

MAY 22 1991

Mr. Robert F. Bischoff
DowElanco
Quad IV, 9002 Purdue Road
Indianapolis, Indiana 46268-1189

Subject: Revised Labeling--Use on
Alfalfa in California and Arizona
Lock-On Insecticide
EPA Registration Number 62719-79
Your Application Dated April 29, 1991

Dear Mr. Bischoff:

This will acknowledge receipt of the additional information you have submitted in response to our request in the Agency letter dated April 11, 1991. The information clarifies the types of alfalfa used in the residue study that you conducted, and resolves our previous objections.

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), sec. 3(c)(7)(A), is acceptable provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data.

2. Submit five (5) copies of your final printed labeling before you release the product for shipment.

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If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions.

A stamped copy of the labeling is enclosed for your records.

Sincerely yours,

Dennis H. Edwards, Jr.
Product Manager (12)
Insecticide Rodenticide Branch
Registration Division (H7505C)

Enclosure

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Specimen Label

ACCEPTED
with COMMENTS
in EPA Letter Dated

MAY 22 1991

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
62719-79

Lock-On[®] Insecticide

For Control of Various Insects Infesting Cotton

Active Ingredient(s):

Chlorpyrifos [O,O-diethyl-O-(3,5,6-trichloro-2-pyridinyl)phosphorothioate] 22.9%

Inert Ingredient(s) 77.1%

†Composition of inert ingredients includes xylene

Contains 2 pounds of chlorpyrifos per gallon

E.P.A. Registration No. 464-612 62719-79

E.P.A. Est. 464-MI-1

KEEP OUT OF REACH OF CHILDREN

WARNING

AVISO:

PRECAUCION AL USUARIO:

Si usted no lee inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

**MAY CAUSE EYE INJURY • HARMFUL
IF SWALLOWED OR ABSORBED
THROUGH THE SKIN**

**Do Not Get In Eyes, On Skin, Or On Clothing
• Wear Goggles, Face Shield, Or Safety
Glasses • Wash Thoroughly With Soap And
Water After Handling • Remove
Contaminated Clothing And Wash Before
Reuse • Do Not Apply This Product In Such
A Manner As To Directly Or Through Drift
Expose Workers Or Other Persons. The Area
Being Treated Must Be Vacated By
Unprotected Persons. • Keep Away From
Food, Feedstuffs And Water Supplies**

STATEMENTS OF PRACTICAL TREATMENT: If

Swallowed: Do not induce vomiting. Contains aromatic petroleum solvent. Call a physician or Poison Control Center immediately. If In Eyes: Flush with plenty of water. Get medical attention if irritation persists. If On Skin: Wash with plenty of soap and water. Get medical attention if irritation persists. If Inhaled: Remove to fresh air if effects occur. Get medical attention.

NOTE TO PHYSICIANS: Chlorpyrifos is a cholinesterase inhibitor. Treat symptomatically. If exposed, and red blood cell cholinesterase tests may indicate significance of exposure (baseline data are useful). Atropine, only by injection, is the preferable antidote. Oximes, such as 2-PAM/ praloxim, may be therapeutic if used early; however, use only in conjunction with atropine. In case of severe acute poisoning, use antidote immediately after establishing an open airway and respiration.

Physical or Chemical Hazards

**COMBUSTIBLE • Do Not Use or Store Near
Heat or Open Flame.**

Environmental Hazards

This pesticide is toxic to birds and wildlife, and extremely toxic to fish and aquatic organisms. Do not apply directly to water. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites. Cover or incorporate spills. Do not contaminate water by cleaning of equipment or disposal of waste. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Avoid use when bees are actively foraging. Protective information may be obtained from your Cooperative Agricultural Extension Service.

NOTICE

Read and understand the entire label before using. Use only according to label directions.

Before buying or using this product, read "WARRANTY LIMITATIONS AND DISCLAIMER" elsewhere on this label. If terms are not acceptable, return unopened package at once to seller for full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under WARRANTY LIMITATIONS AND DISCLAIMER.

IN CASE OF AN EMERGENCY

**endangering life or property involving this
product, call collect 517-636-4400**

AGRICULTURAL CHEMICAL

**Do Not Ship or Store with Food, Feeds,
Drugs, or Clothing**

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Lock-On

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

GENERAL INFORMATION

LOCK-ON Insecticide forms an emulsion when diluted with water and is suitable for use in all conventional spray equipment at a spray volume not to exceed 5 gallons per acre.

MIXING INSTRUCTIONS

To prepare the spray, add a portion of the required amount of water to the spray tank and with agitation add the LOCK-ON. Complete filling the tank with the balance of water needed. Maintain sufficient agitation during both mixing and application to ensure uniformity of the spray mixture.

USE AND DOSAGE RECOMMENDATIONS

COTTON: Use LOCK-ON for control of the following pests in Arizona and California at the dosages indicated:

Armyworms, cotton aphid, cotton fleahopper, Lygus, salt marsh caterpillar, thrips, bollworms (*Heliothis* spp.), boll weevil cutworms, pink bollworm 2 pints per acre

NOTE: The 2 pint rate will aid in the suppression of cotton leafperforator and spider mites.

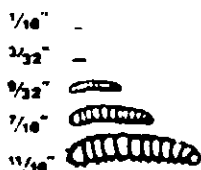
LOCK-ON Insecticide can be applied undiluted or diluted with water at a spray volume of 0.25 to 5 gallons per acre using aerial or power-operated ground spray equipment suitable for thorough coverage of plants. Treat when field counts indicate damaging insect populations are developing or present. Re-treat as necessary to maintain control.

For best results on bollworms, it is suggested that fields be scouted twice per week and treatments made when worms are 1/4 inch or less in length. The following table illustrates the size of worms in relation to age and stage of development (instar) as a guide to timing of treatments for best control.

From the table it can be seen that a scouting schedule of only once per week will not be satisfactory since the worms may be too big to control effectively by the seventh or eighth day.

Timing for the best worm control

	Age (Days)	Size	Instar
Get the worms at this stage	Hatch	1/16"	Hatch
	3	3/32"	I
	5	5/32"	II
	6	7/16"	III
	8	1 1/16"	IV



Proper application techniques help to ensure thorough spray coverage and correct dosage and are thus important in obtaining good control of pests. Consider these suggestions when applying LOCK-ON Insecticide on cotton.

Aerial Application: Shorten boom length to avoid spray entering the vortices at the wing tips. Swath width should be reduced when wind direction is the same as direction of spraying.

The proper nozzle arrangement and swath width to avoid skips and vortices effect can be checked out by flying over a paper tape (adding machine paper) using water with or without soluble dye which gives a permanent record

Flying at a height of 5-15 feet above the target results in the best coverage.

Nozzle orientation of the boom is important. More break-up occurs when nozzles are pointed straight down versus the straight back position. Desired droplet size (100-200 microns) can be obtained by angling the nozzles somewhere in this range.

Marking of swath by flagging or permanent markers is essential.

Ground Application: Orient the boom and nozzles so that uniform coverage is obtained. The swath width should not be wider than the boom; drift spray is wasted spray so do not depend on it. Use flat fan or disc-core hollow cone nozzles with maximum spacing of 20 inches and a spray pressure of 40-60 psi with a droplet size of 100-200 microns.

Restrictions: Do not apply within 40 days before harvest. Do not allow livestock to graze in treated areas. Do not feed gin trash or treated forage to livestock.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: Triple rinse (or equivalent). Then puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

WARRANTY LIMITATIONS AND DISCLAIMER

The Dow Chemical Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions therein under normal conditions of use. THIS IS THE ONLY WARRANTY MADE ON THIS PRODUCT. NO OTHER EXPRESS AND NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE OUTSIDE OF THIS LABEL. Therefore, neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.) under abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes, etc.) or under conditions not reasonably foreseeable to or beyond the control of seller.

When buyer or user suffers losses or damages resulting from the use or handling of this product (including claims based on contract, negligence, strict liability, or other legal theories), buyer or user must promptly notify in writing The Dow Chemical Company of any claims to be eligible to receive either remedy given below. The EXCLUSIVE REMEDY OF THE BUYER OR USER and the LIMIT OF LIABILITY of The Dow Chemical Company or any other seller will be one of the following, at the election of The Dow Chemical Company:

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used.

The seller will not be liable for consequential or incidental damages or losses.

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ALFALFA: Use LOCK-ON* insecticide in Arizona and California to control insects infesting alfalfa by application as a broadcast, foliar spray at the dosages indicated:

Alfalfa caterpillar, armyworms.....1 1/2 to 2 pints per acre

NOTE: Mix the required dosage with enough water to ensure thorough coverage of crop foliage and apply using aerial (fixed wing or helicopter) or power-operated ground spray equipment. LOCK-ON may be applied in 3 to 5 gallons of water per acre. Do not apply in dilutions exceeding 5 gallons (water plus insecticide) per acre. Treat when field counts or crop injury indicates that damaging pest populations are developing or present. Some reduction in insect control may be evident under excessively cool conditions.

For best results, use the recommended rate of LOCK-ON per acre. Maintain constant agitation during both mixing and application to ensure uniformity of spraying. Do not apply through overhead sprinkler irrigation systems.

LOCK-ON insecticide should not be tank-mixed with pesticides, surfactants, or fertilizer formulations unless prior use has shown the combination non-injurious under your current conditions of use. Some phytotoxic symptoms may be observed on young, tender, rapidly growing alfalfa plants or alfalfa plants under extreme heat or drought stress when treated with LOCK-ON. Alfalfa will outgrow the symptoms and no yield loss should be expected.

This product is highly toxic to bees exposed to direct treatment on alfalfa. Do not apply if nearby bees are clustered outside of hives and bees are foraging. Protective information may be obtained from your Agricultural Extension Service.

RESTRICTIONS: Do not cut or graze treated alfalfa within 4 days after application of 1 1/2 to 2 pints of LOCK-ON per acre. Do not make more than 4 applications per year or apply more than once per crop cutting.

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The terms of this Warranty Limitations And Disclaimer cannot be varied by any written or verbal statements or agreements. Any employee or sales agent of the seller is not authorized to vary or exceed the terms of this Warranty Limitations And Disclaimer in any manner.

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- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used

The seller will not be liable for consequential or incidental damages or losses.

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