

US EPA ARCHIVE DOCUMENT

DATA EVALUATION RECORD

1. Chemical: Glyphosate, S# 103601
2. Test Material: Technical 98.5%
3. Study Type: Avian subacute dietary LC₅₀--Bobwhite Quail
4. Study ID: Fink, R. (1973) Final Report: Eight-day Dietary LC₅₀--Bobwhite Quail: Project No. 241-106. (Unpublished study received November 9, 1973, under 524-308; prepared by Environmental Sciences Corp., submitted by Monsanto Co., Washington, DC; CDL:120640-D)

5. Reviewed by: Dennis J. McLane
Wildlife Biologist
EEB/HED

Signature: *Dennis J. McLane*
Date: 8-28-85

6. Approved by: Raymond W. Matheny
Section Head
EEB/HED

Signature: *Raymond W. Matheny*
Date: 8-30-85

7. Conclusions:

This study can be used for hazard assessment purposes. It also meets the guideline requirements. Using the toxicity categories of Brooks et al. (1973) the acute LC₅₀ of > 4,640 ppm would place glyphosate into the practically nontoxic category.

8. Recommendations:

N/A

9. Background:

This study was first validated by EEB under data review number ES-V11-D-1.

10. Discussion of Individual Test:

N/A

11. Materials and Methods:

- A. Test animals were bobwhite quail; 14 days of age.
- B. Design: 10 bird/pen; 5 dose levels plus control (215, 464, 1000, 2150, and 4640 ppm).
- C. Statistics: (excerpted from citation)

Mortality data were analyzed statistically by the method of Litchfield, S.T.; Wilcoxon, F., J. Pharmacol. Exptl. Therap., 96, 99, 1949.

12. Reported Results: (excerpted from citation)

The acute LC₅₀ of technical CP67573 is estimated to be greater than 4640 ppm.

13. Study Author's Conclusions/Q.A. Measures:

The study offered no conclusions.

No quality assurance information was supplied.

14. Reviewer's Discussion and Interpretation of the Study:

A. Test procedures:

The following items were not reported:

- 1) Method of determining placement by sex for each dosage level.
- 2) Source of birds.
- 3) Health of birds.
- 4) Temperature and humidity.

B. Statistical Analysis:

Statistical interpretation was not needed since no mortality occurred.

C. Discussion/Results:

No mortality occurred at any level in the controls. Although the temperature was not reported, the study did indicate that "the birds were housed in thermostatically controlled brooders...." Based on this, the study meets the guideline requirements and is sufficient for use in hazard assessment.

D. Adequacy of Study:

- 1) Classification: Core
- 2) Rationale: Meets the guideline requirements.
- 3) Repairability: N/A.

15. Completion of One-Liner for Study:

Completed June 27, 1985.

16. CBI Appendix:

N/A

PARTIAL
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DATA REVIEW NUMBER: ES-V11-D-1
TEST: Avian Subacute Dietary LC₅₀
SPECIES: Bobwhite Quail
RESULTS: LC₅₀ = greater than 4,640 ppm
CHEMICAL: Glyphosate, CP67573, 98.5% active
TITLE: Eight-day dietary LC50-Bobwhite Quail
ACCESSION NO.: 112797
STUDY DATE: May 29, 1973
RESEARCHER: Hazelton Labs, Inc.
REGISTRANT: Monsanto
VALIDATION CATEGORY: Core
CATEGORY REPAIRABILITY: N/A

DATA REVIEW NUMBER: ES-V11-D-1

A ADDITIONAL TEST DATA

1. Protocol-follows 1975 Guidelines-statistics after Litchfield and Wilcoxon (1949).
2. Additional Test Results

No mortality at any dose level (215,464,1000,2150 and 4640 ppm). Bodyweight and food consumption similar to control birds except for birds at 1000 ppm dose level which showed reduced food consumption and body weight.