e., between dormancy and petal fall or calyx split. The requirements for a permanent tolerance are listed in our review of PP# 3F2875.

cc:	PP# 1G2471	TOX
	R.F.	EEB
	Circu.	EAB
	chlorothalonil S.F.	FDA
	Reviewer	Robert Thompson

TS-769:RCB:Reviewer:A.J.Reiter:AJR:x77484:CM#2:Rm800:10/26/84

RDI:Section Head:E.Z.:Date:10/29/84