11-4-80
MULTIPLE

TDMS0030 DATA EVALUATION RECORD PAGE 1 OF 2

CASE GS0014 ENDOSULFAN PM 110 ~~08/12/79~~

CHEM 079401 Endosulfan (hexachlorohexahydromethano)

BRANCH EEB DISC 40 TOPIC 05050045

FORMULATION 12 - EMULSIFIABLE CONCENTRATE (EC OR E)

FICHE/MASTER ID 05004412 CONTENT CAT 03

Palmer-Jones, T.; Forster, I.W. (1963) Effect on honey bees of Dipterex, Thiodan, and Phosdrin applied as sprays to white clover (Trifolium repens L). New Zealand Journal of Agricultural Research 6(3/4):303-306.

SUBST. CLASS = S.

DIRECT RVW TIME = 2 Hr. (MH) START-DATE 1/25/80 END DATE 1/25/80

REVIEWED BY: Allen W. Vaughan
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SIGNATURE: DATE:

Conclusions

This study is scientifically sound.

Methods and Materials

Test Procedures - Pesticides were applied to 10-acre plots of white clover in full bloom, at the following rates: Dipterex, 1.2 lb AI/A; Thiodan, 0.7 lb AI/A; and Phosdrin, 0.4 lb AI/A. Apiaries were located near the treated fields. Evaluation was made through counts of field bees, collecting and caging foragers for per cent mortality determination, and observing colonies for adverse effects.

Statistical Analysis - None reported.

Results

Reported Results - When test compounds were applied to blooming white clover in early morning (prior to bee activity), Dipterex and Thiodan were safe to field bees, while Phosdrin caused high mortality.

Discussion/Results

Bee counts - Application of Dipterex and Thiodan had little or no effect on numbers of foraging bees. Phosdrin caused a dramatic drop in the number of foragers, as evaluated 4 1/2 hrs. after application.

Mortality of foragers - Toxicity of Dipterex and Thiodan was very low as measured in this test. Toxicity of Phosdrin was high (82% mortality) on the day of application and moderate (52% mortality) the following morning.

Effect on colonies - No adverse effects were observed following Dipterex and Thiodan applications. Phosdrin caused irritability and a weakened condition in some of the field bees, ~~and some reduction of the field bees,~~ and some reduction of the field force due to mortality.

Discussion

Test Procedure - Procedures were scientifically sound.

Statistical Analysis - None reported.

Discussion/Results - This study is scientifically sound.