

US EPA ARCHIVE DOCUMENT

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Proposed Section 18 exemption for the use of Trifluralin on asparagus grown in California

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THRU: Chief, Residue Chemistry Branch

The California Department of Food and Agriculture requests a specific exemption for the use of trifluralin (TREFLAN EC) for control of field bindweed and Russian thistle in approximately 2,460 acres of asparagus in Monterey County.

Trifluralin is to be applied by ground equipment at the rate of 2 lbs act in 4-50 gals of diluted spray per acre. Applications are to be limited to fields with neighboring 2,4-D sensitive crops. One application with a 3 month PHI will be made per year and no applications will be made after March 31, 1979.

A temporary tolerance of 0.05 ppm for residues of trifluralin in or on asparagus has been established pursuant to PP# 501501 to cover residues resulting from an experimental use program in California. This tolerance will expire on April 11, 1979.

The residue data submitted with this request reflect nine studies conducted in Washington and California. Trifluralin was applied at rates of 0.5 to 4 lbs act/A with PHI's ranging from 15 days to a year. The majority of the samples analyzed were taken from fields that received at least two applications of trifluralin at the recommended rate. Residues were measured by electron capture gas-liquid chromatography. The method of analysis used is considered sensitive to 0.01 ppm. Samples which exhibited a GLC response equivalent to less than 0.01 ppm were reported as having no detectable residue (NDR).

Residues ranged from NDR to 0.02 ppm. A maximum residue of 0.02 ppm was obtained following two (one year apart) 4 lbs act/acre applications with a PHI of 10.5 months. Several samples from Salinas, Calif. also showed residues up to 0.02 ppm; however, control samples from this experiment contained up to 0.013 ppm trifluralin. A study from Irvine, Calif. most closely approximates the proposed use. Asparagus samples treated at 2 lbs per/acre with PHI's as short as 45 days exhibited no detectable residues. However, since the majority of the submitted data reflect lower rates and/or longer PHI's than those proposed in the subject request we are reluctant to make a judgment concerning the level of trifluralin residues which might occur, solely on the basis of the above data.

Somewhat more relevant residue data had been submitted previously in connection with the temporary tolerance petition (PP# 461501). The data reflect eight field experiments in which trifluralin was applied to establish asparagus at rates of 0.5 to 2.0 lbs act/acre. Samples of spears were taken 4 to 8 weeks after treatment. Residue levels reported for all but two samples were below the limit of detection (0.01 ppm). The values reported for the two remaining samples were 0.013 and 0.015.

Meat, Milk, Poultry and Eggs

The proposed use involves no feed items and therefore falls under Category 3 of Section 180.6(a) with respect to meat, milk, poultry and eggs.

Conclusions and Recommendations

Residues of trifluralin on or on asparagus resulting from the proposed use will not exceed 0.05 ppm. There will be no problems with secondary residues in meat, milk, poultry and eggs.

We have no objections to the proposed Section 18 exemption provided that trifluralin residues of 0.05 ppm in asparagus are found safe by TOX and providing that some administrative agreement is made with FDA regarding the legal status of the treated asparagus in commerce.

E. Zager

cc: Trifluralin SF, Sec. 18 SF, Circu., E. Zager, RD, PP# 461501
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