1-23-84

Data Evaluation Record

1. Chemical: EL-107

2. Formulation: 92.4% active

3. Citation: Lake, S.G. and C.C. Kehr. December 1982. The toxicity of EL-107 (compound 121607) to Bobwhite in a 14-day acute oral study. Study No. A00682. Prepared by Lilly Research Laboratories, Greenfield, Indiana. Submitted to Elanco Chemicals, Indianapolis, Indiana. EPA Accession No. 250793.

4. Reviewed by: Elizabeth E. Zucker
Wildife Biologist
EEB/HED

5. Date Reviewd: January 23, 1984

6. Test Type: Avian Acute Oral Study
A. Test Species: Bobwhite quail (Colinus virginianus)

7. Reported Results:

The LD_{50} for male and female bobwhite was >2,000 mg/kg. No deaths occurred in the control group or in any treatment group.

8. Reviewer's Conclusions

This study relating the acute oral toxicity of EL-107 is scientifically sound and may be used to fulfill guideline requirements for an avian acute oral LD_{50} test on an upland game species. With an LD_{50} in excess of 2,000 mg/kg, EL-107 is considered to be practically non-toxic to bobwhite quail.

Materials/Methods

Test Procedures

Quail, 20 weeks old, were obtained from Barrett's Quail Farm, Houston, Texas. Birds were housed in stainless steel pens (2 bird per pen) which measured 45 cm (l) x 25 cm (w) x 18-23 cm (h). A photoperiod of 8 hours light/ 16 hour dark was maintained during the study. There were 6 males and 6 females per treatment level.

Birds were fasted for 17 hours prior to testing. The test material was mixed with acacia and a small amount of water and administered in a single oral gavage at dosages of 0, 125, 250, 500, 1000 and 2,000 mg/kg. A dose volume of 8 ml/kg of body weight was maintained for each animal. Food and water were available ad libitum during the study period.

Observations for signs of toxicity were recorded daily for the 14-day period following dosing. Individual body weight measurements were recorded at the study initiation and on Days 3, 7 and 14. Mean body weights were calculated for males and females for each treatment group. Food consumption for each pen was measured for Days 1-3, 4-7 and 8-17 to calculate g/bird/day by dose group.

Statistical Analysis

There were no mortalities, thus analysis was unneccessary.

Discussion/Results

No deaths occurred in either the control group or the treatment groups. Loose feces were seen in the vehicle control and all birds in the treatment levels during the first 24 hours of the test. Mean body weights for treated birds were comparable to weights measured for control birds. Food consumption was also comparable between control and treatment groups at all levels.

Reviewer's Evaluation

A. Test Procedure

This study was performed under conditions that complied substantially with current guidelines.

B. Statistical Analysis

There were no mortalities even at the highest test level, thus no analysis was necessary.

C. Results/Discussion

LD_{50} >2,000 mg/kg

D. Conclusion

1. Category: Core

2. Rationale: N/A

3. Repairability. N/A