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

From: Samuel M. Creeger, Chief  
Environmental Chemistry Review Section 1  
Exposure Assessment Branch  
Hazard Evaluation Division (TS-769c)

Attached, please find the EAB review of:

Reg./File No.: 464-448

Chemical: Chlorpyrifos

Type Product: Insecticide

Product Name: Lorsban 4E

Company Name: Dow

Submission Purpose: add use on asparagus

ZBB Code: 3(c)(7)  
Date In: 2/23/84

Date Completed: 4/17/84

Deferrals To:  

_______ Ecological Effects Branch  
_______ Residue Chemistry Branch  
_______ Toxicology Branch

Action Code: 335  
EAB No.: 4206  
TAIS (Level II) Days

64  0.5

Shynessy No.: 059101  
Date out of EAB: 2/7 APR 1984
1.0 INTRODUCTION

Chemical Name and Type of Pesticide: chlorpyrifos, O,O-diethyl 0-(3,5,6-trichloro-2-pyridyl)phosphorothioate, insecticide.

Trade Name: LORSBAN 4E Insecticide

Chemical Structure:

![Chemical Structure Image]

Dow Chemical is requesting the addition of asparagus to its LORSBAN 4E label.

2.0 DIRECTIONS FOR USE

See attached label.

3.0 DISCUSSION OF DATA

No new data submitted.

4.0 RECOMMENDATION

4.1 The environmental fate data in our files supports the registration amendment to add use on asparagus to the LORSBAN 4E label.

4.2 EAB notes that the soil photolysis data gap still exists. A recent review (2 Feb. 1984) found the submitted studies unacceptable.

Herbert L. Manning
Herbert L. Manning, Ph.D.
Review Section #1
EAB/HED
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HAZARDS
KEEP OUT OF REACH OF CHILDREN
WARNING

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

MAY BE FATAL IF SWALLOWED • MAY BE ABSORBED THROUGH SKIN • MAY BE INJURIOUS TO EYES AND SKIN

Do Not Take Internally • Do Not Get In Eyes, On Skin or on Clothing

Breathing Vapors and Spray Mist • Wash Thoroughly After Handling

Statements of Practical Treatment

If Swallowed: Do not induce vomiting. Contains aromatic petroleum solvent. Call a physician immediately.

If On Skin: In case of contact, remove contaminated clothing and immediately flush skin with soap and water. Wash contaminated clothing before reuse.

If In Eyes: Flush eyes with plenty of water for 15 minutes. Call a physician.

NOTE TO PHYSICIAN: Chlorpyrifos is a cholinesterase inhibitor. Treat symptomatically. Atropine only by injection is an antidote.

Physical and Chemical Hazards

COMBUSTIBLE

Do Not Use or Store Near Heat or Open Flame • Do Not Cut or Weld Container

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1 In California apply as Through Distribution Coverage (TDC) using ½ to 1 pint of LORSBAN 4E in 100 gallons of water and 8 to 12 pints LORSBAN 4E per acre in dilute or concentrate sprays. For dilute sprays, apply 200 to 1200 gallons of spray per acre.

2 In California apply as Through Coverage (TC) using same dosage as in 1. For dilute sprays apply 1200 to 2400 gallons of spray per acre but do not apply more than 12 pints of LORSBAN 4E per acre.

3 Gallonage per acre based on average size of mature trees. Adjust to tree size per acre. For dilute applications, use the specified dosage in 100 gallons of water for the spray type indicated for pest to be controlled. For concentrate sprays, use the same amount of LORSBAN 4E per acre that would be needed for application as a dilute spray, using appropriate application and coverage procedures. Treat when insects become a problem or in accordance with the local spray schedule recommended by your State Extension Service Specialist. Do not apply during bloom period or when temperature exceeds 95°F. Do not tank mix LORSBAN 4E with any SWP miticide in low

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ASPARAGUS: Use LORSBAN 4E to control cutworms by application at the rate of 2 pints per acre. Mix the specified dosage in sufficient water to ensure thorough coverage of treated plants and apply as a broadcast spray using suitable power-operated ground spray equipment. It is preferable to apply LORSBAN 4E when the soil is moist and worms are active on or near the soil surface.

Restrictions: Do not make more than one application per season or apply within one day of harvest. Based on available residue data, the use of LORSBAN 4E on asparagus is limited to the Mid-west and Pacific Northwest.