7-12-83

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

JUL 12 1983

MEMORANDUM

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

SUBJECT: 83-WI-07. Section 18 exemption for iprodione (Rovral) on lettuce.

FROM: Richard Loranger, Chemist R. Loranger
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THRU: Charles L. Trichilo, Chief G D Schmitt
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TO: Donald Stubbs, Product Manager
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and
Toxicology Branch
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An emergency exemption has been requested by the Wisconsin Department of Agriculture to allow use of the fungicide iprodione (Rovral®) for control of bottom rot and drop diseases on lettuce.

The requested use is two 0.5-1 lb act/A applications (one month after seeding and 14 days later) with a 10 day preharvest interval. We recommended a 0.5 ppm action level for the same use pattern last year (E. Zager, 3/29/82) but additional data indicating higher residues have been submitted in PP#'s 3F2840 and 3G2801. In conjunction with the latter we have recommended a 7 ppm temporary tolerance (N. Dodd, 4/11/83) while the former is in reject status (K. Arne, 7/1/83) due to inadequate residue data for a permanent tolerance.

For iprodione we consider the residue of concern to be the parent compound 3-(3,5-dichlorophenyl)-N- (1-methylethyl)-2,4-dioxoi - midazolidine-1-carboxamide, the isomer RP30228 [3-(1-methylethyl) -N-(3,5-dichlorophenyl)-2,4-dioxo-1-imidazolinecarboxamide], plus the metabolite RP32490 [3-(3,5-dichlorophenyl)-2,4,-dioxo-1-imidazo-lidinecarboxamide]. These are all determined by gas chromatography with electron capture detection (Rhodia Method No. 151). Recoveries for lettuce were 61-133% following 0.1-10 ppm spikes of the above components (N. Dodd, PP#3G2801).

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Data in the aforementioned petitions for lettuce heads indicated very low residues (max. 0.17 ppm) 9-61 days following 1-3 applications of 1-2 lb ai/A (K. Arne, 7/1/83, PP#3F2840). Leaf residues were much higher with up to 41 ppm found on 0 day samples (3x1.0 lb ai/A) and 1.60 ppm 7 days later at the proposed rate of 1.0 lb ai/A. All trials which measured both 0 and 7 day residues indicated rapid decline of iprodione on the lettuce leaves. However, one California trial found 5.89 ppm total residue 33 days after one application of 1.0 lb ai/A. Since samples with shorter PHI's were not reported in that study, we have estimated what residue could be expected on day 10 using decline curves in PP#3G2801. Approximately 25 ppm iprodione would have been present on lettuce leaves at day 10 in that trial. On a whole, untrimmed head basis this is equivalent to 10 ppm since wrapper leaves may comprise up to ca 40% of the lettuce weight (based on data in "Field Trimming of Lettuce", Marketing Research Report #497, USDA, July 1967). This 10 ppm level will apply to head lettuce only. Since we have no data at all for leaf lettuce varieties, we are unable to determine what levels could be present on that crop. Therefore, this emergency use should be restricted to head lettuce only.

Provided that the feed use of wrapper leaves is prohibited, this use will not lead to iprodione residues in livestock tissues and milk.

Conclusions and Recommendation

1. Combined residues of iprodione, its isomer and the metabolite RP30228 on head lettuce from the proposed use are not expected to exceed 10 ppm.

2. Due to the absence of data for leaf lettuce varieties, a restriction against use of iprodione on leaf lettuce is required.

3. Provided that the feed use of wrapper leaves is prohibited, no residues will result in meat, milk, poultry and eggs.

TOX considerations permitting we have no objections to the granting of this emergency exemption provided that restrictions against use on leaf lettuce and against feeding treated wrapper leaves to livestock are added to the label. Also, an agreement is needed with FDA concerning the status of treated lettuce in commerce.

cc: R.F. Circu, Reviewer, Subject file, Iprodione, Amended use file Iprodione S.F.
RDI:Section Head:RJHummel:Date:7/6/83:RDSchmitt:Date:7/6/83
TS-769:RCB:Reviewer:R.Loranger:LDT:557-7324:CM#2:RM:810:Date:7/11/83