

US EPA ARCHIVE DOCUMENT

DATA EVALUATION RECORD

CASE: GS0333

FENAMIPHOS

CONT-CAT: 01 GUIDELINES: 71-5

MRID: 114013

Lamb, D.; Jones, R. (1972) Toxicity of Nema-cur 15% Granular to English Sparrows, Bobwhite Quail and New Zealand Rabbits under Simulated Field Conditions for Turf: Report No. 34835. (Un-published study received May 1, 1973 under unknown admin. no.; submitted by Mobay Chemical Corp., Kansas City, MO; CDL:120301-X).

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

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DATE: 12/05/86

APPROVED BY: O. Gutenson

TITLE: Acting Registration Standard Coordinator

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DATE: 12/21/87

Discrepancies with study design invalidates test result. As such, the study is not adequate to fulfill the data requirement for an avian field study.

103.5.0 Field Toxicity

DATA REVIEW NUMBER: ES CC3

TEST: Simulated Field Study

SPECIES: English Sparrow (Passer domesticus)
Bobwhite Quail (Colinus virginianus)
New Zealand Rabbit (species question)

RESULTS: English Sparrows suffered higher mortality in treated areas where the granular material was not watered in than in control areas or irrigation areas. In the non irrigated pens where feed was withheld for 8 hours mortality was highest. The mortality in all pens decreased as the study progressed, and with the occurrence of two rain storms mortality seemed to further decrease.

In the Bobwhite Quail portion of the study the only (2 birds) mortality to occur was in the non irrigated treated portion. All birds lost weight during the study, with the treated irrigated birds losing 12 grams average treated non-irrigated losing 14 grams and the control birds losing 8 grams. //

There were no deaths in the rabbit study, the treated irrigated study had the lowest weight gain, the treated non irrigated rabbits next lowest and the control rabbits had the highest weight gain.

CHEMICAL: NemaCur 15% Granular 134 lbs. Formulation/acre (20 lbs).

TITLE: Toxicity of NemaCur 15% Granular to English Sparrows, Bobwhite Quail and New Zealand Rabbits Under Simulated Field Conditions.

ACCESSION NO: 120301 Report No. 34835

STUDY DATE: October 5, 1972

RESEARCHER: Lamb, D. W. and R. E. Jones
Chemagro Division of Baychem Corp.
Research and Development

REGISTRANT: Chemagro Chemical Corporation

VALIDATION CATEGORY: Supplemental

CATEGORY REPAIRABILITY: No - The study has several discrepancies, the major one involving not moving the pens to keep the test animals exposed. The cages were not present prior to application and the duration between treatment and test are not given. The rabbit cages had woven wire fencing on the bottom and the cages were not moved. The test animals were given food on a regular basis and the distribution as far as coverage of the cage area was not given.

ADDITIONAL INFORMATION: Study conducted in Kansas.

Nemacur 15% Granular was applied at the rate of 134 lbs. Formulation/acre. This is the equivalent of 20 lbs. A.I./acre or .21 grams/ft² (= .000462 lbs/sq. ft. or 208.2 mg/sq. ft.). The residue in ppm would be approximately 441 ppm before watering in. The control plot and the two treated plots were each 660 sq. ft. Each treated plot received 921 grams of the compound and then one of the plots received hand irrigation at the rate of 1/2 inch of water (206 gallons). Eighteen cages each 4' x 5' x 3' were used (20 sq. ft. surface area). Each cage received one pair of animals and each plot had 6 cages of each of the three species. The quail and rabbits were randomly caged. Each of the groups of six cages of a species on a test plot were given the following treatment. Control with feed, control feed withheld 8 hours, treatment irrigated with feed, treatment irrigated with feed withheld eight hours, treated non irrigated with feed, and non irrigated with feed withheld for eight hours. The rabbit cages had woven wire fencing on the bottom. The cages in this study were not moved after placement and placement did not occur until after treatment and after irrigation. Natural feed was supplemented on a daily basis.

The study was conducted for 14 days, and the method of applying the free choice feed is not clearly given. The study did not make any statistical analysis in the results section to determine if there was a statistical difference in mortality between control and treatment groups or differences in weight gains between control and treatment groups. A one way ANOVA of the English sparrow portion of the study and a Duncans Multiple Range Test indicates

that there was a significant difference in mortality (0.05 level) between control birds both feed withheld and not withheld, treatment non irrigated feed not withheld and irrigated treatment area feed withheld and not withheld versus the non irrigated group feed withheld which displayed the highest mortality. It should also be noted that the mortality in the irrigated group of birds was near 50 percent. In the quail portion the treated non irrigated pens had mortality and the highest weight loss, in the rabbit portion this area also had weight loss. No statistical analysis of these studies was attempted.

