

US EPA ARCHIVE DOCUMENT

MRID No.: 436781-10

DATA EVALUATION RECORD
§ 71-2(A) -- UPLAND GAME BIRD DIETARY LC₅₀ TEST

1. **CHEMICAL:** Azoxystrobin PC Code No.: 128810

2. **TEST MATERIAL:** ICIA5504 Purity: 96.2%

3. **CITATION**

Author: Barbara Hakin, Alison J. Johnson, Alan Anderson, and I. Suzanne Dawe

Title: ICIA5504: Subacute Dietary Toxicity (LC₅₀) to Bobwhite Quail

Study Completion Date: November 25, 1992

Laboratory: Huntingdon Research Centre Ltd.,
Cambridgeshire, England

Laboratory Report ID: ISN 294/920972

Sponsor: Zeneca AG Products, Zeneca Inc.,
Wilmington, DE

MRID No.: 436781-10

4. **REVIEWED BY:**

William Erickson
Biologist
EEB/EFED/EPA

Signature:

W. Erickson
4/10/96

Date:

5. **APPROVED BY:**

Harry Craven
Section Head 4
EEB/EFED/EPA

Signature:

H.T. Craven
6/2/96

Date:

6. **STUDY PARAMETERS**

Scientific Name of Test Organism: *Colinus virginianus*

Age of Test Organisms at Test Initiation: 10 days

Definitive Study Duration: 8 days

7. **CONCLUSIONS:** This study is scientifically sound and fulfills the guideline requirement for an acute dietary toxicity test using bobwhite quail. The LC₅₀ was greater than 5200 ppm, which classifies azoxystrobin as practically nontoxic to the bobwhite quail.

Results Synopsis

LC₅₀: >5200 ppm
NOEL: 5200 ppm

95% C.I.: N/A
Probit Slope: N/A

8. **ADEQUACY OF THE STUDY:** Core

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DP Barcode:

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4. **REVIEWED BY:** Barbara H. Herbert, B.S., Associate Scientist, KBN Engineering and Applied Sciences, Inc.

Signature: *Barbara H. Herbert* Date: 10-19-95

APPROVED BY: Pim Kosalwat, Ph.D., Senior Scientist, KBN Engineering and Applied Sciences, Inc.

Signature: *P. Kosalwat* Date: 10/19/95

5. **APPROVED BY:** (Name), Head of Section (#), EEB, EFED

Signature: Date:

6. **STUDY PARAMETERS**

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Age of Test Organisms at Test Initiation: 10 days
Definitive Study Duration: 8 days

7. **CONCLUSIONS:** This study is scientifically sound and fulfills the guideline requirements for an acute dietary toxicity test using bobwhite quail. The LC₅₀ was greater than 5200 ppm, which classifies Sulfentrazone as practically non-toxic to the bobwhite quail. The NOEC was determined to be 5200 ppm.

Results Synopsis
LC₅₀: >5200 ppm
NOEL: 5200 ppm

95% C.I.: N/A
Probit Slope: N/A

2

4.75

9. GUIDELINE DEVIATIONS:

- 1) The test temperature was slightly lower than the recommended level.
- 2) Only 12 hours of light per day was provided.

10. SUBMISSION PURPOSE: New Chemical.

11. MATERIALS AND METHODS:

A. Test Organisms

Guideline Criteria	Reported Information
Species: An upland game bird species, preferably the bobwhite (<i>Colinus virginianus</i>).	<i>Colinus virginianus</i>
Age at beginning of test: 10-14 days old.	10 days old
Supplier	D.R. and R.E. Wise, Monkfield, Cambridgeshire, England
Chicks appeared healthy and did not have excessive mortality before the test?	Yes
Acclimation period: As long as possible.	3 days

B. Test System

Guideline Criteria	Reported Information
Pen size: about 35 x 100 x 24 cm	80 x 50 x 60 cm
Brooder temperature: about 35°C (95°F)	Mean daily temperature of 26°C to 30°C
Room temperature: 22-27°C (71-81°F)	Not reported.
Relative humidity: 30-80%	53%

Guideline Criteria	Reported Information
Adequate ventilation?	Yes
Photoperiod Minimum of 14 h of light.	12 hours light and 12 hours darkness
Diet: A commercial diet for game birds.	Standard HRC chick diet, no antibiotics or other growth promoters.

C. Test Design

Guideline Criteria	Reported Information
Range finding test?	None Reported
Definitive Test Nominal concentrations: Four minimum, 5 or 6 strongly recommended, in a geometric scale, unless $LC_{50} > 5000$ ppm.	163, 325, 650, 1300, 2600 and 5200 ppm, not corrected for purity
Controls: Control group tested with diet containing the maximum amount of vehicle used in treated diets?	2 control groups
Number of birds per group: 10 (strongly recommended)	10 birds per group
Vehicle: Distilled water, corn oil, propylene glycol, 1% carboxymethylcellulose, or gum arabic.	None used
Vehicle amount (% of diet by weight): Not more than 2%	N/A
Test durations: 5 days with treated feed and at least 3 days observation with "clean" feed.	Yes
No mortality during last 72 hr of observations?	No.

12. REPORTED RESULTS

Guideline Criteria	Reported Information
Quality assurance and GLP compliance statements were included in the report?	Yes
Body weights measured at beginning and end of study?	Yes, by group
Estimated consumption per pen reported for pretreatment, treatment, and observation periods?	Yes
Control Mortality: Not more than 10%	No mortality
Raw data included?	Yes
Signs of toxicity (if any) were described?	Yes, none observed

Mortality

Conc. (ppm)		No. of Birds	Cumulative Number of Dead								
Nominal	Mean Measured		Day of Study								
			1	2	3	4	5	6	7	8	
Control	N.D.	20	0	0	0	0	0	0	0	0	0
163	173	10	0	0	0	0	0	0	0	0	0
325	330	10	0	0	0	0	0	0	0	0	0
650	643	10	0	0	0	1	1	1	1	1	1
1300	1290	10	0	0	0	0	0	0	0	0	0
2600	2550	10	0	0	0	0	0	0	0	0	0
5200	5290	10	0	0	0	0	0	0	0	0	0

N.D. = None detected (<12 ppm)

Other Significant Results: No abnormal findings were noted on the 21 birds (10 controls, 10 from the 5200 ppm group and the 1 mortality) examined post-mortem macroscopically. Body weights and feed consumption values were similar between treatment and control groups.

Statistical Results

Statistical Method: None

LC₅₀: >5200 ppm 95% C.I.: N/A

NOEL: 5200 ppm Probit Slope: N/A

13. VERIFICATION OF STATISTICAL RESULTS:

Statistical Method: visual inspection of data

LC₅₀: >5200 ppm 95% C.I.: N/A

NOEL: 5200 ppm Probit Slope: N/A

- 14. REVIEWER'S COMMENTS:** This study is scientifically sound and fulfills the guideline requirement for an acute dietary toxicity test using bobwhite quail. The LC₅₀ was greater than 5200 ppm, which classifies azoxystrobin as practically non-toxic to the bobwhite quail.