DATA EVALUATION RECORD

1-26-80

1. CHEMICAL: Acetochlor

2. FORMULATION: Mon-097 94.5% A.I.

3. CITATION: Acute Oral LD_{50}-Bobwhite Quail-Mon 097 (WL-80-003) Wildlife International Ltd. for Monsanto Co., April 9, 1980.

4. REVIEWED BY: Russel Farringer, III
Wildlife Biologist
Ecological Effects Branch, HED

5. DATE REVIEWED: 1/26/80

6. TEST TYPE:

A. Test Species: Bobwhite Quail

7. REPORTED RESULTS:

LD_{50} is 1560 mg/kg, confidence limits (95%) 1044 mg/kg to 2329 mg/kg.

8. REVIEWER'S CONCLUSIONS: This study was not scientifically sound. The study will not fulfilled guideline requirements.

CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB.(PERCENT)
2510	10	10	100	9.76563E-2
1590	10	3	30.	17.1875
1000	10	1	10.	1.07422
631	10	0	0	9.76563E-2
398	10	3	30.	17.1875

THE BINOMIAL TEST SHOWS THAT 0 AND 2510 CAN BE USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS SINCE THE ACTUAL CONFIDENCE LEVEL ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 1764.65

--------RESULTS CALCULATED USING THE MOVING AVERAGE METHOD

SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS	
3	.113951	1566.24	1315.55	1971.64

--------RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
8	5.89334	6.17255	0

A PROBABILITY OF 0 MEANS THAT IT IS LESS THAN 0.001

SINCE THE PROBABILITY IS LESS THAN 0.05, RESULTS CALCULATED USING THE PROBIT METHOD PROBABLY SHOULD NOT BE USED.

SLOPE = 2.50564
95 PERCENT CONFIDENCE LIMITS =-3.5771 AND 8.5883

LC50 = 1559.62
95 PERCENT CONFIDENCE LIMITS = 0 AND +INFINITY

Materials/Methods

Test Procedure

The methods cited in this study conform to EPA guidelines, with the exception of the statistical analysis discussed below. The study had 5 dose levels ranging from 398 mg/kg to 2510 mg/kg. The birds were aproximately 5 months of age. All other criteria for the birds was reported and found acceptable as per our guidelines.

Statistical Analysis

The report states that probit analysis was utilized in analyzing the data. The reported results gave an LD^{50} value of 1560 mg/kg (C.L. 95% 1044 mg/kg to 2329 mg/kg).

Reviewers Conclusions

Test Procedure and Statistical Analysis

The test procedure complies with the recommended USEPA 1978 protocol. However, the erratic mortality patterns does not lend itself to good statistical analysis. Our probit analysis shows that the goodness of fit for this data was zero and gave confidence limits between zero and positive infinity.

Conclusions

Category: Invalid

Rationale: mortality pattern to erratic for sound statistical analysis.

Repairability: Not repairable