

US EPA ARCHIVE DOCUMENT

DATA EVALUATION RECORD

CASE: GS0333

FENAMIPHOS

CONT-CAT: 02 GUIDELINES: 71-2

MRID: 22923

Hill, E.F.; Heath, R.G.; Spann, J.W.; et al. (1975) Lethal Dietary Toxicities of Environmental Pollutants to Birds: Special Scientific Report--Wildlife No. 191. (U.S. Dept. of the Interior, Fish and Wildlife Service, Patuxent Wildlife Research Center; unpublished report).

REVIEW RESULTS:

VALID X INVALID _____ INCOMPLETE _____

GUIDELINE: SATISFIED _____ PARTIALLY SATISFIED _____ NOT SATISFIED X

DIRECT RVW TIME = START DATE: END DATE:

REVIEWED BY: Richard W. Felthousen

TITLE: Wildlife Biologist

ORG: EPA/OPTS/OPP/HED/EEB

LOC/TEL: 557-1392

SIGNATURE: *[Signature]*

DATE: 11/10/86

APPROVED BY: O. Gutenson

TITLE: Acting Registration Standard Coordinator

ORG: EEB/HED

LOC/TEL:

SIGNATURE: *[Signature]*

DATE: 12/21/87

The reported LC50 value for the Japanese quail was 59 ppm (49-71, 95% C.L). The Japanese quail is not a suitable test species. Therefore, this study does not satisfy the guideline requirements.

DATA EVALUATION RECORD

1. CHEMICAL: Nema-cur
2. FORMULATION: Technical
3. CITATION: Hill, E.F., R.G. Heath, J.W. Spann, J.D. Williams (1975)
Lethal Dietary Toxicities of Environmental Pollutants to
Birds. U.S. Fish & Wildlife Service, Special Scientific
Report--Wildlife No. 191. Submitted by Mobay Chemical Corp.,
Kansas City, MO as report No. 33423a.
4. REVIEWED BY: L.W. Touart
Fisheries Biologist
EEB/HED
5. DATE REVIEWED: 12/13/79
6. TEST TYPE: Avian Dietary LC₅₀
 - A. TEST SPECIES: Japanese Quail
7. REPORTED RESULTS: The estimated LC₅₀ for Nema-cur for Japanese
Quail is 59 ppm with 95% C.I. of 49-71 ppm.
8. REVIEWERS CONCLUSIONS: The study is scientifically sound, but does
not fulfill the requirements for an avian dietary LC₅₀.

Materials/Methods

Test Procedures

The test protocol generally followed EPA proposed guidelines of July 10, 1978 except Japanese Quail were substituted for the recommended Bobwhite Quail. The study was a compilation of nearly 10 years of testing the subacute toxicities of 131 pesticides and industrial chemicals to three bird species. One study was listed on Nemacur with the Japanese Quail. The study was an 8-day dietary test, including 5 days of treated diet followed by 3 days of untreated diet. Six geometrically arranged concentrations of toxicant were used per test with positive and negative controls.

Statistical Analysis

The LC_{50} 's in the study were derived by methods of probit analysis described by Finney (1952) and programmed for computer by the system of Daum and Killcreas (1966).

Discussion/Results

<u>Nemacur</u>	<u>Species</u>	Age (initiation of test)	<u># of Conc</u>	<u>Birds/Conc</u>	<u>LD₅₀</u>	<u>95% C.I.</u>
	Japanese Quail	14	6	10	59 ppm	49-71 ppm

Reviewers Evaluation

A. Test Procedure

The test procedures generally comply with the recommended EPA 1978 protocol, except Japanese Quail were used in place of the Bobwhite Quail. Raw data were not presented.

B. Statistical Analysis N/A

C. Discussion/Results

The test is scientifically sound, however, raw data are needed to validate.

D. Conclusions

1. Category: Supplemental
2. Rationale: Test series differs from recommended species.
3. Repairability: No.

Table 1. Dietary concentrations of 191 compounds tested in 5-day diets of young bobolinks, Japanese quail ring-necked pheasant, or mallards (1964-73)---continued

Compound	Species	Age (days)	No. of conc.	No. birds/ conc.	LC50 ^c (95% C.I.)	Toxicity statistics		
						Slope ^d (S.D.)	RTD ^e (95% C.I.)	
Dieldrin	Japanese quail	14	6	10	59 (49-71)	4.423 (1.223)	0.01 (0.62-1.04)	
		14	3	0	1474 (1075-2100)	8.366 (1.814)	42.2 (27.2-68.0)	
		14	6	10	1345 (1139-1580)	7.710 (1.366)	25.6 (20.5-32.1)	
Dieldrin	Japanese quail	10	3	0	2874 (2567-3209)	9.888 (2.273)	51.7 (44.4-60.2)	
		14	5	0	2300		11	
		14	6	10	434 (304-600)	5.309 (1.714)	12.4 (7.7-19.4)	
Dieldrin	Ring-necked pheasant	14	6	0	1309 (1097-1552)	4.163 (1.352)	25.0 (19.8-31.3)	
		10	6	10	1497 (1326-1690)	9.292 (2.412)	25.7 (22.0-29.9)	
		10	3	0	>5000 (No mortality at 1000 ppm, 25% at 2235 ppm, 50% at 5000 ppm)			
Dieldrin	Bobolinks	14	6	10	981 (784-1213)	5.022 (1.203)	25.0 ^f (14.8-33.1)	
		14	6	10	970 (823-1140)	6.059 (1.507)	18.5 (13.7-24.5)	
		10	6	10	1462 (1287-1673)	5.846 (1.973)	22.3 (18.7-26.5)	
Dieldrin	Mallard	10	6	10	4048 (3432-4286)	6.765 (1.287)	23.5 (18.5-30.7)	
		14	6	10				
		14	6	10				

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D. W. Jones Jones 6/2/88