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OFFICE OF  
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

DATE: December 14, 1981

SUBJECT: Oryzalin metabolism studies, Accession No. 246113, 10/22/81,  
TB/HED comments on.

FROM: Mary L. Quaife, Ph.D. *MLQ, 12/14/81*  
Toxicology Branch/HED (TS-769) *MLQ, 12/17/81*

TO: Registration Division (TS-767) *MLQ for OEF*

EPA Ident. Nos. 1471-96  
1471-112

Eli Lilly and Company  
Greenfield, Indiana 46140

RECOMMENDATION: A TOX gap with respect to general (e.g., rat) metabolism studies on oryzalin exists. Neither the biochemical pathway of metabolism nor identity of major and minor metabolites is delineated.

INTRODUCTION: Some of these data have been submitted previously and/or are in the review province of RCB, we believe:

1. Rate and Route of Excretion in a Goat of Orally Administered <sup>14</sup>C EL-119.
2. Rate and Route of Excretion in Chickens of Orally Administered <sup>14</sup>C EL-119, 5/10/73.
3. Balance-Excretion and Metabolism Study of <sup>14</sup>C Oryzalin in a Steer, 9/80.
4. Radiochemical Studies with <sup>14</sup>C Oryzalin ((in soybeans)).
5. Large Animal Feeding Studies with <sup>14</sup>C Oryzalin in a Lactating Cow, a Steer, A Barrow, and Laying Hens, 11/80.

Three studies, previously submitted, relate to human safety evaluation:

- 1a. Studies on the Absorption and Excretion of Compound 67919 in Rats, 8/68 (reviewed by Mr. D. Ritter, TB, PP No. 2GL201, 1/21/72).
- 2a. Induction of p-Nitroanisole-O-Demethylation by Compound 67019, 5/17/71 (also reviewed by Mr. Ritter, PP No. 2GL201, 1/21/72).
- 3a. Excretion and Metabolism of EL-119 by Rats, Rabbits, and Ducks, 10/72 (reviewed by Mr. W. S. Cox, RCB, PP No. 3F1347, 7/11/73) who found these single-dose, C<sup>14</sup> studies show that oryzalin is excreted rapidly via the feces and urine (in rats, also, via bile), and in vivo many metabolites are formed (not identified).