FORM: 2002-B

NAME: Asana XI Insecticide

KIND: Composite Booklet SPEC:

UCC: (01) 0 06 53204 17890 9 **DATE: 8.16.17** 

LABEL SIZE: 5"(w) x 5.0625"(h) - book closed

10"(w) x 5.0625"(h) - book open

5.75"(w) x 5.3125"(h) - base

Front

# PRODUCT SIZE: 1 Gallon

PMS 348 (green) PMS 368 (It green)

**BLACK** 

# 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.

By Weight

Active Ingredient Esfenvalerate

1 GALLON

**NET CONTENTS** 

(S)-cyano (3-phenoxyphenyl) methyl

(S)-4-chloro-alpha-(1-methylethyl)

benzeneacetate 8.4% Inert Ingredients\* 91.6% 

\*CONTAINS XYLENE RANGE AROMATIC SOLVENT

This product contains 0.66 lb Active Ingredient per gallon.

0.66 Emulsible Concentrate

EPA Reg. No. 59639-209 FPA Fst. No. 5905-GA-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.)

**GROUP** INSECTICIDE



Doc id:

ACCEPTED VIA NOTIFICATION LABEL NOT REVIEWED

April 6, 2018

556372

New York State Department of Environmental Conservation Division of Materials Management Pesticide Product Registration

> Classified for "RESTRICTED USE" in New York State under 6NYCRR Part 326



XL INSECTICIDE



Form 2002-B

#### FIRST AID

If swallowed: Call a poison control center or doctor

immediately for treatment advice.

Do not give any liquid to the person. Do not induce vomiting unless told to do so by a poison control center or a doctor.

Do not give anything by mouth to an unconscious person.

If inhaled: Move person to fresh air.

If person is not breathing, call 911 or an ambulance, then give artificial respiration.

preferably mouth-to-mouth if possible. Call a poison control center or doctor for

further treatment advice.

Hold eve open and rinse slowly and gen-If in eves:

tly with water for 15-20 minutes.

Remove contact lenses, if present, after the first 5 minutes then continue rinsina eves.

Call a poison control center for treat-

ment advice

If on skin Take off contaminated clothing. or clothing:

Rinse skin immediately with plenty of water for 15-20 minutes

Call a poison control center or doctor for treatment advice.

### NOTE TO PHYSICIAN

If on skin, 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.

Contains xvlene range aromatic solvent - vomiting may cause aspiration pneumonia.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 800-892-0099 for emergency medical treatment information.

## 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. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

For medical emergencies involving this product, call toll free 800-892-0099

## PERSONAL PROTECTIVE FOUIPMENT

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 evewear.

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.

## **USER SAFETY RECOMMENDATIONS**

USERS SHOULD: Wash thoroughly with soap and water after handling and 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.

#### 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

### **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 cleaning equipment or 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 2 visiting the treatment area.

## WILDLIFE PROTECTION IS EVERYONE'S RESPONSIBILITY

## 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:

Coveralls.

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

Shoes plus socks Protective eyewear.

Asana® XL Insecticide should be used only in accordance with recommendations in this label or in separate recommendations available through local dealers. Valent U.S.A. LLC will not be responsible for losses or damages resultis not specifically recommended by Valent U.S.A. LLC on mended use

#### GENERAL INFORMATION

Asana XL Insecticide 0.66 emulsible concentrate contains 0.66 pound 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. For aerial application use the following directions unless otherwise specified in this label; use a minimum of 2 gallons per acre (gpa) of water, except in tree and orchard crops use a minimum of 10 gpa.

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.

## RESISTANCE

For resistance management, Asana XL is a group 3 insecticide. Repeated exclusive use of Asana XL, or other group 3 insecticides may lead to the buildup of resistant strains of insects in some crops.

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.

## INTEGRATED PEST MANAGEMENT

Valent U.S.A. LLC recommends the use of Integrated Pest Management (IPM) programs to control pests. This product may be used as part of an Integrated Pest Management (IPM) program which can include biological, cultural, and genetic practices aimed at preventing economic ing from (i) the reformulation of Asana XL into any other pest damage. Application of this product should be based product, and (ii) the use of Asana XL in any manner that on IPM principles and practices including field scouting or other detection methods, correct target pest identification. the label. User assumes all risk from such non-recompopulation monitoring, and treating when target pest pop-

ulations 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 or site systems in your area.

#### SPRAY PREPARATION

Spray equipment must be clean and free of previous pesticide deposits before applying Asana XL.

## TANK MIXING AND COMPATIBILITY

Unless directed otherwise in a specific crop section of this label, do not tank mix Asana XL with fungicides containing fentin hydroxide (triphenyltin hydroxide) such as "Super Tin" as crop injury may result.

This product can be mixed with pesticide products labeled for use on crops on this label in accordance with the most restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.

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. For best results, use of spray equipment having continuous agitation is recommended.

Asana XL may be tank mixed with herbicide products when insect populations require control concurrent with the need for weed control. Follow all herbicide and Asana XL label directions regarding proper usage.

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 test for physical compatibility should be conducted before field mixtures of a particular combination are made.

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 a FOLLOWING LAST APPLICATION.

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 runoff 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 chemication 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.

ALL ROTATION CROPS MAY BE PLANTED IMMEDIATELY

## **BUFFER ZONES**

## Vegetative Buffer Strip

Construct and maintain a minimum 10-foot-wide vegetative filter strip of grass or other permanent vegetation between the field edge and down gradient aquatic habitat (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds).

Only apply products containing esfenyalerate onto fields where a maintained vegetative buffer strip of at least 10 feet exists between the field and down gradient aquatic habitat.

For guidance, refer to the following publication for information on constructing and maintaining effective buffers:

Conservation Buffers to Reduce Pesticide Losses, Natural Resources Conservation Services, USDA, NRCS, Fort Worth, Texas 21pp. http://www.nrcs.usda.gov/Internet/ FSE DOCUMENTS/nrcs143 023819.pdf

## Buffer Zone for Ground Application (groundboom. overhead chemigation, or airblast)

Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, marshes, natural ponds, estuaries, and commercial fish ponds).

## **Buffer Zone for ULV Aerial Application**

Do not apply within 450 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, marshes, natural ponds, estuaries, and commercial fish ponds).

## **Buffer Zone for Non-ULV Aerial Application**

Do not apply within 150 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, marshes, natural ponds, estuaries, and commercial fish ponds).

### SPRAY DRIFT REQUIREMENTS

## Wind Direction and Speed

Only apply this product if the wind direction favors on target deposition.

Do not apply when the wind velocity exceeds 15 mph.

## Temperature Inversion

Do not make aerial or ground applications into 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.

## Droplet Size

Use only Medium or coarser spray nozzles (for ground and non-ULV aerial application) according to ASAE (S572) definition for standard nozzles. In conditions of low humidity and high temperatures, applicators should use a coarser dronlet size

## Additional Requirements for Ground Applications

Wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application.

For ground boom applications, apply using a nozzle height of no more than 4 feet above the ground or crop canopy.

For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

## Additional Requirements for Aerial Applications

The spray boom should be mounted on the aircraft as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of the wing span or 80% rotor diameter.

Flight speed and nozzle orientation must be considered in determining droplet size.

Spray must be released at lowest height consistent with pest control and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.

When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the applications area by adjusting the path of the aircraft upwind.

## SPRAY TANK CLEANOUT

Immediately following application of Asana XL, thoroughly clean all mixing and spray equipment. Flush the tank, pump, hoses, and boom with several changes of water after removing nozzle tips and screens (clean these parts separately). Take all necessary precautions when cleaning equipment. Do not clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

# SPECIFIC USES – FIELD CROPS

		Applicat	tion Rate	Acres	Last		
Crop	Insect	Ib ai/acre	fl oz/acre	treated per gal of <i>Asana</i> XL	Application (days to harvest)		
Corn	Western Bean Cutworm	0.015 - 0.03	2.9 - 5.8	44 - 22	21		
(field) <sup>†</sup>	Armyworm (True Armyworm) Black Cutworm (except CA) Chinch Bug Corn Earworm Corn Leaf Aphid Corn Rootworm (adult control) Cutworm Flea Beetle Grasshopper Japanese Beetle (adult) (except CA) Oat Bird-Cherry Aphid Southwestern Corn Borer Stalk Borer	Chinch Bug Corn Earworm Corn Leaf Aphid Corn Rootworm (adult control) Cutworm Flea Beetle Grasshopper Japanese Beetle (adult) (except CA) Oat Bird-Cherry Aphid Southwestern Corn Borer					
	European Corn Borer	0.04 - 0.05	7.8 - 9.6	16 - 13			
	Black Cutworm – Asana XL may be applied at 3.2 - 9.6 the control of black cutworm when applied at planting Chinch Bug – Over the top sprays, as used for control are not adequate for chinch bug control. It is very implied to be a soft of the plant through the use of drop nozzles of Corn Earworm – First application should be at or befine applied if economically damaging populations exist made at 3 - 5 day intervals until silking is completed. Corn Leaf Aphid, Oat Bird-Cherry Aphid – For optim aphid population so as to achieve maximum coverage contacted by the spray, such as in whorls and leaf axil Corn Rootworm (Adult) – Apply at the first sign of silk Asana XL may be tank-mixed with methyl parathion supplemental control of Adult Corn Rootworm is d controlled by Asana XL when used alone. Refer to the Asana XL and methyl parathion labels for products for controlling the respective insects. Cutworm — Applications for cutworm control may planting as required to protect emerging or emerged of	of corn (exc of ear and st portant that t or some othe ore silking. R c. Subsequen' num results, e of the expo es, may not be feeding. n and applie lesired in co or appropriate be applied t	ept CA). alk infesting he spray be r mechanism epeat application direct the s sed insects. e adequately d on field on junction we rates of the pefore, durings.	corn pests, directed at 1. cations may s should be pray at the Aphids not controlled. corn where vith insects e individual			

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## SPECIFIC USES - FIELD CROPS (continued)

	Applicat	tion Rate	Acres	Last
Crop Insect	lb ai/acre	fl oz/acre	treated per gal of <i>Asana</i> XL	Application (days to harvest)
European Corn Borer -   First brood: Spray while eggs are in the blackhead st whorl. Application by ground equipment is suggested.   lower leaf surfaces is essential. This can be accomprow and on each side of the corn plant. Multiple applilaying is prolonged or where moderate to heavy popul recommended for moderate to heavy populations. Pro usually requires 20 - 30 gallons of carrier. Once larvae e provide adequate control.    Second brood: Make applications when sufficient egg of are in the blackhead stage or starting to hatch. When generation is present, additional sprays may be required for moderate to heavy populations. Good coverage at essential. This usually requires 2 - 3 gallons of carrier drop nozzles on each side of the plant will provide best Asana XL may be tank-mixed with methyl parathion supplemental control of European Corn Borer is decontrolled by Asana XL when used alone.    Refer to the Asana XL and methyl parathion labels for products for controlling the respective insects.   Grasshopper - For control of first and second instar grange of 3.9 to 5.8 fluid ounces of product per acre (0.02 timing of spray applications to the first and second in coverage is critical to achieve optimum control. For grasecond instar, use Asana XL at use rates of 5.8 to 9.6 fluing a product of the second instar, use Asana XL at use rates of 5.8 to 9.6 fluing of spray applications to the first and second in coverage is critical to achieve optimum control. For grasecond instar, use Asana XL at use rates of 5.8 to 9.6 fluing of spray application in the first and second in coverage is critical to achieve optimum control. For grasecond instar, use Asana XL at use rates of 5.8 to 9.6 fluing of spray application in the first and second in coverage is critical to achieve optimum control. For grasecond instar, use Asana XL at use rates of 5.8 to 9.6 fluing of spray application in the product per acre of the plant.    Western Bean Cutworm - Apply before larvae enter the plant.	Good cove plished with cations may lations are perfect to when masses are for each of the coverage of the cove	rage of both drop nozzle v be required resent. A hile by ground oorl, foliar spriound. Spray is prolonge or rate is rect, and in the found equipmed on field on indiction we rate sof the nymphal stayes anymph stages of product per rates (0.	upper and so over the di when egg gher rate is equipment ays will not when eggs d or a third ommended ear zone is ent is used, corn where eith insects e individual ages a rate ed. Correct d thorough larger than r acre (0.03	21

(continued)

				Applicat	ion Rate	Acres	Last
Crop	Insect		lb	ai/acre	fl oz/acre	treated per gal of <i>Asana</i> XL	Application (days to harvest)
Corn (field) At Plant	Cutworm		1	0023 lb ai per 000 feet of row	0.45 fl oz per 1000 feet of row		21
	Apply as an in-furrow, T-band, or band treatment using a minimum 4" band. Use the table below to determine the pounds active ingredient and fluid ounces of <i>Asana</i> XL applied at 0.0023 lb ai per 1000 feet or row for various row spacings. In furrow Applications: Apply into the seed furrow through spray nozzles, behind the planter furrow openers and in front of the press wheel. Banded Applications: Apply at planting as a 4 - 7 inch T-band sprayed across the open seed furrow between the furrow openers and the press wheels or as a band application behind the press wheel. Apply a minimum spray volume of 3 gallons per acre. Do not exceed 0.05 lb ai per acre per season as an at-plant application. Do not apply more than 0.25 pound active ingredient per acre per season including at-plant plus foliar applications of <i>Asana</i> XL.						
	Row Spacing (inches) Linear ft/A Asana XL lb ai/A Asana XL fl oz/A	40" 13,068 0.03 5.8	38" 13,756 0.032 6.2	36 14,5 0.03 6.4	20 33	30" 17,424 0.04 7.8	
Corn (pop)	(pop) For specific insect control recommendations refer to Field Corn (above). Follow directions carefully.						1
	Multiple applications and/or shortened intervals between sprays must be used to insure proper insect control. Do not apply more than 0.5 lb ai per acre per season.						
Corn (seed)	For specific insect control recommendations refer to Field Corn (above). Follow directions carefully.					1	
	Multiple applications an proper insect control. Do					ed to insure	

(continued)

# SPECIFIC USES - FIELD CROPS (continued)

		Applica	tion Rate	Acres treated	Last Application		
Crop	Insect	lb ai/acre	fl oz/acre	per gal of Asana XL	(days to harvest)		
Cotton	Cotton Leaf Perforator	0.03	5.8	22	21		
Octor	Beet Armyworm* Black Cutworm (except CA) Boll Weevil Cabbage Looper Cotton Aphid* Cotton Bollworm Cutworms Fleahoppers Grasshoppers Green Stink Bug (except CA) Leafhoppers Lygus Bugs Pink Bollworm Plant Bugs Saltmarsh Caterpillar Southern Green Stink Bug (except CA) Thrips (on seedling cotton) Tobacco Budworm Whitefly*	0.03 - 0.05	5.8 - 9.6	22 - 13			
	NOTE: For light infestations of the above insects	0.02	3.9	33			
	*Aids in control.  May be applied in water or nonvolatile vegetable oils.  When applying Asana XL in an oil carrier, apply a total spray volume of at least 1 qt per acre. When applying Asana XL in a water carrier, apply at least 1 gal per acre by air (at least 3 gal per acre in Arizona and 5 gal per acre in California) or 4 gal per acre by ground. Do not apply more than 0.5 lb ai per acre per season.  Do not graze livestock on treated fields or feed treated trash.  Black Cutworm - Asana XL may be applied at 3.2 - 9.6 fl oz/acre (0.0165 - 0.05 lb ai/acre) for the control of black cutworm when applied at planting of cotton (except CA).  Boll Weevil - To control Boll Weevil infestations, a 3 to 5 day interval between applications may be necessary.  Heliothis spp Asana XL can provide contact ovicidal effect on Heliothis spp. eggs when applied according to label directions for control of tobacco budworm; application should be timed to correspond with peak egg deposition to achieve maximum ovicidal effect. Use on this pest stage (egg) is not registered in California.						

on this pest stage (egg) is not registered in California.

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.

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		Applicat	ion Rate	Acres	Last			
Сгор	Insect	lb ai/acre	fl oz/acre	treated per gal of <i>Asana</i> XL	Application (days to harvest)			
Peanuts	Corn Earworm Potato Leafhopper Red-necked Peanut Worm Velvetbean Caterpillar	0.015 - 0.03	2.9 - 5.8	44 - 22	21			
	Beet Armyworm* Cutworms Granulate Cutworm Grasshoppers	0.03 - 0.05	5.8 - 9.6	22 - 13				
	Fall Armyworm* Lesser Cornstalk Borer**	0.05	9.6	13				
	*Aids in control. For heavy infestations use of Lanr Please refer to the Lannate label for use instructions. **Aids in control. Do not feed or graze livestock on treated vines. Do not apply more than 0.15 lb ai per acre per season.		cide is rec	ommended.				
Sorghum	Sorghum Midge	0.015 - 0.03	2.9 - 5.8	44 - 22	21			
(Grain) (except CA)	Black Cutworm Chinch Bugs Corn Earworm (headworm) Cutworms	0.03 - 0.05	5.8 - 9.6	22 - 13				
	Do not apply more than 0.15 lb ai per acre per season. When applying in nonvolatile vegetable oils use a tota acre.  Black Cutworm – Asana XL may be applied at 3.2 - 9.6 the control of black cutworm when applied at planting Chinch Bug Control – For optimum results, spray shou	al spray volu fl oz/acre (0.0 of sorghum.	)165 - 0.05 lb	ai/acre) for				

(continued)

## SPECIFIC USES - FIELD CROPS (continued)

		Applicat	tion Rate	Acres	Last
Crop	Insect	Ib ai/acre	fl oz/acre	treated per gal of <i>Asana</i> XL	Application (days to harvest)
Soybean	Green Cloverworm Mexican Bean Beetle Potato Leafhopper Saltmarsh Caterpillar Velvetbean Caterpillar Woollybear Caterpillar	0.015 - 0.03	2.9 - 5.8	44 - 22	21
	Bean Leaf Beetle Beet Armyworm* Cabbage Looper Corn Earworm Cutworms Grasshoppers Green Stink Bug (except CA) Japanese Beetle (adult) Southern Green Stink Bug Soybean Aphid (except CA) Three-cornered Alfalfa Hopper	0.03 - 0.05	5.8 - 9.6	22 - 13	

range of 3.9 to 5.8 fluid ounces of product per acre (0.02 - 0.03 lb ai/A) can be used. Correct timing of spray applications to the first and second instar nymphal stages and thorough coverage is critical to achieve optimum control. For grasshopper nymph stages larger than second instar, use Asana XL at use rates of 5.8 to 9.6 fluid ounces of product per acre (0.03 - 0.05 lb ai/A).

**Soybean Aphid** – Asana XL provides control of soybean aphid, however under certain conditions such as rapid aphid population growth, or extremely high populations, a tank mixture may be considered. Asana XL can be tank mixed with other insecticides such as chlorpyrifos (e.g. "Lorsban") or methomyl (e.g. Lannate) to achieve rapid knockdown of soybean aphid. Because Lannate is a fast acting contact insecticide, best results follow direct spraying of the target insect. When preparing a tank mixture, read and follow the label instructions for all products in the mixture regarding restrictions, requirements and proper usage. Use sufficient water to obtain thorough, uniform coverage. For aerial application use a minimum of 2 gallons per acre, and for ground application use a minimum of 10 gallons per acre.

\*Aids in control.

When applying in nonvolatile vegetable oils, use a total spray volume of at least 1 gt. Do not feed or graze livestock on treated fields. Do not apply more than 0.2 lb ai per acre per season.

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				Applica	tion Rate	Acres	Last	
Crop	Insect		Ib ai/acre	fl oz/acre	treated per gal of <i>Asana</i> XL	Application (days to harvest)		
Sugar Beets	Beet Armyworm* Beet Webworm Cabbage Looper Cutworms Flea Beetle (except CA) Grasshoppers Leafhoppers Saltmarsh Caterpillar Sugar Beet Root Maggot (ad	ult) (except	CA)	0.03 - 0.05	5.8 - 9.6	22 - 13	21	
	Grasshopper – For control of first and second instar grasshopper nymphal stages a rate range of 3.9 to 5.8 fluid ounces of product per acre (0.02 - 0.03 lb ai/A) can be used. Correct timing of spray applications to the first and second instar nymphal stages and thorough coverage is critical to achieve optimum control. For grasshopper nymph stages larger than second instar, use Asana XL at use rates of 5.8 to 9.6 fluid ounces of product per acre (0.03 - 0.05 lb ai/A).  *Aids in control.  Do not apply more than 0.15 lb ai/acre per season.  Apply with ground or air equipment using sufficient water to provide uniform coverage (minimum of 2 gal of water per acre).							
Sugar Beets At Plant	Cutworm			0.0023 lb ai per 1000 feet of row	0.45 fl oz per 1000 feet of row		21	
	Apply as an in-furrow, T-band, or band treatment using a minimum 4" band. Use the table below to determine the pounds active ingredient and fluid ounces of <i>Asana</i> XL applied at 0.0023 lb ai per 1000 feet of row for various row spacings. In-Furrow Applications: Apply into the seed furrow through spray nozzles, behind the planter furrow openers and in front of the press wheel.  Banded Applications: Apply at planting as a 4 - 7 inch T-band sprayed across the open seed furrow between the furrow openers and the press wheels or as a band application behind the press wheel.  Apply a minimum spray volume of 3 gallons per acre.  Do not exceed 0.05 lb ai per acre per season as an at-plant application.  Do not apply more than 0.25 pound active ingredient per acre per season including at-plant plus foliar applications of <i>Asana</i> XL.							
	Row Spacing (inches) Linear ft/A <i>Asana</i> XL lb ai/A <i>Asana</i> XL fl oz/A	40" 13,068 0.03 5.8	38" 13,756 0.032 6.2	36" 14,520 0.033 6.4	30" 17,424 0.04 7.8	22" 23,760 0.05 9.6		
			12				(continued	

# SPECIFIC USES - FIFLD CROPS (continued)

		Applicat	ion Rate	Acres	Last
Crop	Insect	lb ai/acre	fl oz/acre	treated per gal of <i>Asana</i> XL	Application (days to harvest)
Sugarcane	Sugarcane Borer	0.03 - 0.05	5.8 - 9.6	22 - 13	21
	Do not apply more than 0.2 lb ai/acre per season.				
Sunflower	Sunflower Beetle (except CA)	0.0075 - 0.03	1.45 - 5.8	88 - 22	28
	Banded Sunflower Moth Beet Armyworm* Cutworms Grasshoppers Heliothis (complex) Leafhoppers Sunflower Maggot Sunflower Moth Sunflower Seed Weevil Sunflower Stem Weevil	0.03 - 0.05	5.8 - 9.6	22 - 13	
	Grasshopper – For control of first and second instar range of 3.9 to 5.8 fluid ounces of product per acre (0.0 timing of spray applications to the first and second in coverage is critical to achieve optimum control. For grasecond instar, use Asana XL at use rates of 5.8 to 9.6 fl - 0.05 lb ai/Al.  *Aids in control. Do not apply more than 0.2 lb ai/acre per season.	ž - 0.03 lb ai/. nstar nymph asshopper ny	A) can be us al stages an mph stages	ed. Correct d thorough larger than	

## SPECIFIC USES - FRUITS

DILUTE SPRAY: Apply specified dosage per 100 gallons of water in a uniform spray applied to the point of drip with

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 your orchard you must know the number of gallons of water needed 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 for assistance from your equipment dealer or State Extension specialist.

CONCENTRATE SPRAY: APPLY SPECIFIED DOSAGE PER ACRE IN NO LESS THAN 30 GALLONS OF WATER PER ACRE BY GROUND. FOR AERIAL APPLICATION IN TREE AND ORCHARD CROPS, USE A MINIMUM OF 10 GALLONS OF WATER PER ACRE. WHEN APPLYING ASANA XL BY AIR, CONSULT YOUR COOPERATIVE EXTENSION SERVICE FOR FURTHER ADDICATION CHIPTIANS.

APPLICATION GUIDELINES.

		Į.	Application R	ate	Acres		
		Concentr	ate Spray	Dilute Spray	treated per gal of <i>Asana</i> XL	Application (days to	
Crop	Insect	lb ai/acre	fl oz/acre	fl oz/100 gal		harvest)	
Apples	Apple Aphid Apple Maggot Codling Moth Green Fruitworm Lesser Appleworm Mullein Plant Bug (except CA) Oblique Banded Leafroller Oriental Fruit Moth Periodical Cicada Plant Bugs (Tarnished Plant Bug, Stink Bugs) Plum Curculio Red-Banded Leafroller Rosy Apple Aphid San Jose Scale (fruit infestations only) Tentiform Leaf Miner Tufted Apple Bud Moth Variegated Leafroller White Apple Leafhopper	0.025 - 0.075	4.8 - 14.5	2.0 - 5.8	26 - 9	21	
	Apple Ermine Moth (ID, OR & WA only)			3.0			
	Tufted Apple Bud Moth (overwintering) (MD, NC, NJ, PA, VA, WV only)	0.04 - 0.075	8.0 - 14.5		16 - 9		

(continued)

## SPECIFIC USES - FRUITS (continued)

		A	pplication R	ate	Acres	Last
		Concentra	ate Spray	Dilute Spray	treated per gal of	Application (days to
Crop	Insect	lb ai/acre	fl oz/acre	fl oz/100 gal	Asana XL	harvest)
Apples (continued)	Do not feed or graze livestock or Do not apply more than 0.525 lb a gals per acre, but do not apply mit of water in a spray-to-wet appli branches where Apple Ermine Moth — Apply wit of water in a spray-to-wet appli branches where Apple nursery st achieve a full coverage application Make first application in the fall October 15. Make a second appl Note: Overwintering larvae do not Plant Bug, Rosy Apple Aphid Cont Use prebloom and post bloom spr Tufted Apple Bud Moth (overnoverwintering larvae of the tufter the apple orchard floor. Make on or at petal fall stage of apple. Use the lower rate on small larv. Use the higher rate on larger lar high populations.  Apply specified dosage per acre to acre by ground to obtain uniform line to allow coverage of areas we Beneficial Insects: Application apple development may be toxi is a cooccinellid insect and the PA, VA and WV fruit growing ar the orchard groundcover as the from mid-April through mid-Ma Emergence from the groundcove complete by petal fall on the app	ii per acre pe eore than 14.5 h 2 to 4 gall cation to insi ook, do not trion which cook il after 90% of cication 7 to 1 to die until aptrol — Time of a yintering — d apple bud re application ae (pink stag vae (petal fato the orchard coverage. Apthere overwing of Asana XL or to overwing apple to the orchard coverage. This present the fato the notation of the petal fato the orchard coverage. Apthere overwing for the petal fato the orchard cover wind fato apple to the fato overwing the fato overw	r season. For rate of Asana Name of Asana XL. e of apple) at stage of apple of Asana XL. e of apple of	a XL per acre point spray oil in coverage of a d. plants since it ess than compile as occurred—is 30 days after a critical in achie by State Extensiapple for the acted ground at either pink st and/or on lower ple) and/or on ess than 30 gals tin a band from apple bud moth doover at the provise punctum, mites in the sa and moves into temperatures of	is difficult to gallons is difficult to lette control. usually after pplication. Eving control. ion Services. Experience control of pplication to age of apple populations moderate to of water per trunk to drip a are found. ink stage of apple trees apple trees exceed 68°F.	21

(continued)

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# SPECIFIC USES - FRUITS (continued)

		Į.	Application R	ate	Acres	Last
		Concentr	ate Spray	Dilute Spray	treated per gal of	Application (days to
Crop	Insect	lb ai/acre	fl oz/acre	fl oz/100 gal	Asana XL	harvest)
Blueberry (except CA)	Aphids (NJ only) Blueberry Spanworm Cherry Fruitworm* Cranberry Fruitworm Cranberry Weevil* Grasshoppers Japanese Beetle Leafhoppers Red Striped Fireworm*	0.025 - 0.05	4.8 - 9.6		26 - 13	14
	Blueberry Maggot Black Vine Weevil (adult control) Strawberry Root Weevil (adult control) (OR, WA only)	0.05	9.6		13	
	*Aids in control. Do not apply more than 0.2 lb ai/s per season). Use of ground appl minimum of 50 gals water per ac Do not apply this product throug Note: Asana XL can act as a be Apply as a pre-bloom or post-ble Black vine weevil & strawberr leaf notching beginning in late I Also check for adults on or jus Apply Asana XL within two to th air; apply by ground using a mi to provide full coverage of folia are from applications made afte actively feeding. Root weevils e applications when signs of new	ication is recipre.  In any type of e repellent, com spray on y root weeving May to early the low the ree weeks of nimum of 50 ge and soil a grader when a reary ever merge over	ommended; firrigation sy do not apply ly. ly. l (adult controlled as the soil surface of first sign of gallons of w rea around l temperatures a several we	or ground appl stem. within 7 days o rol) (OR, WA or first sign of we around the ba infestation. Do ater per acre. base of plants s are warm and	of pollination.  Inly): Look for evil feeding, se of plants, not apply by Direct spray Best results I weevils are	

(continued)

# SPECIFIC USES - FRUITS (continued)

		P	pplication R	ate	Acres	Last
		Concentr	ate Spray	Dilute Spray	treated per gal of	Application (days to
Crop	Insect	lb ai/acre	fl oz/acre	fl oz/100 gal	Asana XL	harvest)
Caneberries (blackberries, boysenberries,	Aphids Oblique Banded Leafroller Orange Tortrix	0.025 - 0.05	4.8 - 9.6		26 - 13	7
dewberries, loganberries, raspberries,	Adult Root Weevils* (OR & WA only)	0.05	9.6		13	
youngberries and varieties of these) (except CA)	*Aids in control. Do not apply by air. Do not apply more than 0.15 lb a Do not apply this product throug NOTE: Asana XL can act as a be Apply as a pre-bloom or post-blo maximum safety to bees, apply Adult Root Weevils (OR & WA to early June as the first sign below the soil surface around th weeks of infestation. Apply by acre. Direct spray to provide the around the base of the plant. Be- temperatures are warm and we a period of several weeks; make appear. Oblique Banded Leafroller, Oran in a minimum of 50 gallons of wa 12 days before harvest and no le	h any type of the repellent, in soom spray on Asana XL in the off weevil fer the base of plaground using ground using ground cover stresults are evils are action subsequent the rewith ground ter than 7 date than 7 date on the subsequent than 7 date of the subsequent that subsequent the	irrigation sy do not apply (I). Remove by the evening a for leaf notoleding. Also of a minimum age of all pla from applications of Aphids: Apply Applications of Aphids: Aphids: Applications of Aphids: Applications of Aphids: Applications of Aphid	within 7 days of the support of applier sunset, hing beginning sheck for adult sana XL within of 50 gallons of the support of	in late May is on or just two to three of water per the soil area er dark when emerge over new feeding verage spray earlier than	
Kiwifruit	Boxelder Bug (suppression only)	0.05	9.6	-	13	14
	Spray in sufficient water for thoro per season (total of 0.35 lb ai/acre,					

(continued)

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## SPECIFIC USES - FRUITS (continued)

		1	Application R	ate	Acres	Last
		Concentr	ate Spray	Dilute Spray	treated per gal of	Application (days to
Crop	Insect	lb ai/acre	fl oz/acre	fl oz/100 gal		harvest)
Pear	Codling Moth Green Fruitworm Leafrollers Pear Psylla Pear Slug Periodical Cicada Plum Curculio	0.025 - 0.075	4.8 - 14.5	2.0 - 5.8	26 - 9	28
	Do not apply more than 0.375 lb Do not apply more than 0.225 lb a graze livestock on treated orcha but do not apply more than 14.5	ni per acre be rd floors. For	tween bloom dilute spray a	pply 200 - 600 g	als per acre,	
Pear	Pear Psylla	0.05 - 0.1	9.6 - 19.2	7.3 - 12.8	13.2 - 6.6	1
(Dormant)	Apply during dormant to prebloom (white bud) stage only. Do not apply more than 0.2 lb ai per acre per season. Do not graze orchard floor. For dilute spray apply 150 - 250 gals per acre, but do not apply more than 19.2 fl oz of <i>Asana</i> XL per acre per treatment.					
Stone Fruits (including apricots, cherries, nectarines, peaches, plums, prune plums)	American Plum Borer Black Cherry Aphid Cherry Fruit Fly Green Fruitworm Leafhoppers Leafrollers Lesser Peach Tree Borer Oriental Fruit Moth Peach Tree Borer Peach Twig Borer Periodical Cicada Plant Bugs (Tarnished Plant Bug, Stink Bugs) Plum Curculio Western Cherry Fruit Fly	0.025 - 0.075	4.8 - 14.5	2.0 - 5.8	26 - 9	14
	Peach Twig Borer (Dormant) (CA only)	0.04 - 0.075	8.0 - 14.5	3.1 - 5.8	16 - 9	
	Tufted Apple Bud Moth (overwintering) (Peach only) (MD, NC, NJ, PA, VA and WV only)	0.04 - 0.075	8.0 - 14.5		16 - 9	

# SPECIFIC USES - FRUITS (continued)

		A	Last			
		Concentra	ate Spray	Dilute Spray	treated per gal of	Application (days to
Crop	Insect	lb ai/acre	fl oz/acre	fl oz/100 gal	Asana XL	harvest)
Stone Fruits (including apricots, cherries, nectarines, peaches, plums, prune plums) (continued)	Do not apply more than 0.375 lb a acre per season between bloom acre, but do not apply more than graze livestock on treated orcha Peach Tree Borer, American Pla as directed trunk and scaffold li limbs is required.  Peach Twig Borer (Dormant) — oil; for specific recommendation performance, ground application Peach Twig Borer, Plum Curcu Cherry Fruit Fly, Leafrollers, Bla by ground sprayer to achieve the Plant Bug Control — Time of appl and postbloom spray timings rec Tufted Apple Bud Moth (overvoverwintering larvae of the tuftet the peach orchard floor. Make on peach or at shucksplit stage of p Use the lower rate on small I populations. Use the higher rate or on moderate to high population of peach development may be to is a coccinellid insect and the PA, VA and WV fruit growing ar the orchard groundcover as the from mid-April through mid-Ma Emergence from the groundcover preferred timing to minimize prec	and harvest. 14.5 fl oz of / rd floors. um Borer, Le imb spray. The Make applies on use of o nequipment is on use of o nequipment is on use of o rough cover of lication is critommended k wintering) — d apple bud r ne application is a rough of larger l ons. Apply sprater per acretrunk to drip noth are foun that of one on larger l ons application is one application is one application is one application. The manual is one of larger l one application is one application is one application is one application. The manual is one application is one application is one application in the properties of the manual in the properties of the manual in the properties of the properties o	For dilute sp Asana XL per Asana XL per Asana XL per Seer Peach forough cover ation with a il consult ma se recommente fruit Moth, whild, Periodi age of all ae tical in achie by State Extern for use on noth with directified dosate by ground to line to allow do the ground intering Stet toor of spider dator overwell bud moth a immud daily immud aily immud complete by complete by	ray apply 200 - acre per treat  Tree Borer Con rage of trunk.  In EPA register inufacturer's la ded. Cherry Fruit I cal Cicada Cor rial portions of ving control. U nsion Services. peach for the ected ground a L at either popo f peach) and/ ssplit stage of ge per acre to o obtain unifor v coverage of a cover at the po horus punctum mites in the I niters in the sa nd moves into temperatures e	400 gals perment. Do not strol — Apply and scaffold red dormant bel. For best Fly, Western strol — Apply the tree. se prebloom e control of polication to corn stage of or on lower peach) and/the orchard m coverage. Areas where percons stage of the strong strong stage of the strong	14

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## SPECIFIC USES - TREE NUT CROPS

**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 your orchard you must know the number of gallons of water needed 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 sak for assistance from your equipment dealer or State Extension specialist

should ask for assistance from your equipment dealer or State Extension specialist.

CONCENTRATE SPRAY: APPLY SPECIFIED DOSAGE PER ACRE IN NO LESS THAN 30 GALLONS OF WATER PER ACRE BY GROUND. FOR AERIAL APPLICATION IN TREE AND ORCHARD CROPS, USE A MINIMUM OF 10 GALLONS OF WATER PER ACRE. WHEN APPLYING ASAWA XL BY AIR, CONSULT YOUR COOPERATIVE EXTENSION SERVICE FOR FURTHER APPLICATION GUIDELINES.

		A	pplication Ra	ite				
		Concentrate Spray		Dilute Spray	Acres treated per gal of	Last Application (days to		
Crop	Insect	lb ai/acre	fl oz/acre	fl oz/100 gal	Asana XL	harvest)		
Almonds	Navel Orangeworm Peach Twig Borer Peach Twig Borer (Dormant) (CA only)	0.05 - 0.1	9.6 - 19.2	7.3 - 12.8	13.2 - 6.6	21		
	Do not graze livestock on treated orcl Peach Twig Borer (Dormant) – Make	Do not apply more than 0.2 lb ai per acre per season. Do not graze livestock on treated orchard floors.  Peach Twig Borer (Dormant) — Make application with an EPA registered dormant oil; for specific recommendations on use of oil consult manufacturer's label. For best performance,						
Filberts	Filbertworm Oblique Banded Leafroller	0.05 - 0.1	9.6 - 19.2	7.3 - 12.8	13.2 - 6.6	21		
	Make first application after emergence of filbert worm moths in early summer. Do not a second treatment earlier than three weeks after the first. Do not apply more than a per acre per season. For dilute spray, apply 200 - 400 gals per acre, but do not a more than 19.2 fl oz of <i>Asana</i> XL per acre per treatment. Do not graze livestock on the dorshard floors.							

(continued)

## SPECIFIC USES - TREE NUT CROPS (continued)

		A	pplication Ra	ite		
		Concentrate Spray		Dilute Spray	Acres treated per gal of	Last Application (days to
Crop	Insect	lb ai/acre	fl oz/acre	fl oz/100 gal		harvest)
Pecans	Hickory Shuckworm Pecan Aphids Pecan Nut Casebearer Pecan Leaf Phylloxera Pecan Spittlebug Pecan Stem Phylloxera Pecan Weevil	0.025 - 0.075   4.8 - 14.5   2.1		2.0 - 5.8	26 - 9	21
	Do not feed or graze livestock on trea Do not apply more than 0.3 lb ai per ac acre, but do not apply more than 14.5 Asana XL may be tank-mixed with hydroxide) such as "Super Tin". Refe hydroxide) labels for appropriate rerespective pests.  Phylloxera — Correct timing of spray of leaf and stem phylloxera. Consult application.	re per season fl oz of Asana fungicides coer to the Asanates of the inapplications	For dilute spot XL per acresontaining fenda XL and fer additional professional for the control of the control o	per treatment tin hydroxide ntin hydroxide oducts for co achieving opti	triphenyltin (triphenyltin ntrolling the mum control	
Walnuts	Codling Moth Navel Orangeworm Walnut Aphid Walnut Husk Fly	0.05 - 0.1	9.6 - 19.2	4.0	13 - 6	21
	Do not apply more than 0.2 lb ai per a For dilute sprays, apply 200 - 400 gals crop floors. NOTE: Use of baits in Walnut Husk f Agricultural Extension Service.	s per acre. Do	not feed or	· ·		

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## SPECIFIC USES - VEGETABLE CROPS

		Applicat	tion Rate	Acres	Last
Crop	Insect	lb ai/acre	fl oz/acre	treated per gal of <i>Asana</i> XL	Application (days to harvest)
Artichoke	Artichoke Plume Moth	0.03 - 0.05	5.8 - 9.6	22 - 13	1
	Do not apply more often than each between bud formation and harvest o gallons per acre by air and 50 - 200 gal to obtain coverage without excessive	f an individual f llons per acre b	ruit. Apply in a	minimum of 10	
Beans, Dry (Including adzuki bean,	Leafhoppers (except CA) Mexican Bean Beetle Saltmarsh Caterpillar	0.015 - 0.03	2.9 - 5.8	44 - 22	21
blackeyed pea, broad bean (dry), chickpea, cowpea, crowder pea, field bean, kidney bean, lima bean (dry), mung bean, pinto bean, southern pea, tepary bean) Peas, Dry Lentils	Beet Armyworm* Cabbage Looper Corn Earworm Corn Rootworm (Adults) Cowpea Curculio Cucumber Beetle Cutworms Grasshoppers Green Cloverworm Leafhoppers Painted Lady Butterfly (larvae) Pea Aphid Potato Leafhopper Soybean Aphid (except CA) Velvetbean Caterpillar Western Bean Cutworm	0.03 - 0.05	5.8 - 9.6	22 - 13	
	Pea Leaf Weevil (ID, OR & WA only) Pea Weevil (ID, OR & WA only)	0.025 - 0.05	4.8 - 9.6	26 - 13	
	*Aids in control. Do not apply more than 0.2 lb ai per acon treated vines.  Pea Weevil & Pea Leaf Weevil (ID, in achieving control of pea weevil. Once ad or more adults per 25 sweeps, contro Grasshopper – For control of first and a rate range of 3.9 to 5.8 fluid ounc can be used. Correct timing of spraynymphal stages and thorough covera grasshopper nymph stages larger tha 5.8 to 9.6 fluid ounces of product per as	OR & WA) — To or optimum result pea weevil   I may be reduct   I second instares of product   A applications   ge is critical to   n second instar	Time of applicate sults, apply at a copulations readed.  grasshopper name (0.02 of the first and achieve optimu, use Asana XL.	tion is critical bloom prior to ch a level of 2 ymphal stages - 0.03 lb ai/A) second instar im control. For	

SPECIFIC USES - VEGETABLE CROPS (continued)

		Applicat	tion Rate	Acres	Last
Сгор	Insect	lb ai/acre	fl oz/acre	treated per gal of <i>Asana</i> XL	Application (days to harvest)
Beans, Snap also known as: (blue lake,	Leafhoppers (except CA) Mexican Bean Beetle Saltmarsh Caterpillar	0.015 - 0.03	2.9 - 5.8	44 - 22	3
bush, common, edible-podded, filet, flageolet, French, French horticultural, frijoles comunes, garden, green, haricot, haricot commun, Italian, judia comun, Kentucky wonder, magic,	Beet Armyworm* Cabbage Looper Corn Earworm Corn Rootworm (adults) Cucumber Beetle Cucumber Beetle (adults) Cutworm (seedling spray) European Corn Borer Flea Beetle Grasshoppers Green Cloverworm Leafhopper Leafminer (Guam only) Pea Aphid Potato Leafhopper Soybean Aphid (except CA) Velvet Bean Caterpillar Western Bean Cutworm	0.03 - 0.05	5.8 - 9.6	22 - 13	
pole, romano, string, succulent, vainica, wax)	*Aids in control.  Do not apply more than 0.2 lb ai per a Do not allow livestock to graze treat vines for livestock forage, fodder, or h	ed bean fields.		treated bean	
Broccoli,	Imported Cabbageworm	0.015 - 0.03	2.9 - 5.8	44 - 22	3
(including Chinese broccoli) Cabbage, Cauliflower, Chinese Cabbage (tight headed	Alfalfa Looper Beet Armyworm* Cabbage Looper Cutworm Flea Beetle Grasshoppers	0.03 - 0.05	5.8 - 9.6	22 - 13	
varieties only, e.g. Napa cabbage)	*Aids in control. Do not apply more than 0.4 lb ai per a	cre per season.			

(continued)

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		Applicat	tion Rate	Acres	Last		
Crop	Insect	lb ai/acre	fl oz/acre	treated per gal of <i>Asana</i> XL	Application (days to harvest)		
Carrots	Aster Leafhopper Cutworms Leafhoppers	0.03 - 0.05	5.8 - 9.6	22 - 13	7		
	Carrot Weevil	0.05	9.6	13			
	Do not apply more than 0.5 lb ai/acre For aerial application apply in a minim Thorough spray coverage of crown ai recommended.  Carrot Weevil – Begin treatment whe	ium of 5 gals wa rea is essential.	Use of ground	application is			
Collards	Alfalfa Looper Beet Armyworm* Cabbage Looper Cutworm Flea Beetle Grasshopper Imported Cabbageworm	0.03 - 0.05	5.8 - 9.6	22 - 13	7		
	*Aids in control.  Do not feed livestock on treated plant parts. Do not apply more than 0.2 lb ai per acre per season. For aerial application apply in a minimum of 5 gals water per acre.						
Cucumber, Melons, (cantaloupe, honeydew melons, muskmelon, watermelon), Pumpkin, Squash (summer, winter)	Cabbage Looper Corn Earworm Cucumber Beetle (adults) Cutworms (seedling spray) Grasshoppers Leafhoppers Pickleworm Plant Bugs (Lygus Bugs, Stink Bugs) Rindworms Squash Bug Squash Vine Borer	0.03 - 0.05	5.8 - 9.6	22 - 13	3		
	Do not apply more than 0.25 lb ai per a	acre per seasor	1.				

(continued)

# SPECIFIC USES - VEGETABLE CROPS (continued)

		Applicat	tion Rate	Acres	Last
Crop	Insect	lb ai/acre	fl oz/acre	treated per gal of <i>Asana</i> XL	Application (days to harvest)
Eggplant	Colorado Potato Beetle Corn Earworm European Corn Borer Flea Beetles Loopers	0.03 - 0.05	5.8 - 9.6	22 - 13	7
	Apply when insects are observed o applications at 7 to 10 day intervals to lb ai per acre per season.				
Kohlrabi	Cabbage Looper	0.03 - 0.05	5.8 - 9.6	22 - 13	3
	Do not apply more than 0.4 lb ai per a	cre per season.			
Lentils	See "Beans, Dry"				
Lettuce, Head (AZ, CA, CO, FL NM & TX only)	Alfalfa Looper Beet Armyworm* Cabbage Looper <i>Heliothis</i> spp.	0.025 - 0.05	4.8 - 9.6	26 - 13	7
	*Aids in control. Do not apply more than 0.35 lb ai per	acre per seasoi	n.		
Mustard Greens	Cabbage Looper Imported Cabbageworm	0.05	9.6	13	7
	Do not apply more than 0.2 lb ai per a	cre per season.			
Okra (FL only)	Cabbage Looper Corn Earworm Southern Armyworm	0.03 - 0.05	5.8 - 9.6	22 - 13	1
Peas, Dry	See "Beans, Dry"	•	•		

(continued)

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		Applicat	tion Rate	Acres	Last
Crop	Insect	lb ai/acre	fl oz/acre	treated per gal of <i>Asana</i> XL	Application (days to harvest)
Peas, Green	Green Cloverworm Pea Aphid	0.015 - 0.03	2.9 - 5.8	44 - 22	3
	Alfalfa Caterpillar Alfalfa Looper Armyworm Cabbage Looper Celery Looper Corn Earworm Cutworms Imported Cabbageworm	0.03 - 0.05	5.8 - 9.6	22 - 13	
	Pea Leaf Weevil (ID, OR & WA only) Pea Weevil (ID, OR & WA only)	0.025 - 0.05	4.8 - 9.6	26 - 13	
	Do not apply more than 0.1 lb ai/acre to livestock.  Pea Weevil & Pea Leaf Weevil (ID, 0 in achieving control of pea weevil. Fe detecting adult pea weevils. Once ad or more adults per 25 sweeps, control	R & WA only) – or optimum res ult pea weevil ¡	· Time of applica sults, apply at l populations rea	ation is critical	
Pepper	Beet Armyworm* Colorado Potato Beetle Corn Earworm Cucumber Beetle (adults) European Corn Borer Flea Beetles Loopers Pepper Weevil* Southern Armyworm	0.03 - 0.05	5.8 - 9.6	22 - 13	7
	*Aids in control. Apply when insects are observed of applications at 7 to 10 day intervals to lb ai per acre per season.				

(continued)

# SPECIFIC USES - VEGETABLE CROPS (continued)

		Applicat	tion Rate	Acres	Last
Crop	Insect	lb ai/acre	fl oz/acre	treated per gal of <i>Asana</i> XL	Application (days to harvest)
Potato	Leafhoppers (except CA) Potato Psyllid	0.015 - 0.03	2.9 - 5.8	44 - 22	7
	Potato Tuberworm	0.015 - 0.05	2.9 - 9.6	44 - 13	
	Beet Armyworm* Buckthorn Aphid Cabbage Looper Colorado Potato Beetle Cucumber Beetle (adult control) Cutworms European Corn Borer Fleabeetles Grasshoppers Potato Aphid Potato Leafhopper Tarnished Plant Bug Western Yellow-Striped Armyworm	0.03 - 0.05	5.8 - 9.6	22 - 13	
	Colorado Potato Beetle (Long Island, NY only)	0.05	9.6	13	
	Grasshopper – For control of first and a rate range of 3.9 to 5.8 fluid ounc can be used. Correct timing of spray nymphal stages and thorough covera grasshopper nymph stages larger tha 5.8 to 9.6 fluid ounces of product per a Potato Tuberworm – For control of Pwhen tuberworm larvae and/or moth threshold populations. Repeat applicat to keep tuberworm larvae populations reduce the risk of tuber damage. Failur to crop senescence or vine kill increas *Aids in control.  Do not apply more than 0.35 lb ai per senescence.	es of product   / applications t  ge is critical to  n second instar  acre (0.03 - 0.05  bato Tuberworr  counts reach  tions of effectives  as low as possise to adequately  ses the risk of tu	per acre (0.02 o the first and achieve optimu; use Asana XL Ib ai/A). m apply Asana locally establis e insecticides nible prior to han control tuberwo ber damage.	- 0.03 lb ai/A) second instar im control. For at use rates of XL Insecticide hed treatment nay be needed yest in order to	
Radishes	Armyworms Beetles	0.03 - 0.05	5.8 - 9.6	22 - 13	7
	Do not apply more than 0.1 lb ai/acre	per season.			

(continued)

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		Applica	tion Rate	Acres	Last	
Crop	Insect	lb ai/acre	fl oz/acre	treated per gal of <i>Asana</i> XL	Application (days to harvest)	
Sweet Corn <sup>†</sup>	Western Bean Cutworm	0.015 - 0.03	2.9 - 5.8	44 - 22	1	
	For additional information consult dire	ctions for use	under field corn	1.		
	Armyworm Banded Cucumber Beetle Beet Armyworm* Chinch Bugs Corn Earworm Corn Leaf Aphid Corn Rootworms (adults) Cutworms European Corn Borer Fall Armyworm (except CA) 1st and 2nd instar Flea Beetles Grasshoppers Oat Bird-Cherry Aphid Sap Beetles (adults) Southwestern Corn Borer Stalk Borer Tarnished Plant Bug	0.03 - 0.05	5.8 - 9.6	22 - 13		
	Corn Silkfly (except CA)**	0.05	9.6	13		
	*Aids in control.  **Suppression only.  For Ear Protection — Begin applicatio additional information consult directic Corn Leaf Aphid & Oat Bird-Cherry Ap the aphid population so as to achieve Aphids not contacted by the spray, sadequately controlled.  Corn Silkfly (except CA) — Direct ap coverage of the corn silk. Fall Armyworm (except CA) — 1st ar application to the ear zone to obtain t	ons for use undo  ohid – For optime  maximum cove  cuch as in who  plication to the  ad 2nd instar fa	er field corn. um results, dire erage of the ex rls and leaf axi ear zone to ol ill armyworm o	ct the spray at posed insects. is, may not be otain thorough nly. Direct the		
	†Do not apply more than 0.5 lb ai per a	cre per seasor	ı.			

(continued)

# SPECIFIC USES - VEGETABLE CROPS (continued)

		Applicat	ion Rate	Acres	Last
Crop	Insect	lb ai/acre	fl oz/acre	treated per gal of <i>Asana</i> XL	Application (days to harvest)
Tomato	Tobacco Hornworm Tomato Hornworm	0.015 - 0.03	2.9 - 5.8	44 - 22	1
	Beet Armyworm* Cabbage Looper Colorado Potato Beetle Cutworms Flea Beetle Grasshoppers Potato Aphid Southern Armyworm Tomato Fruitworm Tomato Pinworm Western Yellow-Striped Armyworm Whitefly	0.03 - 0.05	5.8 - 9.6	22 - 13	
	Vegetable Leafminer**	0.05	9.6	13	
	*Aids in control.  **Asana XL is not recommended for u not apply more than 0.5 lb ai per acre		table Leafminer	in Florida. Do	
Turnips	Armyworm Fleabeetle Imported Cabbageworm	0.03 - 0.05	5.8 - 9.6	22 - 13	7
	Do not apply more than 0.4 lb ai per ac	cre per season.			

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## SPECIALTY USES

		Applica	ntion Rate	
		High Vol	ume Sprays	Low Volume Sprays
Crop	Insect	lb ai/100 gal	fl oz/100 gal	Ib ai/acre
Christmas tree plantings, Conifer plantations, Conifer seed orchards, Forest tree nurseries	Balsam Twig Aphid Balsam Woolly Adelgid Cranberry Girdler (adult control) European Pine Sawfly Nantucket Pine Tip Moth and other Pine Tip Moths (except CA) Northern Pine Weevil Pales Weevil Pine Chafer Pine Conelet Bug Pine Needle Midge Pineleaf Chermid Red Pine Sawfly Redheaded Pine Sawfly Spittlebugs Spruce Budworm	coverage of entire tree.		
	Spray in sufficient gallonage to obtain good	coverage of entire	e tree.	
	Coneworm Seed Chalcid Seedbug	52 fl oz/100 gals	water for high vol water for low volun pplication in not les al applications.	ne sprayers.
	Apply first application within 1 week of fema Coneworm control. For other Coneworms at following female flower closure. Repeat appl than 1.6 lb ai per acre per year. For Seed Chalcid control, apply when all cor for 2 or more sprays.  Apply approximately 5 - 10 gals of the 9.6 fl oz With low volume sprayers apply 100 gals of tharvest cover crop. Refer to Spray Recomm adjacent to water.	nd Seedbugs, appication at interval: nes are pendant, r/100 gal dilution p the 52 fl oz/100 ga	oly first application is of 4 weeks but do a and repeat at 1 - 2 or tree with high voldilution per acre. I	within 30 days not apply more week intervals lume sprayers. Do not graze or

		Applicat	ion Rate	Acres treated	
Сгор	Insect	lb ai/acre	fl oz/acre	per gal of <i>Asana</i> XL	
Non-Cropland (excluding public	Grasshoppers Saltmarsh Caterpillar	0.015 - 0.03	2.9 - 5.8	44 - 22	
land such as forests, parks, or recreational)	Army Cutworms Armyworms Chinch Bugs	0.03 - 0.05	5.8 - 9.6	22 - 13	

Spray non-cropland adjacent to tilled areas to control migrating insects (Grasshoppers, Armyworms) which are a threat to crops. Do not apply more than 0.5 lb active ingredient per acre per year. Do not feed treated crop to livestock. Refer to Spray Recommendations and Precautions when applying to areas adjacent to water.

# **STORAGE AND DISPOSAL**

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

PESTICIDE 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.

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

Office for guidance.

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available (continued)

or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Do not transport if container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact 800-892-0099, day or night.

## DISCLAIMER, RISKS OF USING THIS PRODUCT, LIMITED WARRANTY AND LIMITATION OF LIABILITY

IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.

## RISKS OF USING THIS PRODUCT

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop (continued)

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5"

### (continued)

at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of Valent. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND AGREES THAT TO THE EXTENT CONSISTENT WITH APPLICABLE LAW RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

To the extent consistent with applicable law, Valent shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. To the extent consistent with applicable law, Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

## LIMITED WARRANTY

Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law AND EXCEPT AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, ETHER EXPRESSED OR IMPLIED. No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

#### LIMITATION OF LIABILITY

To the extent consistent with applicable law, Valent or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE

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REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXI-MUM LIABILITY OF VALENT OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUD-ING CLAIMS BASED ON BREACH OF WARRANTY, CON-TRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHER-WISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT. PROMPT NOTICE OF CLAIM

To the extent consistent with applicable law allowing such requirements Valent must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of planting, or twenty-one days from the date of application, whichever is latter, so that an immediate inspection of the affected property and growing crops can be made.

To the extent consistent with applicable law if Buyer does not notify Valent of any claims, in such period, it shall be barred from obtaining any remedy.

#### NO AMENDMENTS

Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing **Disclaimer**, **Risks of Using This Product**, **Limited Warranty** and **Limitation of Liability**, which may not be modified by any oral or written agreement.

#### TANK MIXES

NOTICE: Combination or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor, consistent with applicable law.

Read and follow the entire label of each product to be used in combination with this product.

#### ©2017 Valent U.S.A. LLC

Asana is a registered trademark of Sumitomo Chemical Company, Limited

Lannate and Super Tin are registered trademarks of E. I. duPont de Nemours and Company

Lorsban is a registered trademark of Dow AgroSciences LLC

## Valent U.S.A. LLC

P.O. Box 8025 Walnut Creek CA 94596-8025 Form 2002-B Made in U.S.A. 059639-00209.20150114.Asana XL NOTIF EPA Reg. No. 59639-209 EPA Est. 5905-GA-1 FORM: 2002-B

NAME: Asana XL Insecticide KIND: Composite Booklet

**SPEC:** 11256:.375

**UCC**: (01) 0 06 53204 17890 9

**PRODUCT SIZE:** 1 Gallon

LABEL SIZE: 5"(w) x 5.0625"(h) - book closed PMS 368 (It green)

Base

INSECTICIDE

10"(w) x 5.0625"(h) - book open

By Weight

# **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.

GROUP

**NET CONTENTS** 1 GALLON

Active Ingredient Esfenvalerate

(S)-cyano (3-phenoxyphenyl) methyl (S)-4-chloro-alpha-(1-methylethyl)

benzeneacetate 8.4%
Inert Ingredients\* 91.6% 

\*CONTAINS XYLENE RANGE AROMATIC SOLVENT

This product contains 0.66 lbs Active Ingredient per gallon.

0.66 Emulsible Concentrate

EPA Reg. No. 59639-209 FPA Fst. No. 5905-GA-1

# **KEEP OUT OF REACH OF CHILDREN** WARNING AVISO

Si usted no entiende la etiqueta, busque a alquien 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.)

## Valent U.S.A. LLC

P 0 Box 8025

Walnut Creek CA 94596-8025



Form 2002-B

5.75"(w) x 5.3125"(h) - base

**BLACK** 

PMS 348 (green)

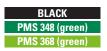
FORM: 2003-B

NAME: Asana XL Insecticide KIND: Composite Booklet

**SPEC**: 00334: .375 UCC: (01) 0 06 53204 17883 1 **DATE:** 8.16.17 **PRODUCT SIZE:** 2-1/2 Gallon

LABEL SIZE: 6.5"(w) x 7.25"(h) - book closed

13"(w) x 7.25"(h) - book open 7.25"(w) x 7.25"(h) - base



# 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.

# **NET CONTENTS 2-1/2 GALLONS**

Active Ingredient By Weight Esfenvalerate (S)-cyano (3-phenoxyphenyl) methyl (S)-4-chloro-alpha-(1-methylethyl) 

\*CONTAINS XYLENE RANGE AROMATIC SOLVENT

This product contains 0.66 lbs Active Ingredient per gallon.

0.66 Emulsible Concentrate

EPA Reg. No. 59639-209 EPA Est. No. 5905-GA-1

# **KEEP OUT OF REACH OF CHILDREN** WARNING AVISO

Si usted no entiende la etiqueta, busque a alquien 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.)









Form 2003-B

## FIRST AID

If swallowed: Call a poison control center or doctor immediately for treat-

ment advice.

Do not give any liquid to the person.

Do not induce vomiting unless told to do so by a poison con-

trol center or a doctor.

Do not give anything by mouth to an unconscious person.

If inhaled: Move person to fresh air.

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

If in eves: Hold eve 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 eyes.

Call a poison control center for 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.

## NOTE TO PHYSICIAN

If on skin, 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.

Contains xylene range aromatic solvent – vomiting may cause aspiration

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 800-892-0099 for emergency medical treatment information.

# 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. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

For medical emergencies involving this product, call toll free 800-892-0099.

## 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.

## USER SAFETY RECOMMENDATIONS

USERS SHOULD: Wash thoroughly with soap and water after handling and 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.

## 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.

## 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 intertida 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 cleaning equipment or 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

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent

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:

Coveralls.

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

Shoes plus socks.

Protective evewear

Asana® XL Insecticide should be used only in accordance with recommendations in this label or in separate recommendations available through local dealers. Valent U.S.A. LLC will not be responsible for losses or damages. resulting from (i) the reformulation of Asana XL into any other product, and (ii) the use of Asana XL in any manner that is not specifically recommended by Valent U.S.A. LLC on the label. User assumes all risk from such non-recommended use

# GENERAL INFORMATION

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. For aerial application use the following directions unless otherwise specified in this label: use a minimum of 2 gallons per acre (gpa) of water, except in tree and orchard crops use a minimum of 10 gpa.

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.

For resistance management, Asana XL is a group 3 insecticide. Repeated exclusive use of Asana XL, or other group 3 insecticides may lead to the buildup of resistant strains of insects in some crops.

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.

## INTEGRATED PEST MANAGEMENT

Valent U.S.A. LLC recommends the use of Integrated Pest Management (IPM) programs to control pests. This product may 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 or site systems in your area.

## SPRAY PREPARATION

Spray equipment must be clean and free of previous pesticide deposits before applying Asana XL.

## TANK MIXING AND COMPATIBILITY

Unless directed otherwise in a specific crop section of this label, do not tank mix Asana XL with fungicides containing fentin hydroxide (triphenyltin hydroxide) such as "Super Tin" as crop injury may result.

This product can be mixed with pesticide products labeled for use on crops on this label in accordance with the most restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.

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. For best results. use of spray equipment having continuous agitation is recommended.

Asana XL may be tank mixed with herbicide products when insect populations require control concurrent with the need for weed control. Follow all herbicide and Asana XL label directions regarding proper usage.

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 test for physical compatibility should be conducted before field mixtures of a particular combination are made.

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

ALL ROTATION CROPS MAY BE PLANTED IMMEDIATELY FOLLOWING LAST APPLICATION.

## BUFFFR ZONES

## Vegetative Buffer Strip

Construct and maintain a minimum 10-foot-wide vegetative filter strip of grass or other permanent vegetation between the field edge and down gradient aquatic habitat (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds).

Only apply products containing esfenvalerate onto fields where a maintained venetative buffer strip of at least 10 feet exists between the field and down gradient aquatic habitat.

For guidance, refer to the following publication for information on constructing and maintaining effective buffers:

Conservation Buffers to Reduce Pesticide Losses, Natural Resources Conservation Services. USDA, NRCS. Fort Worth, Texas 21pp. http://www.nrcs.usda. gov/Internet/FSE\_DOCUMENTS/nrcs143\_023819.pdf

# Buffer Zone for Ground Application (groundboom, overhead chemigation,

Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, marshes, natural ponds, estuaries, and commercial fish ponds).

## **Buffer Zone for ULV Aerial Application**

Do not apply within 450 feet of aquatic habitats (such as, but not limited to. lakes, reservoirs, rivers, permanent streams, marshes, natural ponds, estuaries, and commercial fish ponds).

# **Buffer Zone for Non-ULV Aerial Application**

Do not apply within 150 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, marshes, natural ponds, estuaries, and commercial fish ponds).

## SPRAY DRIFT REQUIREMENTS

## Wind Direction and Speed

Only apply this product if the wind direction favors on target deposition.

Do not apply when the wind velocity exceeds 15 mph.

## Temperature Inversion

Do not make aerial or ground applications into 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.

### Droplet Size

Use only Medium or coarser spray nozzles (for ground and non-ULV aerial application) according to ASAE (S572) definition for standard nozzles. In conditions of low humidity and high temperatures, applicators should use a coarser droolet size.

# **Additional Requirements for Ground Applications**

Wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application.

For ground boom applications, apply using a nozzle height of no more than 4 feet above the ground or crop canopy.

For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

# **Additional Requirements for Aerial Applications**

The spray boom should be mounted on the aircraft as to minimize drift caused

by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of the wing span or 80% rotor diameter.

Flight speed and nozzle orientation must be considered in determining drop-

Spray must be released at lowest height consistent with pest control and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.

When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the applications area by adjusting the path of the aircraft upwind.

# SPRAY TANK CLEANOUT

**Application Rate** 

Immediately following application of Asana XL, thoroughly clean all mixing and spray equipment. Flush the tank, pump, hoses, and boom with several changes of water after removing nozzle tips and screens (clean these parts separately). Take all necessary precautions when cleaning equipment. Do not clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

Acres treated

# SPECIFIC USES - FIELD CROPS

		Application nate		Acres lieateu	Last Annliastian
Crop	Insect	lb ai/acre	fl oz/acre	per gal of <i>Asana</i> XL	Last Application (days to harvest)
Corn (field)†	Western Bean Cutworm	0.015 - 0.03	2.9 - 5.8	44 - 22	21
	Armyworm (True Armyworm) Black Cutworm (except CA) Chinch Bug Corn Earworm Corn Leaf Aphid Corn Rootworm (adult control) Cutworm Flea Beetle Grasshopper Japanese Beetle (adult) (except CA) Oat Bird-Cherry Aphid Southwestern Corn Borer Stalk Borer	0.03 - 0.05	5.8 - 9.6	22-13	
	European Corn Borer	0.04 - 0.05	7.8 - 9.6	16 - 13	
	Black Cutworm – Asana XL may be applied at 3.2 - 9.6 fl oz/aci (0.0165 - 0.05 lb ai/acre) for the control of black cutworm when Chinch Bug – Over the top sprays, as used for control of each bug control. It is very important that the spray be directed at the other mechanism.  Corn Earworm – First application should be at or before silking, ing populations exist. Subsequent applications should be made Corn Leaf Aphid, Oat Bird-Cherry Aphid – For optimum results maximum coverage of the exposed insects. Aphids not contact be adequately controlled.  Corn Rootworm (Adult) – Apply at the first sign of silk feeding. Asana XL may be tank-mixed with methyl parathion and appli Rootworm is desired in conjunction with insects controlled by Refer to the Asana XL and methyl parathion labels for approximately controlled by respective insects.  Cutworm – Applications for cutworm control may be applied by ing or emerged corn seedlings.	applied at planting of and stalk infesting of e base of the plant the plant that the plant that are at 3 - 5 day intervals, direct the spray, sutted by the spray, sued on field corn whe Asana XL when use oppriate rates of the	orn pests, are not a hrough the use of dr may be applied if ec is until silking is com t the aphid populatic ich as in whorls and ere supplemental co d alone. individual products	dequate for chinch op nozzles or some onomically damagpleted. on so as to achieve leaf axils, may not ontrol of Adult Corn for controlling the	

(continued)

## SPECIFIC USES - FIELD CROPS (continued)

			<i>H</i>	Applicat	tion Rate	Acres treated per gal of	Last Applicatio			
Crop	Insect		lb ai/ac	cre	fl oz/acre	Asana XL	(days to harves			
Corn (field)† continued)	European Corn Borer – First brood: Spray while egg ment is suggested. Good co nozzles over the row and o longed or where moderate - lations. Proper coverage by ar sprays will not provide at Second brood: Make applic starting to hatch. When egg er rate is recommended for tial. This usually requires 2 will provide best coverage. Asana XL may be tank-mixe Borer is desired in conjunct Refer to the Asana XL and respective insects. Grasshopper – For control o product per acre (0.02 - 0.03 al stages and thorough cou- instar, use Asana XL at use Southwestern Corn Borer – Stalk Borer, Flea Beetle – the plant. Western Bean Cutworm – A	verage of both upper ann to heavy populations are ground equipment usual equate control. attions when sufficient elaying is prolonged or a moderate to heavy populations of carrier by a dwith methyl parathion in with insects control methyl parathion label of first and second install bai/A) can be used. Corage is critical to achievate of 5.8 to 9.6 fluid of For moderate to heavy in Application must be matyply before larvae enterested.	and lower leaf surfaces is plant. Multiple applicate present. A higher rate ally requires 20 - 30 gallowers are found. So third generation is prespulations. Good coveragair. If ground equipment and applied on field correct grasshopper nymphals or present iming of spray approve optimum control. For nunces of product per actifications, higher rates and early in migration for the per control of the control of t	essentiations mais record records of cate of c	al. This can be act by be required with mended for mo arrier. Once larva then eggs are in the ditional sprays mae, below, and in the ditional sprays on supplemental cone. Individual product a rate range of 3.1 as to the first and popper nymph stag 1-0.05 lb ai/A).	complished with drop nen egg laying is pro- derate to heavy popu- e enter the whorl, foli- ne blackhead stage or ny be required. A high- he ear zone is essen- each side of the plant ntrol of European Corn cts for controlling the to 5.8 fluid ounces of second instar nymph- es larger than second	21			
Corn (field)	Cutworm	o in ai hei acie hei sea	0.0023 lbs		0.45 fl oz per					
At Plant			1000 feet o		1000 feet of rov					
	Apply as an in-furrow, T-bai active ingredient and fluid of In furrow Applications: Appl of the press wheel.  Banded Applications: Apply openers and the press whe Apply a minimum spray volu Do not exceed 0.05 lbs ai po not apply more than 0.2 Asana XL.	unces of Asana XL apply into the seed furrow rat planting as a 4-7 in els or as a band applica ime of 3 gallons per acr	lied at 0.0023 lbs ai per 1 through spray nozzles, l ch T-band sprayed acro tion behind the press w e. n at-plant application.	1000 feet behind to oss the heel.	t or row for vario the planter furrov open seed furrov	us row spacings. v openers and in front v between the furrow				
	Row Spacing (inches) Linear ft/A <i>Asana</i> XL lbs ai/A <i>Asana</i> XL fl oz/A	40" 13,068 0.03 5.8	38" 13,756 0.032 6.2		36" 14,520 0.033 6.4	30" 17,424 0.04 7.8				
Corn (pop)	For specific insect control r	ecommendations refer t	to Field Corn (above). Fo	llow dire	ections carefully.		1			
	Multiple applications and/or more than 0.5 lb ai per acre		ween sprays must be us	ed to ins	sure proper insec	t control. Do not apply				
Corn (seed)	For specific insect control r	ecommendations reter t	to Field Corn (above). Fo	llow dire	ections carefully.		1			

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		Applicat	tion Rate	Acres treated	Last Application			
Crop	Insect	lb ai/acre	fl oz/acre	per gal of <i>Asana</i> XL	(days to harvest)			
Cotton	Cotton Leaf Perforator	0.03	5.8	22	21			
	Beet Armyworm* Black Cutworm (except CA) Boll Weevil Cabbage Looper Cotton Aphid* Cotton Bollworm Cotton Leafworm Cutworms Fleahoppers Grasshoppers Green Stink Bug (except CA) Leafhoppers Lygus Bugs Pink Bollworm Plant Bugs Saltmarsh Caterpillar Southern Green Stink Bug (except CA) Thrips (on seedling cotton) Tobacco Budworm Whitefly*							
	NOTE: For light infestations of the above insects	0.02	3.9	33	1			
	May be applied in water or nonvolatile vegetable oils. When applying Asana XL in an oil carrier, apply a total spray a water carrier, apply at least 1 gal per acre by air (at least 3 4 gal per acre by ground. Do not apply more than 0.5 lb ai per acre per season. Do not graze livestock on treated fields or feed treated trash. Black Cutworm – Asana XL may be applied at 3.2 - 9.6 fl oz/ac when applied at planting of cotton (except CA). Boll Weevil – To control Boll Weevil infestations, a 3 to 5 day Heliothis spp. – Asana XL can provide contact ovicidal effect to tions for control of tobacco budworm; application should be tin imum ovicidal effect. Use on this peats stage (egg) is not regist Do not make more than a total of 10 synthetic pyrethroid applic ton crop in one growing season.	gal per acre in Arizi re (0.0165 - 0.05 lb ai interval between app in <i>Heliothis</i> spp. eggs ned to correspond wi ered in California.	ona and 5 gal per a i/acre) for the controlications may be ne when applied acco ith peak egg deposit	cre in California) or ol of black cutworm ecessary. ording to label direc- tion to achieve max-				
Peanuts	Corn Earworm Potato Leafhopper Red-necked Peanut Worm Velvetbean Caterpillar	0.015 - 0.03	2.9 - 5.8	44 - 22	21			
	Beet Armyworm* Cutworms Granulate Cutworm Grasshoppers	0.03 - 0.05	5.8 - 9.6	22 - 13				
	Fall Armyworm* Lesser Cornstalk Borer**	0.05	9.6	13	1			
	*Aids in control. For heavy infestations use of Lannate® insecticide is recommended. Please refer to the Lannate® label for use instructions.  **Aids in control.  Do not feed or graze livestock on treated vines.  Do not apply more than 0.15 lb ai per acre per season.							

(continued)

		Applica	Acres treated		
Crop	Insect	lb ai/acre	fl oz/acre	per gal of <i>Asana</i> XL	Last Application (days to harvest)
Sorghum	Sorghum Midge	0.015 - 0.03	2.9 - 5.8	44 - 22	21
(Grain) (except CA)	Black Cutworm Chinch Bugs Corn Earworm (headworm) Cutworms	0.03 - 0.05	5.8 - 9.6	22 - 13	
	Do not apply more than 0.15 lb ai per acre per season. When applying in nonvolatile vegetable oils use a total spray <b>Black Cutworm</b> – <i>Asana</i> XL may be applied at 3.2 - 9.6 fl oz/a when applied at planting of sorghum. <b>Chinch Bug Control</b> – For optimum results, spray should be di	cre (0.0165 - 0.05 lb a	i/acre) for the contr	ol of black cutworm	
Soybean	Green Cloverworm Mexican Bean Beetle Potato Leafhopper Saltmarsh Caterpillar Velvetbean Caterpillar Woollybear Caterpillar	0.015 - 0.03	2.9 - 5.8	44 - 22	21
	Bean Leaf Beetle Beet Armyworm* Cabbage Looper Corn Earworm Cutworms Grasshoppers Green Stink Bug (except CA) Japanese Beetle (adult) Southern Green Stink Bug Soybean Aphid (except CA) Three-cornered Alfalfa Hopper	0.03 - 0.05	5.8 - 9.6	22 - 13	
	Grasshopper – For control of first and second instar grasshop product per acre (0.02 - 0.03 lb ai/A) can be used. Correct timi al stages and thorough coverage is critical to achieve optimu instar, use Asana XL at use rates of 5.8 to 9.6 fluid ounces of Soybean Aphid – Asana XL provides control of soybean ap population growth, or extremely high populations, a tank mix other insecticides such as chlorpyrifos (e.g. "Lorsban") or mean aphid. Because Lannate is a fast acting contact insect When preparing a tank mixture, read and follow the label instrequirements and proper usage. Use sufficient water to obtain minimum of 2 gallons per acre, and for ground application use "Aids in control.  When applying in nonvolatile vegetable oils, use a total spray Do not feed or graze livestock on treated fields. Do not apply	ng of spray application control. For grassh sproduct per acre (0.05 hid, however under ture may be conside tethomyl (e.g. Lannat cide, best results foll ructions for all production thorough, uniformeta a minimum of 10 gal volume of at least 1	ns to the first and se opper nymph stages 3 - 0.05 lb ai/A). certain conditions sered. Asana XL can e) to achieve rapid ow direct spraying cts in the mixture re- coverage. For aeriallons per acre. qt.	cond instar nymph- larger than second such as rapid aphid be tank mixed with knockdown of soy- of the target insect. garding restrictions,	
Sugar Beets	Beet Armyworm* Beet Webworm Cabbage Looper Cutworms Flea Beetle (except CA) Grasshoppers Leafhoppers Saltmarsh Caterpillar Sugar Beet Root Maggot (adult) (except CA)	0.03 - 0.05	5.8 - 9.6	22 - 13	21

(continued)

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Grasshopper – For control of first and second instar grasshopper nymphal stages a rate range of 3.9 to 5.8 fluid ounces of product per acre (0.02 - 0.03 lb ai/A) can be used. Correct timing of spray applications to the first and second instar nymphal stages and thorough coverage is critical to achieve optimum control. For grasshopper nymph stages larger than second instar, use Asana XL at use rates of 5.8 to 9.6 fluid ounces of product per acre (0.03 - 0.05 lb ai/A).

\*Aids in control.

Do not apply more than 0.15 lb ai/acre per season.

Apply with ground or air equipment using sufficient water to provide uniform coverage (minimum of 2 gal of water per acre).

6.5"

6.5"

				Applicat	tion Rate	Acres treated	1 A
Crop	Insect			lb ai/acre	fl oz/acre	per gal of <i>Asana</i> XL	Last Application (days to harvest)
Sugar Beets	Cutworm			0.0023 lbs ai per 1000 feet of row	0.45 fl oz per 1000 feet of row		21
At Plant	active ingredient and fluid or In-Furrow Applications: Appl of the press wheel. Banded Applications: Apply openers and the press whee Apply a minimum spray volur Do not exceed 0.05 lbs ai per	landed Applications: Apply at planting as a 4 - 7 inch T-band sprayed across the open seed furrow between the furrow peners and the press wheels or as a band application behind the press wheel. the press wheel of 3 gallons per acre. In onot exceed 0.05 lbs ai per acre per season as an at-plant application. In onot apply more than 0.25 pounds active ingredient per acre per season including at-plant plus foliar applications of					
	Row Spacing (inches) Linear ft/A Asana XL lbs ai/A Asana XL fl oz/A	inear ft/A 13,068 13,756 14,520 17,424 23,760 Asana XL lbs ai/A 0.03 0.032 0.033 0.04 0.05					
Sugarcane	Sugarcane Borer			0.03 - 0.05	5.8 - 9.6	22 - 13	21
	Do not apply more than 0.2 lb	ai/acre per seaso	n.				
Sunflower	Sunflower Beetle (except C/	A)		0.0075 - 0.03	1.45 - 5.8	88 - 22	28
	Banded Sunflower Moth Beet Armyworm* Cutworms Grasshoppers Heliothis (complex) Leafhoppers Sunflower Maggot Sunflower Moth Sunflower Seed Weevil Sunflower Stem Weevil			0.03 - 0.05	5.8 - 9.6	22 - 13	
	Grasshopper – For control of product per acre (0.02 - 0.03 l al stages and thorough cover instar, use Asana XL at use r *Aids in control. Do not apply more than 0.2 lb	b ai/A) can be use rage is critical to a ates of 5.8 to 9.6 flu	d. Correct timing chieve optimum uid ounces of pr	of spray application control. For grassho	ns to the first and se apper nymph stages	cond instar nymph-	

## SPECIFIC USES - FRUITS

**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 your orchard you must know the number of gallons of water needed 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 for assistance from your equipment dealer or State Extension specialist.

CONCENTRATE SPRAY: APPLY SPECIFIED DOSAGE PER ACRE IN NO LESS THAN 30 GALLONS OF WATER PER ACRE BY GROUND. FOR AERIAL APPLICATION IN TREE AND ORCHARD CROPS, USE A MINIMUM OF 10 GALLONS OF WATER PER ACRE. WHEN APPLYING ASANA XL BY AIR, CONSULT YOUR COOPERATIVE FXTENSION SERVICE FOR FURTHER APPLICATION GUIDELINES

			Application Rate			
		Concentr	ate Spray	Dilute Spray	Acres treated per gal of	Last Application (days to harvest)
Crop	Insect	lb ai/acre	fl oz/acre	fl oz/100 gal	Asana XL	
Apples	Apple Aphid Apple Maggot Codling Moth Green Fruitworm Lesser Appleworm Mullein Plant Bug (except CA) Oblique Banded Leafroller Oriental Fruit Moth Periodical Cicada Plant Bugs (Tarnished Plant Bug, Stink Bugs) Plum Curculio Red-Banded Leafroller Rosy Apple Aphid San Jose Scale (fruit infestations only) Tentiform Leaf Miner Tufted Apple Bud Moth Variegated Leafroller White Apple Leafhopper	0.025 - 0.075	4.8 - 14.5	2.0 - 5.8	26 - 9	21
	Apple Ermine Moth (ID, OR & WA only)			3.0		
	Tufted Apple Bud Moth (overwintering) (MD, NC, NJ, PA, VA, WV only)	0.04 - 0.075	8.0 - 14.5		16 - 9	
	Do not feed or graze livestock on treated orchar Do not apply more than 0.525 lbs ai per acre per more than 14.5 fl oz of <i>Asana</i> XL per acre per tre <b>Apple Ermine Moth</b> – Apply with 2 to 4 gallons or to insure thorough coverage of all stems and brawler using on apple pursery stock do not treat.	r season. For dilute : eatment. of superior spray oil anches where Apple	in 100 gallons of Ermine Moth hi	water in a spray-ti ibernacula are fou	o-wet application nd.	

When using on apple nursery stock, do not treat bundled plants since it is difficult to achieve a full coverage application which could result in less than complete control.

Make first application in the fall after 90% of leaf fall has occurred—usually after October 15. Make a second application 7 to 14 days later.

Note: Overwintering larvae do not die until approximately 30 days after application.

Plant Bug, Rosy Apple Aphid Control – Time of application is critical in achieving control. Use prebloom and post bloom spray timings recommended by State Extension Services.

Tufted Apple Bud Moth (overwintering) – For use on apple for the control of overwintering larvae of the tufted apple bud

**Tufted Apple Bud Moth (overwintering)** – For use on apple for the control of overwintering larvae of the tufted apple bud moth with directed ground application to the apple orchard floor. Make one application of *Asana* XL at either pink stage of apple or at petal fall stage of apple.

Use the lower rate on small larvae (pink stage of apple) and/or on lower populations. Use the higher rate on larger larvae (petal fall stage of apple) and/or on moderate to high populations.

Apply specified dosage per acre to the orchard floor in no less than 30 gals of water per acre by ground to obtain uniform coverage. Apply treatment in a band from trunk to drip line to allow coverage of areas where overwintering tufted apple bud moth are found.

Beneficial Insects: Application of Asana XL to the groundcover at the pink stage of apple development may be toxic to overwintering Stethorus punctum. S. punctum is a coccinellid insect and the major predator of spider mites in the MD, NC, NJ, PA, VA and WV fruit growing areas. This predator overwinters in the same areas of the orchard groundcover as the tufted apple bud moth and moves into apple trees from mid-April through mid-May when maximum daily temperatures exceed 68°F. Emergence from the groundcover is 20-70% complete by the pink stage and 90-100% complete by petal fall on the apple cultivar Yorking.

(continued)

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6.5"

6.5

## SPECIFIC USES - FRUITS (continued)

			Application Rate			
		Concentr	ate Spray	Dilute Spray	Acres treated per gal of	Last Application
Crop	Insect	lb ai/acre	fl oz/acre	fl oz/100 gal	Asana XL	(days to harvest)
Blueberry (except CA)	Aphids (NJ only) Blueberry Spanworm Cherry Fruitworm* Cranberry Fruitworm Cranberry Weevil* Grasshoppers Japanese Beetle Leafhoppers Red Striped Fireworm*	0.025 - 0.05	4.8 - 9.6		26 - 13	14
	Blueberry Maggot Black Vine Weevil (adult control) Strawberry Root Weevil (adult control) (OR, WA only)	0.05	9.6		13	
	Do not apply more than 0.2 lb ai/acre per season (cation is recommended; for ground application us Do not apply this product through any type of irrig Note: Asana XL can act as a bee repellent, do not spray only.  Black vine weevil & strawberry root weevil (adu to early June as the first sign of weevil feeding. A of plants. Apply Asana XL within two to three wee a minimum of 50 gallons of water per acre. Direct plants. Best results are from applications made aing. Root weevils emerge over a several week per	e a minimum of 50 ation system. apply within 7 day It control) (OR, W. Iso check for adu ks of first sign of in spray to provide to fter dark when ter	gals water per a vs of pollination. A A only): Look for lots ts on or just below festation. Do not full coverage of for opperatures are wo	cre.  pply as a pre-bloo eaf notching begi v the soil surface apply by air; apply liage and soil are arm and weevils;	om or post-bloom nning in late May around the base y by ground using a around base of are actively feed-	
Caneberries (blackberries, boysenberries,	Aphids Oblique Banded Leafroller Orange Tortrix	0.025 - 0.05	4.8 - 9.6		26 - 13	7
dewberries, loganberries,	Adult Root Weevils* (OR & WA only)	0.05	9.6		13	
raspberries, youngberries and varieties of these) (except CA)	*Aids in control. Do not apply by air. Do not apply more than 0.15 lb ai per acre per sea Do not apply this product through any type of irrig NOTE: Asana XL can act as a bee repellent, do not spray only. Remove bees prior to application. For Adult Root Weevils (OR & WA only): Look for leaf vil feeding. Also check for adults on or just below to three weeks of infestation. Apply by ground usi thorough coverage of all plant foliage and the soi made after dark when temperatures are warm ar several weeks; make subsequent applications wh Oblique Banded Leafroller, Orange Tortrix and A water with ground equipment only. Apply no earlie	ation system.  apply within 7 da maximum safety tr notching beginni the soil surface a ng a minimum of l area around the d weevils are act en signs of new fo phids: Apply as a	bees, apply Asaing in late May to ecound the base of 50 gallons of wate bound in late and the plant. It is gained to be seeding appear. If the full coverage specification in late and the plant is gained to be seeding appear.	na XL in the eveni- early June as the plants. Apply Asa er per acre. Direct Best results are to tweevils emerge	ng after sunset. first sign of wee- ana XL within two spray to provide from applications over a period of n of 50 gallons of	
Kiwifruit	Boxelder Bug (suppression only)	0.05	9.6	-	13	14
	Spray in sufficient water for thorough coverage. A acre/season) with a minimum of 7 days between t		pplications is allo	wed per season (	total of 0.35 lb ai/	
						/continued

(continued)

# SPECIFIC USES - FRUITS (continued)

			Application Rate	•				
		Concentr	Concentrate Spray Dilute Spra		Acres treated per gal of	Last Application		
Crop	Insect	lb ai/acre	fl oz/acre	fl oz/100 gal	Asana XL	(days to harvest		
Pear	Codling Moth Green Fruitworm Leafrollers Pear Psylla Pear Slug Periodical Cicada Plum Curculio	0.025 - 0.075	4.8 - 14.5	2.0 - 5.8	26 - 9	28		
	Do not apply more than 0.375 lbs ai per acre per s Do not apply more than 0.225 lb ai per acre betwee floors. For dilute spray apply 200 - 600 gals per acre,	n bloom and harve						
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) sta graze orchard floor. For dilute spray apply 150 - 25 acre per treatment.							
Stone Fruits (including apricots, cherries, nectarines, peaches, plums, prune plums)	American Plum Borer Black Cherry Aphid Cherry Fruit Fly Green Fruitworm Leafhoppers Leafrollers Lesser Peach Tree Borer Oriental Fruit Moth Peach Tree Borer Peach Twig Borer Peach Twig Borer Periodical Cicada Plant Bugs (Tarnished Plant Bug, Stink Bugs) Plum Curculio Western Cherry Fruit Fly	0.025 - 0.075	4.8 - 14.5	2.0 - 5.8	26 - 9	14		
	Peach Twig Borer (Dormant) (CA only)	0.04 - 0.075	8.0 - 14.5	3.1 - 5.8	16 - 9	1		
	Tufted Apple Bud Moth (overwintering) (Peach only) (MD, NC, NJ, PA, VA and WV only)	0.04 - 0.075	8.0 - 14.5		16 - 9			
	Do not apply more than 0.375 lbs air per acre per season with no more than 0.3 lbs air per acre per season between bloom							

Do not apply more than 0.375 lbs ai per acre per season with no more than 0.3 lbs ai per acre per season between bloom and harvest. For dilute spray apply 200 - 400 gals per acre, but do not apply more than 14.5 fl oz of *Asana* XL per acre per treatment. Do not graze livestock on treated orchard floors.

Peach Tree Borer, American Plum Borer, Lesser Peach Tree Borer Control - Apply as directed trunk and scaffold limb

spray. Thorough coverage of trunk and scaffold limbs is required.

Peach Twig Borer (Dormant) — Make application with an EPA registered dormant oil; for specific recommendations on

use of oil consult manufacturer's label. For best performance, ground application equipment is recommended.

Peach Twig Borer, Plum Curculio, Oriental Fruit Moth. Cherry Fruit Fly. Western Cherry Fruit Fly. Leafrollers, Black Cherry Aphid, Periodical Cicada Control – Apply by ground sprayer to achieve thorough coverage of all aerial portions

Plant Bug Control - Time of application is critical in achieving control. Use prebloom and postbloom spray timings recommended by State Extension Services.

Tufted Apple Bud Moth (overwintering) - For use on peach for the control of overwintering larvae of the tufted apple bud moth with directed ground application to the peach orchard floor. Make one application of Asana XL at either popcorn stage of peach or at shucksplit stage of peach.

Use the lower rate on small larvae (popcorn stage of peach) and/or on lower populations. Use the higher rate on larger larvae (shucksplit stage of peach) and/or on moderate to high populations. Apply specified dosage per acre to the orchard floor in no less than 30 gals of water per acre by ground to obtain uniform coverage. Apply treatment in a band from trunk to drip line to allow coverage of areas where overwintering tufted apple bud moth are found.

Beneficial Insects: Application of Asana XL to the groundcover at the popcorn stage of peach development may be toxic to overwintering Stethorus punctum. S. punctum is a coccinellid insect and the major predator of spider mites in the MD, NC, NJ, PA, VA and WV fruit growing areas. This predator overwinters in the same areas of the orchard groundcover as the tufted apple bud moth and moves into peach trees from mid-April through mid-May when maximum daily temperatures exceed 68°F. Emergence from the groundcover is 90-100% complete by shucksplit. Shucksplit is the preferred timing to minimize predator toxicity.

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# SPECIFIC USES - TREE NUT CROPS

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 your orchard you must know the number of gallons of water needed 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 for assistance from your equipment dealer or State Extension specialist.

CONCENTRATE SPRAY: APPLY SPECIFIED DOSAGE PER ACRE IN NO LESS THAN 30 GALLONS OF WATER PER ACRE BY GROUND. FOR AERIAL APPLICATION IN TREE AND ORCHARD CROPS, USE A MINIMUM OF 10 GALLONS OF WATER PER ACRE. WHEN APPLYING ASANA XL BY AIR, CONSULT YOUR COOPERATIVE EXTENSION SERVICE FOR FURTHER APPLICATION GUIDELINES.

			<b>Application Rate</b>			
		Concentr	Concentrate Spray		Acres treated per gal of	Last Application
Crop	Insect	Ib ai/acre	fl oz/acre	fl oz/100 gal	Asana XL	(days to harvest)
Almonds	Navel Orangeworm Peach Twig Borer Peach Twig Borer (Dormant) (CA only)	0.05 - 0.1	9.6 - 19.2	7.3 - 12.8	13.2 - 6.6	21
	Do not apply more than 0.2 lb ai per acre per seas Do not graze livestock on treated orchard floors. <b>Peach Twig Borer (Dormant)</b> – Make application use of oil consult manufacturer's label. For best p	with an EPA regis				
Filberts	Filbertworm Oblique Banded Leafroller	0.05 - 0.1	9.6 - 19.2	7.3 - 12.8	13.2 - 6.6	21
	Make first application after emergence of filbert er than three weeks after the first. Do not apply m gals per acre, but do not apply more than 19.2 fl c ed orchard floors.	ore than 0.2 lb ai	per acre per seas	on. For dilute spra	y, apply 200 - 400	
Pecans	Hickory Shuckworm Pecan Aphids Pecan Nut Casebearer Pecan Leaf Phylloxera Pecan Spittlebug Pecan Stem Phylloxera Pecan Weevil	0.025 - 0.075	4.8 - 14.5	2.0 - 5.8	26 - 9	21
	Do not feed or graze livestock on treated orchard Do not apply more than 0.3 lbs ai per acre per seas than 14.5 fl oz of Asana XL per acre per treatment Asana XL may be tank-mixed with fungicides con Refer to the Asana XL and fentin hydroxide (triphe for controlling the respective pests.  Phylloxera – Correct timing of spray applications is sult local spray recommendations for correct times.	son. For dilute spra : ntaining fentin hyc nyltin hydroxide) l s critical in achiev	Iroxide (triphenylt abels for appropri	in hydroxide) sucl ate rates of the in	n as "Super Tin". dividual products	
Walnuts	Codling Moth Navel Orangeworm Walnut Aphid Walnut Husk Fly	0.05 - 0.1	9.6 - 19.2	4.0	13 - 6	21
	Do not apply more than 0.2 lb ai per acre per seas For dilute sprays, apply 200 - 400 gals per acre. Di NOTE: Use of baits in Walnut Husk fly sprays is re	o not feed or graze			tension Service.	

# SPECIFIC USES - VEGETABLE CROPS

		Applicat	ion Rate	Acres treated	1 4 0 1 4
Crop	Insect	lb ai/acre	fl oz/acre	per gal of <i>Asana</i> XL	Last Application (days to harvest)
Artichoke	Artichoke Plume Moth	0.03 - 0.05	5.8 - 9.6	22 - 13	1
	Do not apply more often than each 14 days. Apply harvest of an individual fruit. Apply in a minimum o ground (use sufficient water to obtain coverage wi	f 10 gallons per acre	by air and 50 - 200		
Beans, Dry (Including adzuki bean,	Leafhoppers (except CA) Mexican Bean Beetle Saltmarsh Caterpillar	0.015 - 0.03	2.9 - 5.8	44 - 22	21
blackeyed pea, broad bean (dry), chickpea, cowpea, crowder pea, field bean, kidney bean, lima bean (dry), mung bean, navy bean, pinto bean, southern pea, tepary bean) Peas, Dry Lentils	Beet Armyworm* Cabbage Looper Corn Earworm Corn Rootworm (Adults) Cowpea Curculio Cucumber Beetle Cutworms Grasshoppers Green Cloverworm Leafhoppers Painted Lady Butterfly (larvae) Pea Aphid Potato Leafhopper Soybean Aphid (except CA) Velvetbean Caterpillar Western Bean Cutworm	0.03 - 0.05	5.8 - 9.6	22 - 13	
	Pea Leaf Weevil (ID, OR & WA only) Pea Weevil (ID, OR & WA only)	0.025 - 0.05	4.8 - 9.6	26 - 13	
	*Aids in control.  Do not apply more than 0.2 lb ai per acre per seass.  Pea Weevil & Pea Leaf Weevil (ID, OR & WA) — Tin vil. For optimum results, apply at bloom prior to dete reach a level of 2 or more adults per 25 sweeps, cc Grasshopper — For control of first and second instat ounces of product per acre (0.02 - 0.03 lb ai/A) ca and second instar nymphal stages and thorough of hopper nymph stages larger than second instar, us uct per acre (0.03 - 0.05 lb ai/A).				

(continued)

		Application Rate		Acres treated per gal of	Last Application
Crop	Insect	lb ai/acre	fl oz/acre	Asana XL	(days to harvest)
Beans, Snap also known as: (blue lake,	Leafhoppers (except CA) Mexican Bean Beetle Saltmarsh Caterpillar	0.015 - 0.03	2.9 - 5.8	44 - 22	3
bush, common, edible-podded, filet, flageolet, French, French horticultural, frijoles comunes, garden, green, haricot, haricot commun, Italian, judia comun, Kentucky wonder, magic, pole, romano, string,	Beet Armyworm* Cabbage Looper Corn Earworm Corn Rootworm (adults) Cucumber Beetle Cucumber Beetle (adults) Cutworm (seedling spray) European Corn Borer Flea Beetle Grasshoppers Green Cloverworm Leafhopper Leafminer (Guam only) Pea Aphid Potato Leafhopper Soybean Aphid (except CA) Velvet Bean Caterpillar Western Bean Cutworm	0.03 - 0.05	5.8 - 9.6	22 - 13	
succulent, vainica, wax)	*Aids in control.  Do not apply more than 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.				
Broccoli,	Imported Cabbageworm	0.015 - 0.03	2.9 - 5.8	44 - 22	3
(including Chinese broccoli) Cabbage, Cauliflower, Chinese Cabbage (tight headed varieties only, e.g. Napa cabbage)	Alfalfa Looper Beet Armyworm* Cabbage Looper Cutworm Flea Beetle Grasshoppers	0.03 - 0.05	5.8 - 9.6	22 - 13	
	*Aids in control. Do not apply more than 0.4 lbs ai per acre per season.				
Carrots	Aster Leafhopper Cutworms Leafhoppers	0.03 - 0.05	5.8 - 9.6	22 - 13	7
	Carrot Weevil	0.05	9.6	13	
	Do not apply more than 0.5 lb ai/acre per season. For aerial application apply in a minimum of 5 gals water per acre. Thorough spray coverage of crown area is essential. Use of ground application is recommended. Carrot Weevil – Begin treatment when weevils become active.				
Collards	Alfalfa Looper Beet Armyworm* Cabbage Looper Cutworm Flea Beetle Grasshopper Imported Cabbageworm	0.03 - 0.05	5.8 - 9.6	22 - 13	7
	*Aids in control.  Do not feed livestock on treated plant parts. Do no application apply in a minimum of 5 gals water per		2 lbs ai per acre p	er season. For aerial	

(continued)

# SPECIFIC USES - VEGETABLE CROPS (continued)

		Applicat	Application Rate		Last Application
Crop	Insect	lb ai/acre	fl oz/acre	per gal of Asana XL	(days to harvest
Cucumber, Melons, (cantaloupe, honeydew melons, muskmelon, watermelon), Pumpkin, Squash (summer, winter)	Cabbage Looper Corn Earworm Cucumber Beetle (adults) Cutworms (seedling spray) Grasshoppers Leafhoppers Pickleworm Plant Bugs (Lygus Bugs, Stink Bugs) Rindworms Squash Bug Squash Vine Borer	0.03 - 0.05	5.8 - 9.6	22 - 13	3
	Do not apply more than 0.25 lbs ai per acre per	season.			
Eggplant	Colorado Potato Beetle Corn Earworm European Corn Borer Flea Beetles Loopers	0.03 - 0.05	5.8 - 9.6	22 - 13	7
	Apply when insects are observed or when insect vals to achieve control. Do not apply more than			s at 7 to 10 day inter-	
Kohlrabi	Cabbage Looper	0.03 - 0.05	5.8 - 9.6	22 - 13	3
	Do not apply more than 0.4 lbs ai per acre per so	eason.			
Lentils	See "Beans, Dry"				
Lettuce, Head AZ, CA, CO, FL, NM & TX ONLY	Alfalfa Looper Beet Armyworm* Cabbage Looper <i>Heliothis</i> spp.	0.025 - 0.05	4.8 - 9.6	26 - 13	7
	*Aids in control. Do not apply more than 0.35 lbs ai per acre per season.				
Mustard Greens	Cabbage Looper Imported Cabbageworm	0.05	9.6	13	7
	Do not apply more than 0.2 lbs ai per acre per season.				
Okra (FL only)	Cabbage Looper Corn Earworm Southern Armyworm	0.03 - 0.05	5.8 - 9.6	22 - 13	1
Peas, Dry	See "Beans, Dry"				
Peas, Green	Green Cloverworm Pea Aphid	0.015 - 0.03	2.9 - 5.8	44 - 22	3
	Alfalfa Caterpillar Alfalfa Looper Armyworm Cabbage Looper Celery Looper Corn Earworm Cutworms Imported Cabbageworm	0.03 - 0.05	5.8 - 9.6	22 - 13	
	Pea Leaf Weevil (ID, OR & WA only) Pea Weevil (ID, OR & WA only)	0.025 - 0.05	4.8 - 9.6	26 - 13	
	Do not apply more than 0.1 lb ai/acre per seasor Pea Weevil & Pea Leaf Weevil (ID, OR & WA or weevil. For optimum results, apply at bloom prio lations reach a level of 2 or more adults per 25 s	<b>ily)</b> – Time of application r to detecting adult pea	on is critical in achi a weevils. Once ad	eving control of pea	

(continued)

14

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6.5"

		Application Rate		Acres treated	Last Application	
Crop	Insect	lb ai/acre	fl oz/acre	per gal of <i>Asana</i> XL	(days to harvest)	
Pepper	Beet Armyworm* Colorado Potato Beetle Corn Earworm Cucumber Beetle (adults) European Corn Borer Flea Beetles Loopers Pepper Weevil* Southern Armyworm	0.03 - 0.05	5.8 - 9.6	22 - 13	7	
	*Aids in control.  Apply when insects are observed or when insect d vals to achieve control. Do not apply more than 0.3			at 7 to 10 day inter-		
Potato	Leafhoppers (except CA) Potato Psyllid	0.015 - 0.03	2.9 - 5.8	44 - 22	7	
	Potato Tuberworm	0.015 - 0.05	2.9 - 9.6	44 - 13	]	
	Beet Armyworm* Buckthorn Aphid Cabbage Looper Colorado Potato Beetle Cucumber Beetle (adult control) Cutworms European Corn Borer Fleabeetles Grasshoppers Potato Aphid Potato Leafhopper Tarnished Plant Bug Western Yellow-Striped Armyworm	0.03 - 0.05	5.8 - 9.6	22 - 13		
	Colorado Potato Beetle (Long Island, NY only)	0.05	9.6	13	]	
	ounces of product per acre (0.02 - 0.03 lb ai/A) ca and second instar nymphal stages and thorough in hopper nymph stages larger than second instar, used the product of the	Potato Tuberworm – For control of Potato Tuberworm apply Asana XL Insecticide when tuberworm larvae and/or moth counts reach locally established treatment threshold populations. Repeat applications of effective insecticides may be needed to keep tuberworm larvae populations as low as possible prior to harvest in order to reduce the risk of tuber damage. Failure to adequately control tuberworm larvae prior to crop senescence or vine kill increases the risk of tuber damage.				
Radishes	Armyworms Beetles	0.03 - 0.05	5.8 - 9.6	22 - 13	7	
	Do not apply more than 0.1 lb ai/acre per season.	Do not apply more than 0.1 lb ai/acre per season.				

(continued)

# SPECIFIC USES - VEGETABLE CROPS (continued)

Crop	Insect	Application Rate		Acres treated per gal of	Last Application	
		lb ai/acre	fl oz/acre	Asana XL	(days to harvest)	
Sweet Corn†	Western Bean Cutworm	0.015 - 0.03	2.9 - 5.8	44 - 22	1	
	For additional information consult directions for us	For additional information consult directions for use under field corn.				
	Armyworm Banded Cucumber Beetle Beet Armyworm* Chinch Bugs Corn Earworm Corn Leaf Aphid Corn Rootworms (adults) Cutworms European Corn Borer Fall Armyworm (except CA) 1st and 2nd instar Flea Beetles Grasshoppers Oat Bird-Cherry Aphid Sap Beetles (adults) Southwestern Corn Borer Stalk Borer Tarnished Plant Bug	Banded Cucumber Beetle Beet Armyworm* Chinch Bugs Corn Earworm Corn Leaf Aphid Corn Rootworms (adults) Cutworms European Corn Borer Fall Armyworm (except CA) 1st and 2nd instar Flea Beetles Grasshoppers Oat Bird-Cherry Aphid Sap Beetles (adults) Southwestern Corn Borer Stalk Borer	22 - 13			
	Corn Silkfly (except CA)**	0.05	9.6	13	1	
	sult directions for use under field corn.  Corn Leaf Aphid & Oat Bird-Cherry Aphid – For opt to achieve maximum coverage of the exposed inst and leaf axils, may not be adequately controlled.  Corn Silkfly (except CA) – Direct application to the	Corn Leaf Aphid & Oat Bird-Cherry Aphid — 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.  Corn Silkfly (except CA) — Direct application to the ear zone to obtain thorough coverage of the corn silk.  Fall Armyworm (except CA) — 1st and 2nd instar fall armyworm only. Direct the application to the ear zone to obtain thorough coverage of the corn silk.				
Tomato	Tobacco Hornworm	0.015 - 0.03	2.9 - 5.8	44 - 22	1	
	Tomato Hornworm  Beet Armyworm* Cabbage Looper Colorado Potato Beetle Cutworms Flea Beetle Grasshoppers Potato Aphid Southern Armyworm Tomato Fruitworm Tomato Pinworm Western Yellow-Striped Armyworm	0.03 - 0.05	5.8 - 9.6	22 - 13		
	Whitefly					
	Whitefly Vegetable Leafminer**	0.05	9.6	13	]	
	,	0.00				

6.5"

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## SPECIALTY USES

		Applic	Low Volume				
		High Volume Sprays					
Crop	Insect	lb ai/100 gal	fl oz/100 gal	Sprays Ib ai/acre			
Christmas tree plantings, Conifer plantations, Conifer seed orchards, Forest tree nurseries	Balsam Twig Aphid Balsam Woolly Adelgid Cranberry Girdler (adult control) European Pine Sawfly Nantucket Pine Tip Moth and other Pine Tip Moths (except CA) Northern Pine Weevil Pales Weevil Pine Chafer Pine Conelet Bug Pine Needle Midge Pine Needle Midge Pineles Chermid Red Pine Sawfly Redheaded Pine Sawfly Spittlebugs Spruce Budworm	0.03 - 0.05	5.8 - 9.6	0.03 - 0.05			
	Spray in sufficient gallonage to obtain good coverage of entire tree.						
	Coneworm Seed Chalcid Seedbug	9.6 fl oz/100 gals water for high volume sprayers. 52 fl oz/1 water for low volume sprayers.  0.19 lb ai/acre application in not less than 10 gals of water tal applications.					
Apply first application within 1 week of female flower closure or peak pollen flight for Webbing Conev Coneworms and Seedbugs, apply first application within 30 days following female flower closure. Repe vals of 4 weeks but do not apply more than 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 a Apply approximately 5 - 10 gals of the 9.6 fl oz/100 gal dilution per tree with high volume sprayers. Wit apply 100 gals of the 52 fl oz/100 gal dilution per acre. Do not graze or harvest cover crop. Refer to Spray Precautions when applying to areas adjacent to water.			e flower closure. Repeat eek intervals for 2 or mor volume sprayers. With lo	application at inter- e sprays. w volume sprayers			

Crop	Insect	lb ai/acre	fl oz/acre	per gal of <i>Asana</i> XL	
Non-Cropland (excluding public land such as forests, parks, or recreational)	Grasshoppers Saltmarsh Caterpillar	0.015 - 0.03	2.9 - 5.8	44 - 22	
	Army Cutworms Armyworms Chinch Bugs	0.03 - 0.05	5.8 - 9.6	22 - 13	
Spray non-cropland adjacent to tilled areas to control migrating insects (Grasshoppers, Armyworms) which a crops. Do not apply more than 0.5 lbs active ingredient per acre per year. Do not feed treated crop to livestock. Recommendations and Precautions when applying to areas adjacent to water.					

**Application Rate** 

Acres treated

# STORAGE AND DISPOSAL

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

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

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Do not transport if container is damaged or leaking. If the container is dam-

aged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact 800-892-0099, day or night.

## DISCLAIMER, RISKS OF USING THIS PRODUCT, LIMITED WARRANTY AND LIMITATION OF LIABILITY

IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.

## RISKS OF USING THIS PRODUCT

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of Valent. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND AGREES THAT TO THE EXTENT CONSISTENT WITH APPLI-CABLE LAW RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

To the extent consistent with applicable law, Valent shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. To the extent consistent with applicable law, Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

## LIMITED WARRANTY

Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law AND EXCEPT AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

# LIMITATION OF LIABILITY

To the extent consistent with applicable law, Valent or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

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## PROMPT NOTICE OF CLAIM

To the extent consistent with applicable law allowing such requirements Valent must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of planting, or twenty-one days from the date of application, whichever is latter, so that an immediate inspection of the affected property and growing crops can be made.

To the extent consistent with applicable law if Buyer does not notify Valent of any claims, in such period, it shall be barred from obtaining any remedy.

## NO AMENDMENTS

Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing Disclaimer, Risks of Using This Product, Limited Warranty and Limitation of Liability, which may not be modified by any oral or written agreement.

## TANK MIXES

NOTICE: Combination or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor, consistent with applicable law.

Read and follow the entire label of each product to be used in combination with this product.

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Lorsban is a registered trademark of Dow AgroSciences LLC

# Valent U.S.A. LLC

P.O. Box 8025 Walnut Creek CA 94596-8025 Made in U.S.A. Form 2003-B 059639-00209.20150114.Asana\_XL\_NOTIF EPA Est. 5905-GA-1 EPA Est. 5905-GA-1 FORM: 2003-B

NAME: Asana XL Insecticide KIND: Composite Booklet

**SPEC**: 00334: .375 UCC:

(01) 0 06 53204 17883 1

PRODUCT SIZE: 2-1/2 Gallon

LABEL SIZE: 6.5"(w) x 7.25"(h) - book closed 13"(w) x 7.25"(h) - book open

7.25"(w) x 7.25"(h) - base

**Base** 

PMS 368 (green)

# 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.

# **NET CONTENTS 2-1/2 GALLONS**

Active Ingredient By Weight Esfenvalerate

(S)-cyano (3-phenoxyphenyl) methyl (S)-4-chloro-alpha-(1-methylethyl)

benzeneacetate 8.4% Inert Ingredients\* 91.6%

\*CONTAINS XYLENE RANGE AROMATIC SOLVENT

This product contains 0.66 lbs Active Ingredient per gallon.

0.66 Emulsible Concentrate

EPA Reg. No. 59639-209 EPA Est. No. 5905-GA-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.)

Valent U.S.A. LLC

P.O. Box 8025

Walnut Creek CA 94596-8025







Form 2003-B