



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

MAR 11 1988

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: TN-870014 Acephate: 24(c) on Tobacco(Burley)
[RCB: #3347] in the State of Tennessee.
[Acc: None]

FROM: William L. Anthony
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

THRU: Ed Zager, Section Head
Special Registration Section II
Residue Chemistry Branch
Hazard Evaluation Division (TS-679)

TO: W. Miller/M. Mautz, PM # 16
Insecticide-Rodenticide Branch
Registration Division (TS-769)

William L. Anthony
[Signature]

The State of Tennessee, Department of Agriculture, has issued a Special Local Need registration for acephate[ORTHENE®-Tobacco Insect Spray(TIS), EPA Reg. #239-2419] to be applied at a higher application rate on tobacco than the present registered use.

Registered Use

TRANSPARENT WATER APPLICATION: The registered use of ORTHENE®-TIS on the flea beetle, green peach aphid, and the cutworm by this treatment is 1.0 lb(0.75 lb ai)ORTHENE®-TIS/A in a minimum of 100 gals of water. For early season use this application provides control for @ 3 to 4 weeks after transplanting.

Restriction: Do not exceed 1.0 lb of ORTHENE®-TIS/A, as some phytotoxicity may occur.

FOLIAR APPLICATION: The registered use of ORTHENE®-TIS in flue-cured, air-cured, and dark fired-cured tobacco ranged from 1/2 lb to 1.0 lb (0.38 lb to 0.75 lb ai) ORTHENE®-TIS/A to control grasshoppers, green peach aphids, the flea beetle, hornworms, cabbage loopers and cutworms.
Apply in 10 to 50 gals water/A with ground equipment of a minimum of 3.0 gals/A/air. Apply on a 7 day schedule or as needed. There is a 3 day PHI.

SOIL APPLICATION: ORTHENE®-TIS is registered for mound treatment to control imported fire ants. Up to 0.2 oz (0.15 oz ai) ORTHENE®-TIS/gal. water around a 4 ft diameter mound. A maximum of 13 mounds/A or a maximum of 2.0 oz ai/A. may be treated.

Restriction: Do not treat more than once per season.

Proposed Use

The proposed use by transplant water application would permit up to 2.0 lb (1.5 lb ai) ORTHENE®-TIS in a minimum of 200 gals of transplant water per acre, for use in the State of Tennessee only. This would provide control of the flea beetle, the green peach aphid, and the cutworm in/on tobacco (burley) for @ 3 to 4 weeks after transplanting. For later season control of these insects, apply foliar spray of the pesticide. All applicable restrictions on the EPA label are to be followed.

There are no changes in the registered foliar application or registered soil application uses.

Residue Data

No residue data was submitted with this request. Residue data had been previously submitted in 1973, and reviewed by J. Shaughnessy, 11/13/73. FOLIAR: In a single study conducted in South Carolina, the following data were reported following multiple applications, at the rate of 1.0 lb (0.75 lb ai)/A:

<u>tobacco</u>	<u>PHI</u>	<u>Acephate/ppm</u>	<u>Methamiphos/ppm</u>
Flue-cured leaves	3 days	0.04 to 0.11	1.7 to 2.2
Air-cured leaves	5 days	ND to 0.64	0.1 to 4.1

TRANSPLANT WATER APPLICATION: Chevron Chemical Co.(6/16/82) submitted test #T-4908 which showed that the combined residues were non-detectable in/on flue-cured tobacco harvested 85 days after transplant application of 0.75, 1.5, and 3.0 lb ai(1X - 4X)/A. The cured leaves were shipped and stored under ambient conditions prior to analysis.

Cured leaves treated as above except treated with 6 lbs ai (8X)/per acre had combined residues of 0.03 to 0.04 ppm, of which <0.01(ND) to 0.01 ppm was methamidophos.

Cured leaves treated as above but in addition also treated with two foliar applications of 0.75 lb ai(1X)/A, at a 5 to 7 day PHI contained combined residues ranging from <0.04 ppm to 0.06 ppm[all detectable residues were methamidophos].

An adequate GC method (Rm-12A-5a) was used for residue data collection.

Note: The above data was obtained from the Registration Standard for Acephate (Addendum, 10/5/84). The data gap, cited in the Registration Standard in which aerial application data were apparently not submitted, remains.

Conclusion and Recommendation

Based on the above residue data, we have no objection to the higher rate water transplant application and subsequent foliar application as proposed.

cc:W.Anthony;SF[Acephate];Sec.24(c)file;ISB/PMSD;RF;Circulation;Non-food use File.
RDI:E.Zager,3/8/88;K.Arne,3/9/88.
TS-769:W.Anthony;wla;CM-2;Rm.812;X557-4351;3/10/88.

2