11/5/80
MULTIPLE

TDMS0030 DATA EVALUATION RECORD PAGE 1 OF 4

CASE GS0014 ~~ENDOSULFAN A - (10/19/79)~~ NALED PM 110 ~~11/21/79~~

CHEM ~~079401~~ 034401 Endosulfan (hexachlorohexahydromethano

BRANCH EEB DISC 40 TOPIC 05051045

FORMULATION 00 - TECHNICALS

FICHE/MASTER ID 05011163 CONTENT CAT 01

Harris, C.R.; Svec , H.J. (1969) Laboratory studies on the contact toxicity of some insecticides to honeybees. Pages 165-167, In Proceedings of the Entomological Society of Ontario. Vol. 100. Guelph, Ontario, Canada: Entomological Society of Ontario. (Research Institute, Canada Department of Agriculture, London, Ontario, contribution no. 439)

SUBST. CLASS = S.

OTHER SUBJECT DESCRIPTORS
SEC: EEB -40-15000045 EEB -55-10154045

DIRECT RVW TIME = 2 hrs. (MH) START-DATE 3/19/80 END DATE 3/20/80

REVIEWED BY: Allen W. Vaughan
TITLE: Entomologist
ORG: EEB/HED
LOC/TEL: Crystal Mall #2, 557-1405

SIGNATURE: Allen W. Vaughan DATE: 11/5/80

APPROVED BY:
TITLE:
ORG:
LOC/TEL:

SIGNATURE: DATE:

OK

1

CONCLUSIONS: This study is scientifically sound. See table for results.

METHODS & MATERIALS:

A. Test Type: Toxicity to honey bees

B. Test Species: Honey bee (Apis mellifera)

C. Test Procedures

Test insecticides were analytical grade materials. Solutions were made up in a 19:1 acetone - olive oil mixture, which was applied to the bees using a spray tower. Mortality counts were made after 18 hours.

Statistical Analysis

Abbott's formula was used to correct for control mortality.

REPORTED RESULTS: Results of the toxicity testing are reported in the table. Among the most toxic to bees were methomyl, mevinphos, Dursban, carbofuran, and parathion. Test pesticides showing the the lowest degree of toxicity to bees included endosulfan, Stauffer N-2596, and methoxychlor.

TABLE 1. Direct contact toxicity of some insecticides to honeybees

	Average corrected % mortality at indicated rates of application (% solution)			
	.001	.01	.1	1.0
methomyl	5	100	100	100
mevinphos	0	100	100	100
Dursban	0	100	100	100
carbofuran	0	100	100	100
parathion	0	100	100	100
Dupont 1642	15	90	100	100
naled	0	79	100	100
azinphosmethyl	0	78	100	100
dimethoate	0	78	100	100
Dasanit	0	72	100	100
carbaryl	0	68	100	100
BAY 77488	0	42	100	100
dieldrin	5	35	100	100
aldrin	0	11	100	100
BAY 37289	0	11	100	100
Landrin	0	0	100	100
Bux	0	0	100	100
heptachlor	0	0	100	100
diazinon	0	0	100	100
malathion	0	0	100	100
Imidan	0	0	100	100
Gardona	0	0	100	100
endrin	0	0	50	100
Chlordane	0	0	17	100
Chlorfenvinphos	0	0	17	100
DDT	5	10	15	100
endosulfan	0	0	0	100
Stauffer N-2596	0	0	0	100
methoxychlor	0	0	0	83

DISCUSSION:

A. Test Procedure

Procedure is sound.

B. Statistical Analysis

Authors used Abbott's formula to correct for natural mortality. No validation performed by EEB.

C. Discussion/ Results

This study is scientifically sound.