


DATA EVALUATION RECORD

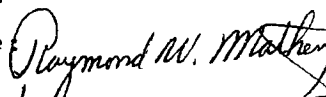
1. Chemical: Farnesol SN: 128910
2. Test Material: 98% ai Technical
3. Study/Action Type: Avian dietary LC₅₀
4. Study ID: Fletcher, D.W. Avian Subacute Oral LC₅₀ Study in Mallard Ducklings (Anas platyrhynchos) with Farnesol Technical (1986) Bio Life Associates, BLAL No. 86DC67. Study Sponsor: Fermone Chemical Co. Study Location: Neillsville, WI. EPA Accession No. 264426.

5. Reviewed by: Robert W. Pilsucki
Microbiologist
EEB/HED

Signature 

Date: 1/8/87

6. Approved by: Raymond W. Matheny
Head, Section 1
EEB/HED

Signature 

Date: 1/8/87

7. Conclusions:

This study is classified as core. The dietary LC₅₀ for Mallard ducks is greater than 5000 mg/kg. ppm

8. Recommendations:

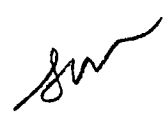
None.

9. Background: N/A.

10. Discussion of Individual Studies or Tests: N/A.



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11. Materials and Methods:

Species: Mallard duck (*Anas platyrhynchos*)

Age: 5 days

Source and rearing history: Whistling Wings, Inc.
Hanover, IL

The birds were 3 days old when received and were placed in quarantine for 2 days. All birds were examined at the end of the quarantine period.

Selection of test birds:

The birds were randomly assigned to five control groups and five treatment groups without regard to sex.

Number of birds/group: 10.

Housing conditions:

Temperature: 77 - 84 °F
Humidity: 58 - 87%
Lighting: 24 hr/day
Pen Size: 45.7 x 61 x 45.7 cm

Diet and diet preparation:

The diet used was Purina Gamebird Starteena. The test material was incorporated directly into the diet; no vehicle was used. Diets were prepared 24 hours in advance of the test.

Food consumption and weight gain:

See attached tables.

Test duration:

Treatment: 5 days
Observation: 3 days

Observations:

Daily observations for mortality, clinical signs, and food spillage were made.

Necropsies:

All dead birds and four survivors from each group were necropsied.

12. Reported Results:

The author reported two mortalities (one in a control group and one in the group receiving 1250 ppm farnesol. Gross pathological examination revealed no abnormalities except for a yolk sac adhered to the base of the cloaca in the bird receiving 1250 ppm farnesol. The author also reported that there were no abnormal behavioral or clinical signs.

13. Study Author's Conclusions/Quality Assurance Measures:

The author concluded that the LC₅₀ for the test material was greater than 5000 ppm. He further concluded that the deaths were not related to the treatment.

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

- a. Test Procedure: The test procedure generally followed that recommended in EPA's Pesticide Assessment Guidelines: Subdivision E.
- b. Statistical Analysis: There was no statistical analysis performed on these data. These data are not amenable to statistical analysis.
- c. Discussion/Results: It appears that the LC₅₀ of farnesol for Mallard ducks is greater than 5000 ppm. The single treatment mortality is not significant due to a lack of dose-response mortalities and the lack of toxicological clinical signs and pathological findings.
- d. Adequacy of the Study:
 1. Category: Core.
 2. Rationale: This study follows EPA's Pesticide Assessment Guidelines: Subdivision E.
 3. Repairability: N/A.