To:       Jay Ellenberger
          Product Manager 12
          Registration Division (TS-767)

From:    Richard V. Moraski, Head (acting)
          Review Section 1
          Exposure Assessment Branch
          Hazard Evaluation Division (TS-769c)

Attached please find the EFB review of...

Reg./File No.:  464-448

Chemical: Chlorpyrifos

Type Product: Insecticide

Product Name: Lorsban 4E

Company Name: Dow

Submission Purpose: Label Amendment: Cherries, Figs and Cranberries

ZBB Code:  3(c)(7)  ACTION CODE:  335

Date In:   3/9/83

EFB #:     3261-3263

Date Completed:  5/17/83

TAIS (level II)  Days

63  0.2
1.0 INTRODUCTION

The registrant, Dow, has requested an amendment to the Lorsban 4E label (Registration #464-448) to include use on cherries, figs and cranberries to control a variety of pests.

Lorsban 4E is currently registered for use on alfalfa, citrus fruits, corn, cotton, grain sorghum, mint, nectarines, onions, peaches, peanuts, soybeans, strawberries, sunflowers, sweet potatoes, tree fruits and vegetables.

EAB recently (review of 5/4/83) concurred with the use on grapes.

2.0 CHEMICAL

Chlorpyrofos:
0,0-Diethyl-O-3,5,6-trichloro-2-pyridyl-phosphorothioate

3.0 DIRECTIONS FOR USE

CRANBERRIES: Use LORSBAN 4E by application as a broadcast, foliar spray to control brown spanworm, cranberry fruitworm, cranberry weevil, cutworms, fireworms, and sparganothis fruitworms at the rate of 3 pints per acre. Mix the specified dosage in enough water to ensure thorough coverage and apply no less than 5 gallons of spray per acre when using aerial equipment or no less than 100 gallons of spray per acre when using ground equipment. For weevil control, apply once at flower bud development (late May, early June) and, if weevils are present, once after 100% bloom (early to mid July). For other insects, treat when field counts indicate damaging insect populations are developing or present. Apply only after the winter flood has been removed. To avoid pesticide contamination of flood waters, make no applications while bogs are flooded.

Restrictions: Do not make more than two applications per year or apply within 60 days before harvest.

FIGS: Use LORSBAN 4E at the rate of 2 quarts per acre for control of driedfruit beetle by application in sufficient water to the soil surface followed by incorporation into the top 3 inches of soil. Apply to fig orchard soil as a dormant application in late winter prior to beetle emergence and prior to leaf formation.

Restrictions: Make only one application per year. Do not apply within 7 months of harvest. Based on available residue data, use of LORSBAN 4E on figs is restricted to California.
Apply as a broadcast spray using either aerial (fixed-wing or helicopter) or power-operated ground spray equipment when field counts indicate that pests are or may become a problem. For cutworm control, a second treatment may be made at 7 to 10 days later, if needed. For stem weevil control, optimal treatment time is within 5 to 7 days after adult weevils begin to appear. For sunflower moth control, make the first application during early 1 to 5 percent bloom stage. A second treatment may be made 7 days later, if needed. For seed weevil control, treat when field counts indicate there are 10 to 12 adults per plant for oil crops and 1 to 3 adults per plant on confectionary crops. Additional treatments should be made at successive 7 to 10 day intervals if field counts indicate need to re-treat. For sunflower beetle larvae or adult control, treat when field counts indicate there are 10 larvae or 1 to 2 adults per seedling. Additional treatment may be made at successive 7 to 10 day intervals in field counts indicate need to re-treat.

3.0 DISCUSSION OF DATA

No additional data were submitted. Existing EF data have been previously reviewed and found acceptable for these uses.

4.0 RECOMMENDATIONS

EAB concurs with the label amendments, as proposed.

Emil Regelman
Chemist
EAB/HEC (TS-769c)
May 17, 1983
CHERRIES: Use LORSBAN 4E for the control of lesser peachtree borer by application as a trunk spray. Mix 1.5 to 3 quarts of LORSBAN 4E with 100 gallons of water and apply as a coarse, low-pressure spray to give uniform coverage of tree trunks and lower limbs. Make a second application two weeks after the first one and a third application after harvest. Consult your State Agricultural Experiment Station or Extension Service Specialist for proper time to treat in your area.

Restrictions: Make only three applications per year. Do not apply within 6 days before harvest. Do not allow meat or dairy animals to graze in treated orchards. Based on available residue data, use of chlorpyrifos on cherries is restricted to Michigan, New York, Ohio, Pennsylvania and Wisconsin.

In addition to the above cited new uses sites, some existing site modifications have been requested.

ALFALFA: add alfalfa weevil adults

FIELD CORN, POPCORN, SWEETCORN: add corn rootworm beetles

SUNFLOWERS: For use to control cutworms, sunflower beetle larvae and adults, stem weevil, sunflower moth, seed weevil and grasshoppers.

Preplant Incorporation Treatment: Use LORSBAN 4E insecticide at the following rates by application in sufficient water to the soil surface and incorporate into the soil:

Cutworms ....................... 2 to 4 pints per acre.

Use recommended rate in not less than 10 gallons of water per acre and apply as a broadcast spray to the soil surface using suitable power-operated ground spray equipment. On the same day of treatment, incorporate the insecticide into the top 2 to 4 inches of soil using a disc, field cultivator or equivalent equipment.

Postemergence Treatment: Use LORSBAN 4E for control of the following pests at the dosage indicated by application in sufficient water to ensure thorough coverage of treated plants:

Cutworms ....................... 2 to 3 pints per acre;
Sunflower beetle larvae and adults, stem weevil, sunflower moth and seed weevil ............... 1 to 1.5 pints per acre;
Grasshoppers ................. 1 pint per acre.