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PP# 4G1449. Endothall on rice. Evaluation of analytical method and residue data.

Coordination Branch
and Toxicology Branch

The Pennwalt Corporation proposes that a temporary tolerance at 0.05 ppm be established for residues of the herbicide endothall [7-oxabicyclo(2.2.1)heptane-2,3-dicarboxylic acid] in or on rice.

A petition (PP# 3F1416) proposing a similar permanent tolerance was recently rejected because of numerous deficiencies in the chemistry data (see review, 1/22/74).

The petitioner is making this request for a temporary tolerance because he was informed by Coordination Branch (letter, 10/25/73) that performance data from commercial size field testing was required prior to registration.

The proposed experimental program calls for use of 10,000 lbs. endothall acid equivalent (200,000 lbs. of 5% granular formulation) in treating 5,000 acres of rice grown in seven California counties.

This petition provides no additional data, and incorporates the data of PP# 3F1416 by reference. The use is also identical to that previously proposed. Because the deficiencies enumerated in our 1/22/74 review of PP# 3F1416 are equally applicable to this temporary tolerance request, we are limiting this review to our conclusions and recommendations.

Conclusions

1. We tentatively conclude that endothall per se is the residue of concern in rice. The tracer study referred to in Section B, Exhibit 21, p.3, dealing with the catabolism of endothall in the rice plant would be helpful in affirming this conclusion; the petitioner should be so informed.

2. The analytical method is adequate for the determination of endothall per se. Should the rice metabolism study reveal the presence of toxic residues other than endothall, a validated analytical method capable of determining total toxic residues will be required.

3a. The residue data for "rice grain" appear to support the 0.05 ppm tolerance level for the r.a.c. rough rice. The exact nature of the samples analyzed should be specified (e.g., rough rice, brown rice, polished rice). Because the samples were stored prior to analyses for periods ranging from about 5 1/2 months to 3 1/2 years, storage stability data (including storage conditions) are required before a final conclusion can be made regarding residues in the r.a.c. Additional residue data will be required if residue stability over long intervals cannot be demonstrated or should the rice metabolism study indicate the presence of toxic degradation products.

3b. No data are submitted for milling fractions. We can draw no conclusion as to residue levels in these fractions (hulls, bran, etc.) until the questions regarding residues in rough rice are resolved. If finite residues are present, residue data for the processing fractions (and food additive tolerances, if appropriate) will be required.

3c. In the absence of residue data for rice straw, no conclusion regarding an appropriate tolerance level can be made. Such data are required, together with an appropriate tolerance proposal.

4. Because of the questions regarding residue levels in rough rice, its fractions and straw, we are unable to classify this use with respect to Section 180.6(a).

<u>Recommendation</u>

We recommend against the proposed tolerance because of the deficiencies cited in Conclusions 1-4.

These deficiencies must be resolved before further consideration can be given this proposal.

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