

US EPA ARCHIVE DOCUMENT

DATA EVALUATION RECORD

CASE: GS0333

FENAMIPHOS

CONT-CAT: 01 GUIDELINES: 71-5

MRID: 82115

Lamb, D.W.; Nelson, D.L. (1971) Toxicity of Nemacur 15% Granular to Pheasants and Rice Birds under Simulated Field Conditions for Pineapples: Report No. 29159. (Unpublished study received May 5, 1971 under 1G1168; submitted by Mobay Chemical Corp., Kansas City, Mo.; CDL:090966-T)

REVIEW RESULTS:

VALID _____ INVALID X INCOMPLETE _____

GUIDELINE: SATISFIED _____ PARTIALLY SATISFIED _____ NOT SATISFIED X

DIRECT RVW TIME = START DATE: END DATE:

REVIEWED BY: Richard W. Felthousen

TITLE: Wildlife Biologist

ORG: EEB/HED

LOC/TEL: 557-1392

SIGNATURE: *Richard W. Felthousen*

DATE: 12/3/86

APPROVED BY: O. Gutenson

TITLE: Act. Reg. Strd. Coordinator

ORG: EEB/HED

LOC/TEL:

SIGNATURE: *O. Gutenson*

DATE: 12/24/87

Discrepancies in study design invalidates the tests results. As such, the study is inadequate to fulfill data requirements for an avian field study.

103.5.0 Field Toxicity

DATA REVIEW NUMBER: ES CC2

TEST: Simulated Field Study

SPECIES: Rice Bird (Lonchura punctulata)
Pheasant (Phasianus colchicus)

RESULTS: Pheasants and Rice Birds were exposed to a pineapple bed incorporated with Nemacur 15% Granular. Birds were held in cages positioned over the treated area to give 0, 50 and 100 percent exposure for a 14-day period. Mortalities occurred among rice birds in the 100% exposure area. No behavioral differences, toxic symptoms or deaths resulted from the 50 percent exposure for rice birds. Pheasants caged in the 100 percent exposure area demonstrated one death, no behavioral changes, weight changes or cholinergic symptoms. Under simulated pineapple cultivated practices Nemacur 15% Granular at 40 lbs. A.I./acre did not constitute a significant hazard to rice birds or pheasants.

CHEMICAL: Nemacur 15% Granular (40 lbs. A.I./acre)

TITLE: Toxicity of Nemacur 15% Granular to Pheasants and Rice Birds Under Simulated Field Conditions for Pineapples.

ACCESSION NO: 120301 Report No. 29159

STUDY DATE: January 13, 1971

RESEARCHER: Lamb, D. W.; W. S. McLeod and W. M. Zeck
Research and Development Div.
Chemagro Division of Baychem Corp.

REGISTRANT: Chemagro Chemical Corporation

VALIDATION CATEGORY: Supplemental

CATEGORY REPAIRABILITY: No - Test birds were supplemented in their diet on a daily basis and the cages were not moved on a daily basis. Only one test level was utilized and portions of the cage area were eliminated from exposure by spreading a 24 inch plastic sheet covered with mulch, so it is not possible to accurately predict the actual exposure levels.

Only 10 birds were tested, and when mortalities occurred mention is not made of replacement. The dead birds were not necropsied to determine cause of death. This study was ~~probably~~ conducted in a manner so that hazard was kept at a minimum and actual field conditions *were not duplicated*

ADDITIONAL INFORMATION: Twenty Rice birds and twenty Pheasants were used in this study located at the Pineapple Research Institute Field Station, Wahiaha, Hawaii.

Nemacur 15% was applied to a soil bed at 40 lbs. A.I./acre. The soil bed was 56" x 70" (327 sq. ft.) and 906 g of the Formulation was applied. The nemacur was incorporated into the soil to a 6 inch depth with a tractor mounted roto-teller. [Label says incorporate from 2 to 6 inches for Nemacur 15, 2 inches would increase hazard and would not be equally representative of the hazard level that was tested in this study.]

Eight cages were positioned over the plants. Two cages were 8' x 5' (40 ft²) and six cages were 4' x 5' (20 ft²). The 8' x 5' cages had 50 percent exposure to treatment, the 4' x 5' had 100 percent exposure. All cages were exposed to a total of 110 grams of Nemacur if not soil incorporated, with soil incorporation 4 - 6 inches the exposure level should be 9.098 mg/sq. ft.

The field study talks about laying a 24" plastic mulch strip, covering the edges with soil and planting the pineapple through the plastic, which is the conventional manner. The study does not make it clear as to how much of the ground surface was then covered, therefore, making the granular material unavailable to test birds.

Two pair of pheasants were introduced into the 8' x 5' cages and one pair was introduced into three of the 4' x 5' cages. The same number of rice birds were released into the remaining four cages. A control plot contained an identical number of birds and cages.

Food was provided in the form of cracked corn or songbird seed and the food supply was replenished daily.