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EEB BRANCH REVIEW

DATE: IN _____ OUT _____

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IN _____ OUT 7-19-77

FISH & WILDLIFE

ENVIRONMENTAL CHEMISTRY

EFFICACY

J. E.

FILE OR REG. NO. _____ 3125-280 _____

PETITION OR EXP. PERMIT NO. _____ - _____

DATE DIV. RECEIVED _____ March 17, 1977 _____

DATE OF SUBMISSION _____ March 04, 1977 _____

DATE SUBMISSION ACCEPTED _____ - _____

TYPE PRODUCT(S): (I) D, H, F, N, R, S _____

PRODUCT MGR. NO. _____ Gee _____

PRODUCT NAME(S) _____ Monitor 4 _____

COMPANY NAME _____ Chemagro _____

SUBMISSION PURPOSE _____ Add whiteflies on cotton _____

CHEMICAL & FORMULATION _____ Methamidophos. 40% _____

EPA Acc. No. 228720

BEST DOCUMENT AVAILABLE

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200.0 Introduction

The purpose of this amendment is to add a claim for control of whiteflies on cotton at rates of .25 to .50 lb. AI/A with the presently registered use pattern. See enclosed label draft.

201.0 Background Information

This product is currently registered for use on cotton to control aphids, beet armyworms, cabbage loopers, mites, thrips and lygus (California and Arizona only) at rates of 1 to 2 pints (.5 to 1.0 lb. AI) /A via ground or air application equipment.

201.0 Data Summary

Report No. 36145

Small plot study (4 rows x 30'), 4 reps., Monitor .5 lb. AI was applied on ten different dates. Posttreatment counts were made on five dates. Counts were expressed as the # of eggs and imm./in² of leaf surface. Heavy infestation pressure = 986.4 imm. and eggs/in² for check on Sept. 14. Results are hard to interpret since posttreatment counts were not made until after 2-3 treatments (i.e., applied August 19, 23, and counts taken August 30; applied Sept. 17, 14, 20, and counts taken Sept. 27). This small plot study is indicative of biological activity. ✓

Report No. 39649

Small plot study (?) (32 rows x ?), 2 reps, no pretreatment counts, checks = "light to medium", no idea what posttreatment counts represent. Test is not valid.

Report No. ~~47642~~ 47462

Semi-large plot study (4 rows x 50'), 3 reps (?), no pretreatment counts, no idea what numerical counts represent other than "seasonal average". Monitor was rated by the investigator as giving fair results. Test not really valid.

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Report No. 39539

Large plot study (16 A); 1/2 gal./A, aerial application, results = 35 whiteflies/terminal (check) to 3 whiteflies/terminal (treated); investigator reports that whiteflies were not controlled halfway down the stalk. 1/2 gal./A provided poor coverage.

Report No. 40344

Large plot study (40 A); 1 gal./A, aerial application, results = # whiteflies/leaf (control) 50; # whiteflies/leaf (treated) 25, 50% control, 1 gal./A did not provide adequate coverage. Test not valid since no pretreatment counts (treated), no posttreatment counts (check), no reps, etc.

Report No. 39531

Large plot study (2 A); 3 gal./A, aerial application, 2 oz./A; results = 58% control, numerical data expressed as \bar{x} whiteflies/200 ft. D-Vac sample; low infestation pressure (control = \bar{x} of 10.9). Good experimental design. Test indicates that dosage is too low for effective control.

Report No. 42067

Large plot study (3 A); 3 gal./A, aerial application, no reps, 3 oz./A, low infestation pressure (control = \bar{x} of 98.6/200 ft. D-Vac sample, Monitor treatment = \bar{x} of 12), 88% control.

Report No. 45418

Large plot study (3 A); 5 gal./A, aerial application, 2 oz. and 4 oz. (A, results = 28% control (2 oz. rate) and 84% control (4 oz. rate). Infestation pressures were lower than in the previous Report 42067 (control = \bar{x} of 64/200 ft. D-Vac sample, Monitor treatment = \bar{x} of 10).

202.2 Claims Not Supported by the Data

A claim for control of whiteflies on cotton is not supported by the data, due mainly to a low infestation pressure in Reports 42067, 45418 and 39531 (see individual comments under

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each Report in data summary for the other reasons). It is suggested that additional large plot studies at the proposed rates of application in sufficient water to assure adequate coverage using both aerial and ground equipment (only one "semi" large plot study using ground equipment was performed and this test was not valid, Report 47642) be performed.

Recommendations

Additional large plot studies at the proposed rates of application in sufficient water to assure adequate coverage using both aerial and ground application equipment must be submitted.

There was only one semi-large plot study using standard ground equipment submitted (Report No. 47642) and infestation pressures were too low in Reports No. 42067, 45418 and 39531.

Joanne Edwards
July 19, 1977