

US EPA ARCHIVE DOCUMENT

DATA EVALUATION RECORD

1. Chemical: Prometon
2. Test Material:
2,4-bis[isoproylamino]-6-methoxy-s-triazine 98.5% a.i.
3. Study Type: A dietary LC50 study with the Bobwhite
(Colinus virginianus)
4. Study ID: MRID NO. 416091-05
Long, Ronald (1990) Prometon: A dietary LC50 study with the Bobwhite. Unpublished study prepared by Wildlife International Ltd., 305 Commerce Drive, Easton, MD 21601.
5. Reviewed by: Cynthia Moulton
Biologist *Cynthia Moulton*
EEB/EFED 2.27.91
6. Approved by: Norman Cook *Norman Cook*
Head Section II 2.28.91
EEB/EFED
7. Conclusion: This study follows EPA guideline requirements and is classified as core. The dietary LC₅₀ value for northern bobwhite exposed to Prometon 98.5% a.i. was determined to be greater than 5620 ppm a.i., the highest dosage tested. The no observed effect concentration was 1000 ppm a.i. based on signs of toxicity at the 1780 ppm a.i. test concentration.
8. Recommendations: N/A
9. Background:
A dietary LC₅₀ study is required to support reregistration of Prometon. Review of this study is part of phase IV, response of data submission, of the reregistration process.
10. Discussion of Individual Tests: N/A.
11. Materials and Methods:
 - a. Test Animals - Bobwhite quail (Colinus virginianus), obtained from Wildlife International LTD. Production Flock, were acclimated for 10 days and appeared to be in good health. All birds were from the same hatch, pen-reared and phenotypically indistinguishable from wild birds.

b. Test System - The quail were maintained on a diet of Wildlife International game bird ration and were given a vitamin supplement in their water from the day they were received until the initiation of the study. Water and feed were provided ad libitum during the acclimation and during the test.

c. Dosing - Groups of ten bobwhite chicks were assigned to each of the treatment and control groups by random; levels were 562 ppm, 1000 ppm, 1780 ppm, 3160 ppm, and 5620 ppm. The test diets were prepared by mixing the test substance into the diet with 2% corn oil.

d. Design - Ten birds in each of the controls and treatment levels were used. The quail were weighed initially and on day 5 of the test. Food consumption of the birds was estimated by group from days 0-5 and days 6-8.

e. Statistics - The study was not conducive to calculating an LC50 value. The LC50 value was estimated by visually inspecting the mortality data.

12. Reported Results:

There were no mortalities and birds were normal in behavior and appearance at 562, and 1000 ppm. At the higher doses of 1780, 3160, and 5620 ppm there were no mortalities; however signs of toxicity developed and included lethargy and ruffled appearance. A reduction of body weight gain occurred at the 3160 and 5620 ppm a.i. test concentrations during the exposure period when compared to the controls, and feed consumption was slightly reduced at the 5620 ppm a.i. level.

13. Study Authors Conclusion:

"In conclusion, the dietary LC₅₀ value for northern bobwhite exposed to Prometon was determined to be greater than 5620 ppm a.i., the highest dosage tested. The no observed effect concentration was 1000 ppm a.i. based on signs of toxicity at the 1780 ppm a.i. test concentration."

14. Reviewers Discussion and Interpretation of the Study:

a. Test Procedures - The study appeared to follow EPA guideline requirements.

b. Statistical Analysis - There were no treatment related mortalities, the authors LC₅₀ value was based on visual inspection of the mortality data.

c. Discussion/ Results - Based on these data, it appears that the LC_{50} of Prometon 98.5% a.i. for the bobwhite quail is greater than 5620 ppm nominal concentration. This indicates that Prometon is practically nontoxic to upland gamebird species on a dietary basis.

d. Adequacy of Study

1) Classification: Core

2) Rationale: The study follows EPA guidelines protocol.

3) Repairability: N/A

15. Completion of One-Liner:

TABLE 3
 BODY WEIGHT AND ESTIMATED FEED CONSUMPTION OF CONTROL BOBWHITE

Concentration ppm	Average Body Weight (Grams)						Feed Consumption Grams Per Bird Per Day	
	Exposure			Observation		Total Change	Exposure	Observation
	Day 0	Change	Day 5	Change	Day 8		Days 0-5	Days 6-8
0	18	12	30	7	37	19	6	14
0	17	8	25	4	29	12	6	7
0	19	12	31	8	39	20	8	10
0	18	11	29	8	37	19	8	12

TABLE 4
 BODY WEIGHT AND ESTIMATED FEED CONSUMPTION OF BOBWHITE
 EXPOSED TO PROMETON FOR FIVE DAYS

Concentration ppm a.i.	Average Body Weight (Grams)						Feed Consumption Grams Per Bird Per Day	
	Exposure			Observation		Total Change	Exposure	Observation
	Day 0	Change	Day 5	Change	Day 8		Days 0-5	Days 6-8
562	17	7	24	5	29	12	5	6
1000	19	8	27	9	36	17	10	11
1780	20	8	28	10	38	18	6	8
3160	19	5	24	8	32	13	5	10
5620	19	3	22	6	28	9	4	10

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