

PH 12 264-333

1 of 22

SEVIN® brand XLR PLUS Carbaryl Insecticide

For Agricultural or Commercial Use Only

ACTIVE INGREDIENT:
 Carbaryl (1-naphthyl N-methylcarbamate)41.2% by wt.

INERT INGREDIENTS58.8% by wt.

(Contains 4 Pounds Carbaryl Per Gallon)

E.P.A. Reg. No. 264-333

E.P.A. Est. No. 264-MO-02

KEEP OUT OF REACH OF CHILDREN CAUTION CUIDADO

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

FOR ADDITIONAL PRECAUTIONARY STATEMENTS See Inside Booklet.

For **PRODUCT USE** Information Call 1-800-334-9745

For **MEDICAL** And **TRANSPORTATION** Emergencies **ONLY** Call 24 Hours A Day 1-800-334-7577

PRECAUTIONARY STATEMENTS

CAUTION

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

MAY BE HARMFUL IF SWALLOWED OR INHALED. OVEREXPOSURE MAY CAUSE: Salivation, watery eyes, pinpoint eye pupils, blurred vision, muscle tremors, difficult breathing, excessive sweating, abdominal cramps, nausea, vomiting, diarrhea, weakness, headache. IN SEVERE CASES CONVULSION, UNCONSCIOUSNESS AND RESPIRATORY FAILURE MAY OCCUR. SIGNS AND SYMPTOMS OF OVEREXPOSURE OCCUR RAPIDLY FOLLOWING EXPOSURE TO THIS PRODUCT.

Avoid breathing spray mist. Do not take internally. Avoid contact with eyes, skin or clothing. Wear regular long-sleeved work clothing and head covering. Change to clean clothing daily. Bathe and wash hair after each work day. Do not eat, drink or use tobacco while working with this product or spray solutions. Wash hands and face before eating, drinking or using tobacco. Keep out of reach of children and domestic animals.

ANTIDOTE STATEMENT

ATROPINE SULFATE IS HIGHLY EFFECTIVE AS AN ANTIDOTE. Narcotics and other sedatives should not be used. Further, drugs like 2-PAM (pyridine-2-aldoxime methiodide) are NOT recommended. See NOTE TO PHYSICIAN below.

STATEMENT OF PRACTICAL TREATMENT

GENERAL

Contact a physician immediately in all cases of suspected poisoning. Transport to a physician or hospital immediately and SHOW A COPY OF THIS LABEL TO THE PHYSICIAN. If poisoning is suspected in animals, contact a veterinarian.

IF SWALLOWED: Never give anything by mouth to an unconscious or convulsing person. If conscious and not convulsing, drink 1 to 2 glasses of water and induce vomiting by touching the back of the throat with finger.

IF IN EYES: Flush eyes with plenty of water. Get medical attention if irritation persists.

IF ON SKIN: Wash thoroughly with soap and water.

IF INHALED: Move from contaminated atmosphere and call a physician.

NOTE TO PHYSICIAN

Treat symptomatically. Overexposure to materials other than this product may have occurred.

This product contains an oxime carbamate insecticide, which is a cholinesterase inhibitor. Overexposure to this substance may cause toxic signs and symptoms due to stimulation of the cholinergic nervous system. These effects of overexposure are spontaneously and rapidly reversible. Gastric lavage may be used if this product has been swallowed. Carbaryl poisoning may occur rapidly after ingestion and prompt removal of stomach contents is indicated.

Specific treatment consists of parenteral atropine sulfate. Improve tissue oxygenation as much as possible before administering atropine to minimize the risk of ventricular fibrillation. Mild cases may be given 1 to 2 mg intramuscularly every 10 minutes until full atropinization has been achieved and repeated thereafter whenever symptoms reappear. Severe cases should be given 2 to 4 mg intravenously every 10 minutes until fully atropinized, then intramuscularly every 30 to 60 minutes as needed to maintain the effect for at least 12 hours. Dosages for children should be appropriately reduced. Complete recovery from overexposure is to be expected within 24 hours.

Narcotics and other sedatives should not be used. Further, drugs like 2-PAM (pyridine-2-aldoxime methiodide) are NOT recommended.

To aid in confirmation of a diagnosis, urine samples should be obtained within 24 hours of exposure and immediately frozen. Call Rhône-Poulenc, 1-800-334-7577 before sending samples. Analyses will be arranged by Rhône-Poulenc Ag Company.

ACCEPTED

FEB 12 1991

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under 264-333 EPA Reg. No.

ENVIRONMENTAL HAZARDS

This product is extremely toxic to aquatic and estuarine invertebrates. Do not apply directly to water and wetlands, except under the forest canopy and use on rice. Discharge from rice fields may kill aquatic and estuarine invertebrates. Do not apply when weather conditions favor drift from area treated. Do not contaminate water by cleaning equipment. Do not contaminate water when disposing of equipment washwaters.

BEE CAUTION

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. However, field studies have shown that SEVIN® brand XLR PLUS Carbaryl Insecticide is less hazardous to honey bees than other carbaryl products when direct application to bees is avoided and the spray residues have dried. For maximum honey bee hazard reduction, apply from late evening to early morning or when bees are not foraging. Do not apply this product or allow it to drift to blooming crops or weeds if bees are foraging in the treatment area. However, applications may be made during foraging periods if the beekeeper takes one of the following precautionary measures prior to bee flight activity on the day of treatment: (1) Confine the honey bees to the hive by covering the colony or screening the entrance or; (2) locate hives beyond bee flight range from the treated area. Precautionary measures may be discontinued after spray residues have dried. Contact your cooperative Agricultural Extension Service or your local Rhone-Poulenc Ag Company representative for further information.

DIRECTIONS FOR USE

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING.

READ THIS LABEL BEFORE USE. STRICTLY OBSERVE LABEL DIRECTIONS AND CAUTIONS, AND APPLICABLE FEDERAL AND STATE REGULATIONS. DO NOT USE ON ANY CROP NOT LISTED ON THIS LABEL OR SUPPLEMENTAL LABELING AS ANY RESIDUES REMAINING MAY BE ILLEGAL OR HARMFUL.

GENERAL INFORMATION

SEVIN® brand XLR PLUS Carbaryl Insecticide is a suspension of microfine SEVIN® brand carbaryl insecticide in an aqueous medium. It readily disperses in water to form a spray which may be applied by air or ground.

GENERAL WORKER PROTECTION STATEMENT

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

Do not enter treated areas without protective clothing until sprays have dried.

Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. Advise workers to stay out of treated areas until spray deposits have dried unless suitable clothing is worn. This includes regular long-sleeved and long-legged work clothing as well as head covering (overhead applications). See PRECAUTIONARY STATEMENTS, STATEMENT OF PRACTICAL TREATMENT and NOTE TO PHYSICIAN for additional information. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: appropriate signal word (CAUTION), area treated with SEVIN® brand XLR PLUS Carbaryl Insecticide, date of application, appropriate clothing, and re-entry interval (i.e., until sprays have dried) and actions to be taken in case of accidental exposure.

PREHARVEST AND GRAZING USE INFORMATION AND LIMITATIONS

Tolerances established under the Federal Food, Drug and Cosmetic Act permit the sale of labeled crops bearing probable carbaryl residues when this product is used in accordance with the label directions. If used as directed, treated forage may be grazed or used as feed for dairy and meat animals without causing illegal residues in meat or milk. This product may be applied up to and including the day of harvest or grazing of forage unless noted otherwise in use directions for specific crops. Do not apply at greater rates or at more frequent intervals than is stated on the label. To do so may result in illegal residues in crops, meat, and milk.

Do not plant rotational food and feed crops not listed on this or other carbaryl labels in carbaryl treated soil.

Do not use reclaimed irrigation water from crops treated with carbaryl on crops for which carbaryl tolerances are not established.

PLANT RESPONSE PRECAUTIONS

Application to wet foliage or during periods of high humidity may cause injury to tender foliage.

Do not use on Boston Ivy, Virginia creeper and maidenhair fern as injury may result. Carbaryl may also injure Virginia and sand pines.

The use of adjuvants may increase the potential for crop injury to sensitive crops.

SPRAY PREPARATION

TO ASSURE A UNIFORM SUSPENSION, AGITATE, STIR OR RECIRCULATE ALL CONTAINERS OF THIS PRODUCT PRIOR TO USE. Remove oil, rust, scale, pesticide residues and other foreign matter from mix tanks and entire spray system. Flush with clean water. Fill spray or mix tank with 1/2 to 3/4 the desired amount of water. Start mechanical or hydraulic agitation. Slowly add the required amount of SEVIN® brand XLR PLUS Carbaryl Insecticide, and then the remaining volume of water. Include rinse water from container. Prepare only as much spray mixture as can be applied on the day of mixing. MAINTAIN CONTINUOUS AGITATION DURING MIXING AND APPLICATION TO ASSURE A UNIFORM SUSPENSION. DO NOT STORE SPRAY MIXTURE FOR PROLONGED PERIODS OR DEGRADATION OF CARBARYL MAY OCCUR. Local water conditions may also accelerate the degradation of spray mixtures containing carbaryl. See COMPATIBILITY STATEMENT below.

WASHOFF RESISTANCE AND COVERAGE

Dilution of 1 volume of SEVIN® brand XLR PLUS Carbaryl Insecticide with 1 volume of water provides maximum resistance to washoff by rainfall or overhead irrigation. Dilutions higher than 1 part SEVIN® brand XLR PLUS Carbaryl Insecticide to 39 parts water (1:39) are not recommended when washoff resistance is desired.

To achieve washoff resistance, SEVIN® brand XLR PLUS Carbaryl Insecticide must be diluted as stated above, and droplets must dry on the foliage. When atmospheric humidity is low, a drying time of at least two hours is generally adequate. Under high humidity a longer drying time is required. Washoff resistance cannot be expected if this product is applied to wet foliage and has not thoroughly dried prior to rainfall or overhead irrigation.

On all crops, use sufficient spray volume to obtain thorough coverage. Optimum pest control under certain crop, pest or climatic conditions may require spray gallonages higher than the 1:39 dilution. For example in hot, arid weather (low humidity), higher spray gallonage per acre may be required to compensate for loss from evaporation and insure thorough coverage. The total spray volume required for effective pest control can best be determined by previous experience, pest and crop conditions and local recommendations.

COMPATIBILITY

SEVIN® brand XLR PLUS Carbaryl Insecticide, when diluted with at least an equal volume of water, is compatible with a wide range of pesticides. It is not compatible with diesel fuel, kerosene, fuel oil or aromatic solvents. If compatibility with another product and the resulting crop response is unknown, the mixture should be tested on a small scale. Curdling, precipitation, greasing, layer formation or increased viscosity are symptoms of incompatibility. Incompatibility will reduce insect control and may cause application and handling difficulties or plant injury. Observe all cautions and limitations on labeling of all products used in mixtures. **WHEN PREPARING COMBINATION SPRAYS, FIRST ADD SEVIN® BRAND XLR PLUS CARBARYL INSECTICIDE TO AT LEAST AN EQUAL VOLUME OF WATER, MIX THOROUGHLY, AND THEN ADD COMBINATION PRODUCTS TO THE MIXTURE. DO NOT APPLY TANK MIX COMBINATIONS UNLESS YOUR PREVIOUS EXPERIENCE INDICATES THE MIXTURE IS EFFECTIVE AND WILL NOT RESULT IN APPLICATION PROBLEMS OR PLANT INJURY.**

Carbaryl is unstable under highly alkaline conditions and mixtures with strong bases, such as Bordeaux, lime-sulfur and casein-lime spreaders, will result in chemical degradation of the insecticide. Do not use this product in water with pH values above 8.0 unless a buffer is added. If necessary, water should be buffered to neutral (pH = 7.0) before adding this product to the spray tank. Overhead irrigation with alkaline or muddy water after application will also accelerate chemical degradation and may result in reduced insect control.

APPLICATION

On all crops use sufficient gallonage to obtain thorough and uniform coverage. Observe crop label instructions for specific directions regarding spray volume where they occur. Calibrate spray equipment to deliver the required volume. The flow rate of this product diluted 1:1 with water is similar to water. Use of 50 mesh slotted strainers in spray system and 25 mesh slotted strainers behind nozzles is recommended.

To clean spray system after use, drain and flush with a water and detergent mixture. Rinse thoroughly with clean water. Refer to the STORAGE AND DISPOSAL section for disposal instructions.

NOTE: Staining may occur on certain surfaces such as stucco, brick, cinder block, and wood. Spray deposits on painted or stained surfaces or finishes (i.e., cars, houses, trailers, boats, etc.) should be immediately removed by washing to prevent discoloration. Avoid applications to surfaces where visible spray residues are objectionable.

DIRECTIONS FOR USE THROUGH SPRINKLER IRRIGATION SYSTEMS

Apply this product only through sprinkler irrigation systems including center pivot and solid set. Do not apply this product through any other type of irrigation system.

SPRAY PREPARATION: First prepare a suspension of SEVIN® brand XLR PLUS Carbaryl Insecticide in a mix tank. Fill tank with 1/2 to 3/4 the desired amount of water. Start mechanical or hydraulic agitation. Add the required amount of SEVIN® brand XLR PLUS, and then the remaining volume of water. (Suspension concentrations using the appropriate dosage per acre recommended on this label of SEVIN® BRAND XLR PLUS, per 1 to 4 gallons of water are recommended). Then set sprinkler to deliver 0.1 to 0.3 inch of water per acre. Start sprinkler and uniformly inject the suspension of SEVIN® brand XLR PLUS into the irrigation water line so as to deliver the desired rate per acre. The suspension of SEVIN® and XLR PLUS should be injected with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing. If you should have any other questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

NOTE: When treatment with SEVIN® brand XLR PLUS has been completed, further field irrigation over the treated area should be avoided for 24 to 48 hours to prevent washing the chemical off the crop.

GENERAL PRECAUTIONS FOR APPLICATIONS THROUGH SPRINKLER IRRIGATION SYSTEMS

Maintain continuous agitation in mix tank during mixing and application to assure a uniform suspension.

Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute solution per unit time.

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 shutdown. 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. Do not apply when wind speed favors drift beyond the area intended for treatment.

Do not apply when wind speed favors drift, when system connection or fittings leak, when nozzles do not provide uniform distribution or when lines containing the product must be dismantled and drained.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop may result from nonuniform distribution of treated water.

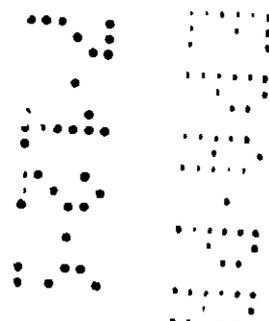
Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. A person knowledgeable of the chemigation system and responsible for its operation shall shut the system down and make necessary adjustments should the need arise.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the label-prescribed safety devices for public water supplies are in place.

INSECT CONTROL

Begin application when insect populations reach recognized economic threshold levels. Consult the Cooperative Extension Service, Professional Consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area. Where a dosage range is indicated, use the lower rate on light to moderate infestations, young plants and early instars and the higher rate on heavy infestations, mature plants, advanced instars and adults. Thorough and uniform spray coverage is essential for effective control.

NOTE: All references to armyworm on the crops listed below refer to the species, *Pseudaletia unipuncta*, often called the "true armyworm". Except where indicated otherwise, this product is not registered for the control of other armyworm species. Regional differences have been noted in the susceptibility of certain strains of fall armyworm, diamondback moth, Colorado potato beetle, spotted tentiform leaf miner, Southern green stink bug and tobacco budworm (on cotton) to carbaryl. If local experience indicates inadequate control, use an alternative pesticide.



GRASSHOPPERS

5042

CROP	QUARTS OF SEVIN® BRAND XLR PLUS/ACRE	PREHARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
All Crops on this label	1/2 to 1 1/2	See specific crop sections	Apply 1/2 to 3/4 quarts per acre of this product for nymphs on small plants or sparse vegetation in wasteland, rangeland, ditchbanks and borders. Apply 1 to 1 1/2 quarts per acre for mature grasshoppers or applications to dense vegetation or if extended residual control is desired. Be certain spray volumes are appropriate to assure adequate coverage.

FORAGE, FIELD AND VEGETABLE CROPS

Apply in sufficient spray volume to obtain thorough coverage. Do not dilute greater than 1:39 (volume product: volume water) where washoff resistance is desired. Where maximum washoff resistance is needed, do not exceed a 1:1 dilution. To prepare small volumes of spray mixture use 1 tablespoonful (1/2 fluid ounce) of SEVIN® brand XLR PLUS Carbaryl Insecticide per gallon of water where rates of 1 quart per acre or 1 quart per 100 gallons are indicated in the tables below.

CROP	INSECT	QUARTS OF SEVIN® BRAND XLR PLUS/ACRE	PREHARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS	
Alfalfa, Clovers, Birdsfoot trefoil (DO NOT USE ON BIRDSFOOT TREFOIL IN CALIFORNIA)	Blister beetles	1/2 to 1	0 (clovers & birdsfoot trefoil)	OBSERVE BEE CAUTION	
	Mexican bean beetle				
	Alfalfa caterpillar	Potato leafhopper	1	7 (alfalfa)	Observe plant response precautions. Carbaryl may cause a temporary bleaching of tender alfalfa foliage. Apply only once per cutting for alfalfa up to 1 1/2 quarts.
	Bean leaf beetle	Three cornered alfalfa hopper			
	Cucumber beetles	Thrips			
	Green cloverworm	Velvetbean caterpillar	1 to 1 1/2	On dense growth, use 25 to 40 gallons of water per acre with ground equipment to ensure adequate coverage. For alfalfa weevil larvae, if pretreatment damage is extensive, cut alfalfa and treat the stubble. This product is not effective against <u>adult</u> alfalfa weevils.	
	Japanese beetle	European alfalfa beetle			
	Leafhoppers	Fall armyworm			
	Alfalfa blotch leafminer	Lygus bugs			
	Amyworm	Stink bugs			
Cloverhead weevil	Webworms				
Corn earworm	Yellowstriped armyworm				
Cutworms		1 to 1/2	For grasshopper control, refer to the GRASSHOPPER section above.		
Egyptian alfalfa weevil larvae	Alfalfa weevil larvae (West of the Rocky Mountains)				
Essex skipper	Alfalfa weevil larvae (East of the Rocky Mountains)	1 1/2			

CROP	INSECT		QUARTS OF SEVIN® BRAND XLR PLUS/ACRE	PREHARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
Asparagus	Asparagus beetle		1 to 2	1	Treat ferns or brush growth. Do not treat more than once every 3 days. For grasshopper control, refer to the GRASSHOPPER section.
	Apache cicada Asparagus beetle		2 to 4	Post harvest application only	
Beans (including blackeyed peas, cowpeas, southern peas, dry beans, green beans, lima beans, navy beans, and snap beans) Lentils (DO NOT USE ON LENTILS IN CALIFORNIA)	Blister beetles Mexican bean beetle		1/2 to 1	0 (except cowpeas and lentils) 3 (cowpeas) 7 (lentils)	Observe plant response precautions. For grasshopper control, refer to the GRASSHOPPER section.
	Alfalfa caterpillar	Three-cornered alfalfa hopper	1		
	Bean leaf beetles	Thrips			
	Cucumber beetles	Velvetbean caterpillar			
	Flea beetles	Western bean cutworm			
	Green cloverworm				
	Japanese beetle				
	Leafhoppers				
	Armyworm	Fall armyworm			
	Corn earworm	Stink bugs			
Cutworms	Tarnished plant bug				
European corn borer	Webworms				
	Alfalfa looper	1 1/2			
	Cowpea curculio	2			
	Corn earworm	Lygus bugs	2		
	Limabean podborer	Stink bugs		CALIFORNIA ONLY	
Cabbage Broccoli Brussels sprouts Cauliflower Kohlrabi	Flea beetles	Harlequin bug	1/2 to 1	3	For grasshopper control, refer to the GRASSHOPPER section.
	Armyworm	Fall armyworm	1 to 2		
	Corn earworm	Imported cabbageworm			
Diamondback moth					
Chinese cabbage Collards Hanover salad Horseradish Kale Mustard greens Radishes Rutabagas Turnips	Flea beetles	Leafhoppers	1/2 to 1	3 (horseradish, radishes, rutabagas and turnip roots)	For grasshopper control, refer to the GRASSHOPPER section.
	Harlequin bug				
	Aster leafhopper		1 to 1 1/2		
	Armyworm	Stink bugs	1 to 2	14 (Chinese cabbage, collards, Hanover salad, kale, mustard greens, and turnip tops)	
	Corn earworm	Tarnished plant bug			
	Fall armyworm				
Imported cabbageworm					

CROP	INSECT		QUARTS OF SEVIN® BRAND XLR PLUS/ACRE	PREHARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
Carrots Celery Parsley Parsnips (DO NOT USE ON CELERY IN CALIFORNIA)	Flea beetles	Leafhoppers	1/2 to 1	0 (carrots)	For grasshopper control, refer to the general GRASSHOPPER section.
	Aster leafhopper Lygus bugs	Spittlebugs	1 to 1 1/2	3 (parsnips)	
	Amyworm Corn earworm Fall armyworm	Stink bugs Tarnished plant bug	1 to 2	14 (celery & parsley)	
Corn (field, sweet, pop)	Amyworm Chinch bugs Corn earworm Corn rootworm adults Fall armyworm	Flea beetles Japanese beetle Sap beetles Southwestern corn borer Leafhoppers	1 to 2	0	<p>OBSERVE BEE CAUTION. For insects attacking silks and ears, apply at 1 to 6 day intervals starting when first silks appear and continuing until silks begin to dry. For larvae in whorl and foliage feeders, apply as necessary. Optimum timing and good coverage are essential for effective control. For optimum chinch bug control, apply at least 20 gallons of water per acre by ground and direct spray toward stalk to provide thorough coverage.</p> <p>For grasshopper control, refer to the general GRASSHOPPER section.</p> <p>For optimum control, do not apply in less than 3 gallons of water per acre by air and 15 gallons of water per acre by ground.</p> <p>Treat when infestation averages 15% and at 90% to 100% tassel emergence. Treatment after 100% silk emergence will reduce effectiveness.</p> <p>For optimum control, apply in a 12 inch band, over the row, using sufficient volume of water to obtain thorough coverage. For broadcast application, use at least 20 gallons (ground) or 5 gallons (air) of water per acre.</p>
	European corn borer		1 1/2 to 2		
	Western bean cutworm		2		
	Cutworms		2 to 3		
Cotton	Cotton fleahopper Cotton leafworm Flea beetles	Striped blister beetle Thrips	1/2 to 1		<p>Use banded and/or directed sprays for optimum control of early season pests. Total coverage is essential for maximum control.</p> <p>For grasshopper control, refer to the general GRASSHOPPER section.</p> <p>Treat on a 5 to 7 day schedule for as long as control is necessary. Mid and late season insect control. May be applied after bolls open.</p> <p>For light to moderate populations in Western irrigated cotton. Aphid populations will be suppressed by repeated applications of this insecticide.</p>
	Boll weevil Cotton bollworm Fall armyworm Leafrollers Leafhoppers	Tarnished plant bug Yellowstriped armyworm (cotton cutworm)	1 to 2		
	Lygus bugs		1 to 2		
	Pink bollworm		1 1/2 to 2 1/2		
	Cutworms Stink bugs	Saltmarsh caterpillar	2		

7

CROP	INSECT		QUARTS OF SEVIN® BRAND XLR PLUS/ACRE	PREHARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
Cucumber Melons Pumpkin Squash	Pickleworm	Melonworm	1/2 to 1	0	Observe plant response precautions. For optimum control of squash bugs, apply sufficient spray volume for thorough coverage. Time sprays for early morning or late afternoon.
	Cucumber beetles Flea beetles	Leafhoppers Squash bugs	1		
Dandelion Endive (Escarole) Lettuce Salsify	Flea beetles Harlequin bug	Leafhoppers	1/2 to 1	3 (head lettuce & salsify roots)	Observe plant response precautions.
	Aster leafhopper Lygus bugs	Spittlebugs	1 to 1 1/2	14 (dandelion, endive (escarole), leaf lettuce & salsify tops)	For grasshopper control, refer to the general GRASSHOPPER section.
	Amyworm Corn earworm Fall armyworm Imported cabbageworm	Stink bugs Tarnished plant bug	1 to 2		
Flax Proso Millet (DO NOT USE IN CALIFORNIA)	Amyworm		1 to 1 1/2	42	Do not graze treated areas or harvest for dairy feed prior to crop maturity. For grasshopper control, refer to the general GRASSHOPPER section.
Garden beet Spinach Swiss chard	Flea beetles Harlequin bug	Leafhoppers	1/2 to 1	3 (garden beet roots)	For grasshopper control, refer to the general GRASSHOPPER section.
	Aster leafhopper		1 to 1 1/2	14 (garden beet tops, spinach, Swiss chard)	
	Amyworm Corn earworm Fall armyworm	Stink bugs Tarnished plant bug	1 to 2		
Okra	Corn earworm	Stink bugs	1 to 2	0	For grasshopper control, refer to the general GRASSHOPPER section.
Pasture	Amyworm Chinch bugs Essex skipper Fall armyworm Striped grass looper Thrips Range caterpillar Range crane fly Ticks		1 to 1 1/2	0 (aerial application)	To control thrips in grasses grown for seed, use high spray pressure to improve penetration into boot.
				14 (ground applications)	Apply a maximum of 2 applications per year. Allow at least 14 days between applications. Do not allow foraging or cut for hay within 14 days of last application by ground. Aerially treated pastures may be grazed or cut for hay on day of treatment. Carefully mark swaths to avoid over-application. For grasshopper control, refer to the general GRASSHOPPER section. Not for use on ticks in California.

CROP	INSECT		QUARTS OF SEVIN® BRAND XLR PLUS/ACRE	PREHARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
Peanuts	Blister beetles	Mexican bean beetle	1/2 to 1		Observe plant response precautions.
	Alfalfa caterpillar Bean leaf beetle Cucumber beetles Green cloverworm Japanese beetle Leafhoppers Rednecked peanutworm	Three cornered alfalfa hopper Thrips Velvetbean caterpillar	1	0	Use directed sprays for optimum control of thrips. Ensure adequate coverage for the underside of leaves. For grasshopper control, refer to the general GRASSHOPPER section.
	Amyworm Corn earworm Fall armyworm	Stinkworms Webworms	1 to 1 1/2		
	Whitefringed beetle adults	Cutworms	2		
Peas	Colorado potato beetle Leafhoppers		1	3	For grasshopper control, refer to the general GRASSHOPPER section.
	Amyworm		1 to 1 1/2		
	Alfalfa caterpillar Cutworms Pea leaf weevil	Pea weevil Yellowstriped armyworm	1 1/2		
	Alfalfa looper		2 1/2		WASHINGTON STATE ONLY
Potato Tomato Eggplant Pepper	Flea beetles	Leafhoppers	1/2 to 1		Thorough coverage is essential to effectively suppress stink bugs. When disease transmission is suspected, monitor fields following application and re-treat if reinfestation occurs. For grasshopper control, refer to the general GRASSHOPPER section.
	Colorado potato beetle European corn borer Fall army worm Lace bugs	Stink bugs (suppression) Tarnished plant bug Tomato fruitworm Tomato hornworm Tomato pinworm	1 to 2	0	
	Cutworms		2		
Prickly Pear cactus	Cochineal scale (crawlers)		2	1	Apply as needed at 7 - 10 day intervals. Do not make more than 7 applications per season. For grasshopper control, refer to the general GRASSHOPPER section.
Rangeland	Black grass bug Mormon cricket Range caterpillar Range crane fly		1/2 to 1	0	FOR AERIAL APPLICATION ONLY. Apply a maximum of 2 applications per year. Allow at least 14 days between applications. Carefully mark swaths to avoid over-application. For grasshopper control, refer to the general GRASSHOPPER section.
	Ticks		1 to 1 1/2		Not for use on ticks in California.

CROP	INSECT		QUARTS OF SEVIN® BRAND XLR PLUS/ACRE	PREHARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
Rice	Armyworm	Fall armyworm	1 to 1 1/2	14	<p>MISSISSIPPI DELTA & TEXAS CAUTION: May kill shrimp and crabs. Do not use in areas where these are important resources. Do not use on rice fields in which crayfish and catfish farming are included in the cultural practice. DO NOT APPLY PROPANIL HERBICIDES WITHIN 15 DAYS BEFORE OR AFTER APPLICATION OF THIS PRODUCT OR PLANT INJURY WILL RESULT.</p> <p>For grasshopper control, refer to the general GRASSHOPPER section.</p>
	Chinch bugs	Stink bugs			
	Armyworm	Tadpole shrimp	2		<p>CALIFORNIA ONLY For optimum tadpole shrimp control, apply to water when pest first appears.</p>
Sorghum (milo, grain sweet and hybrid)	Sorghum midge		3/4 to 1		<p>Direct spray into forming heads for optimum insect control. Treat for sorghum midge when 25 to 30 percent of heads have emerged from boot and are in bloom. Use high pressure spray in sufficient volume to ensure penetration into heads. Repeat application 3 to 5 days later if adults are still active. A third application may be necessary in late planted sorghum or if midge are abundant. For chinch bugs, use high gallonage ground application directed at the base of plants.</p> <p>For grasshopper control, refer to the general GRASSHOPPER section.</p>
	Armyworm	Fall armyworm	1 to 2	21 (grain)	
	Chinch bugs	Stink bugs		0 (forage)	
	Corn earworm	Webworms			
	Southwestern corn borer		1 1/2		
	Cutworms		2		
Soybeans	Bean leaf beetle	Japanese beetle	1/2 to 1	0	<p>DO NOT APPLY A COMBINATION OF THIS PRODUCT AND 2,4 DB HERBICIDES TO SOYBEANS AS CROP INJURY MAY RESULT. Use lower rates for light to moderate populations and smaller instars and to provide maximum survival of beneficial insects and spiders. Use the higher rates for heavy populations and larger instars.</p> <p>For grasshopper control, refer to the general GRASSHOPPER section.</p>
	Blister beetle	Mexican bean beetle			
	Cucumber beetles	Velvetbean caterpillar			
	Grape colaspis		1/2 to 1 1/2		
	Green cloverworm				
	Corn earworm		1		
Alfalfa caterpillar	Three cornered alfalfa hopper				
Leafhoppers	Thrips				
	Armyworm	Fall armyworm	1 to 1 1/2		
	Cutworms	Webworms			
	Painted lady (Thistle caterpillar)	Yellowstriped armyworm	1 1/2 to 2		
	Saltmarsh caterpillar (Woollybear caterpillar)				



CROP	INSECT		QUARTS OF SEVIN® BRAND XLR PLUS/ACRE	PREHARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
Sugar beets	Amyworm	Flea beetles	1 to 1 1/2	14	For grasshopper control, refer to the general GRASSHOPPER section.
	Beet leaf beetle	Leafhoppers			
	Fall armyworm	Webworms			
	Cutworms		1 1/2		
Sunflower (DO NOT USE IN CALIFORNIA)	Cutworms		1 1/2	60	For grasshopper control, refer to the general GRASSHOPPER section.
	Amyworm		1 1/2 to 2		
	Fall armyworm				
	Sunflower moth				
	Stem weevil	Sunflower beetle	1 to 2		
Sweet Potato (DO NOT USE IN CALIFORNIA)	Corn earworm	Sweet potato hornworm	1 to 2	0	Apply as a foliar spray as needed. For grasshopper control, refer to the general GRASSHOPPER section.
	Cucumber beetles				
	Flea beetles	Tortoise beetles			
	Yellowstriped armyworm		2		
	Sweet potato weevil		1 to 2		
Tobacco Plant bed treatment	Flea beetle		1	0	OBSERVE PLANT RESPONSE PRECAUTIONS. For flea beetle control, use 4 tps. (0.7 fl. oz.) in 6 gallons of water and apply to 100 square yards.
	Green June beetle grubs		8		For green June beetle grub control, mix 11 tablespoons (5.5 fl. oz.) in 50 to 100 gallons of water and apply to 100 square yards. Applications should be made to areas that larvae have uprooted by sprinkling mixture as a drench treatment.
Field treatment	Budworms	Japanese beetle	1 to 2		Use lower rate on young plants (up to knee height). Use at least 10 gallons of prepared spray per acre. Begin treatments when worms are small. For grasshopper control, refer to the general GRASSHOPPER section.
	Fall armyworm	June beetle			
	Flea beetles	Suckfly			
	Hornworms				
Wasteland, Rights-of Way, Hedgerows, Ditch banks, Roadsides	Black grass bug		1/2 to 1	0 (aerial application)	Apply a maximum of 2 applications per year. Allow at least 14 days between applications.
	Mormon cricket			14 (ground application)	Do not allow foraging or cut for hay within 14 days of last application by ground. Aerially treated areas may be grazed or cut for hay on day of treatment.
	Range caterpillar				Carefully mark swaths to avoid over-application.
	Range crane fly				For grasshopper control, refer to the general GRASSHOPPER section.
	Ticks		1 to 1 1/2		Not for use on ticks in California.

CROP	INSECT		QUARTS OF SEVIN® BRAND XLR PLUS/ACRE	PREHARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
Wheat (including triticale) (DO NOT USE IN CALIFORNIA)	Flea beetles		1/2 to 1	0	Application is effective against eggs, larvae and adult of the cereal leaf beetle Application for armyworm control should be made when armyworms are actively feeding on the upper foliage and night temperatures are not expected to drop below 55° F. If applying by air, use a minimum of 5 GPA for optimal coverage. For grasshopper control, refer to the general GRASSHOPPER section.
	Cereal leaf beetle		1	(forage)	
	Armyworm		Fall armyworm	1 to 1 1/2	

TREE FRUIT AND NUT CROPS

For dilute sprays, apply the specified dosage per each 100 gallons of water. For concentrate and aerial sprays, maintain the recommended rate per acre equivalent to that used in a dilute spray. The optimum spray gallonage will depend on tree size, density and stage of growth. Typical spray gallonages per acre range from but are not limited to 100 - 600 gallons for dilute sprays, 20 - 100 gallons for concentrate sprays and 3 - 25 gallons for aerial sprays. Do not exceed maximum label rate per acre per application.

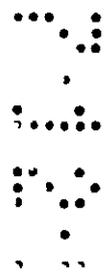
APPLE THINNING

CROP	QUARTS OF SEVIN® BRAND XLR PLUS/100 GAL.	PREHARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
APPLES	1/4 to 1/2	1	<p>OBSERVE BEE CAUTION.</p> <p>Apply 1 full coverage dilute spray between 10 and 25 days after full bloom. Factors such as tree age, variety, nutrition, previous crop, pruning, bloom and degree of set favor excessive fruit thinning with this product. Exercise caution to avoid possible yield reduction. Rates may vary depending on variety and local orchard conditions.</p> <p>Consult with your County Extension Service or other experts for advice on the proper use of this product.</p> <p>In Eastern apple growing areas, tank mix combinations of Carbaryl and Naphthaleneacetic Acid (NAA) or Naphthaleneacetamide (NAD) have successfully thinned several early-maturing, heavy-setting varieties, as well as hard-to-thin varieties such as Golden Delicious and Rhode Island Greening. The higher rate of Carbaryl and reduced rates of NAA or NAD are recommended for the combination. Also, a petal fall application of NAA or NAD followed 7 to 10 days later by an application of Carbaryl has improved thinning on these varieties.</p> <p>For easily thinned varieties including Cortland, Grimes, Jonathan, McIntosh, Orleans, Rome Beauty, Puritan, Red Delicious, Winesap, Yellow Newtown.</p>
	1/2 to 1	1	<p>For difficult to thin varieties including Baldwin, Ben Davis, Duchess, Early McIntosh, Golden Delicious, Lady Apple, Northern Spy, Rhode Island Greening, Steele Red, Turley, Wealthy, Yellow Transparent, and York Imperial.</p>

CROP	INSECT	QUARTS OF SEVIN® BRAND XLR PLUS/100 GALS.	PREHARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
Almond	Peach twig borer San Jose scale Fruittree leafroller	1	28	OBSERVE BEE CAUTION. For peach twig borer, apply in "popcorn" or petal fall stages when the May brood begins to hatch or thereafter as needed.
	Navel orangeworm			For dormant or delayed dormant timing, apply in combination with a recommended dormant oil. Time early and mid season applications to correspond to moth flight peaks. Do not apply more than 5 quarts per acre.
Avocados (FOR CALIFORNIA USE ONLY)	Gypsy moth Japanese beetle	1/2	1	For grasshopper control, refer to the general GRASSHOPPER section. FOR USE IN JAPANESE BEETLE AND GYPSY MOTH ERADICATION PROGRAMS IN CALIFORNIA ONLY. Use with ground equipment and spray to run off. Apply when insects or their damage appear. Do not make more than 1 application per season.
Chestnuts (DO NOT USE IN CALIFORNIA)	Chestnut weevil	2 to 3	0	For grasshopper control, refer to the general GRASSHOPPER section. Make 4 applications at weekly intervals beginning in late July for adult chestnut weevil control. Last application should be made prior to shuck split.
Citrus Fruits (such as grapefruit, lemons, limes, oranges, tangelos, tangerines, citrus citron, kumquats and hybrids)	Avocado leafroller California orangedog Citrus cutworm Citrus root weevils Citrus rust mite Fruittree leafroller Fuller rose beetle	Little leaf notcher (Adult) Orange tortrix Western tussock moth West Indian sugarcane borer (adults)	1	OBSERVE BEE CAUTION. Do not apply more than 20 quarts of this product per acre per application. May be mixed with petroleum oils commonly used on citrus.
	Black scale Brown soft scale California red scale	Citricola scale Citrus snow scale Eriophyid mites Yellow scale	3/4 to 1	For grasshopper control, refer to the general GRASSHOPPER section.
Filbert	Filbert aphid Filbert leafroller Filbertworm	1	0	Apply when leafroller eggs are hatching. Repeat on first appearance of adult filbert moths and again 3 to 4 weeks later. For grasshopper control, refer to the general GRASSHOPPER section.

CROP	INSECT		QUARTS OF SEVIN® BRAND XLR PLUS/100 GALS.	PREHARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
Olives	Olive scale		3/4 to 1	0	For optimum scale control add 1 1/2 gallons of summer oil and apply mixture when crawlers are present. Do not exceed 2 applications per year. Do not apply more than 15 quarts of this product per acre per application. For grasshopper control, refer to the general GRASSHOPPER section.
Peaches Apricots Nectarines	Apple pandemis Codling moth Cucumber beetles European earwig Fruittree leafroller Gypsy moth Japanese beetle June beetle Lecanium scales Lesser peachtree borer Olive scale San Jose scale	Orange tortrix Oriental fruit moth Peach twig borer Periodical cicada Plum curculio Redbanded leafroller Tarnished plant bug Tussock moth Variegated leafroller	1	1 (peaches) 3 (apricots & nectarines)	Do not apply more than 6 quarts of this product per acre per application to apricots. For optimum scale control, apply when crawlers are present. Spray limbs and trunk thoroughly at weekly intervals during moth flight. For grasshopper control, refer to the general GRASSHOPPER section.
Pecans	Black margined aphid Fall webworm Hickory shuckworm Lesser webworm Pecan leaf phylloxera	Pecan stem phylloxera Pecan nut casebearer Pecan spittlebut Pecan weevil Twig girdler Walnut caterpillar	1 to 2 1/2	0	Do not apply more than 7.2 quarts of this product per acre per application. For grasshopper control, refer to the general GRASSHOPPER section.
Pistachios	Navel orangeworm		1/2 to 2	14	Do not apply more than 6 quarts of this product per acre per application.
	Brown soft scale		2		For brown soft scale, apply 4 to 6 quarts per acre per application. For dormant or delayed dormant timing, apply in combination with a recommended dormant oil. For grasshopper control, refer to the general GRASSHOPPER section.
Plums Prunes Cherries	Codling moth Eastern tent caterpillar	Orange tortrix Tussock moth	3/4	1	Do not apply more than 6 quarts of this product per acre per application. For optimum scale control, apply when crawlers are present. For lesser peachtree borer control, spray limbs and trunks thoroughly at weekly intervals during moth flight. For grasshopper control, refer to the general GRASSHOPPER section.
	Black cherry aphid Brown soft scale Cherry fruitworm Cherry maggot Eyespotted butterfly European earwig Forbes scale Fruittree leafroller Green fruitworm Gypsy moth Japanese beetle Lecanium scales	Lesser peachtree borer Mealy plum aphid Oystershell scale Peach twig borer Plum curculio Prune leafhopper Redbanded leafroller Rose chafer San Jose scale Variegated leafroller	1		

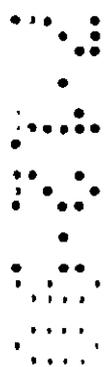
CROP	INSECT		QUARTS OF SEVIN® BRAND XLR PLUS/100 GALS.	PREHARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
Pomefruit (including apples, pears, loquats, crabapples, oriental pears and quince)	Apple aphid	Lesser appleworm	3/4 to 1	1	OBSERVE BEE CAUTION. To avoid undesired apple thinning, delay use until at least 30 days after full bloom. For psylla control apply when eggs hatch or young nymphs are present. To control scale insects, apply when crawlers are present. For grasshopper control, refer to the general GRASSHOPPER section.
	Apple maggot	Lygus bugs			
	Apple rust mite	Orange tortrix			
	Apple sucker	Oystershell scale			
	Bagworms	Pearleaf blister mite			
	California pearslug (pear sawfly)	Pear psylla			
	Eastern tent caterpillar	Pear rust mite			
	European apple sawfly	Periodical cicada			
	Eyespotted bud moth	Plum curculio			
	Forbes scale	Redbanded leafroller			
	Fruittree leafroller	Rosy apple aphid			
	Green fruitworm	San Jose scale			
	Gypsy moth	Tarnished plant bug			
	Lecanium scales	Tentiform leafminers			
		Woolly apple aphid			
	Yellowheaded fireworm				
	Apple mealybug	1/2			
	Apple aphid				
	Codling moth	1/2 to 1			
	White apple leafhopper				
	Japanese beetle	3/4		Apply as needed with ground equipment at 7 - 14 day intervals.	
Walnut	Calico scale	Filbertworm	1/2	0	For optimal coverage, 1000 gallons of dilute spray per acre are suggested for mature trees.
	European fruit lecanium	Fruittree leafroller			For codling moth apply first spray when average cross-sectional diameters of developing nuts are 1/2 to 3/4 inch. Repeat during middle or late June as needed. Apply dilute sprays in 200-500 gallons of water per acre.
	Codling moth	Frosted scale	1/2		Spray tree trunks to point of run-off.
		European earwig	2		For grasshopper control, refer to the general GRASSHOPPER section.



SMALL FRUIT CROPS

Recommended dosages refer to quarts of SEVIN® brand XLR PLUS Carbaryl insecticide per acre. The optimum spray gallonage will depend on plant size, density and stage of growth. Typical spray gallonage per acre range from 100-300 gallons for dilute sprays, 25-100 gallons for concentrate sprays and 5-25 gallons for aerial sprays. Do not exceed maximum label rate per acre per application.

CROP	INSECT		QUARTS OF SEVIN® BRAND XLR PLUS/ACRE	PREHARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
Blackberries	European raspberry aphid	Leafrollers	1 to 2	7	For grasshopper control, refer to the general GRASSHOPPER section.
Raspberries	Japanese beetle	Rose chafer			
Dewberries (including boysenberries and loganberries)	Leafhoppers	Snowy tree cricket	2		CALIFORNIA ONLY.
	Omnivorous leafroller				
	Raspberry sawfly				
Blueberries	Blueberry maggot	European fruit lecanium	1 1/2 to 2	0	Apply 3 weeks before harvest and repeat as necessary.
	Cherry fruitworm	Japanese beetle			
	Cranberry fruitworm				For grasshopper control, refer to the general GRASSHOPPER section.
Cranberries	Cutworms	Elm spanworm	1 1/2 to 3	1	OBSERVE BEE CAUTION. CAUTION: May kill shrimp and crabs. Do not use in areas where these are important resources.
	Cranberry fireworms	Gypsy moth			
	Cranberry fruitworms	Japanese beetle			
	Cranberry twig girdler	Leafhoppers			
		Rose chafer			For grasshopper control, refer to the general GRASSHOPPER section.
		Spaganothus worm			
Grapes	European fruit lecanium	Western grapeleaf skeletonizer	1 to 2	7	For grape leaf folder, apply before first brood larvae emerge from rolls.
	Grape leaf folder	Western Yellowstriped armyworm			
	Grape leafhopper				
	Cutworms	Orange tortrix	2		
	Eight-spotted forester	Omnivorous leafroller			
	Grape berry moth	Redbanded leafroller			
	Japanese beetles	Saltmarsh caterpillar			
	June beetles				
Strawberries	Flea beetles	Strawberry clipper	1 to 2	1	Carbaryl may injure Early Dawn and Sunrise varieties.
	Meadow spittlebug (strawberry fruitworm)	Strawberry bud weevil			
		Strawberry leafroller			
	Omnivorous leaf tier	Strawberry weevil			



TREES & ORNAMENTALS

1709

For dilute sprays, apply the specified dosage per acre or per each 100 gallons of spray volume. For concentrate sprays, maintain the recommended rate per acre equivalent to that used in a dilute spray. The optimum spray gallonage will depend on the tree size, density and stage of growth. Typical spray gallonages per acre range from but are not limited to 100 - 600 gallons for dilute sprays, 20 - 100 gallons for concentrate sprays and 3 - 25 gallons for aerial sprays. Do not exceed maximum label rate per acre per application. To prepare small volumes of spray, use 1 tablespoon (1/2 fluid ounce) of SEVIN® brand XLR Plus Carbaryl Insecticide per gallon of water, where rates of 1 quart are indicated. Avoid direct application to lakes, streams and ponds.

SITE	INSECT	QUARTS OF SEVIN® BRAND XLR PLUS/ACRE OR 100 GAL	SPECIFIC DIRECTIONS
Trees (including syrup producing sugar maple, shade trees, shelter belts, forests, plantations, parks and recreational areas), Ornamentals (including roses, flowers and other herbaceous plants), Woody plants and Shrubs	Ants	Holly bud moth	Plant bugs
	Apple aphid	Holly leafminer	Poinsettia hornworm
	Armyworm	Jackpine budworm	Psyllids
	Azalea leafminer	Japanese beetle	Puss caterpillar
	Bagworms	Jeffrey pine needleminer	Redhumped oakworm
	Birch leafminer	June beetles	Rose aphid
	Blister beetle	Lace bugs	Rose chafer
	Boxelder bug	Leafhoppers	Rose slug
	Boxwood leafminer	Leafrollers	Saddled prominent
	Brown tail moth	Locust borer	Sawflies (exposed)
	Cankerworms	Maple leafcutter	Scale insects
	Catalpa sphinx	Mealy bugs	Sowbugs
	Chiggers	Mimosa webworm	Spiney elm caterpillar
	Cutworms	Nantucket pine tip moth	Springtails
	Cypress tip moth	Oak leafminers	Spruce needleminer
	Eastern spruce gall adelgid	Oak moth	Subtropical pine tip moth
	Elm leaf aphid	Oak skeletonizer	Tent caterpillars
	Elm leaf beetle	Oakworm complex	Thorn bug
	Elm spanworm	Oleander caterpillar	Thrips (exposed)
	Eriophyid mites	Olive ash borer	Ticks
European pine shoot moth	Orange-striped oakworm	Walnut caterpillar	
Fall armyworm	Periodical cicada	Webworms	
Flea beetle	Pine looper	Western hemlock looper	
Fuller rose beetle	Pine sawfly	Willow leaf beetles	
Gall midges	Pine spittlebug	Yellow poplar weevil	
Gall wasps	Pitch pine tip moth		
Greenstriped mapleworm			
Grasshoppers			
Hackberry nipplegall maker			
Cooley spruce gall adelgid	Spruce budworm	1 to 2	Use the higher rate when large larvae or heavy populations are present.
Douglas-fir tussock moth	Western spruce budworm		
Balsam twig aphid	Woolly gall aphid		
Gypsy moth		3/4 to 1	
Ips engraver beetles	Roundheaded pine beetle	20	Effective for beetle control or as a protective treatment
Mountain pine beetle	Spruce beetle		Apply 1 gallon of spray per 50 square feet of bark prior to beetle flight or host-tree attack. Treat tree trunk from ground level up, until trunk diameter is less than 5 inches. Repeat treatment as needed.
Elm bark beetle			Apply approximately 20-30 gallons of spray mixture for each 50 feet of elm tree for thorough coverage of all bark surfaces on trunks, limbs and twigs.

LAWNS, RECREATIONAL AND GRASS-GROWN FOR SEED x

18 of 22

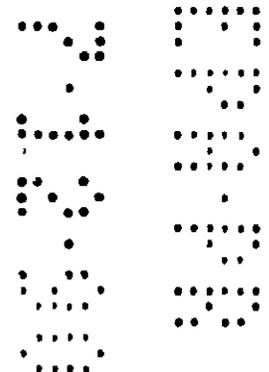
For control of certain turfgrass pests, apply the recommended rates using hose end sprayers or pressure ty. Equipment in sufficient spray volume for thorough coverage and turf thatch penetration. Where a dosage range is indicated, use the higher rate on large pest populations, advanced instars and dense vegetation. Repeat treatment as necessary.

DO NOT ALLOW PUBLIC USE OF TREATED AREAS DURING APPLICATIONS OR UNTIL SPRAYS HAVE DRIED.

AMOUNT OF
SEVIN® BRAND XLR PLUS

CROP	INSECT	AMOUNT OF SEVIN® BRAND XLR PLUS		SPECIFIC DIRECTIONS				
		FL.OZ./ 1000 SQ. FT.	QUARTS/ ACRE					
Turf grasses and grasses-grown for seed	Ants	June beetles Leafhoppers Lucern moth millipedes Mosquitoes (adults) Sowbugs Spittlebugs Springtails Ticks Yellowstriped armyworm	1 1/2 to 3	2 to 4	For Armyworm, Cutworm and Fall Armyworm Control: Do not irrigate treated areas following insecticide application. For Green June Beetle Grub Control: Make applications when grubs are feeding near the soil surface. Water or irrigate turf grasses soon after treatment.			
	Armyworm							
	Centipedes							
	Chiggers							
	Cutworms							
	Earwigs							
	Essex skipper							
	European chafer							
	Fall armyworm							
	Fiery skipper							
	Grasshoppers							
	Green June beetle grub							
	Chinch bugs					4.4 to 6	6 to 8	For Chinch Bug Control: Treat entire grass area rather than just damaged areas. Irrigation of turf grass area before treatment will aid in penetration of insecticide into turf grass. For Sod Webworm Control: Do not irrigate treated areas following insecticide application.
	Sod Webworm (lawn moths)							
	Bluegrass billbug					6	8	For European Crane Fly Control: Treatments should be applied in early spring, April 1 to April 15, or as recommended by local Agricultural Extension Service agents. Water or irrigate turf grasses thoroughly soon after treatment. For White Grub Control: Applications should be made when grubs are feeding near the soil surface, usually during late March through My, or July to early September, or as recommended by local Agricultural Extension Service agents. Water or irrigate turf grasses thoroughly soon after treatment.
European crane fly								
Fleas								
White grubs (such as Japanese beetle, Chafer beetle and <i>Phyllophaga</i> spp. larvae)								

Handwritten notes and a large 'X' mark on the left side of the page.



CONTROL OF TICKS WHICH VECTOR LYME DISEASES)

For control of juvenile and adult ticks which vector Lyme Disease, apply the recommended amount in sufficient volume for thorough coverage. To prepare small amounts, use 1 tablespoon (1/2 fluid ounce) of SEVIN® brand XLR Plus Carbaryl Insecticide per gallon of water.

1 Tablespoon=1/2 fluid ounce SEVIN® brand XLR Plus Carbaryl Insecticide

SITE	PEST	QUARTS OF SEVIN® brand XLR Plus/ACRE	SPECIFIC DIRECTIONS
Pastures, Rangeland, Wasteland, Rights-of Way, Hedgerows, Ditchbanks and Roadsides, Non-Residential Trees (Forests, Shelter belts and Plantations only)	<i>Ixodes</i> spp. Deer tick, Bear tick, and Black legged tick <i>Amblyomma</i> spp. Lone Star tick	1 to 2	Use the high rate for heavy tick infestations. Use higher spray volumes for dense ground cover or heavy leaf litter. Target applications for nymphal control in late spring or early summer. Control of adult ticks can be achieved with late summer and fall applications. Do not use spot treatments. Treat entire area and perimeter areas where exposure to ticks may occur. Ticks may be reintroduced from surrounding areas on host animals. Retreat as necessary to maintain adequate control levels. DO NOT ALLOW PUBLIC USE OF TREATED AREAS DURING APPLICATION OR UNTIL SPRAYS HAVE DRIED.

IMPORTED FIRE ANT CONTROL

SITE	AMOUNTS OF SEVIN® BRAND XLR PLUS/ VOLUME OF WATER	SPECIFIC DIRECTIONS
Lawns, Cemeteries and Recreational Areas (including turf, golf courses, and parks) Pastures Rangeland Forested Lands and Wasteland	1 1/2 quarts/100 gallons or 1 1/2 tablespoons/gallon	Apply a total of 2 gallons of the diluted solution over the surface of each mound or at least 1 quart per 6 inches of mound diameter using a bucket, can or other appropriate equipment. Thoroughly wet mound and surrounding areas to a 4 ft. diameter (12 sq. ft.). Do not disturb mounds prior to treatment. Pour solution from a height of about three feet to give sufficient force to break mound apex and flow into ant tunnels. For best results apply in cool weather, 65°-80°F or in early morning or late evening hours. Repeat application if mound activity resumes after 10 days. Treat new mounds as they appear. Pressurized sprays may disturb the ants and cause migration, reducing product effectiveness. DO NOT ALLOW PUBLIC USE OF TREATED AREAS DURING APPLICATIONS OR UNTIL SPRAYS HAVE DRIED.
Nursery Stock, Vegetable Transplants, Foliage Plants and Bedding Plants	1 1/2 quarts/100 gallons	DO NOT USE ON ANY FOOD CROP NOT LISTED ON LABEL. DO NOT USE IN GREENHOUSES. Do not make more than one application, either as a root-dip or a drench treatment (applied to the point of saturation). Avoid contact with foliage and treat only the growing media when using on bedding plants.

ADULT MOSQUITO CONTROL

For dilute-spray ground applications to trees (including shade trees, shelter belts, forests, plantations, parks and recreational areas), ornamentals, woody plants and shrubs, apply the specified dosage per 100 gallons of water. For concentration-spray ground applications, apply the specified dosage per acre in sufficient spray volume to provide thorough coverage. To prepare small volumes of spray, use 1 table spoon (1/2 fluid ounce) of SEVIN® brand XLR PLUS Carbaryl Insecticide per gallon of water, where rates of 1 quart are indicated.

CROP	QUARTS OF SEVIN® BRAND XLR PLUS/ 100 GAL.	SPECIFIC DIRECTIONS
Pastures, Rangelands, Parks, Recreational Areas, Logging Camps, Military Posts and Adjacent Forested lands or Wastelands	1/4 to 1 (1/2 to 1 tablespoonful per gallon)	<p>DO NOT ALLOW PUBLIC USE OF TREATED AREAS DURING APPLICATION OR UNTIL SPRAYS HAVE DRIED.</p> <p>CAUTION: May kill shrimp and crabs. Do not use in areas where there are important resources.</p> <p>OBSERVE BEE CAUTION</p> <p>Treat shrubbery and areas where adult mosquitoes congregate. Treat when adult mosquitoes are active in early mornings or late evenings. Repeat at 7 to 10 day intervals.</p> <p>Use 1/4 to 1/2 quart per 100 gallons in mistblowers, 1/2 to 1 quart per acre in aerial sprays and 1 quart per acre in low pressure ground sprayers.</p>
	25	<p>For residual control in subtropical regions apply 4 gallons of prepared spray per 2000 square feet of surface area. Repeat in 3 to 6 months or when necessary.</p>

POULTRY INSECT CONTROL

POULTRY	INSECT	SPECIFIC DIRECTIONS
Chicken, Ducks, Geese, Game birds Pigeons, and Turkeys	Chicken mite Fleas Lice Northern fowl mite	<p><u>For use as a direct spray on birds by:</u></p> <p>1. Mistling with Electric Fog Machine: Mix 1/3 quarts (9.6 ounces) of this product in 1 gallon of spray. Use 1 1/2 gallons per 1000 hens in cages, on litter or on slatted floors. Repeat in 4 weeks if necessary.</p> <p>2. Spraying with knapsack or cylinder type compressed air sprayers: Mix 1/5 quarts (6.4 ounces) of this product in 5 gallons of spray. Use 1 gallon per 100 hens in cages, on litter or on slatted floors. Repeat in 4 weeks if necessary.</p> <p>For Northern fowl mite control, ensure pressured spray penetrates feathers of vent area on birds.</p> <p>Direct mist spraying for chicken mite and fleas in a supplement to spraying roosts and buildings for control of these pests.</p> <p>Do not apply to poultry and game birds within 7 days of slaughter.</p>

POULTRY INFESTATION CONTROL (CONT.)

2104.22

POULTRY QUARTERS	QUARTS OF SEVIN® BRAND XLR PLUS/ EACH 100 GAL. OF WATER	SPECIFIC DIRECTIONS
Bed bugs Chicken mite Fleas Lice Northern fowl mite	4	Apply 1 to 2 gallons of spray mixture with conventional power spray or knapsack equipment per 1000 square feet of wall, litter or roost surface. Force spray into cracks. Repeat as needed. Avoid spraying nests, eggs and feeding and watering troughs.
Fowl tick	16	Ventilate while spraying. Do not treat premises within 7 days of slaughter.
Darkling beetle (Lesser mealworm or Litter beetle)	50	Apply 1 to 2 gallons of spray mixture with conventional power spray or knapsack equipment per 1000 square feet of floor space, litter surface, walls, cracks, posts, crevices, and around ventilation areas to insulation. Optimum spray timing is immediately after flock is removed from the house when beetles are most active. Ventilate while spraying. Do not treat premises within 7 days of slaughter.

**PEST CONTROL AROUND BUILDINGS
(FOR EXTERNAL USE AROUND BUILDINGS ONLY)
LIMITED TO PEST CONTROL OPERATORS ONLY**

For use as an external perimeter treatment to prevent infestations of buildings, apply the specified dosage in a band 6 to 10 feet wide around the outside perimeter of the structure.

1 Tablespoon = 1/2 fluid ounce of SEVIN® brand XLR Plus Carbaryl Insecticide

INSECT	QUARTS OF SEVIN® BRAND XLR PLUS/ 100 GAL.	SPECIFIC DIRECTIONS
Ants Bees Brown dog tick Centipedes Cockroaches Crickets Earwigs Firebrats Fleas Millipedes Scorpions Silverfish Spiders Wasps	20 (6.5 oz./gallon)	DO NOT ALLOW PUBLIC USE OF TREATED AREAS DURING APPLICATIONS OR UNTIL SPRAYS HAVE DRIED. Apply as a course wet spray in a band 6 to 10 feet wide around the outside perimeter of buildings. Confine applications to areas immediately adjacent to the building. Direct application to the structure should be minimal and restricted to cracks, crevices, and areas where insects tend to congregate. May be applied to outdoor sleeping quarters of pets. Do not treat animals. Staining may occur on certain surfaces such as stucco, brick, cinder block, and wood. Spray deposits on painted or stained surfaces or finishes (e.g. cars, house trailers, boats, etc.) should be immediately removed by washing to prevent discoloration. Avoid application to surfaces where visible spray residues are objectionable.

DIRECTIONS FOR USE AS A WHEAT BRAN BAIT

FOR END USE ONLY. NOT FOR REPACKAGING.

FOR USE ONLY BY GOVERNMENT PERSONNEL OR PERSONS UNDER THEIR DIRECT SUPERVISION.

Mixing Instructions

Mix the appropriate amount of SEVIN® brand XLR PLUS Carbaryl Insecticide with wheat bran to make a carbaryl wheat bran bait containing 2% to 10% active carbaryl. For example, for a bait containing 5% carbaryl, mix 1 quart SEVIN® brand XLR PLUS Carbaryl Insecticide (contains 1 lb. active carbaryl) with each 19 pounds of wheat bran. Mix only the amount of bait necessary for each insect control program.

Storage Instructions

Store carbaryl bran baits in cool, dry area out of reach of children and animals. Do not contaminate water, food, or feed by storage or disposal.

NOTE: Carbaryl bran baits should only be stored temporarily while awaiting application.

Application Instructions

Applications may be made with ground equipment (hand cyclone spreader) or with aerial application equipment with a metered bait spreader attachment.

PASTURES, RANGELAND, WASTELAND, ROADSIDES

Use 0.50-1.50 lbs. active ingredient/acre for the control of grasshoppers and Mormon crickets. The lower rate is suggested for early instars on small plants or sparse vegetation. Use the higher rate for adults or dense vegetation. Use of low bait assay and higher rate is suggested for control of high grasshopper populations. Treatment may be repeated as necessary. Preharvest interval is 0 days.

IMPORTANT: BEFORE USING SEVIN® BRAND XLR PLUS CARBARYL INSECTICIDE, READ AND FOLLOW CAREFULLY, OBSERVE THE PRECAUTIONARY STATEMENTS AND ALL OTHER INFORMATION APPEARING ON THE PRODUCT LABEL.

STORAGE AND DISPOSAL

STORAGE

Store unused SEVIN® brand XLR PLUS Carbaryl Insecticide in original container only, in cool, dry area out of reach of children and animals. Do not store in areas where temperatures frequently exceed 100°F.

If container is damaged, before cleaning up, put on long-sleeved shirt, full length trousers, head covering, and protective gloves.

PESTICIDE DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If container is burned, stay out of smoke.

LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants (a) that this product conforms to the chemical description on the label; (b) that this product is reasonably fit for the purposes set forth in the directions for use when it is used in accordance with such directions; and (c) that the directions, warnings and other statements on this label are based upon responsible experts' evaluation of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants, and of residues on food crops, and upon reports of field experience. Tests have not been made on all varieties or in all states or under all conditions. THE MANUFACTURER NEITHER MAKES NOR INTENDS, NOR DOES IT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE, ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, AND IT EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL, DIRECTIONS, WARNINGS OR CAUTIONS.

BUYER'S EXCLUSIVE REMEDY AND MANUFACTURER'S OR SELLER'S EXCLUSIVE LIABILITY FOR ANY AND ALL CLAIMS, LOSSES, DAMAGES, OR INJURIES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER OR NOT BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, SHALL BE LIMITED, AT THE MANUFACTURER'S OPTION, TO REPLACEMENT OF, OR THE REPAYMENT OF THE PURCHASE PRICE FOR, THE QUANTITY OF PRODUCT, WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

Rhône-Poulenc Ag Company
P.O. Box 12014, 2 T.W. Alexander Drive
Research Triangle Park, North Carolina 27709

SEVIN is the registered trademark of Rhône-Poulenc for carbaryl insecticides.

SEVIN XLR PLUS Carbaryl Insecticide (PENDING) ROUTED 6/14/90.