Data Evaluation Record

CHEMICAL: Clothianidin PC Code No.: 044309

Two studies submitted to show acute effects of corn and rape seeds treated with TI 435 FS600 (formulated product) on wolf spiders (*Pardosa spp.*) under extended laboratory test conditions

Data Requirement
No requirement for submission under EPA Guidelines

Citations
MRID 454225-18 (F. Kemmeter, 1999)
MRID 454225-19 (F. Kemmeter, 1999)

Primary Reviewer: Allen W. Vaughan, Entomologist Signature: Allen W Vaughan
U.S. EPA/ OPPTS/OPP/EFED/ERB 5 Date: 03/03/03

Secondary Reviewer: Jerry L. Ellis, MS, Biologist Signature: Jerry L. Ellis, M.S.
U.S. EPA/ OPPTS/OPP/EFED/ERB 5 Date: 2-27-03

Hemendra Mulye, PhD Signature:
Senior Evaluation Officer, EAD, PMRA Date: March 14/03

Summary review: TI 435 FS 600 (Treated Corn Seeds): Extended Laboratory Study to Evaluate the Effects on the Lycosid Spider, *Pardosa* spp. (Araneae, Lycosidae) (MRID 454225-18)

Test Substance: TI 435 FS 600 seed dressing
AI Content According to Analysis: 606.6 g/l
Seed treatment rate: 48.8 g a.i./Unit (1 Unit = 50,000 seed)
Test Duration: 14 days
Test Seed Drilling Rate: 2 maize seeds per 1170 cm^2 test box (3.4 U/ha)
Endpoints: Mortality and feeding activity

The goal of this study was to evaluate whether or not exposing wolf spiders to treated maize seeds increased mortality or decreased feeding rate compared to the controls. Test spiders were subadult or adult, and were fed fruit flies (*Drosophila sp.*). The spiders were placed in plastic boxes filled with soil (10 boxes per treatment; 5 replicates each of 3 males or 3 females). Two maize seeds were placed in the soil of each test box. Dimethoate was used as a reference chemical in a separate treatment group. Mortality and behavior impairments were monitored 2 and 6 hours after treatment, as well as on study days 1,2,3,4,6,7,8,9,10, 11,13 and 14. The study results indicated that mortality and feeding capacity in the TI-435 treatments were not significantly different from the controls. Mortality in the dimethoate groups was 73.3%.
This study is scientifically sound and classified as **Supplemental**.

This study is scientifically sound and classified as **Supplemental**.

Summary review: Clothianidin (FS 600) (Treated Rape Seeds): Extended Laboratory Study to Evaluate the Effects on the Wolf Spider, *Pardosa* spp. (Araneae, Lycosidae) (MRID 454225-19)

Test Substance: Clothianidin FS 600 seed dressing
AI Content According to Analysis: 606.6 g/l
Seed dressed with 10 g a.i./kg TI 435 FS 600
Test Duration: 14 days
Test Seed Drilling Rate: 4 rape seeds per 178 cm^2 test box (6.6 kg/ha)
Endpoints: Mortality and feeding activity

The goal of this study was to evaluate whether or not exposure of wolf spiders to rape seed dressed with 10 g a.i./kg TI 435 FS 600 would result in increased mortality or decreased feeding rate relative to spiders in an untreated control group. Test spiders were subadult or adult, and were fed fruit flies (*Drosophila sp.*). The spiders were placed in plastic boxes filled with soil (30 boxes per treatment; 15 replicates each of 1 male or 1 female). Four rape seeds were placed in the soil of each test box. Dimethoate was used as a reference chemical in a separate treatment group. Mortality and behavior impairments were monitored 2 and 6 hours after treatment, as well as on study days 1,2,3,4,7,8,10, 11 and 14. The study results indicated that mortality and feeding capacity in the TI-435 treatments were not significantly different from the controls. Mortality in the dimethoate groups was 65%.

This study is scientifically sound and classified as **Supplemental**.