UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

BJECT: PP# 2E1293. 2,4-D on Apricots. Amendment of September 23, 1975. DATE: DEC 18 1975

FROM: R. D. Schmitt, Chemist, Chemistry Branch
Registration Division (WH-567)

TO: Minor Uses Officer and
Toxicology Branch, RD

THRU: Chief, Chemistry Branch

The petitioner has replied to our reject letter of 12/28/73 (J. E. Mayes, COB). The only outstanding chemistry deficiency involves the question of whether bound residues of 2,4-D would have been detected by the petitioner's methodology.

The petitioner has submitted no data relative to conjugates of 2,4-D in apricots. A summary of a metabolism study involving 2,4,5-T in apricots was submitted. However, the study is of little value as far as the question of bound residues is concerned.

The petitioner has also submitted revised Sections B and F. The maximum dosage now permitted is 25 ppm spray solution concentration. Previously up to 50 ppm spray solution concentrations were permitted. The application of 2,4-D aids in regulating fruit drop for even maturity. Section F revises the tolerance proposal upward from 2 ppm to 5 ppm. This level is the same as that established for grapefruit and oranges where 2,4-D is also used as a growth regulator at a similar application rate and a much shorter PHI.

Even though no data on conjugates of 2,4-D in apricots were submitted, we conclude that total residues of 2,4-D will not exceed the proposed 5 ppm tolerance. This conclusion is based on the fact that if all of the 2,4-D applied concentrated in the apricot, a 20 ppm residue would result. This result is based on a maximum of 700 gal of spray solution per acre and a yield of 4 tons of apricots per acre. Thus, in order for the proposed 5 ppm tolerance to be exceeded, over 25% of the total 2,4-D applied would have to concentrate in the apricots. We consider this to be unlikely in view of the 60 day PHI specified in Section B. This conclusion is supported by the decline studies on various crops submitted with PP# 8F0670. Initially high residues decline rapidly. Also, 2,4-D persists for only 1 month in soil (Pesticides in Soil and Water, W. D. Suenzi, Editor). Thus, the available data indicate that 2,4-D degrades rapidly, making it unlikely that 25% of the total 2,4-D applied will concentrate in apricots 60 days after application.

Recommendations

We recommend that the proposed 5 ppm tolerance for 2,4-D in apricots resulting from the application of the dimethylamine salt formulation be established, TOX and EEE considerations permitting.

We note that since apricots are a perennial crop, residues in rotational crops will not be a problem.

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