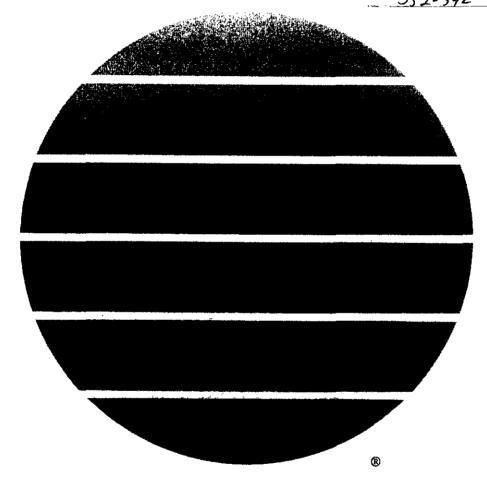
## DuPont<sup>TM</sup> Lannate<sup>®</sup> SP

insecticide

ACCEPTED SEP 2 2 2006

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 352-342



"...... A Growing Partnership With Nature"

#### DUPONT'M LANNATE® SP HIGHLIGHTS

- LANNATE® SP Insecticide is a 90% active ingredient water soluble powder formulation packaged in water soluble bags.
- LANNATE® SP is a broad spectrum insecticide registered in a wide range of field, fruit and vegetable crops.
- LANNATE® SP is particularly active on many Lepidopterous pests as an ovicide, larvicide and adulticide.
- LANNATE® SP is primarily a contact insecticide giving rapid knockdown effects on insects. LANNATE® SP also provides short term effects from the ingestion of freated foliage.
- LANNATE® SP's short residual on treated crops allows for short preharvest intervals.
- Consult label text for complete instructions.
   Always read and follow label directions for use.

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#### RESTRICTED USE PESTICIDE

Due to High Acute Toxicity to Humans.

For retail sale 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 requires the certified applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, or repair or cleaning of application equipment.

GROUP

ΙA

INSECTICIDE



# **DuPont**<sup>™</sup> **Lannate® SP**

#### insecticide

#### Water Soluble Powder In Water Soluble Bags

 Active Ingredient
 By Weight

 Methomyl
 (S-methyl-N-[(methylcarbamoyl) oxy]thioacetimidate)
 90%

 Inert Ingredients
 10%

 TOTAL
 100%

EPA Reg. No. 352-342

EPA Establishment No.:

Net Contents of Package Sizes Available:

- 24 8 oz (1-8 oz water soluble bag inside 1 barrier bag), 24 barrier bags in a box
- 6  $2\ lb$  (1-2 lb water soluble bag inside 1 barrier bag),  $6\ barrier$  bags in a box
- 2-10lb (2-5 lb water soluble bags inside 1 barrier bag), 2 barrier bags in a box

#### **KEEP OUT OF REACH OF CHILDREN**

## DANGER PELIGRO



## **POISON**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

#### **FIRST AID**

#### This Product is an N-Methyl Carbamate insecticide.

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. 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 IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

ATROPINE IS AN ANTIDOTE -- SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.

If poisoning symptoms appear (see POISONING SYMPTOMS), get medical attention.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-441-3637 for emergency medical treatment information.

#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER** - FATAL IF SWALLOWED. MAY BE FATAL IF INHALED OR GETS IN EYES. DO NOT BREATHE DUST OR SPRAY MIST.

Do not get in eyes or on clothing. Wear protective eyewear and respirator. Harmful if absorbed through skin. Avoid contact with skin. Wash hands thoroughly with soap and water after handling.

("PRECAUTIONARY STATEMENTS"

Continued on next page)

## PRECAUTIONARY STATEMENTS(continued) HAZARDS TO HUMANS AND DOMESTIC ANIMALS

POISONING 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. If poisoning symptoms appear, refer to First Aid section on front of DuPont™ LANNATE® SP label and seek medical attention at once.

#### NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

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® SP alone. However, for exposure to combinations of LANNATE® SP 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.

#### PERSONAL PROTECTIVE EQUIPMENT

Applicators and others exposed to the diluted spray solution must wear:

Long-sleeved shirt and long pants.

Chemical resistant gloves such as barrier laminate or butyl rubber.

Shoes plus socks.

Protective eyewear.

Mixers, loaders, cleaners, repairers of application equipment, and others exposed to the concentrate must wear:

Long sleeve shirt and long pants.

Chemical-resistant gloves, such as barrier laminate or butyl rubber.

Socks and chemical resistant footwear.

Protective eyewear.

Respirator as outlined below.

Chemical resistant apron.

For exposures in enclosed areas, a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or a canister with any R, P, or HE prefilter.

For exposures outdoors, Dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any R, P, or HE prefilter.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **ENGINEERING CONTROL STATEMENTS**

Human flaggers must be in enclosed cabs.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

The enclosed cabs must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)]. The handler PPE requirements may be reduced or modified as specified in the WPS.

Water soluble packets when used correctly qualify as a closed loading system under the WPS. Handlers handling this product while it is enclosed in intact water-soluble packets are permitted to wear long-sleeved shirt, long pants, shoes plus socks, chemical-resistant gloves, and chemical-resistant apron, provided the other required PPE is immediately available in case the bag is opened.

Pilots must not assist in the mixing and loading operations.

#### **USER SAFETY RECOMMENDATIONS**

USERS SHOULD: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Remove personal protective equipment immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

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. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

#### PHYSICAL AND CHEMICAL HAZARDS

Keep container closed. Use with adequate ventilation.



#### **DIRECTIONS FOR USE**

#### **Restricted Use Pesticide**

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI). REI Summary: REI grapes = 7 day; REI peaches = 4 day; REI apple, cotton, grapefruit, lemon, nectarine, orange, tangelo, tangerine = 3 day; all other WPS uses = 48 hour REI.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

Coveralle

Chemical Resistant Gloves Category A (such as butyl rubber, natural rubber, neoprene rubber or nitrile rubber), all ≥14 mils.

Shoes plus socks.

Protective eyewear.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

Notify workers of the application to grapes by warning them orally <u>and</u> by posting warning signs at entrances to treated areas.

#### GENERAL RESTRICTIONS

Do not apply this product through any type of irrigation system. Do not formulate this product into other End-use products without written permission from DuPont.

DuPont<sup>TM</sup> LANNATE® SP insecticide should be used only in accordance with directions for use on this label or in separate DuPont supplemental labeling. DuPont will not be responsible for use of the product in a manner not specified by DuPont in the product's labeling and User assumes all risk for such use.

LANNATE® SP is a dry powder to be dissolved in water for application by mechanical ground or air equipment only.

Do not apply by ground equipment within 25 feet, or by air within 100 feet of lakes, reservoirs, rivers, estuaries, commercial fish ponds and natural, permanent streams, marshes or natural, permanent ponds. Increase the buffer zone to 450 feet from the above aquatic areas when ultra low volume application is made.

Hand-held equipment is prohibited for applications to crops. This product must be applied to crops only with mechanical ground or aerial application equipment.

Pilots must not assist in the mixing and loading operations. Use only in commercial and farm plantings. Not for use in home plantings. Not for use during any period after a commercial crop site is opened for public entry as a "U-Pick", "Pick Your Own" or similar operation; in no case shall preharvest applications be made after first public entry. The restricted entry interval and preharvest interval for the crop stated elsewhere on this label must be followed.

#### GENERAL INFORMATION

Scouting — Monitor insect populations to determine whether or not there is a need for application of LANNATE® SP based on locally determined economic thresholds. More than one treatment of LANNATE® SP may be required to control a population of pests.

Insect Predators — LANNATE® SP at rates of 1/8 to 1/4 lb. 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.

Resistance — For resistance management, LANNATE® SP insecticide is a group 1A insecticide. Repeated and exclusive use of LANNATE® SP or other group 1A insecticides may lead to the build-up of resistant strains of insects in some crops. Not all members of this group have been shown to be cross-resistant. Different resistance mechanisms that are not linked to target site of action, such as enhanced metabolism, are common for this group of chemicals. Alternation of compounds from different sub-groups within this group may be an acceptable part of an integrated pest management program.

Some insects are known to develop resistance to products used repeatedly for control. When this occurs, the recommended dosages fail to suppress the pest population below the economic threshold. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. These strategies may include incorporation of cultural and biological control practices, alteration of active classes of insecticides on succeeding generations and targeting the most susceptible life stage. Consult your local or state agricultural authorities for details.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative of control for your area. For additional information on insect resistance monitoring, visit the Insecticide Resistance Action Committee (IRAC) on the web at http://www.irac-online.org.

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® SP 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.

Tank-mix solutions containing Boron may affect solubility of the water soluble film. When using Boron containing solutions in a tank-mix, follow these procedures:

- Add the correct amount of DuPont™ LANNATE® SP water soluble packets first
- Be sure the soluble packets are completely dissolved
- Introduce Boron containing solutions last

If the above procedure cannot be followed, and Boron is an essential part of the spray mix, substitute LANNATE® LV formulation for the water soluble packets.

#### INTEGRATED PEST MANAGEMENT

This product should be used as part of an Integrated Pest Management (IPM) program which can include biological, cultural, and genetic practices aimed at preventing economic pest damage. Application of this product should be based on IPM principles and practices including field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

#### SPRAY PREPARATION

Spray equipment must be clean and free of previous pesticide deposits before applying LANNATE® SP.

Fill spray tank 1/4 to 1/2 full of water. Add LANNATE® SP directly to spray tank. Carefully open the outer barrier bag containing LANNATE® SP in a water soluble bag. Do not cut open the outer barrier bag. Invert the outer barrier bag allowing the inner water soluble bag to fall directly into the spray tank. Do not allow packets to become wet prior to adding to the spray tank. Do not handle, open, rip, tear, cut or perforate the inner water soluble bag. Mix thoroughly to fully dissolve the insecticide; once dissolved continued agitation is not required. Use mechanical or hydraulic means; do not use air agitation. Be sure the soluble packet is completely dissolved before adding any other ingredients. Spray mix should not be stored overnight in spray tank.

#### **APPLICATION**

Apply at the recommended rates when insect populations reach locally determined economic thresholds. Consult the cooperative extension service, professional consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area.

Follow-up treatments of LANNATE® SP should be applied, as needed, to keep pest populations within threshold limits. On most crops, LANNATE® SP should be applied at 5 to 7 day intervals to maintain control. Refer to crop specific directions for use in the crop tables for more specific information on treatment intervals.

Use sufficient water to obtain thorough, uniform coverage. Since LANNATE® SP is a fast acting contact insecticide, best results follow direct spraying of the target insect.

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

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.

#### SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

- 1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
- Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.
   Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the <u>Aerial Drift Reduction Advisory</u> <u>Information</u>.

## AERIAL DRIFT REDUCTION ADVISORY INFORMATION

#### Importance of Droplet Size

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS! See Wind, Temperature and Humidity, and Temperature Inversions sections of this label.

#### Controlling Droplet Size - General Techniques

 Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

- Pressure Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- Nozzle Type Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

#### Controlling Droplet Size - Aircraft

- Number of Nozzles Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types and the lowest drift.
- Boom Length For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- Application Height Applications should not be made at a
  height greater than 10 feet above the top of the largest plants
  unless a greater height is required for aircraft safety. Making
  applications at the lowest height that is safe reduces exposure
  of droplets to evaporation and wind.
- Swath Adjustment When applications are made with a
  crosswind, the swath will be displaced downwind. Therefore,
  on the up and downward edges of the field, the applicator must
  compensate for this displacement by adjusting the path of the
  aircraft upwind. Swath adjustment distance should increase,
  with increasing drift potential (higher wind, smaller drops, etc.)

#### **BOOM HEIGHT**

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### WIND

Drift potential is lowest between wind speeds of 3-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. AVOID GUSTY OR WINDLESS CONDITIONS.

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

#### TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

#### TEMPERATURE INVERSIONS

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Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### SENSITIVE AREAS

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

#### AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring.

**Note:** Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment section of this label to determine if use of an air assisted sprayer is recommended.

#### AIR ASSISTED (AIR BLAST) TREE AND VINE SPRAYERS

Air assisted tree and vine sprayers carry droplets into the canopy of trees and vines via a radially or laterally directed air stream. These sprayers are not suitable for applying herbicides. In addition to the general drift management principles already described, the following specific practices will further reduce the potential for drift.:

- Adjust deflectors and aiming devices so that spray is only directed into the canopy.
- Block off upward pointed nozzles when there is no overhanging canopy.
- Use only enough air volume to penetrate the canopy and provide good coverage.
- Do not allow spray to go beyond the edge of the cultivated area. Spray the outside row only from outside the planting.

Crops	Insects	Rate DuPont™ LANNATE® SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Alfalfa	Pea Aphid	1/2 - 1	7 *	48 hrs
	Lygus Bugs Blotch Leafminer Aphids Egyptian Alfalfa Weevil Larvae Loopers			
	Beet Armyworm Armyworm Alfalfa Caterpillar Fall Armyworm Western Yellowstriped Armyworm			
	Yellowstriped Armyworm		1	
	Alfalfa Weevil Larvae	1		
	Variegated Cutworm  Do not apply to dormant or sen Do not apply more than 4 poun Do not make more than 10 appl  * Do not apply within 7 days of	ds of LANNATE® SP/a lications/crop.	•	
Anise (Fennel)	Cabbage Looper	1	7	48 hrs
, , , , , , , , , , , , , , , , , , , ,	Beet Armyworm	1/2 - 1	1	
	Do not apply more than 5 poun Do not make more than 10 appl	ds of LANNATE® SP/a	acre/crop.	
Apple Ground application only	Apple Aphid Rosy Apple Aphid Tufted Apple Budmoth Green Fruitworm Tarnished Plant Bug Codling Moth (10-12 day spray intervals)	1/2 - 1 *	14	72 hrs
	Leafrollers (Fruittree, Obliquebanded, Redbanded, Variegated) Lesser Appleworm White Apple Leafhopper Tentiform Leafminer Cutworm	1*		
	Do not use on Early Macintosh Do not apply more than 5 pound Do not make more than 5 applie * Apply in a minimum of 50 ga	ds of LANNATE® SP/a	acre /crop. interval between treatments is 7 days.	
Asparagus	Beet Armyworm, Western Yellowstriped Armyworm Asparagus Beetle Spotted Asparagus Beetle White Cutworm Redbacked Cutworm Variegated Cutworm	1/2 - 1	1	48 hrs
	Do not apply more than 5 pound Do not make more than 8 applie	ds of LANNATE® SP/a	cre/crop.	
Avocado	Western Avocado Leafroller Omnivorous Looper	1/2 - 1	l	48 hrs
	Do not apply more than 1 pound Do not make more than 2 applic	eations/crop.		
Barley	Armyworms Cereal Leaf Beetle Aphids	1/4 - 1/2	7	48 hrs
	Do not apply more than 2 pound Do not make more than 4 applic	ds of LANNATE® SP/a cations/crop.	cre/crop.	

Crops	Insects	Rate DuPont™ LANNATE® SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Beans (Succulent) Including:	Leafhopper Mexican Bean Beetle	1/4 - 1	Succulent Beans 1/4 - 1/2 lb 1,	48 hrs
Kidney beans Lima beans	Fall Armyworm Variegated Cutworm	1/2	over 1/2 lb 3; 3 Vines	
Mung beans Navy beans Pinto beans Snap beans Wax Beans Broad beans Fava beans Asparagas beans Blackeyed peas Cowpeas Chick peas Garbanzo beans Sweet lupine White sweet lupine White lupine Grain lupine	Beet Armyworm Corn Earworm Saltmarsh Caterpillar, Yellowstriped Armyworm Western Yellowstriped Armyworm, Lygus Bugs Thrips Aphids Loopers*  European Corn Borer (Ovicide & Larvicide) Initiate when moth flights first appear and-continue preventive treatments at 3-4 day intervals to control eggs	1/2 - 1	7 Hay	
2	and larvae Spotted Cucumber Beetle	1/4 - 1/2		
	Succulent Beans - Do not apply more than 5 poun Do not make more than 10 app * Do not use for Loopers in Al	lications/crop.	cre /crop.	
Beans (Dry) (Same as Succulent Beans)	(Same as Succulent Beans)	(Same as Succulent Beans)	14 Dry Beans * 14 Vines * 14 Hay *	48 hrs
	Do not apply more than 5 poun Do not make more than 10 appl Do not use for Loopers in AL & * Do not apply within 14 days	lication/crop. ⋩GA.	cre /crop.	
Beets (Table)	Imported Cabbageworm	1/4 - 1	0 - roots	48 hrs
	Beet Armyworm Cabbage Looper Diamondback Moth	1/2 - 1	10 - tops	
	Cucumber Beetle Variegated Cutworm	1/2		
	Do not apply more than 4 poun Do not make more than 8 appli	ds of LANNATE® SP/accations/crop.		
Bermudagrass pasture	Fall Armyworm, Armyworm Striped Grass Looper	1/4 - 1	7 Forage * 3 Dehydrated Hay **	48 hrs
	Do not apply more than 1 poun Do not make more than 4 appli * Do not apply within 7 days o ** Do not apply within 3 days	cations/crop. If feeding forage or allow	-	
Blueberries	Blueberry Leafhopper Aphids Tussock Moth Weevil Sharp-Nosed Leafhopper	1/2	3	48 hrs
	Cranberry Fruitworm* Cherry Fruitworm*	1/2 - 1		
	Flea Beetle (larvae) Sawfly (larvae) Blueberry Leafroller	1		
	Blueberry Maggot	1/4 - 1/2		
	Do not apply during bloom.  Do not apply more than 4 poun  Do not make more than 4 appli  * For ground use only.		cre/crop.	

Crops	Insects	Rate DuPont™ LANNATE® SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Broccoli	Loopers Diamondback Moth	1/2 - 1 **	3	48 hrs
	Imported Cabbageworm	1/4 - 1 **		
	Do not apply more than 7 pour	olications/crop; minimum	acre/crop a interval between treatments is 2 days	
Brussels Sprouts	Loopers Imported Cabbageworm, Diamondback Moth	1/2 - 1 **	3	48 hrs
	Variegated Cutworm	1/2 **	<u> </u>	
•	Do not apply more than 6 pour Do not make more than 10 app ** Add a wetting agent to imp	olications/crop; minimum prove coverage	acre/crop.  i interval between treatments is 2 days	
Cabbage	Loopers * Diamondback Moth Fall Armyworm	1/2 - 1 **	1	48 hrs
	Imported Cabbageworm	1/4 - 1 **		
	Variegated Cutworm	1/2 **		
	Do not apply more than 8 pour Do not make more than 15 app * Do not use for Loopers in A ** Add a wetting agent to imp	olications/crop; minimum L & GA.	acre/crop.  interval between treatments is 2 days.	
Carrot	Beet Armyworm	1/2 - 1	1	48 hrs
	Armyworms			
	Aster Leafhopper Variegated Cutworm	1/4 - 1/2		
	Do not apply more than 7 pounds of LANNATE® SP/acre/crop.  Do not make more than 10 applications/crop.			
Cauliflower	Imported Cabbageworm	1/4 - 1 **	3	48 hrs
	Loopers Diamondback Moth	1/2 - 1 **		
	Variegated Cutworm	1/2 **	•	
	Do not apply more than 8 pounds of LANNATE® SP/acre/crop.  Do not make more than 10applications/crop; minimum interval between treatments is 2 days  ** Add a wetting agent to improve coverage.			
Celery	Beet Armyworm Aster Leafhopper	1/2 - 1	7	48 hrs
	Loopers	1		
	Variegated Cutworm	1/2		
	Armyworms	1/4 - 1		
	Do not apply more than 8 pounds of LANNATE® SP/acre/crop.  Do not make more than 10 applications/crop.			į.
Chicory	Beet Armyworm Variegated Cutworm Leafhoppers	1/2 - 1	80	48 hrs
	Do not apply more than 2 pour Do not make more than 2 appl	nds of LANNATE® SP/a	acre/crop.	
Chinese Cabbage	Loopers Beet Armyworm	1/2 - 1*	10	48 hrs
	Do not apply more than 8 pour Do not make more than 10 app * Minimum of 25 gallons water	lications/crop.	-	

		Rate DuPont™		
Crops	Insects	LANNATE® SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Collards	Diamondback Moth	1/2	10	48 hrs
(Fresh market	Variegated Cutworm			
only)	Imported Cabbageworm Beet Armyworm Loopers*	1/2 - 1		
	Do not apply when temp. is less Do not apply when crop is less Do not apply more than 6 poun Do not make more than 8 appli * Do not use for Loopers in Al	than 10" tall. ds of LANNATE® SP/a cations/crop.	ncre/crop.	
Corn (Field, Popcom & Seed)	Earworm, Armyworm Fall Armyworm Corn Rootworm (adult beetles) Flea Beetles Picnic Beetles Aphids	1/4 - 1/2	21 Ears 3 Forage* 21 Stover*	48 hrs
	Variegated Cutworm, Beet Armyworm	1/2		
	fed directly to animals or used t	lications/crop. growing plants that are h to make silage. Corn sto	Placre/crop.  tarvested with the ears intact. The plants can be ever are the parts of the plant that remain after ning stalks and leaves can be fed as roughage	
Corn (Sweet)	EarwormWhorl as needed	1/3 - 1/2	0 Ears	48 hrs
	Fall Armyworm Armyworm Earworm,- (Ovicide/Larvicide)	1/4 - 1/2	3 Forage 21 Stover	
	European Corn Borer -Ears 1-3 days or as needed Corn Rootworm (adult beetles)			
	Flea Beetles Picnic Beetles Aphids			
	Variegated Cutworm Beet Armyworm	1/2		
	determine crop safety before full Do not apply more than 7 pound	ll scale spraying. ds of LANNATE® SP/a	methomyl injury. Treat a small area to cre/crop. interval between treatments is 1 day.	
Cotton U.S	Ovicide/Larvicide - Bollworm, Tobacco Budworm (Initiate schedule when significant numbers of eggs are present Continue at 3 to 5-day intervals while eggs are present and larval control is adequate. If significant larvae survive, use higher rates below.) Lygus Bugs/Plant Bugs (adults and nymphs) start treatment on low level population for	1/8 - 1/4 (see Insect Predator Section)		72 hrs
	suppression.  Cotton Leafworm	1/4 - 1/2		
	Cotton Fleahopper (as needed)	1/8 - 1/4		
	Aphids, Thrips	1/4		
East of Rockies only	(Early Season) Bollworm, Tobacco Budworm, Beet Armyworm, Cotton Leafperforator, Fall Armyworm, Lygus Bugs/Plant Bugs (adults and nymphs) use as occasional spray in regular	1/2		
(continued on next page)	schedule but not more often than every 10 days.			

Crops	Insects	Rate DuPont™ LANNATE® SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Cotton (continued) East of Rockies only	(Late Season) Bollworm, Tobacco Budworm, Beet Armyworm, Cotton Leafperforator, Fall Armyworm, Lygus Bugs/Plant Bugs (adult and nymphs). Up to 3 applications at 3-5 day intervals after desired boll	1/2 - 3/4	15	72 hrs
	load set on plants.			
Texas	Cotton Aphid	1/4 - 2/3		
West of Rockies only	Larvicide for worms Bollworm, Fall Armyworm, Tobacco Budworm, Lygus Bugs Beet Armyworm	1/2 - 3/4		
	Cotton Leafperforator	1/3 - 3/4		4
	set on plants.  For all cotton applications:  Do not apply more than 2 pound Do not make more than 8 applications.  Use may redden cotton if excess Do not graze or feed.	ds of LANNATE® SP/a	•	
Cucumber	Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm Variegated Cutworm	1/2 - 1	1/2 lb 1 Over 1/2 lb 3	48 hrs
	Do not apply more than 6 pound Do not make more than 12 appl	ds of LANNATE® SP/a ications /crop.	acre/crop.	
Eggplant	Green Peach Aphid Tomato Pinworm (Ground Application Only) Beet Armyworm Corn Earworm	1/4 - 1 1/2 - 1	5	48 hrs
	Do not apply more than 5 pound Do not make more than 10 appl	ds of LANNATE® SP/a	acre/crop.	
Endive, Escarole	Beet Armyworm  Do not apply more than 5 pound Do not make more than 8 applic	1/2 - 1 ds of LANNATE® SP/a cations/crop.	10 acre/crop.	48 hrs
Garlic	Beet Armyworm  Do not apply more than 3 pound Do not make more than 6 applic	1/2 ** ds of LANNATE® SP/a cations/crop.	7 ccre/crop.	48 hrs
Grapefruit CA, AZ & HI only	** Add a wetting agent to impr Thrips Fruittree Leafroller Orange Tortrix Western Tussock Moth Beet Armyworm	1/2 - 1	1 .	72 hrs
444444	Do not apply more than 3 pound Do not make more than 4 applic		cre/crop.	

		Rate		
Crops	Insects	DuPont™ LANNATE® SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Grapes East of Rockies only	Grape Berry Moth (apply pre- & post-bloom & repeat at 10-14 day intervals or as needed) Leafhoppers	1/2 - 1	1 Fresh & Raisin 14 Wine Grapes	7 days
U.S	Omniverous Leafroller, Grape Leaffolder Orange Tortrix			
West of Rockies only	Saltmarsh Caterpillar Leafhoppers* Climbing Cutworm	1		
	(Treat infestation and repeat at 7-14 day intervals as needed)			
CA only	Grape Leaf Skeletonizer*	1/2 - 1		
	Thrips	1/2 - 1		_
	Do not apply more than 5 poun Do not make more than 5 appli * Leafhoppers & Grape Leaf S	cations/crop.	•	
Horseradish Ground	Aphids Thrips	1/2	65	48 hrs
application only	Do not apply more than 2 pour Do not make more than 4 appli		acre/crop.	
Leafy Green Vegetables: Beet (tops) Dandelions, Kale,	Beet Armyworm Cabbage Looper* Diamondback Moth Imported Cabbageworm	1/2 - 1	10	48 hrs
Mustard Greens, Parsley, Swiss Chard, Turnip Greens	Do not apply more than 4 poun Do not make more than 8 appli * Do not use for Cabbage Loop	cations/crop .	acre/crop.	
Lemon CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Beet Armyworm	1/2 - 1	1	72 hrs
	Do not apply more than 3 poun Do not make more than 4 appli		ncre/crop.	
Lentils	Western Yellowstriped Armyworm	1/2 - 1	21	48 hrs
	Do not apply more than 1 pound Do not make more than 2 applications.	d of LANNATE® SP/accations/crop.	cre/crop.	
Lettuce	Alfalfa Looper	1/4 - 1	1/4-1/2 lb 7	48 hrs
(head varieties and Leaf varieties)	Thrips Aphids Beet Armyworm Cabbage Looper Corn Earworm Aster Leafhopper	1/2 - 1	over 1/2 lb 10	
	Variegated Cutworm	1/2		
	Lettuce (leaf varieties) Do not apply more than 4 pound	lications/crop; minimum ds of LANNATE® SP/a	interval between treatments is 2 days.	

				' '
Crops	Insects	Rate DuPont™ LANNATE® SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Melons Including: Canteloupe Casaba Santa Claus melon		1/2 - 1	1/2 lb 1 day over 1/2 lb 3 days	48 hrs
Crenshaw melon Honeydew melon Honey balls Persian melon Golden Pershaw	Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm			
melon Mango melon Pineapple melon Snake melon Watermelon	Fall Armyworm Variegated Cutworm Do not apply more than 6 poun Do not make more than 12 appl		cre/crop.	
Mint (Peppermint, Spearmint)	Variegated Cutworm Alfalfa Looper Flea Beetles Do not apply more than 2 poun	1 3/4 - 1 ds of LANNATE® SP/a	14 cre/crop.	48 hrs
· · · · · · · · · · · · · · · · · · ·	Do not make more than 4 appli-	cations/crop.		
Nectarine CA & AZ only	Thrips  Do not apply more than 3 poun Do not make more than 3 applie	1/2 - 1 ds of LANNATE® SP/a cations/crop.	l cre/crop.	72 hrs
Oats	Armyworms Cereal Leaf Beetle Aphids	1/4 - 1/2	7	48 hrs
i	Do not apply more than 2 pound Do not make more than 4 applie	ds of LANNATE® SP/a cations/crop.	cre/crop.	
Onions	Beet Armyworm	1/2 - 1 **	7 Green and	48 hrs
(Green & Dry Bulb)	Thrips Variegated Cutworm Black Cutworm	1 **	Dry Bulb Onions	
	Onions, dry bulb Do not apply more than 4 pound Do not make more than 8 applie ** Add a wetting agent to impo	cations/crop; minimum i ds of LANNATE® SP/a cations/crop; minimum t	interval between treatments is 5 days.	
Oranges CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Fruittree Leafroller Beet Armyworm Citrus Cutworm	1/2 - 1	1	72 hrs
	Do not apply more than 3 pound Do not make more than 4 applic	ds of LANNATE® SP/a	cre/crop.	1
Peaches	Catfacing Insects (Plant Bugs and Stink Bugs) - begin at petal fall and continue in cover sprays at 7-to 10-day intervals Oriental Fruit Moth* -begin at petalfall; use trapping devices and frequent field inspection to determine	l lb (or 1/4 lb per 100) gal up to 400 gal per acre)	4	4 days
	need for treatment.  Continue treatment in cover sprays and alternate with residual-type insecticides registered for this use.  Green Peach Aphid  Do not apply more than 6 pound	ds of I ANNATE® SDA	cre/crop	
	Do not make more than 6 applicate of the control of	cations/crop.		

<u> </u>		Rate	T	
Crops	Insects	DuPont™  LANNATE® SP  Lbs. Per Acre	Last Application -Days To Harvest	REI
Peanuts	Corn Earworm*	1/4 - 1	21	48 hrs
	Potato Leafhopper			
	Fall Armyworm	3/8 - 1	1	
	Beet Armyworm Green Cloverworm	1/2 - 1	1	
	Velvetbean Caterpillar Cabbage Looper Soybean Looper ** Thrips Granulate Cutworm	112-1		
	Do not apply more than 4 poun Do not make more than 8 appli * LANNATE® SP has ovicida **Soybean Looper is difficult t Use higher rate for severe infes Do not feed treated vines.	cations/crop. I and larvicidal control on control. Do not apply	-	
Pears Northeast only	Green Fruitworm Obliquebanded Leafroller	1/2 - 1 *	7	48 hrs
	Do not apply more than 2 poun Do not make more than 2 appli * Apply in a minimum of 50 g	cations/crop.	-	
Peas (succulent) Including: Pigeon peas Chick peas Garbanzo beans Dwarf peas	Alfalfa Looper Cabbage Looper* Pea Aphid Beet Armyworm Saltmarsh Caterpillar Variegated Cutworm	1/2 - 1	1 Peas 5 Forage 14 Hay	48 hrs
Garden peas Green peas English Peas	Alfalfa Caterpillar Armyworm Green Cloverworm	1/4 - 1		
Field peas Edible pod peas	Do not apply more than 3 poun	cations/crop; minimum	acre/crop. interval between treatments is 3 days.	
Pecans	Aphids	1/2 - 1	30	48 hrs
Southeast only	Do not apply more than 7 poun Do not make more than 7 appli		acre/crop.	
Peppers Including: Bell Hot Pimentos	Loopers Beet Armyworm Green Peach Aphid Armyworm Fall Armyworm	1/2 - 1	3	48 hrs
Sweet	Variegated Cutworm	1/4 - 1/2		
	European Corn Borer	1	<u> </u>	
	Do not apply more than 5 pound Do not make more than 10 appl		acre/crop.	
Pomegranates	Omniverous Leafroller	l	14	48 hrs
1 0	Do not apply more than 2 pounDo not make more than 2 applie	ds of LANNATE® SP/a cations/crop.		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Potato	Tuberworm* Loopers Aphids Beet Armyworm Leafhoppers Fall Armyworm	1/2 - 1	6	48 hrs
	Variegated Cutworm Flea Beetles	1/2		
	worm populations. An application be needed to keep foliar feeding	lications/crop.  ATE® SP on a 5-7 day a  con schedule of effective  glarval populations as le  Failure to adequately co	schedule, or longer as needed, to control tuber- e insecticides with different modes of action may low as possible prior to harvest to reduce the risk introl tuberworm larvae prior to crop	

		Rate		
Crops	Insects	DuPont™ LANNATE® SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Rye	Armyworms	1/4 - 1/2	7	48 hrs
1.,, 0	Cereal Leaf Beetle Aphids		,	
	Do not apply more than 2 pour Do not make more than 4 appli	ds of LANNATE® SP/acre/c cations/crop.	crop.	
Sorghum	Sorghum Webworm	1/2 *	14 **	48 hrs
Including: Sudangrass (Except Sweet Sorghum)	Sorghum MidgeApply when 50% bloom and 3-5 days later if needed. Fall Armyworm (Budworm) Beet Armyworm Corn Earworm Armyworm	1/4 - 1/2 *		
	Do not apply more than 1 poun Do not make more than 2 appli * Minimum of 10 gallons per a ** Do not apply within 14 days	cation/crop. acre by ground or 2 gallons pe	er acre by air.	
Soybeans	Green Cloverworm	1/8 - 1/4	14 Soybeans	48 hrs
	Velvetbean Caterpillar Mexican Bean Beetle Corn Earworm Light to moderate infestations	(see Insect Predator section)	3 Forage 12 Hay	
	Moderate to severe infestations	1/4 - 1/2		
	Soybean Aphid	1/6 - 1/3		
	Beet Armyworm Salt Marsh Caterpillar Bean Leaf Beetle Fall Armyworm Thrips Silver Spotted Skipper Light to moderate infestations	1/4 - 3/8		
	Moderate to severe infestations	3/8 - 1/2		
	Do not apply more than 1.5 pour Do not make more than 3 applications.	inds of LANNATE® SP/acre cations/crop.	/crop .	
Spinach	Alfalfa Loopers Cabbage Looper Beet Armyworm Fall Armyworm	1/2 - 1	7	48 hrs
	Variegated Cutworm	1/2		
	Do not apply when min. daily to Do not apply to seedlings less the Do not apply more than 4 pound Do not make more than 8 applie	han 3" diameter . ds of LANNATE® SP/acre/c	rop.	
Strawberry	Beet Armyworm	1/2 - 1	3-Fresh Fruit	48 hrs
•	Thrips Aphids		10-Processing Fruit	
	Lygus Bugs Omnivorous Leaf Tiers	1		
	Armyworms	3/4 - 1		_
	Do not make more than 10 appl	Do not apply more than 5 pounds of LANNATE® SP/acre/crop.  Do not make more than 10 applications/crop.  Do not tank mix LANNATE® with surfactants and/or adjuvants.		
Sugar Beet	Beet Webworm	1/4 - 1	30 Tops	48 hrs
ougus Meet	Flea Beetles Carrion Beetles Beet Armyworm Aphids Western Yellowstriped Armyworm		21 Roots	
	Variegated Cutworm	1/2		
	Do not apply more than 5 pound	is of LANNATE® SP/acre/c	rop .	
	Do not make more than 10 appl	ications/crop.		1

Crops	Insects	Rate DuPont™ LANNATE® SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Summer Squash* Including: Crookneck squash Straightneck squash Scallop squash Vegetable marrow Spaghetti squash Hyotan Cucuzza Hechima Chinese okra Bitter melon Balsam pear Balsam apple	Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm Do not apply more than 6 poun Do not make more than 12 appl	tications/crop.	1/2 lb 1 day over 1/2 lb 3 days  acre/crop.  onsumed when immature, 100% of the	48 hrs
Chinese Cucumber  Tangelo, Tangerine CA, AZ & HI		once picked cannot be	stored, has a soft rind which is easily	72 hrs
only	Orange Tortrix, Beet Armyworm  Do not apply more than 3 poun Do not make more than 4 appli		acre/crop .	
Tobacco (Except shade)	Flea Beetle Hornworm	1/4 - 1/2	5 Flue cured 14 Air or fire cured	48 hrs
	Loopers Aphids Tobacco Budworm Fall Armyworm	1/2		
	Do not apply more than 2.5 por Do not make more than 5 applic		P/acre/crop .	
Tomato (Including Tomatillos*)	Tomato Fruitworm Aphids Hornworm Loopers Beet Armyworm Southern Armyworm Pinworm Armyworm Fall Armyworm	1/2 - 1	1	48 hrs
	Variegated Cutworm  Do not apply more than 7 pound Do not make more than 16 appl	ications/crop.	•	
	* For tomatillos do not apply m Do not make more than 5 applic		ANNATE® SP/acre/crop .	
Turf (For use on sod farms only)	Sod Webworm (after application, sprinkle irrigate for 15 minutes)	l (2/5 ozs. per 1000 sq. ft.)		48 hrs
	Do not apply more than 4 pound Do not make more than 4 applied Do not graze or feed.		cre/crop.	
Wheat	Armyworms Cereal Leaf Beetle Aphids	1/4 - 1/2	7	48 hrs
	Do not apply more than 2 pound Do not make more than 4 applic		cre/crop .	

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

PESTICIDE STORAGE: Handle this package carefully to prevent breakage of inner bag when stored at low temperatures. Allow to warm above 50 Deg.F for normal handling. Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Not for use or storage in or around the home.

PESTICIDE 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: For Fiber Drums With** Liners: Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into manufacturing equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by state and local authorities. If drum is contaminated and cannot be reused, dispose of in the same manner. For Water Soluble Packets: Do not reuse the outer box or the resealable plastic bag. When all water-soluble packets are used, the outer packaging should be clean and may be disposed of in a sanitary landfill or by incineration, or if allowed by state and local authorities, by open burning. If burned, stay out of smoke. If the resealable plastic bag contacts the formulated product in any way, the bag must be triplerinsed with clean water. Add the rinsate to the spray tank and dispose of the outer wrap as described above. For Paper and Plastic Bags: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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#### LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read This Limitation of Warranty and Liability Before Buying or Using This Product. If the Terms Are Not Acceptable, Return the Product at Once, Unopened, and the Purchase Price Will Be Refunded.

It is impossible to eliminate all risks associated with the use of this product. Such risks arise from weather conditions, soil factors, off target movement, unconventional farming techniques, presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of DuPont. These risks can cause: ineffectiveness of the product; crop injury, or; injury to non-target crops or plants.

DuPont does not agree to be an insurer of these risks. TO THE FULLEST EXTENT PERMITTED BY LAW, WHEN YOU BUY OR USE THIS PRODUCT, YOU AGREE TO ACCEPT THESE RISKS.

DuPont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purpose stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions.

DUPONT MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE FULLEST EXTENT PERMITTED BY LAW, IN NO EVENT SHALL DUPONT OR SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. BUYER'S OR USER'S BARGAINED-FOR EXPECTATION IS CROP PROTECTION. THE EXCLUSIVE REMEDY OF THE USER OR BUYER AND THE EXCLUSIVE LIABILITY OF DUPONT OR SELLER, FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, TORT OR STRICT LIABILITY) WHETHER FROM FAILURE TO PERFORM OR INJURY TO CROPS OR OTHER PLANTS, AND RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT, OR AT THE ELECTION OF DUPONT OR SELLER. THE REPLACEMENT OF THE PRODUCT.

DuPont or its Ag Retailer must have prompt notice of any claim so that an immediate inspection of buyer's or user's growing crops can be made. Buyer and all users shall promptly notify DuPont or a DuPont Ag Retailer of any claims, whether based on contract, negligence, strict liability, other tort or otherwise or be barred from any remedy.

This Limitation of Warranty and Liability may not be amended by any oral or written agreement.

For product information call: 1-888-6-DUPONT
Internet address: http://cropprotection.dupont.com/
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Water soluble bag labeling:

RESTRICTED USE PESTICIDE

DuPont™Lannate® SP insecticide

KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO

90% METHOMYI

Refer to the outer bag and Directions for Use folder for detailed instructions. (Pictures depicting proper package opening displayed here).

POISON VENENO

Foil pouch

#### RESTRICTED USE PESTICIDE

Due to High Acute Toxicity to Humans.

For retail sale 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 requires the certified applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, or repair or cleaning of application equipment.



### Water Soluble Powder in Water Soluble Bags

#### **ACTIVE INGREDIENT BY WEIGHT**

Methomyl(S-methyl-N-[(methylcarbamoyl)oxy]thioacetimidate)	90%
INERT INGREDIENTS	
	OTAL 100%

### KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO



**POISON** 

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

#### **FIRST AID**

This Product is an N-Methyl Carbamate insecticide.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Drink 1 or 2 glasses of water and induce vomiting by touching the back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. ATROPINE IS AN ANTIDOTE —SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.

If poisoning symptoms appear (see POISONING SYMPTOMS), get medical attention. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-441-3637 for emergency medical treatment information.



## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

## DANGER - FATAL IF SWALLOWED. MAY BE FATAL IF INHALED OR GETS IN EYES. DO NOT BREATHE DUST OR SPRAY MIST

Do not get in eyes, or on clothing. Wear protective eyewear and respirator. Harmful if absorbed through the skin. Avoid contact with skin. Wash hands thoroughly with soap and water after handling.

**POISONING 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. If poisoning symptoms appear, refer to "First Aid" section on front of DuPont™ LANNATE® SP label and seek medical attention at once.

#### NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

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® SP alone. However, for exposure to combinations of LANNATE® SP 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.

#### PERSONAL PROTECTIVE EQUIPMENT

Applicators and others exposed to the diluted spray solution must wear:

Long-sleeved shirt and long pants.

Chemical Resistant Gloves such as barrier laminate or butyl rubber.

Shoes plus socks.

Protective eyewear.

Mixers, loaders, cleaners, repairers of application equipment and others exposed to the concentrate must wear:

Long-sleeved shirt and long pants.

Chemical resistant gloves, such as barrier laminate or butyl rubber

Socks and chemical resistant footwear.

Protective eyewear.

Respirator as outlined below.

Chemical resistant apron.

For exposures in enclosed areas, a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or a canister with any R, P, or HE prefilter.

For exposures outdoors, Dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any R, P, or HE prefitter.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **ENGINEERING CONTROL STATEMENTS**

Human flaggers must be in enclosed cabs.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.



The enclosed cabs must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)]. The handler PPE requirements may be reduced or modified as specified in the WPS.

Water soluble packets when used correctly qualify as a closed loading system under the WPS. Handlers handling this product while it is enclosed in intact water-soluble packets are permitted to wear long-sleeved shirt, long pants, shoes plus socks, chemical-resistant gloves, and chemical-resistant apron, provided the other required PPE is immediately available in case the bag is opened. Pilots must not assist in the mixing and loading operations.

#### **USER SAFETY RECOMMENDATIONS**

**Users should:** Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove personal protective equipment immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms. Do not contaminate water when disposing of equipment washwater or rinsate.

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. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

#### PHYSICAL AND CHEMICAL HAZARDS

Keep container closed. Use with adequate ventilation. See back panel for additional precautionary statements.

Sold By: E. I. du Pont de Nemours and Company, Wilmington, DE 19898 U.S.A.

[DuPont ID Code Appears Here] **Made in U.S.A.** Net 2 lb

BACK Reads This Way

## THIS PACKAGE CONTAINS LANNATE® IN A WATER-SOLUBLE BAG-ENTIRE CONTENTS DISSOLVE IN WATER.

After opening package, immediately dump entire contents into spray tank. Do not touch inner bag; handling may cause breakage.

#### SEE DIRECTIONS FOR USE FOLDER BELOW

**NOTE:** Remove folder through perforated plastic envelope after breaking perforations. Do not pull plastic envelope away from package; this might tear package and expose contents.

Place Directions For Use Here

See Directions for Use in Supplemental Labeling attached.

### **Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

**NOTICE:** Please read the entire label, including the supplemental labeling attached. Before buying or using this product, read the Limitation of Warranty and Liability in the supplemental labeling. If the terms are not acceptable, return the product at once, unopened, for a refund of the purchase price.

**NOTICE TO BUYER:** Purchase of this material does not confer any rights under patents of countries outside of the United States.

[DuPont ID Code Appears Here]

Top flap Carton containing 6-2lb envelopes

"Lannate SP" in

WATER SOLUBLE PACKAGES!

THIS SIDE UP AVOID ROUGH HANDLING BELOW 50° F. LIFT FLAP TO OPEN – DO NOT CUT Front Panel

#### RESTRICTED USE PESTICIDE

Due to High Acute Toxicity to Humans.

For retail sale 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 requires the certified applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, or repair or cleaning of application equipment.



## DuPont™ Lannate® SP

insecticide

## ACTIVE INGREDIENT BY WEIGHT

Methomyl(S-methyl-N-
[(methylcarbamoyl)oxy]thioacetimidate)90%
INERT INGREDIENTS
EPA Reg. No. 352-342 EPA Est. No. 033971-MEX-003

**TOTAL 100%** 

See back and side panel for additional precautionary statements.

## DANGER POISON PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

#### **FIRST AID**

This Product is an N-Methyl Carbamate insecticide. IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Drink 1 or 2 glasses of water and induce vomiting by touching the back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. ATROPINE IS AN ANTIDOTE --SEEK MEDICAL

## ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.

If poisoning symptoms appear (see POISONING SYMPTOMS), get medical attention. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-441-3637 for emergency medical treatment information.

Side Panel



Water Soluble Powder In Water Soluble Bags

Net 12 lb (6-2 lb envelopes)

Back Panel



## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

## DANGER - FATAL IF SWALLOWED. MAY BE FATAL IF INHALED OR GETS IN EYES. DO NOT BREATHE DUST OR SPRAY MIST

Do not get in eyes, or on clothing. Wear protective eyewear and respirator. Harmful if absorbed through the skin. Avoid contact with skin. Wash hands thoroughly with soap and water after handling.

POISONING 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. If poisoning symptoms appear, refer to "First Aid" section on front of DuPont™ LANNATE® SP label and seek medical attention at once.

#### NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

**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® SP alone. However, for exposure to combinations of LANNATE® SP 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.

#### PERSONAL PROTECTIVE EQUIPMENT

Applicators and others exposed to the diluted spray solution must wear:

Long-sleeved shirt and long pants.

Chemical Resistant Gloves such as barrier laminate or butyl rubber.

Shoes plus socks.

Protective eyewear.

Mixers, loaders, cleaners, repairers of application equipment and others exposed to the concentrate must wear:

Long-sleeved shirt and long pants.

Chemical resistant gloves, such as barrier laminate or butyl rubber.



Socks and chemical resistant footwear.

Protective evewear.

Respirator as outlined below.

Chemical resistant apron.

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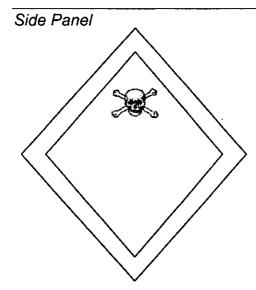
This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

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#### PHYSICAL AND CHEMICAL HAZARDS

Keep container closed. Use with adequate ventilation.

Sold by: E.I. du Pont de Nemours and Company, Wilmington, DE 19898 [DuPont ID Code Appears Here] Made in the U.S.A.



#### CARBAMATE PESTICIDES, SOLID, TOXIC (METHOMYL) UN 2757

See Directions for Use in Supplemental Labeling enclosed.

#### Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

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**Notice to Buyer:** Purchase of this material does not confer any rights under patents of countries outside of the United States.

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