



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

SEP 5 1986

King 9.25
to 3/3/86

MEMORANDUM

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

SUBJECT: Response to Residue Chemistry Branch deferral concerning increased phosphorous acid residues resulting from shorter PHI for Aliette on pineapples

TO: Henry Jacoby (PM-21)
Registration Division (TS-767)

FROM: Margaret Jones *M. Jones 9/3/86*
Review Section III
Toxicology Branch (TS-769)

THROUGH: Marcia Van Gemert, Ph.D., Head *M. Van Gemert 8.29.86*
Review Section III
Toxicology Branch

and Theodore M. Farber, Ph.D., Chief *Theodore M. Farber 9/4/86*
Toxicology Branch

Action requested: Respond to the Residue Chemistry Branch concern about increased residues of phosphorous acid residues on pineapple resulting from a shortened PHI for Aliette (from 9 months to 90 days).

Discussion: Residues of Aliette® in or on pineapple would not exceed the established tolerance of 0.1 ppm for the proposed use. No toxicology concerns would therefore be raised as a result of this portion of the proposed use.

Residues of phosphorous acid in or on pineapple could approach 5 ppm in the fruit, peel, and leaves of pineapple as a result of the proposed use and 20 ppm in the bran of pineapples. The acute oral LD₅₀ for phosphorous acid in the mouse is 1.65 grams/kg (toxicity category III), the lowest of any species tested. A two-year rat oncogenicity study found a systemic no observed effects level (NOEL) of 8000 ppm and an oncogenic NOEL of 32000 ppm (these doses are equivalent to 400 mg/kg/day and 1600 mg/kg/day respectively). Applying a margin of safety of 100 to these levels results in an acceptable daily intake of 4 mg/kg/day for this unregulated compound. The residue level of 20 ppm phosphorous acid in the bran of pineapple, would most likely not create an acute or chronic toxicology concern, according to information in Toxicology Branch files.

Conclusion: Toxicology Branch has no objection to the proposed change in the registration of Aliette® for use on pineapples.

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