

PM 19 352-370

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JUL 31 1992

Dr. Charles S. Baer
E. I. du Pont de Nemours & Co.
Barley Mill Plaza, Walker's Mill Building
P. O. Box 80038
Wilmington, DE 19880-0038

Dear Dr. Baer:

Subject: Revised labeling
Du Pont Lannate L Insecticide Water Soluble Liquid
EPA Reg. No. 352-370
Your submission of July 30, 1991

Revised labeling referred to above, submitted in connection with reregistration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable subject to the following comments:

1. You must incorporate label changes approved on July 23, 1991 to this product.
2. Deletion of use on watercress is acceptable.
3. We concur with your rationale for waiver from eye irritation testing based on mortality in the rangefinding study, and an eye irritation test is not required at this time. Toxicity category I for primary eye irritation is assumed for this product.
4. You need to submit or cite the following studies for this product: acute inhalation toxicity, primary skin irritation, dermal sensitization.
5. Revise the first paragraph under Precautionary Statements to read as follows: "CONTAINS METHANOL. Fatal if swallowed. May cause blindness if swallowed. May be fatal if inhaled or absorbed through skin or eyes. Causes irreversible eye damage."
6. The statement "Pilot should not assist in the mixing and loading operation" which currently appears under precautionary statements should be repeated in the directions for use.

7. Geographic limitation for use on sugarbeets is not acceptable. You must submit the residue data as required in the Methomyl Registration Standard.

8. The Statement of Practical Treatment for eye and skin exposure should be revised to add: "If in eyes: Call a physician or poison control center immediately."

Submit five (5) copies of final printed label before you release the product for shipment bearing the amended labeling.

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

Sincerely yours,

DHE

Dennis H. Edwards, Jr.
Product Manager (19)
Insecticide Rodenticide Branch
Registration Division (H7505C)

RESTRICTED USE PESTICIDE

Due to High Acute Toxicity to Humans For retail sale to and use only by certified applicators or persons under their direct supervision and only for those uses covered by the certified applicator's certification. Direct supervision for this product is defined as the certified applicator being physically present during application, mixing, loading, repair and cleaning of application equipment. Commercial certified applicators must also ensure that all persons involved in these activities are informed of the precautionary statements.

PACKAGE SIZE
4 - 1 GALLON JUGS
2 - 2 1/2 GALLON JUGS
55 GALLON DRUMS



LANNATE® L

U.S. PATENT OFFICE
LANNATE Labeled Dated

INSECTICIDE

JUL 31 1992

WATER SOLUBLE LIQUID

CONTAINS 1.8 LBS. ACTIVE INGREDIENT PER GALLON

INGREDIENT STATEMENT:

ACTIVE INGREDIENTS:

Methomyl(S-methyl-N-[(methoxycarbonyl)oxy]-thioacetimidate).....	<u>352-310</u>	BY WEIGHT	24%
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INERT INGREDIENTS.....			76%
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TOTAL 100%

EPA Reg. No. 352-370

U. S. Pats. 3,576,834 3,639,633 & 3,862,316

KEEP OUT OF REACH OF CHILDREN

DANGER



POISON

PELIGRO PRECAUCION AL USUARIO Si usted no lee ingles, no use este producto hasta que la etiqueta haya sido explicada ampliamente.

STATEMENT OF PRACTICAL TREATMENT

If swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

If inhaled: Remove from exposure and have patient lie down and keep quiet. If patient is not breathing, start artificial respiration immediately. Never give anything by mouth to an unconscious person. Call a physician if necessary.

In case of contact, wash skin with plenty of soap and water; for eyes, flush with water for 15 minutes and get medical attention; remove and wash contaminated clothing before re-use.

ATROPINE IS AN ANTIDOTE—SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING. If warning symptoms appear (see WARNING SYMPTOMS), get medical attention.

For medical emergencies involving this product, call toll free 1-800-441-3637.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER



POISON

CONTAINS METHANOL. MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. MAY BE FATAL IF ABSORBED THROUGH THE EYES. POISONOUS IF INHALED. CAUSES EYE DAMAGE.

Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. When mixing spray, loading, applying, or otherwise handling, wear protective clothing, goggles, and a mask or respirator jointly approved by the Mine Safety and Health Administration (formerly the U. S. Bureau of Mines) and by the National Institute for Occupational Safety and Health. Wear clean clothes daily. Wash thoroughly after handling and before eating or smoking. Pilot should not assist in the mixing and loading operation.

Do not apply this product in such a manner as to directly or through drift expose workers, other persons or animals. The area being treated must be vacated by unprotected persons.

CONTINUED ON NEXT PAGE

WARNING SYMPTOMS — Methomyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors.

NOTE TO PHYSICIAN

TREATMENT — Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to "Lannate" L alone. However, for exposure to combinations of "Lannate" L and organophosphorous insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine. For medical emergencies involving this product, call toll free 1-800-441-3637.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and wildlife. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

PHYSICAL AND CHEMICAL HAZARDS

Flammable. Keep away from heat, sparks, and open flame. Keep container closed. Use with adequate ventilation.

GENERAL INFORMATION

Scouting — Monitoring insect populations to determine whether or not there is a need for application of "Lannate" L is recommended. More than one treatment of "Lannate" L may be required to control a population of pests.

Insect Predators — "Lannate" L at rates of 1/2 to 1 pt. per acre helps conserve certain beneficials, including big-eyed bugs, damsel bugs, flower bugs and spiders in cotton and soybeans. While these beneficials cannot be relied upon to control pests, they are of potential value and should be monitored along with pests in pest management programs on these crops.

Compatibility — Since formulations may be changed and new ones introduced, it is recommended that users premix a small quantity of a desired tank mix and observe for possible adverse changes (settling out, flocculation, etc.). Avoid mixtures of several materials and very concentrated spray mixtures.

Do not use "Lannate" L with Bordeaux mixture, "Du Ter" (triphenyltin hydroxide), lime sulfur, "Rayplex" iron nor in highly alkaline solutions. Use mildly alkaline mixtures immediately after mixing to prevent loss of insecticidal activity.

DIRECTIONS FOR USE

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

Du Pont "Lannate" L Insecticide should be used only in accordance with recommendations on this label, or in separate published Du Pont recommendations available through local dealers.

Du Pont will not be responsible for losses or damages resulting from use of this product in any manner not specifically recommended by Du Pont. User assumes all risks associated with such non-recommended use. "Lannate" L is a water soluble liquid to be dissolved in water for application by ground or air equipment. Use only in commercial and farm plantings; do not use in home plantings.

Reentry into treated areas is prohibited for the following time periods after the end of application, unless personal protective clothing and equipment specified on this label for early reentry are worn. Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

Seven days for grapes; four days for peaches; three days for cotton, nectarines, citrus and apples; two days for corn; and one day for all other crops and use sites. For early reentry before sprays have dried or dusts have settled, wear a long-sleeved shirt, long-legged pants, shoes and socks, chemical resistant gloves, face shield or goggles, and NIOSH or MSHA approved respirator. For early reentry after sprays have dried or dusts have settled, all the above except the respirator must be worn.

Refer to use rate table for specific reentry interval (REI) for each crop.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written (or oral) warnings must include the following information: "DANGER — POISON. Area treated with "Lannate" L on (date of application). Do not enter treated areas without appropriate protective clothing until sprays have dried. If warning symptoms appear, refer to Statement of Practical Treatment on front panel of "Lannate" L label and seek medical attention at once."

PERSONAL PROTECTIVE EQUIPMENT

USE ONLY WHEN WEARING THE FOLLOWING PERSONAL PROTECTIVE EQUIPMENT DURING MIXING/LOADING, APPLICATION, REPAIRING AND CLEANING OF MIXING, LOADING, AND APPLICATION EQUIPMENT, AND DISPOSAL OF THE PESTICIDE: long-sleeved shirt; long-legged pants; shoes and socks, chemical resistant gloves, face shield or goggles; NIOSH or MSHA approved respirator. During equipment repair and cleaning, the respirator need not be worn.

IF APPLICATION IS PERFORMED USING AN ENCLOSED CAB OR COCKPIT, THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT MAY BE WORN AS AN ALTERNATIVE: long-sleeve shirt and long-legged pants; shoes and socks. All other protective clothing and equipment required for use during application must be available in the cab and must be worn when exiting the cab into treated area. When used for this purpose, contaminated clothing may not be brought back into the cab unless in an enclosure such as a plastic bag.

IMPORTANT! If pesticide comes in contact with skin, wash off with soap and water and contact a physician immediately. ALWAYS WASH HANDS, FACE, AND ARMS WITH SOAP AND WATER BEFORE USING TOBACCO PRODUCTS, EATING, DRINKING, OR TOILETING.

AFTER WORK: Before removing gloves, wash them with soap and water. Take off all work clothes and shoes. Shower using soap and water. Wear only clean clothes when leaving job—do not wear contaminated clothing. Personal clothing worn during work must be stored and laundered separately from protective clothing and household articles. Store protective clothing separately from personal clothing. Clean or launder protective clothing after each use. Respirators must be cleaned and filters replaced according to instructions included with the respirators. Protective clothing and protective equipment heavily contaminated or drenched with methomyl must be destroyed according to state and local regulations. HEAVILY CONTAMINATED OR DRENCHED CLOTHING CANNOT BE ADEQUATELY DECONTAMINATED.

DURING AERIAL APPLICATION, HUMAN FLAGGERS ARE PROHIBITED, EXCEPT WHEN IN AN ENCLOSED VEHICLE OR WEARING THE PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT REQUIRED FOR REENTRY BEFORE SPRAYS HAVE DRIED.

SPRAY PREPARATION

Fill spray tank 1/4 to 1/2 full of water. Add "Lannate" L directly to spray tank and mix thoroughly, using mechanical or hydraulic means; do not use air agitation. Spray mix should not be stored overnight in spray tank.

Do not apply this product through any type of irrigation system.

APPLICATION

Apply at the recommended rates when insects first appear. Unless otherwise noted, continue application at 5- to 7-day intervals or as needed. Use sufficient water to obtain thorough, uniform coverage. Since "Lannate" L is a fast acting contact insecticide, best results follow direct spraying of the target insect. This can be accomplished with fine spray droplets at low volume.

For aerial, use a minimum of 2 gals. per acre (gpa) except 10 gpa for grapes, nectarines and strawberries; 15 gpa for oranges, lemons, grapefruit, tangelos and tangerines.

For certain crops a minimum of 1 gallon per acre may be used providing the following conditions are met:

- equipment is capable of delivering small spray droplets to insure thorough coverage.
- equipment is adjusted to distribute spray uniformly over the spray swath.

- wind conditions and other factors such as temperature and humidity are such that the spray is delivered to the target area.
- local regulations do not prohibit low-volume aerial sprays.
- use rates are applied as directed on the package label or supplemental labeling for the following crops

Alfalfa	Collards	Peppers
Anise	Corn	Potato
Asparagus	Cotton	Rye
Barley	Cucumber	Sorghum
Beans	Lettuce	Soybean
Broccoli	Melons	Spinach
Brussels sprouts	Mint	Sugar beet
Cabbage	Oats	Summer Squash
Carrot	Peanuts	Wheat
Cauliflower	Peas (succulent)	
Celery	Peppermint	

Apply the low rates on small plants, small insects and light infestations of insects. Use intermediate rates on large insects and heavier infestations of insects. Use 1 to 3 applications of the highest recommended rate for controlling severe infestations. Thereafter, use the lowest rate possible to maintain control.

STORAGE AND DISPOSAL

STORAGE: Do not subject to temperatures below 32 Deg. F. Store product in original container only, away from other pesticides, fertilizer, food or feed. Not for use or storage in or around the home.

PRODUCT DISPOSAL: Do not contaminate water, food, or feed by storage or disposal. Pesticide wastes are acutely hazardous. 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) the container. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or incinerator, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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Crops	Insects	RATES "Lannate" L Pints Per Acre	LAST APPLICATION-DAYS		
			To Harvest	To Livestock Grazing/ - Feeding	REI (DAYS)
Alfalfa (Do not apply to dormant or semi-dormant alfalfa when min. daily temp. is 50 or F. or lower.)	Pea Aphid, Lygus Bugs, Blotch Leafminer, Aphids, Egyptian Alfalfa Weevil Larvae	2-4		7	1
	Fall Armyworm	2			
	Alfalfa Weevil Larvae	4			
	Loopers, Yellowstriped Armyworm, Western Yellowstriped Armyworm, Armyworm	1-2			
	Variiegated Cutworm, Beet Armyworm	1-4			
	Alfalfa Caterpillar	1-2			
Anise (Fennel)	Cabbage Looper	4	7		1
	Beet Armyworm	2-4			
Apple (Do not use on Early Macintosh & Wealthy varieties) **G Do not apply more than 6 gal product per year.	Apple Aphid Rosy Apple Aphid, Tufted Apple Budmoth, Green Fruitworm, Tarnished Plant Bug,	1-2 per 100 gal; upto 400 gal per acre	8	10	3
	Codling Moth (10-12 day intervals)				
	Leafrollers (Fruittree, Obliquebanded, Redbanded, Variiegated), Lesser Appleworm, White Apple Leafhopper Tentiform Leafminer, Cutworm	2 per 100 gal.; up to 400 gal per acre			
Asparagus	Beet Armyworm, Western Yellowstriped Armyworm, Asparagus Beetle, Spotted Asparagus Beetle, White Cutworm, Redbacked Cutworm	2-4	1		1
	Variiegated Cutworm	2			
Avocado	Avocado Looper, Avocado Leafroller, Omniverous Leafroller	2-4	1	10	1
Barley	Armyworms, Cereal Leaf Beetle, Aphids	1-2	7	10	1
Beans (Includes Blackeyed Peas & Cowpeas)	Leafhopper, Mexican Bean Beetle	1-4	Succulent Beans 3 Vines 7 Hay 1-2 pts. -1, over 2 pts. -3; Dry Beans-25		1
	Fall Armyworm, Variiegated Cutworm	2			
	Beet Armyworm, Loopers, Corn Earworm, Saltmarsh Caterpillar, Yellowstriped Armyworm, Western Yellowstriped Armyworm, Lygus Bugs, Thrips, Aphids	2-4			
	European Corn Borer***-initiate when moth flights first appear and continue preventive treatments at 3-4 day intervals to control eggs and larvae				
	Spotted Cucumber Beetle	1-2			
Beets (Table)	Imported Cabbageworm, Beet Armyworm, Cabbage Looper, Diamondback Moth	1-4	8 - roots		1
	Cucumber Beetle, Variiegated Cutworm	2	14 - tops		
Bermudagrass	Fall Armyworm, Armyworm	1-4		7 Forage 3 Dehydrated Hay	1

Crops	Insects	RATE "L. rate" Pints Per Acre	LAST APPLICATION -DAYS		
			To Harvest	To Livestock Grazing/ Feeding	REI (DAYS)
Blueberries ***	Blueberry Leafhopper, Aphids, Tussock Moth, Weevil, Sharp-Nosed Leafhopper	2	3		1
	Cranberry Fruitworm, Cherry Fruitworm **G	2-4			
	Flea Beetle (larvae), Sawfly (larvae), Blueberry Leafroller	4			
	Blueberry Maggot	1-2			
Erocoll	Loopers, Imp. Cabbageworm, Diamondback Moth	1-4 *	3		1
Brussels Sprouts	Loopers, Imp. Cabbageworm, Diamondback Moth	2-4 *	3		1
	Variegated Cutworm	2 *			
Cabbage	Loopers, Imp. Cabbageworm, Diamondback Moth	1-4 *	1		1
	Fall Armyworm, Variegated Cutworm	2 *			
Carrot	Beet Armyworm	1 1/3-4	1		1
	Aster Leafhopper	2-4			
	Armyworms	1-2			
	Variegated Cutworm	1-2			
Cauliflower	Imp. Cabbageworm, Loopers, Diamondback Moth	1-4 *	2		1
	Variegated Cutworm	2 *			
Celery	Beet Armyworm, Aster Leafhopper	2-4	7		1
	Loopers	4			
	Variegated Cutworm	2			
	Armyworms	1-2			
Chicory	Beet Armyworm, Variegated Cutworm, Leafhoppers	2-4	90		1
Chinese Cabbage **G	Loopers, Beet Armyworm	2-4	10		1
Crucifers (Fresh market only—do not apply when temp. is less than 50o F. Do not apply when crop is less than 10" tall.)	Loopers, Diamondback Moth, Variegated Cutworm	2	10		1
	Imported Cabbageworm, Beet Armyworm	2-4			



Crops	Insects	RATES "Lannate" L Pints Per Acre	LAST APPLICATION-DAYS		
			To Harvest	To Livestock Grazing/ Feeding	REI (DAYS)
Corn (Sweet) Note: Certain hybrid varieties of sweet corn are susceptible to methomyl injury. Test a small area to determine crop safety before full scale spraying	Earworm-Whorl as needed	1 1/3-2	0 Ears	3 Forage	2
	Fall Armyworm, Armyworm, Earworm (Ovicide/Larvicide), European Corn Borer-Ears 1-3 days or as needed, Corn Rootworm (adult beetles), Flea Beetles, Picnic Beetles, Aphids	1-2			
	Variegated Cutworm, Beet Armyworm	2			
Corn (Field & Popcorn)	Earworm, Armyworm, Fall Armyworm, Corn Rootworm (adult beetles), Flea Beetles, Picnic Beetles, Aphids	1-2	0 Ears	3 Forage	2
	Variegated Cutworm, Beet Armyworm	2			
Cotton (Use may redden cotton—if excessive, stop or alternate with other insecticides.) U.S. East of Rockies only West of Rockies only Southwest only	Ovicide Larvicide Bollworm, Tobacco Budworm (Initiate schedule when significant numbers of eggs are present. Continue at 5- to 7-day intervals while eggs are present and larval control is adequate. If significant larvae survive, use higher rates below.) Lygus Bugs (adults and nymphs) start treatment on low level population for suppression.	1/2-1 (see Predators)	15	Do not graze or feed	3
	Cotton Leafworm	1-2			
	Aphids, Thrips	1			
	Cotton Fleahopper (as needed)	1/2-1			
	Larvicide for worms Bollworm, Tobacco Budworm, Beet Armyworm, Cotton Leafperforator, Fall Armyworm Lygus Bugs (adults and nymphs) use as occasional spray in regular schedule but not more often than every 10 days.	2			
	Bollworm, Tobacco Budworm, Beet Armyworm, Cotton Leafperforator, Fall Armyworm, Lygus Bugs (adult and nymphs) up to 3 applications at 3-5 day intervals after desired boll load set on plants.	2-3			
	Larvicide for worms Bollworm, Fall Armyworm, Tobacco Budworm, Lygus Bugs	2-3			
	Beet Armyworm	1 1/3-2			
	Cotton Leafperforator	1 1/3-3			
	Cotton Fleahopper (as needed)	1/2-2			
Cucumber	Loopers, Tobacco Budworm, Beet Armyworm, Yellowstriped Armyworm, Granulate Cutworm, Flea Beetles, Cucumber Beetles, Melon Aphid, Melonworm, Pickleworm	2-4	2 pts. -1 Over 2 pts. -3		1
	Fall Armyworm, Variegated Cutworm	2			

Crops	Insects	RATES "Lannate" L Pints Per Acre	LAST APPLICATION-DAYS		
			To Harvest	To Livestock Grazing/ Feeding	REI (DAYS)
Eggplant	Green Peach Aphid	1-4	5		1
	Tomato Pinworm "G, Beet Armyworm	2-4			
Endive, Escarole	Beet Armyworm	2-4	10		1
Garlic	Beet Armyworm	2	7		1
Grapefruit CA & AZ only U.S. FL only	Thrips, Fruitree Leafroller, Orange Tortrix, Western Tussock Moth	2-4	1	10	3
	Beet Armyworm				
	Spiraea Aphid				
	Whiteflies	4			
CA, AZ & FL only	Yellow Scale, Chaff Scale, Purple Scale, Soft Brown Scale, Glover Scale	2 per 100 gal up to 800 gal acre			
Grapes East of Rockies only U.S. West of Rockies only CA only	Grape Berry Moth (apply pre- & post-bloom & repeat at 10-14 day intervals or as needed), Leafhoppers "G	2-4	1 Fresh & Raisin		7
	Omnivorous Leafroller, Grape Leafroller, Orange Tortrix				
	Saltmarsh Caterpillar				
	Leafhoppers "G				
	Climbing Cutworm (Treat infestation and repeat at 7-14 day intervals as needed)	4			
	Grape Leaf Skeletonizer "G	2-4			
	Thrips	12-1			
Horseradish "G	Aphids, Thrips	2	65		1
Leafy Green Vegetables: Beet (Tops), Dandelions, Kale, Mustard Greens, Parsley, Swiss Chard, Turnip Greens	Beet Armyworm, Cabbage Looper, Diamondback Moth, Imported Cabbageworm	2-4	10		1
Lemon CA & AZ only U.S. FL only CA, AZ & FL only	Thrips, Western Tussock Moth, Orange Tortrix	2-4	1	10	3
	Beet Armyworm				
	Spiraea Aphid				
	Whiteflies	4			
	Yellow Scale, Chaff Scale, Purple Scale, Soft Brown Scale, Glover Scale	2 per 100 gal up to 800 gal per acre			
Lentils	Western Yellowstriped Armyworm	2-4	21	3 - Forage 7 - Hay	1

Crops	Insects	RATES "Lannate" L Pints Per Acre	LAST APPLICATION-DAYS		
			To Harvest	To Livestock Grazing/ Feeding	REI (DAYS)
Lettuce, (head varieties in U.S. and Leaf varieties in CA and AZ)	Beet Armyworm, Loopers	1-4	1-2 pts. -7 over 2 pts. -10		1
	Thrips, Aphids, Corn Earworm, Aster Leafhopper	2-4			
	Variegated Cutworm	2			
Melons	Loopers, Tobacco Budworm, Beet Armyworm, Yellowstriped Armyworm, Granulate Cutworm, Flea Beetles, Cucumber Beetles, Melon Aphid, Melonworm, Pickleworm	2-4	2 pts. -1 day over 2 pts. -3 days		1
	Fall Armyworm, Variegated Cutworm	2			
Mint	Variegated Cutworm, Alfalfa Looper	4	14		1
	Flea Beetles	3-4			
Nectarine CA & AZ only	Thrips (up to 3 applications,	2-4	1	10	3
Oats	Armyworms, Cereal Leaf Beetle, Aphids	1-2	7	10	1
Onions	Beet Armyworm	2-4	7 Green and Dry Onions		1
	Thrips, Variegated Cutworm	2			
Oranges CA & AZ only U.S. FL only CA, AZ & FL only	Thrips, Western Tussock Moth, Orange Tortrix, Fruitree Leafroller, Citrus Cutworm	2-4	1	10	3
	Beet Armyworm				
	Spirea Aphid				
	Whiteflies				
	Yellow Scale, Chaff Scale, Purple Scale, Soft Brown Scale, Glover Scale	2 per 100 gal up to 800 gal per acre			
Ornamentals **G (Refer to Suppl. Labeling)		1-2 per 100 gal			
Peaches	Cattacing Insects (Plant Bugs and Stink Bugs)- begin at petal fall and continue in cover sprays at 7-to 10-day intervals	4-8 lb (or 1-2 pts per 100 gal up to 400 gal per acre)	4	10	4
	Oriental Fruit Moth—begin at petal fall; use trapping devices and frequent field inspection to determine need for treatment. Continue treatment in cover sprays and alternate with residual-type insecticides registered for this use. **G				
	Green Peach Aphid	3-8			
Peanuts	Corn Earworm**, Beet Armyworm, Potato Leafhopper—Up to 3 applications	1-4	21	Do not feed treated vines	1
	Loopers, Green Cloverworm, Velvetbean Caterpillar, Thrips, Granulate Cutworm—Up to 3 applications.	2-4			
	Fall Armyworm	1-2			

Crops	Insects	RATES "Lannate" L Pints Per Acre	LAST APPLICATION-DAYS		
			To Harvest	To Livestock Grazing/ Feeding	REI (DAYS)
Pears, Northeast only	Green Fruitworm, Obliquebanded Leafroller-- One application only	2 per 100 gal. up to 400 gal. per acre	7	10	1
Peas (Succulent)	Amyworm, Green Cloverworm	1-2	1	5 Forage 14 Hay	1
	Loopers, Pea Aphid, Beet Armyworm, Saltmarsh Caterpillar, Variegated Cutworm	2-4			
	Alfalfa Caterpillar	1-4			
Pecans Southeast only	Aphids	2-4	10	10	1
Peppers	Green Peach Aphid, Fall Armyworm, Loopers, Beet Armyworm	2	3		
	Armyworm, Variegated Cutworm	1-2			
Pomegranates	Omnivorous Leafroller	4	14		1
Potato	Tuberworm, Loopers, Aphids, Beet Armyworm, Leafhoppers	2-4	6		1
	Variegated Cutworm, Fall Armyworm, Flea Beetles	2			
Rye	Armyworms, Cereal Leaf Beetle, Aphids	1-2	7	10	1
Sorghum	Sorghum Webworm	2	14	14	1
	Sorghum Midge--Apply when 50% bloom and 3-5 days later if needed Fall Armyworm (Budworm), Beet Armyworm, Corn Earworm, Armyworm	1-2			
Soybeans U.S. AR, AL, LA, MS TN, TX only	Green Cloverworm, Velvet-bean Caterpillar, Mexican Bean Beetle Light to moderate infestations	1/2-1(see Predators)	14	Under 2 pts. -- 3 Forage 7 Hay 2-4 pts. -- 10 Forage 12 Hay	1
	Moderate to severe infestations	1-2			
	Corn Earworm (worms up to 1.4" long) Light to moderate infestations	1/2-1(see Predators)			
	(worms up to 1/2" long) Moderate to severe infestations	1-2			
	Beet Armyworm, Salt Marsh Caterpillar, Bean Leaf Beetle, Fall Armyworm Thrips, Silver Spotted Skipper Light to moderate infestations	1-1 1/2			
	Moderate to severe infestations	1 1/2-2			
	Soybean Looper (worms up to 1/2" long) Use higher rate for severe infestations	2-4			

Crops	Insects	RATES "Lannate" L Pints Per Acre	LAST APPLICATION-DAYS		
			To Harvest	To Livestock Grazing/ - Feeding	REI (DAYS)
Spinach (Do not apply when min. daily temp. is 32oF. or lower. Do not apply to seedlings less than 3" diameter.)	Loopers, Beet Armyworm	2-4	7		1
	Fall Armyworm, Variegated Cutworm	2			
Strawberry	Beet Armyworm, Thrips, Aphids	2-4	3-Fresh		1
	Lygus Bugs, Omnivorous Leaf Tiers	4	10-Processing		
	Armyworms	3-4	Fruit		
Sugar Beet Do not use in the Imperial Valley of California.	Beet Webworm, Flea Beetles, Carrion Beetles, Beet Armyworm, Aphids, Western Yellowstriped Armyworm- -Up to 4 applications	1-4	7	Do not feed tops	1
	Variegated Cutworm	2			
Summer Squash	Loopers, Tobacco Budworm, Beet Armyworm, Yellowstriped Armyworm, Granulate Cutworm, Flea Beetles, Cucumber Beetles, Melon Aphid, Melonworm, Pickleworm, Fall Armyworm	2-4	2 pts. --1 day over 2 pts.--3 days		1
Tangelo CA & AZ only	Thrips, Western Tussock Moth, Orange Tortrix	2-4	1	10	3
U.S.	Beet Armyworm				
FL only	Spirea Aphid	4			
	Whiteflies				
CA, AZ & FL only	Yellow Scale, Chaff Scale, Purple Scale, Soft Brown Scale, Glover Scale	2 per 100 gal up to 800 gal/acre			
Tangerine CA & AZ only	Thrips, Western Tussock Moth, Orange Tortrix	2-4	1	10	3
U.S.	Beet Armyworm				
FL only	Spirea Aphid	4			
	Whiteflies				
CA, AZ & FL only	Yellow Scale, Chaff Scale, Purple Scale, Soft Brown Scale, Glover Scale	2 per 100 gal up to 800 gal/acre			
Tobacco (Except shade)	Flea Beetle, Hornworm	1-2	5 Flue cured		1
	Loopers, Aphids, Tobacco Budworm, Fall Armyworm	2	14 Air or fire cured		

Crops	Insects	RATES "Lannate" L Pints Per Acre	LAST APPLICATION-DAYS		
			To Harvest	To Livestock Grazing/ Feeding	REI (DAYS)
Tomato	Tomato Fruitworm, Aphids, Hornworm, Loopers, Beet Armyworm, Southern Armyworm, Pinworm	2-4	1		1
	Fall Armyworm, Variegated Cutworm	2			
	Armyworm	1-2			
Turf **G	Sod Webworm (after application, sprinkle irrigate for 15 minutes)	4-8 (1.5-3 fl. ozs. per 1000 sq. ft.)		Do not graze or feed	1
Wheat	Armyworms, Cereal Leaf Beetle, Aphids	1-2	7	10	1

*Add wetting agent

**All registrations for aerial and ground use unless marked G for ground use only

***Ovicidal and larvicidal control

**** Do not apply during bloom

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