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

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OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: PP2F2765. Pendimethalin on Sugarcane. Response to Office of General Counsel comments regarding sugarcane processing data.

FROM: R. W. Cook, Chemist RW Cook
Tolerance Petition Section I
Chemistry Branch I - Tolerance Support
Health Effects Division (H7509C)

THRU: Debra Edwards, Ph. D., Chief Debra Edwards
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Health Effects Division (H7509C)

TO: R. J. Taylor, PM 25
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The petitioner, American Cyanamid, in PP2F2765, proposed tolerances for residues of pendimethalin [N-(1-ethylpropyl)-3,4-dimethyl-2,6-dinitrobenzenamine] in or on sugarcane at 0.1 ppm.

We have previously considered and/or recommended for tolerances (see PP2F2765, 1/14/83, 9/21/83, and 11/26/90, R. W. Cook) for residues of pendimethalin and its metabolite 4-[(1-ethylpropyl)-amino]-2-methyl-3,5-dinitrobenzyl alcohol in or on sugarcane in Texas and Louisiana only.

We have been requested by Office of General Counsel (Mr. Jonathan Fleuchaus) to consider whether processing studies are sufficient to address concentration of residues in processed commodities.

> 'Has CB determined that the 1983 review on the concentration issue is sufficient to meet today's standards. For example, was the pesticide applied at a sufficiently exaggerated rate?'

In the 1981 sugarcane processing study, sugarcane field treated at both 1x (2 lbs. a.i./A.+ 2 lbs a.i./A.) and 2x (4 lbs. a.i./A.+4 lbs. a.i./A.) was processed into bagasse, molasses, and raw sugar according to commercial procedures. The raw

agricultural commodity sugarcane was found to contain <0.05 ppm (method sensitivity) of pendimethalin. No detectable residues (< 0.05 ppm) of pendimethalin were found in bagasse, molasses, or raw sugar. According to a previously submitted sugarcane ^{14}C-metabolism study, no ^{14}C-residues were detected in mature sugarcane (<0.01 ppm ^{14}C-equivalent to pendimethalin).

The previously submitted processing study does not meet the current data requirements which require exaggerated field application rates at up to 5X the proposed application rate.

However, when one considers the ^{14}C-metabolism study (<0.01 ppm total ^{14}C-equivalent to pendimethalin), the existing 1x and 2x field application rates, we believe the conclusion that expected residues of pendimethalin in processed commodities bagasse, molasses, and raw sugar will not exceed the tolerance for residues in raw sugarcane is appropriate.

cc: Cook, DRES, PP2F2765, RF, SF
H7509C:DEB:RCook:rc:x77484:Rm804H:2/10/93
RDI:R.S.Quick:2/10/93:R.A.Loranger:2/11/93