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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

570/5453460  
12/41

NOV 15 1993

Ms. Linda S. Mullin  
Dupont  
Agricultural Products  
Walker's Mill, Barley Mill Plaza  
P.O. Box 80038  
Wilmington, DE 19880-0038

Dear MS. Mullin:

Subject: Application for Amendment/Extension of Conditional  
Registration  
Dupont Asana® XL Insecticide  
EPA Registration No. 352-515  
*Your letter Dated Nov 12, 1993*

The Agency accepts your application for amended registration incorporating the terms and conditions stipulated in the subject letter for purposes of extending the registration of the subject product.

Therefore in accordance with FIFRA Section 3(c)(7)(B)(C) the conditional registration of the subject product is extended for a period not to exceed November 15 1996.

A stamped copy of the final labeling submitted November 12, 1993 is enclosed. We agree that this labeling including supplemental labeling will be revised to incorporate the revisions specified in paragraph 2 of the subject letter before distribution or use. Please submit five copies of revised finished labeling when printing is completed.

Sincerely yours,

George T. LaRocca  
Product Manager 13  
Insecticide-Rodenticide Branch  
Registration Division (H7505C)

Enclosure

CONCURRENCES							
SYMBOL							
SURNAME							
DATE							

H-  
July 15



# Asana<sup>®</sup> XL

insecticide

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

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ACCEPTED  
with COMMENTS  
in EPA Letter Dated

NOV 15 1993

Under the Federal Insecticide,  
Fungicide, and Rodenticide  
as amended, for the p-  
registered under EPA No.

352. 515

# RESTRICTED USE PESTICIDE

DUE TO TOXICITY TO FISH AND AQUATIC ORGANISMS.

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.



# ASANA® XL

## Insecticide

This product contains 0.66 lbs. Active Ingredient per gallon.

0.66 Emulsible Concentrate

### ACTIVE INGREDIENT

BY WEIGHT

(S)-cyano (3-phenoxyphenyl) methyl (S)-4-chloro-alpha-(1-methylethyl)benzeneacetate.....8.4%

INERT INGREDIENTS\* .....91.6%

TOTAL 100 %

\*CONTAINS XYLENE RANGE AROMATIC SOLVENT

EPA Reg. No. 352-515

EPA EST No. 5905-AR-1

## KEEP OUT OF REACH OF CHILDREN WARNING AVISO

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.)

### STATEMENT OF PRACTICAL TREATMENT

**If swallowed:** Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs. If vomiting has not occurred, emesis should be induced with supervision by a physician or professional staff. If symptoms such as loss of gag reflex, convulsions or unconsciousness occur before emesis, gastric lavage should be considered following intubation with a cuffed endotracheal tube.

**If in eyes:** Flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get medical attention.

**If on skin:** Wash with soap and water immediately. After drying, apply vitamin E cream or oil if available. If not available, apply vegetable oil liberally over painful areas. The oil or cream may be used repeatedly until relief is achieved. Get medical help if irritation persists.

**If inhaled:** Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.

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

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**WARNING!** May be fatal if swallowed. Harmful if inhaled. Do not get in eyes, on skin, or on clothing.

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

### PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear:

Long-sleeved shirt and long pants.

Chemical-resistant gloves, such as Barrier Laminate or Neoprene Rubber or Nitrile Rubber or Viton.

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. 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

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.

### 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.

### ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. 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 or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops if bees are visiting the treatment area.

WILDLIFE PROTECTION IS EVERYONE'S RESPONSIBILITY

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ASANA XL 1

## DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with the 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) of 12 hours.

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:

Overalls.

Chemical-resistant gloves, such as Barrier Laminate or Neoprene Rubber or Nitrile Rubber or Viton.

Shoes plus socks.

Protective eyewear.

## GENERAL DIRECTIONS

ASANA XL Insecticide 0.66 Emulsible Concentrate contains 0.66 pounds of active ingredient per gallon. For the applications given below, mix the required amount of ASANA XL in sufficient diluent to provide uniform coverage (Refer to Use Tables). ASANA XL may be applied by ground or aerial application equipment.

**Resistance:** If treatment with ASANA XL Insecticide is not effective after recommended use, a resistant (tolerant) population of insects may be present. P or insect control may result. Promptly consult your local State Agricultural Extension Service for advice on the use of alternative insecticides.

### Tank Mixing

Do not tank mix ASANA XL with fungicides containing fentin hydroxide (triphenytin hydroxide) such as "Super Tin"(6) as crop injury may result.

ASANA XL may be tank mixed with the herbicide products listed below when insect populations require control concurrent with the need for weed control. Follow all herbicide and ASANA XL label directions regarding proper usage. A "jar test" for physical compatibility should be conducted before field mixtures are made and applications initiated. For best results, use of spray equipment having continuous agitation is recommended.

ASANA XL may be used in combination with 2,4-D herbicides providing that the following mixing directions are followed: 1) Do not apply the combination in a volume of water less than 2 gallons per acre total spray. 2) Always mix the ASANA XL thoroughly in the total volume of spray water first, followed by the addition of the 2,4-D herbicide. Because of the availability of a great variety of

2,4-D herbicide products, a jar test for physical compatibility should be conducted before field mixtures of a particular combination are made.

Atrazine 4L	Classic®	Lorox Plus®
Atrazine 80WP	Conquest® 90DF	Preview®
Banvel® 4EC	Dual® 8E	Roundup®
Bicep® 4.5L	Extrazine® 90DF	Velpar®
Bladex® 4 L	Gramoxone Super®	Velpar® L
Bladex® 80WP	Lasso® 4EC	

**Chemigation.** Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) row, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. ASANA XL may be premixed in a supply tank with water, oil, fertilizer, or other appropriate tank mixed agricultural chemicals. A pretest of physical compatibility for untried tank mixes is advised. Agitation may be necessary. Application should be in sufficient water and of sufficient duration to apply the recommended rate evenly to the entire treated area. No run-off can be permitted during chemigation. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. Do not apply when wind speed favors drift beyond the area intended for treatment.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Do not connect an irrigation system (including greenhouse systems) used for ASANA XL application to a public water system.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut-off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

**Crop Rotation:** Do not plant root crops other than those in this label within 12 months after last application. Root crops in this label and all other rotation crops may be planted immediately following last application.

[1] Registered trademark of E. I. Du Pont de Nemours & Co. Inc.

[2] Registered trademark of Ciba-Geigy Corp.

[3] Registered trademark of Sandoz Crop Protection Corp.

[4] Registered trademark of Monsanto Agricultural Co.

[5] Registered trademark of ICI Americas Inc.

[6] Registered trademark of Griffin Ag Products Co.

[7] Registered trademark of FMC Corp.

[8] Registered trademark of Mobay Corp.

[9] Registered trademark of Hoechst - Roussel Agri-Vet Co.

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**COTTON**

Crop	Insect	Dosage		Number of acres treated with one gallon of ASANA XL	Further Use Instructions	Days to Harvest
		Lb ai/ acre	Fl oz/ acre			
COTTON	Cotton Bollworm Tobacco Budworm Boll Weevil Beet Armyworm* Cabbage Looper Saltmarsh Caterpillar Cotton Leafworm Cutworms Lygus Bugs Plant Bugs Thrips (on seedling cotton) Leafhoppers Grasshoppers Whitefly**	0.03 - 0.05	5.8 - 9.6	22 - 13	May be applied in water or nonvolatile vegetable oils. When using oil, apply a total spray volume of 1 or more quarts/acre. When diluted with water, apply no less than one gallon per acre by air (min. of 3 gal/a in Arizona and 5 gallons per acre in California) or 4 gallons per acre by ground. Repeat as necessary throughout season to maintain control. For the control of Boll Weevil, a 3-5 day interval between sprays may be required. Apply no more than 0.5 lbs ai/a to a crop in a growing season. Do not graze livestock on treated fields or feed treated trash.  *Aids in control. **Aids in the suppression.	21
	NOTE: For light infestations of the above insects	0.02	3.9	33		
	Pink Bollworm	0.015 - 0.03	2.9 - 5.8	44 - 22		
	Cotton Leaf Perforator	0.03	5.8	22		

**SPRAY RECOMMENDATIONS AND PRECAUTIONS FOR COTTON**

- Do not make more than a total of 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season. Synthetic pyrethroid products include AMBUSH insecticide, AMMO insecticide, ASANA XL insecticide, BAYTHROID emulsifiable pyrethroid insecticide, CAPTURE insecticide/miticide, DANITOL 2.4 EC Spray insecticide/miticide, FURY insecticide, KARATE insecticide, MUSTANG insecticide, POUNCE insecticide and SCOUT XTRA insecticide.
- All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

**Resistance** Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. 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 method of control for your area.

**OBSERVE THE FOLLOWING PRECAUTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES; RESERVOIRS; RIVERS; PERMANENT STREAMS, MARSHES, OR NATURAL PONDS; ESTUARIES AND COMMERCIAL FISH FARM PONDS**

- Do not apply by ground within 25 feet, or by air within 150 feet of lakes, reservoirs, rivers, permanent streams, marshes, or natural ponds; estuaries and commercial fish farm ponds. Increase the buffer zone to 450 feet when ultralow volume (ULV) application is made.
- For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The minimum practical boom length should be used, and must not exceed 75% of wing span or rotor diameter.
- Use the largest droplet size consistent with good pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orientating nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.
- Spray should be released at the lowest height consistent with pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.
- Make aerial or ground applications when the wind velocity favors on-target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph.
- Risk of exposure to aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.
- Do not cultivate within 10 feet of the aquatic area so as to allow growth of a vegetative filter strip.
- Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature.
- Do not make aerial or ground applications during temperature inversions. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

**COTTON -- TANK MIX APPLICATIONS**

READ AND FOLLOW ALL PRECAUTIONS AND RESTRICTIONS ON THE PRODUCT LABELING.

Tank Mix Combination	Insect	Dosage	Further Use Instructions	Days to Harvest
LANNATE/LNUDRIN 1 B Methomyl Insecticide(1) Solution	Cotton Bollworm and Tobacco Budworm eggs	ASANA XL (from cotton table) with 1/2 pt/acre LANNATE L/NUDRIN 1 B		21
LANNATE/NUDRIN 90 Methomyl Insecticide(1) Water Soluble Powder with adjuvant	Cotton Bollworm and Tobacco Budworm eggs	ASANA XL (from cotton table) with 1/8 lb/acre LANNATE/NUDRIN 90	Add adjuvant (X-77, Bio-88, Unite, Triton B-1956 or equivalent <sup>1</sup> ) to spray tank, then ASANA XL, then LANNATE/NUDRIN 90, agitate until thoroughly mixed.  <sup>1</sup> Compatibility of alternate should be determined before use.	

6/15

**FIELD CROPS**

Crop	Insect	Dosage		Number of acres treated with one gallon of ASANA XL	Further Use Instructions	Days to Harvest
		Lb ai/ acre	Fl oz/ acre			
CORN  FIELD CORN	Cutworms Grasshoppers	0.03 - 0.05	5.8 - 9.6	22-13	Apply as necessary to maintain control. Applications for cutworm control may be applied before, during, or after planting as required to protect emerging or emerged corn seedlings. Physical compatibility with herbicides and/or fertilizers should be determined prior to tank mixing ASANA XL with these products. Follow all herbicide/fertilizer recommendations and directions regarding proper usage.	21
	Western Bean Cutworm	0.015 - 0.03	2.9 - 5.8	44-22	Apply as necessary to maintain control. Application must be made before larvae enter the ear.	
	Corn Earworm	0.03 - 0.05	5.8 - 9.6	22-13	First application should be at or before silking. Subsequent applications should be made at 3-5 day intervals until silking is completed. Repeat applications may be applied if economically damaging populations exist.	
	Stalk Borer Flea Beetles	0.03 - 0.05	5.8 - 9.6	22-13	Application must be made early in migration from grassy areas to corn, before borers enter the plant. More than one application may be necessary.	
	Corn Rootworm (adult control)	0.03 - 0.05	5.8 - 9.6	22-13	Spray at first sign of silk feeding. Reinfestation may occur. Should reinfestation occur, repeat as necessary to maintain control.	
	Chinch Bugs	0.03 - 0.05	5.8 - 9.6	22-13	Over the top sprays, as used for control of ear and stalk infesting corn pests, are not adequate for chinch bug control. It is very important that the spray be directed at the base of the plant through the use of drop nozzles or some other mechanism. Repeat as necessary to control migrating chinch bugs.	
	European Corn Borer	0.04 - 0.05	7.8 - 9.6	16-13	First brood: spray while eggs are in the blackhead stage or before the larvae enter the whorl. Application by ground equipment is suggested. Good coverage of both upper and lower leaf surfaces is essential. This can be accomplished with drop nozzles over the row and on each side of the corn plant. Multiple applications may be required when egg laying is prolonged or where moderate to heavy populations are present. A higher rate is recommended for moderate to heavy populations. Proper coverage by ground equipment usually requires 20-30 gallons of carrier. Once larvae enter the whorl, foliar sprays will not provide adequate control.  Second brood: make applications when sufficient egg masses are found. Spray when eggs are in the blackhead stage or starting to hatch. When egg laying is prolonged or a third generation is present, additional sprays may be required. A higher rate is recommended for moderate to heavy populations. Good coverage above, below, and in the ear zone is essential. This usually requires 2-3 gallons of carrier by air. If ground equipment is used, drop nozzles on each side of the plant will provide best coverage.	
	Southwestern Corn Borer	0.03 - 0.05	5.8 - 9.6	22-13	Apply as necessary to maintain control. Two or more applications may be required. Higher rates (0.035-0.05 lb a.i.) are recommended for moderate to heavy populations.	
	Armyworm (True Armyworm)	0.03 - 0.05	5.8 - 9.6	22-13	Apply as necessary to maintain control.	

Crop	Insect	Dosage		Number of acres treated with one gallon of ASANA XL	Further Use Instructions	Days to Harvest
		Lb ai/ acre	Fl oz/ acre			
CORN FIELD CORN (cont'd)	Adult Corn Rootworm European Corn Borer	ASANA XL and Parathions from respective corn labels.			ASANA XL insecticide may be tank-mixed with Parathion (methyl and/or ethyl) and applied on field corn (and seed corn) where supplemental control of Adult Corn Rootworm and/or European Corn Borer is desired in conjunction with insects controlled by ASANA XL when used alone.  For supplemental control of second brood European Corn Borer, make applications when sufficient egg masses are found. Spray when eggs are in the blackhead stage or starting to hatch. When egg laying is prolonged or a third generation is present, additional sprays may be required. Higher rate is recommended for moderate to heavy populations. Good coverage above, below, and in the ear zone is essential. This usually requires 2-3 gallons of carrier by air. If ground equipment is used, drop nozzles on each side of the plant will provide best coverage.  For supplemental control of Adult Corn Rootworm, spray at first sign of silk feeding. Reinfestation may occur. Should reinfestation occur, repeat as necessary to maintain control.  Refer to the ASANA XL and Parathion (methyl or ethyl) labels for appropriate rates of the individual products for controlling the respective insects.	21
	Corn Leaf Aphid Oat Bird-Cherry Aphid	0.03 - 0.05	5.8 - 9.6	22-13	For optimum results, direct the spray at the aphid population so as to achieve maximum coverage of the exposed insects. Aphids not contacted by the spray, such as in whorls and leaf axils, may not be adequately controlled.	
	Do not exceed 0.25 lb a.i. per acre per season.					
SEED CORN	For specific insect control recommendations refer to Field Corn (above). Follow directions carefully.			Multiple applications and/or shortened intervals between sprays must be used to insure proper insect control. Do not exceed 0.25 lb a.i. per acre per season.		21
POP CORN	For specific insect control recommendations refer to Field Corn (above). Follow directions carefully.			Multiple applications and/or shortened intervals between sprays must be used to insure proper insect control. Do not exceed 0.5 lb a.i. per acre per season.		1
PEANUTS	Corn Earworm Red-necked Peanut Worm Potato Leafhopper Velvetbean Caterpillar	0.015 - 0.03	2.9 - 5.8	44-22	Repeat as necessary to maintain control. Do not feed or graze livestock on treated vines. Do not exceed 0.15 lb a.i. per acre per season.  **Aids in control. ***Aids in control. For heavy infestations use of LANNATE / NUDRIN Insecticide is recommended. Please refer to the LANNATE / NUDRIN label for use instructions.	21
	Beet Armyworm ** Granulate Cutworm Grasshoppers Cutworms	0.03 - 0.05	5.8 - 9.6	22-13		
	Lesser Cornstalk Borer** Fall Armyworm***	0.05	9.6	13		

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Crop	Insect	Dosage		Number of acres treated with one gallon of ASANA XL	Further Use Instructions	Days to Harvest
		Lb ai/ acre	Fl oz/ acre			
SOYBEAN	Mexican Bean Beetle Green Clovenworm Velvetbean Caterpillar Potato Leafhopper Saltmarsh Caterpillar Woollybear Caterpillar	0.015 - 0.03	2.9 - 5.8	44-22	Repeat as necessary to maintain control. Do not feed or graze livestock on treated plants. Do not exceed 0.2 lb a.i. per acre per season. When applying in nonvolatile vegetable oils use a total spray volume of 1 or more quarts.  *Aids in control.	21
	Cabbage Looper Corn Earworm Southern Green Stinkbug Bean Leaf Beetle Cutworms Three-cornered Alfalfa Hopper Beet Armyworm * Grasshoppers Japanese Beetle (adult)	0.03 - 0.05	5.8 - 9.6	22-13		
SUGARCANE	Sugarcane Borer	0.03-0.05	5.8-9.6	22-13	Repeat as necessary to maintain control. Do not exceed 0.2 lb ai/acre per season	21
SUNFLOWER	Sunflower Beetle	0.015-0.03	2.9-5.8	44-22	Repeat as necessary to maintain control. Do not exceed 0.2 lb. ai/acre per season  *Aids in control	28
	Grasshoppers Cutworms Heliothis (complex) Sunflower Moth Sunflower Seed Weevil Banded Sunflower Moth Beet Armyworm * Sunflower Maggot Leafhoppers Sunflower Stem Weevil	0.03 - 0.05	5.8 - 9.6	22-13		

Crop	Insect	Dosage			Number of acres treated with one gallon of ASANA XL	Further Use Instructions	Days to Harvest
		Concentrate Spray		Dilute Spray			
		Lb ai/ acre	Fl oz/ acre	Fl. oz/ 100 gals			
APPLES	Oblique Banded Leafroller Codling Moth Variegated Leafroller White Apple Leafhopper Tentiform Leaf Miner San Jose Scale (fruit infestations only) Apple Aphid Tufted Apple Budmoth Plum Curculio Oriental Fruit Moth Apple Maggot Red-Banded Leafroller Lesser Appleworm Green Fruitworm Rosy Apple Aphid Plant Bugs (Tarnished Plant Bug, Stink Bugs) Periodical Cicada	0.025 - 0.075	4.8 - 14.5	2.0 - 5.8	26-9	Repeat as necessary to maintain control. Do not feed or graze livestock on treated orchard floors. Do not exceed 0.525 lbs a.i. per acre per season. For dilute spray apply 200-600 gals per acre, but do not exceed 14.5 fl. oz. of ASANA XL per acre per treatment.  <u>Plant Bug - Rosy Apple Aphid Control</u> - Time of application is critical in achieving control. Use prebloom and post bloom spray timings recommended by State Extension Services.	21

Crop	Insect	Dosage			Number of acres treated with one gallon of ASANA XL	Further Use Instructions	Days to Harvest
		Concentrate Spray		Dilute Spray			
		Lb ai/ acre	Fl oz/ acre	Fl. oz/ 100 gals			
STONE FRUITS (including peaches, apricots, nectarines, plums, prune plums, cherries)	Peach Twig Borer Oriental Fruit Moth Peach Tree Borer Plum Curculio Lesser Peach Tree Borer Periodical Cicada Cherry-Fruit Fly Western Cherry Fruit Fly American Plum Borer Black Cherry Aphid Leafrollers Leafhoppers Green Fruit worm  Plant Bugs (Tarnished Plant Bug, Sunk Bugs)	0.025-0.075	4.8-14.5	2.0-5.0	26-9	Repeat as necessary to maintain control. Do not exceed 0.375 lbs a.i. per acre per season with no more than 0.3 lbs. a.i. per acre per season between bloom and harvest. For dilute spray apply 200-400 gals per acre, but do not exceed 14.5 fl. oz of ASANA XL per acre per treatment. Do not graze livestock on treated orchard floors.  <u>Peach Tree Borer, American Plum Bore, Lesser Peach Tree Borer Control</u> - Apply as directed trunk and scaffold limb spray. Thorough coverage of trunk and scaffold limbs is required.  <u>Peach Twig Borer, Plum Curculio, Oriental Fruit Moth, Cherry Fruit Fly, Western Cherry Fruit Fly, Leafrollers, Black Cherry Aphid, Periodical Cicada Control</u> - Apply by ground sprayer to achieve thorough coverage of all aerial portions of the tree.  <u>Plant Bug Control</u> - Time of application is critical in achieving control. Use prebloom and post bloom spray timings recommended by State Extension Services.	14
PEAR (DORMANT)	Pear Psylla	0.05 - 0.1	9.6 - 19.2	7.3 - 12.8	13.2 - 6.6	Apply during dormant to prebloom (white bud) stage only. Do not apply more than 0.2 lb a.i. per acre per season. Do not graze orchard floor. For dilute spray apply 150-250 gals per acre, but do not exceed 19.2 fl. oz of Asana XL per acre per treatment.	
PEAR	Pear Psylla Codling Moth Green Fruitworm Plum Curculio Leafrollers Pear Slug Periodical Cicada	0.025 - 0.075	4.8 - 14.5	2.0 - 5.8	26 - 9	Repeat as necessary to maintain control. Do not exceed 0.375 lbs. a.i. per acre per season, nor more than 0.225 lb. a.i. per acre between bloom and harvest. Do not feed or graze livestock on treated orchard floors. For dilute spray apply 200-600 gals per acre, but do not exceed 14.5 fl ozs of ASANA XL per acre per treatment	28
ALMONDS	Naval Orangeworm Peach Twig Borer	0.05 - 0.1	9.6 - 19.2	7.3 - 12.8	13.2 - 6.6	Repeat as needed to maintain control but do not exceed 0.2 lb. a.i. per acre per season. Do not graze livestock on treated orchard floors.	21
FILBERTS	Filbert Worm Oblique Banded Leafroller	0.05 - 0.1	9.6 - 19.2	7.3 - 12.8	13.2 - 6.6	Make first application after emergence of filbert worm moths in early summer. Do not apply a second treatment earlier than three weeks after the first. Do not apply more than 0.2 lb a.i. per acre per season. For dilute spray, apply 200-400 gals. per acre, but do not exceed 19.2 fl. oz of ASANA XL per acre per treatment. Do not graze livestock in treated orchards	21
PECANS	Pecan Weevil Hickory Shuckworm Pecan Nut Casebearer Pecan Aphids Pecan Spittlebug	0.025 - 0.075	4.8 - 14.5	2.0 - 5.8	26-9	Repeat as necessary to maintain control. Do not feed or graze livestock on treated orchard floors. Do not exceed 0.3 lbs. a.i. per acre per season. For dilute spray apply 200-600 gals per acre, but do not exceed 14.5 fl. oz. of ASANA XL per acre per treatment	21

(continued on next page)

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ASANA XL 7

Crop	Insect	Dosage			Number of acres treated with one gallon of ASANA XL	Further Use Instructions	Days to Harvest
		Concentrate Spray		Dilute Spray			
		Lb ai/ acre	Fl oz/ acre	Fl. oz/ 100 gals			
PECANS (continued)	Pecan Stem Phylloxera Pecan Leaf Phylloxera	0.025 - 0.075	4.8 - 14.5	2.0 - 5.8	26-9	Repeat as necessary to maintain control. Do not feed or graze livestock on treated orchard floors. Do not exceed 0.3 lbs. a.i. per acre per season. For dilute spray apply 200-600 gals per acre, but do not exceed 14.5 fl. oz. of ASANA XL per acre per treatment. Correct timing of spray applications is critical in achieving optimum control of leaf and stem phylloxera. Consult local spray recommendations for correct times of application.	21
WALNUTS	Walnut Aphid Walnut Husk Fly Codling Moth Navel Orangeworm	0.05 - 0.1	9.6 - 19.2	4.0	13-6	Repeat as necessary to maintain control. Do not exceed 0.2 lb. a.i. per acre per season. For dilute sprays, apply 200-400 gals per acre. Do not feed or graze livestock on treated crop floors. NOTE: Use of baits in Walnut Husk Fly sprays is recommended where endorsed by local Agricultural Extension Service. CONCENTRATE SPRAY: Apply specified dosage per acre in no less than 30 gals. of water per acre by ground or 5 gals. of water per acre by air.	21

#### VEGETABLE CROPS

Crop	Insect	Dosage		Number of acres treated with one gallon of ASANA XL	Further Use Instructions	Days to Harvest
		Lb ai/ acre	Fl oz/ acre			
ARTICHOKES	Artichoke Plume Moth	0.03 - 0.05	5.8 - 9.6	22-13	Repeat as necessary to maintain control, but not more often than each 14 days. Apply no more than 0.075 lb. ai/acre between bud formation and harvest of an individual fruit. Apply in a minimum of 10 gallons per acre by air and 50-200 gallons per acre by ground (use sufficient water to obtain coverage without excessive runoff)	7
BROCCOLI, CABBAGE, CAULIFLOWER, CHINESE CABBAGE (light headed varieties only)	Imported Cabbageworm	0.015 - 0.03	2.9 - 5.8	44-22	Repeat as necessary to maintain control. Do not exceed 0.4 lbs. a.i. per acre per season.  *Aids in control.	3
	Cabbage Looper Beet Armyworm * Ailaha Looper Flea Beetle Grasshopper Cutworm	0.03 - 0.05	5.8 - 9.6	22-13		
CARROTS	Aster Leafhopper, Cutworms Leafhoppers	0.03 - 0.05	5.8 - 9.6	22 - 13	Apply as needed for control, but do not exceed 0.5 lb ai/acre per season. For aerial application apply in a minimum of 5 gals water per acre.  * Begin treatment when weevils become active. Thorough spray coverage of crown area is essential. Use of ground application is recommended.	7
	Carrot Weevil*	0.05	9.6	13		
COLLARDS	Imported Cabbageworm Cabbage Looper Beet Armyworm * Ailaha Looper Flea Beetle Grasshopper Cutworm	0.03 - 0.05	5.8 - 9.6	22 - 13	Repeat as necessary to maintain control. Do not feed livestock on treated plant parts. Do not exceed 0.2 lbs. a.i. per acre per season. Use ground application equipment only.  *Aids in control	7

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Crop	Insect	Dosage		Number of acres treated with one gallon of ASANA XL	Further Use Instructions	Days to Harvest
		Lb ai/ acre	Fl oz/ acre			
CUCUMBER, MELONS (Cantaloupe, Honeydew Melons, Watermelon, Muskmelon), PUMPKIN, SQUASH (Summer, Winter)	Piddeworm Rindworms Leafhoppers Corn Earworm Cabbage Looper Squash Bug Cutworms (seeding spray) Cucumber Beetle (adults) Grasshoppers Plant Bugs (Lygus Bugs, Stink Bugs) Squash Vine Borer	0.03 - 0.05	5.8 - 9.6	22-13	Repeat as necessary to maintain control. Do not exceed 0.25 lbs. a.i. per acre per season.	3
BEANS, SNAP	Mexican Bean Beetle Saltmarsh Caterpillar	0.015 - 0.03	2.9 - 5.8	44 - 22	Repeat as needed to maintain control but do not exceed 0.2 lb ai per acre per season. Do not allow livestock to graze treated bean fields. Do not harvest treated bean vines for livestock forage, fodder, or hay  *Aids in control.	3
	Potato leafhopper European cornborer Corn Earworm Cucumber Beetle (adults) Flea Beetle Green Cloverworm Cutworm (seeding spray) Grasshopper Pea Aphid Leafhopper Cabbage Looper Western Bean Cutworm Velvet Bean Caterpillar Beet Armyworm* Cucumber Beetle Corn Rootworm (adults) Leafminer (Guam only)	0.03 - 0.05	5.8 - 9.6	22 - 13		
DRY BEANS, DRY PEAS, LENTILS	Mexican Bean Beetle Saltmarsh Caterpillar	0.015 - 0.03	2.9 - 5.8	44-22	Repeat as necessary to maintain control. Do not exceed 0.2 lb a.i. per acre per season. Do not feed or graze livestock on treated vines.  *Aids in control.	21
	Corn Earworm Potato Leafhopper Pea Aphid Grasshoppers Leafhoppers Cowpea Curculio Cutworms Cabbage Looper Western Bean Cutworm Velvetbean Caterpillar Beet Armyworm* Cucumber Beetle Corn Rootworm (Adults) Painted Lady Butterfly (larvae) Green Cloverworm	0.03 - 0.05	5.8 - 9.6	22-13		
EGGPLANT	Colorado Potato Beetle Flea Beetles Corn Earworm Loopers European Corn Borer	0.03 - 0.05	5.8 - 9.6	22-13	Begin application when insects or their damage is observed and repeat at 7 to 10 day intervals to achieve control. Do not exceed 0.35 lbs a.i. per acre per season.	7
GREEN PEAS	Pea Aphid Green Cloverworm	0.015 - 0.03	2.9 - 5.8	44-22	Repeat as necessary to maintain control but do not exceed 0.1 lb ai/acre per season. Do not feed treated pea vines to livestock.	3
	Cabbage Looper Celery Looper Alfalfa Looper Cutworms Armyworm Corn Earworm Imported Cabbageworm Alfalfa Caterpillar	0.03 - 0.05	5.8 - 9.6	22-13		

15/15

Crop	Insect	Dosage		Number of acres treated with one gallon of ASANA XL	Further Use Instructions	Days to Harvest
		Lb a.i./acre	Fl oz/acre			
PEPPERS	European Corn Borer Beet Armyworm * Flea Beetles Corn Earworm Loopers Colorado Potato Beetle Pepper Weevil* Cucumber Beetle (adults) Southern Armyworm	0.03 - 0.05	5.8 - 9.6	22-13	Begin application when insects or their damage is observed and repeat at 7 to 10 day intervals to achieve control. Do not exceed 0.35 lbs. a.i. per acre per season.  * Aids in control.	7
POTATO	Potato Psyllid Potato Tuberworm	0.015 - 0.03	2.9 - 5.8	44-22	Repeat as necessary to maintain control. Do not exceed 0.35 lbs. a.i. per acre per season.  * Aids in control.	7
	Flea beetles Tarnished Plant Bug Cabbage Looper Potato Aphid Potato Leafhopper Cucumber Beetle (adult control) Grasshoppers European Corn Borer Beet Armyworm* Western Yellow-striped Armyworm Buckhorn Aphid Cutworms	0.03 - 0.05	5.8 - 9.6	22-13		
	Colorado Potato Beetle	0.03 - 0.05	5.8 - 9.6	22-13		
	Colorado Potato Beetle - Long Island, NY	0.05	9.6	13		
RADISHES	Armyworms Beetles	0.03 - 0.05	5.8 - 9.6	22 - 13	Repeat as necessary to maintain control. Do not apply more than 0.1 lb. a.i./acre per season.	7
SWEET CORN	Corn Earworm Southwestern Corn Borer European Corn Borer Beet Armyworm * Flea Beetles Sap Beetles (adults) Banded Cucumber Beetle Tarnished Plant Bug	0.03 - 0.05	5.8 - 9.6	22-13	Do not exceed 0.5 lb a.i. per acre per season. Begin applications either before or at time of silking and continue as necessary to maintain control. For protection against corn borers other than at silking time, treat when necessary to maintain control. For additional information consult directions for use under field corn.  * Aids in control.	1
	Stalk Borer Cutworms Corn Rootworms (adults) Grasshoppers Chinch Bugs Armyworm	0.03 - 0.05	5.8 - 9.6	22-13	For additional information consult directions for use under field corn.	
	Western Bean Cutworm	0.015 - 0.03	2.9 - 5.8	44-22		
	Corn Leaf Aphid Oat Bird-Cherry Aphid	0.03 - 0.05	5.8 - 9.6	22-13	For optimum results, direct the spray at the aphid population so as to achieve maximum coverage of the exposed insects. Aphids not contacted by the spray, such as in whorls and leaf axils, may not be adequately controlled.	

Crop	Insect	Dosage		Number of acres treated with one gallon of ASANA XL	Further Use Instructions	Days to Harvest
		Lb ai/ acre	Fl oz/ acre			
TOMATO	Tomato Hornworm Tobacco Hornworm	0.015 - 0.03	2.9 - 5.8	44-22	Repeat as necessary to maintain control. Do not exceed 0.5 lbs. a.i. per acre per season.  * Aids in control. **Not recommended in Florida	1
	Tomato Pinworm Flea Beetle Tomato Fruitworm Colorado Potato Beetle Cutworms Cabbage Looper Southern Armyworm Beet Armyworm* Western Yellow-Striped Armyworm Grasshopper Whitefly Potato Aphid	0.03 - 0.05	5.8 - 9.6	22-13		
	Vegetable Leafminer**	0.05	9.6	13		

your orchard you must know the number of gallons of water needed to

### SPECIALTY USES

Crop	Insect	Dosage		Number of acres treated with one gallon of ASANA XL	Further Use Instructions
		Lb ai/ acre	Fl oz/ acre		
NON-CROP LAND (excluding public land such as forests, parks, or recreational)	Grasshoppers Saltmarsh Caterpillar	0.015 - 0.03	2.9 - 5.8	44-22	Spray non-crop land adjacent to field areas to control migrating insects (Grasshoppers, Armyworms) which are a threat to crops. Repeat as necessary to maintain control but do not exceed 0.5 lbs. active ingredient per acre per year. Do not feed treated crop to livestock. Do not spray ditch banks or areas adjacent to water.
	Armyworms Army Cutworms Chinch Bugs	0.03 - 0.05	5.8 - 9.6	22-13	

### FRUITS AND NUTS

**DILUTE SPRAY:** Apply specified dosage per 100 gallons of water in a uniform spray applied to the point of drip with conventional ground equipment. Do not exceed maximum number of gallons per acre indicated.

**NOTE:** In order to apply the correct amount of ASANA XL insecticide to

spray one acre of your trees to the point of drip. If you do not already know this gallonage, you should conduct a test to determine it. If you do not know how to conduct such a test with your equipment, you should ask assistance from your equipment dealer or State Extension specialist.

**CONCENTRATE SPRAY:** Apply specified dosage per acre in no less than 30 gals. of water per acre by ground. When applying ASANA XL by air, consult your Cooperative Extension Service for application guidelines.

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1993

**SPECIALTY USES (continued)**

Crop	Insect	Dosage			Further Use Instructions
		High Volume Sprays		Low Volume Sprays	
		Lb ai/ 100 gals.	Fl oz/ 100 gals.	(Mistblower) Lb. ai/acre	
CHRISTMAS TREE PLANTINGS, CONIFER SEED ORCHARDS, FOREST TREE NURSERIES	Nantucket Pine Tip Moth Spittlebugs Pineleaf Chermid Redheaded Pine Sawfly Balsam Woolly Adelgid Pine Chaler Red Pine Sawfly Pine Conelet Bug European Pine Sawfly Cranberry Girdler (adult control) Pine Needle Midge Balsam Twig Aphid Spruce budworm	0.03 - 0.05	5.8 - 9.6	0.03 - 0.05	Apply as needed to maintain control. Spray sufficient gallonage to obtain good coverage of entire tree.
	Pales Weevil Northern Pine Weevil	0.03 - 0.05	5.8 - 9.6		Apply as needed to maintain control. Dilute formulation in kerosene, instead of water, and spray tree stumps to control developing larvae. Use sufficient spray volume to thoroughly cover stump.
	Coneworms Seedbugs Seed Chalcid	9.6 fl oz/100 gals water for high volume sprayers. 52 fl oz/100 gals water for low volume sprayers. 0.19 lb. ai/acre application in not less than 10 gals of water for aerial applications.			Apply first application within 1 week of female flower closure or peak pollen flight for Webbing Coneworm control. For other Coneworms and Seedbugs, apply first application within 30 days following female flower closure. Repeat application at intervals of 4 weeks but do not exceed 1.6 lbs. ai per acre per year.  For Seed Chalcid control, apply when all cones are pendant, and repeat at 1-2 week intervals for 2 or more sprays, or as needed.  Apply approximately 5-10 gals of the 9.6 fl oz/100 gal dilution per tree with high volume sprayers. With low volume sprayers apply 100 gals of the 52 fl oz/100 gal dilution per acre.  Do not graze or harvest cover crop. Avoid contact with open water.

**STORAGE AND DISPOSAL**

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

**STORAGE:** Store in a secure, dry and temperate area. Store in original container. Keep container closed when not in use. Do not store near food or feed. Do not use or store around the home. Avoid contact with water. In case of spill or leak, soak up with sand, earth or synthetic absorbent (do not use alkaline absorbents) and dispose of wastes in compliance with local, State and Federal regulations.

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

**CONTAINER DISPOSAL:** Triple rinse (or equivalent), then offer for recycling or reconditioning if container reuse is permitted. If container reuse is prohibited, puncture metal containers and dispose of in a sanitary landfill, or by other approved State and local procedures. Dispose of plastic containers in a sanitary landfill, or by incineration if allowed by State and local authorities. If burned, stay out of smoke.

In case of a significant spill, call CHEMTREC (800) 424-9300.

**NOTICE OF WARRANTY**

DU PONT MAKES NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PURPOSE, OR OTHERWISE, EXPRESS OR IMPLIED, concerning this product or its uses which extend beyond the use of the product under normal conditions in accord with the statements made on this label.

Sumitomo Chemical Company, Ltd., holds U.S. Patents for the active ingredient. Sales by E. I. Du Pont de Nemours & Co. (Inc.) of products containing the active ingredient are made under agreements with Sumitomo Chemical Company, Ltd.

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15715

DuPont Agricultural  
Products

*..... A Growing Partnership With Nature*

ASANA® XL INSECTICIDE  
SUPPLEMENTAL SPRAY  
RECOMMENDATIONS AND  
PRECAUTIONS FOR COTTON

**RESTRICTED USE PESTICIDE**

Due to toxicity to fish and aquatic organisms

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.

**ASANA® XL INSECTICIDE**

EPA REG. NO. 352-515

**DIRECTIONS FOR USE**

**SUPPLEMENTAL SPRAY RECOMMENDATIONS AND PRECAUTIONS FOR COTTON**

• Do not make more than a total of 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season. Synthetic pyrethroid products include AMBUSH insecticide, AMMO insecticide, ASANA XL insecticide, BAYTHROID emulsifiable pyrethroid insecticide, CAPTURE insecticide/miticide, DANITOL 2.4 EC Spray insecticide/miticide, FURY insecticide, KARATE insecticide, MUSTANG insecticide, POUNCE insecticide and SCOUT XTRA insecticide.

• All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

**Resistance.** Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. 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 method of control for your area.

**OBSERVE THE FOLLOWING PRECAUTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES; RESERVOIRS; RIVERS; PERMANENT STREAMS, MARSHES, OR NATURAL PONDS; ESTUARIES AND COMMERCIAL FISH FARM PONDS.**

- Do not apply by ground within 25 feet, or by air within 150 feet of lakes; reservoirs; rivers; permanent streams, marshes, or natural ponds; estuaries and commercial fish farm ponds. Increase the buffer zone to 450 feet when ultralow volume (ULV) application is made.
- For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The minimum practical boom length should be used, and must not exceed 75% of wing span or rotor diameter.
- Use the largest droplet size consistent with good pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orientating nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.
- Spray should be released at the lowest height consistent with pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.
- Make aerial or ground applications when the wind velocity favors on-target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph.
- Risk of exposure to aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.
- Do not cultivate within 10 feet of the aquatic area, so as to allow growth of a vegetative filter strip.
- Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature.
- Do not make aerial or ground applications during temperature inversions. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.