



Form Approved. OMB No. 2070-0060

1/25

	United States Environmental Protection Agency				Registra		OPP Identifier Number	
⇒EPA		ngton, DC 204	-	ncy.	×	Amend Other	ment	
		Applicatio	n for I	Pesticide - Se	ction	<u> </u>		
1. Company/Product Numbe				2. EPA Product M			3. Pro	oposed Classification
264-349				John Hebert			$\neg$	None Restricted
4. Company/Product (Name) SEVIN® brand 4F Carba				7				• 
5. Name and Address of App	olicant (Include ZIP Co	dej	÷	1 -				FIFRA Section 3(c)(3) mposition and labeling
Bayer CropScience P.O. Box 12014; 2 T.W Research Triangle Park				to: EPA Reg. No.				
Check if this	is a new address			, Product Name		-		
	· · · · · · · · · · · · · · · · · · ·	· · · ·	Sect	tion - II				
Amondment - Explain				Agency le	itter da		• to 	NOTIFICATION
	Resubmission in response to Agency latter dated			'Me Too' Other - E				APR 2 9 2005
Explanation: Use addition		. (For section	L and Say					
Notification of mino The statement "Use to the use direction	not permitted	in CA unle	ss othe r cactu	erwise directe s.	d by :	suppleme	ental lab	peling" was added
			Sect	ion - III				
1. Material This Product Will Child-Resistant Packaging	Be Packaged In: Unit Packaging	·····	Water	Soluble Packaging		2. Type of	Conteiner	
Yes	Yes		1 cm	Yes			Metal	
No	No			No			Plestic Glass	
<ul> <li>Certification must be submitted</li> </ul>	lf "Yes" Unit Peckeging wgt.	No. per container	If "Yes" Peckep				Paper Other (Sp	pecify)
3. Location of Net Contents I	nformation	4. Size(s) Rete	il Contain	i	5. Lo	.i cetion of Leb	el Direction	ha ·
	onteiner							
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1. Contact Point <i> Complete</i>	items directly below fi	· · · · · · · · · · · · · · · · · · ·		dual to be contacted	l, if nec	essery, to pr	ocess this i	application.)
Name Danielle A. Laroche	lle		ritte Registr	ration Product	Man	ager	•	No. (include Area Code) 19-2718
I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. Received					6. Cate Application Received (Stymped)			
2. Signature	A lug	·	3. Tite Registration ProductM anager					
4. Typed Name		5	. Date					
Danielle A. Laroche			April 13, 2005					

EPA Form 8570-1 (Rev. 3-94) Previous editions are obsolete.

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SEVIN® brand 4F Carbaryl Insecticide EPA Reg. No. 264-349

CropScience

#### Notification According to PR Notice 98-10

#### CERTIFICATION STATEMENT

This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

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April 13, 2005

Danielle A. Larochelle Registration Product Manager Bayer CropScience Date

NOTIFICATION APR 2 9 2005

## NOTIFICATION

APR 2 9 2005

# SEVIN<sup>®</sup> brand 4F Carbaryl Insecticide

## FOR AGRICULTURAL OR COMMERCIAL USE ONLY

**ACTIVE INGREDIENTS:** 

(Contains 4 pounds Carbaryl per Gallon)

#### E.P.A Reg No. 264-349

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

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

For MEDICAL And TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577 For PRODUCT USE Information Call 1-866-99BAYER (1-866-992-2937)

## **FIRST AID**

#### Carbarvi is an N-Methyl Carbamate Insecticide.

IF SWALLOWED:	Immediately call a poison control center or doctor for treatment advice.			
	Do not induce vomiting unless told to do so by a poison control center or doctor.			
	Have person sip a glass of water if able to swallow.			
·	Do not give anything by mouth to an unconscious person.			
IF IN EYES:	Hold eye open and rinse slowly and gently with water for 15-20 minutes.			
	Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.			
	Call a poison control center or doctor for treatment advice.			
IF ON SKIN OR	Take off contaminated clothing.			
CLOTHING:	Rinse skin immediately with plenty of water for 15-20 minutes.			
	Call a poison control center or doctor for treatment advice.			
IF INHALED:	Move person to fresh air.			
	If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to- mouth if possible.			
	Call a poison control center or doctor for further treatment advice.			
	For MEDICAL Emergencies Call 24 Hours A Day 1-800-334-7577.			
Have the prod	luct container or label with you when calling a poison control center or doctor or going for 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,

#### 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.

#### NOTE TO PHYSICIAN

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

Carbaryl is an N-methyl 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. Caution should be maintained to prevent over atropinization. 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. Analysis will be arranged by Bayer CropScience.

Consultation on therapy can be obtained at all hours by calling the Bayer CropScience emergency number 1-800-334-7577.

## PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS (& DOMESTIC ANIMALS) CAUTION

#### HARMFUL IF SWALLOWED, ABSORBED THROUGH THE SKIN, INHALED, OR IF IN EYES.

Avoid breathing vapors or spray mist. Avoid contact with eyes, skin or clothing. Keep out of reach of children and domestic animals.

**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 OCCUR RAPIDLY FOLLOWING OVEREXPOSURE TO THIS PRODUCT.

#### PERSONAL PROTECTIVE EQUIPMENT:

Applicators and other handlers must wear long-sleeved shirt and long pants, chemical resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride (PVC), or viton, shoes plus socks and chemical-resistant headgear for overhead exposure.

Discard clothing and 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 and maintaining Personal Protective Equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### **User Safety Recommendations**

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

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

#### **ENVIRONMENTAL HAZARDS**

This product is extremely toxic to aquatic and estuarine invertebrates. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. 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 or disposal of wastes. Do not contaminate water when disposing of equipment washwaters.

#### BEE CAUTION: MAY KILL HONEYBEES IN SUBSTANTIAL NUMBERS.

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 or weeds if bees are visiting the treatment area. Contact your Cooperative Agricultural Extension Service or your local Bayer CropScience 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 the entire label before using this product.

Strictly observe label directions and cautions. 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 restrictedentry 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, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride (PVC), or viton, shoes plus socks and chemical-resistant headgear for overhead exposure.

## NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

The area being treated must be vacated by unprotected persons.

Keep unprotected persons out of treated areas until sprays have dried.

## STORAGE AND DISPOSAL

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

#### STORAGE

Store unused SEVIN<sup>®</sup> brand 4F 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 Personal Protective Equipment.

#### PESTICIDE 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 container for recycling or reconditioning or puncture and dispose of container in a sanitary landfill, by incineration, or, if allowed by state and local authorities, by burning. If container is burned, stay out of smoke.

#### **GENERAL CAUTIONS AND RESTRICTIONS**

SEVIN<sup>®</sup> brand 4F Carbaryl Insecticide is a suspension of microfine SEVIN<sup>®</sup> brand carbaryl insecticide in an aqueous medium. It readily disperses in water to form a spray which may be applied by air or ground.

#### 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.

#### PREHARVEST AND GRAZING RESTRICTIONS 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. Do not apply at greater rates or at more frequent intervals than stated on the label. To do so may result in illegal residues in crops, meat, and milk.

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

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

#### **APPLICATION STATEMENTS**

Calibrate and adjust application equipment to insure proper rate and accurate placement. 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.

#### **RESISTANT SPECIES NOTICE**

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 and Southern green stink bug to carbaryl. If local experience indicates inadequate control, use an alternative pesticide.

#### MIXING, LOADING AND HANDLING INSTRUCTIONS

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 4F 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.

## COMPATIBILITY INFORMATION

SEVIN® brand 4F 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 4F 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 PROCEDURES AND PRECAUTIONS**

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.

#### **GROUND APPLICATION**

Apply in sufficient volume for adequate coverage on all crops and sites. To prepare small volumes of spray mixture, use 1/3 fl. oz. (approximately 2 teaspoons) of this product in an adequate amount of water and apply to 500 sq.ft. where rates of 1 quart per acre are indicated.

#### **AERIAL APPLICATION**

For adequate distribution, use at least 10 gallons of spray mixture per acre for application for tree and orchard crops or at least 2 gallons of spray mixture per acre for application to other crops.

#### 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<sup>®</sup> brand 4F 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<sup>®</sup> brand 4F, and then the remaining volume of water. (Suspension concentrations using the appropriate dosage per acre recommended on this label of SEVIN<sup>®</sup> brand 4F, 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<sup>®</sup> brand 4F into the irrigation water line so as to deliver the desired rate per acre. The suspension of SEVIN<sup>®</sup> brand 4F 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<sup>®</sup> brand 4F 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.

## SPECIFIC USE DIRECTIONS

**CROP/SITE GROUPINGS:** Asparagus Brassica Leafy Vegetable Crops Cereal Grain Crops (Field and Pop Corn; Grain Sorghum; Rice; Sweet Corn; Wheat and Proso Millet) **Cucurbit Vegetables** Flax Forage Crops (Alfalfa, Clovers, Birdsfoot Trefoil; Pasture and Grasses Grown for Seed; Rangeland) Fruiting Vegetables Leafy Vegetables Legume Vegetables Noncropland (Conservation Reserve Program; Wasteland; Rights-of-Way; Hedgerows; Ditchbanks; Roadsides) Okra Peanuts **Prickly Pear Cactus** Root and Tuber Crops (Root and Tuber Crops except Sugar Beets and Sweet Potatoes; Sugar Beets; Sweet Potatoes) Small Fruits and Berries Sunflower Tobacco Tree Fruit Crops (Citrus Fruits; Olives; Pome Fruits; Stone Fruits) Tree Nut Crops (Pistachios; Tree Nuts) Forested Areas and Rangeland Trees Trees and Ornamentals Turforass Control of Specific Pests Across Multiple Sites Grasshoppers Ticks which Vector Lyme Disease Imported Fire Ants Adult Mosquito Control Nuisance Pest Control

#### INSECT CONTROL

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

		AS	PARAGUS	
CROP		PEST	QUARTS OF SEVIN <sup>®</sup> 4F PER ACRE	
Asparagus	Apache cicada Asparagus beetle	Cutworms .	1 to 2	Repeat applications as necessary up to a total of 3 times prior to harvest or a total of 5 times per crop but not more often than once every 3 days. For cutworm control, this product is most effective against species which feed on the upper portions of the plant.
			2 to 4	Application to ferns or brush growth following harvest of spears: Repeat applications as necessary but not more often than every 7 days. Do not make more than a total of 5 applications per year to spears and ferns combined.

## RESTRICTIONS AND PRECAUTIONS: ASPARAGUS

- Do not apply within 1 day of harvest.
- Do not apply more than a total of 6 quarts per acre before harvest of spears.
- Do not apply more than a total of 10 quarts per acre per year.

## BRASSICA LEAFY VEGETABLES CROPS

CROP	Р	EST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Broccoli Brussel Sprouts Cauliflower	Flea beetles Harlequin bug Leafhoppers		1/2 to 1	Repeat applications as needed up to a total of 4 times but not more often than once every 7 days.
Cabbage Chinese Cabbage Collards Kale Kohlrabi Mustard Greens	Armyworm Aster leafhopper Corn earworm Diamondback moth Fall armyworm Imported cabbageworm	Lygus bugs Spittle bugs Stink bugs Tamished plant bug	1 to 2	

#### RESTRICTIONS AND PRECAUTIONS: BRASSICA LEAFY VEGETABLES

· For Broccoli, Brussel Sprouts, Cabbage Cauliflower, and Kohlrabi, do not apply within 3 days of harvest.

· For Chinese Cabbage, Collards, Kale, and Mustard Greens, do not apply within 14 days of harvest.

· Do not apply more than a total of 6 quarts per acre per crop.

## **CEREAL GRAIN CROPS**

## FIELD CORN AND POPCORN

CROP	PE	EST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Field corn and Popcorn	Armyworm Chinch bugs Corn earworm Corn rootworm adults Fall armyworm Flea beetles	Japanese beetle Sap beetles Southwestern corn borer Leafhoppers	1 to 2	OBSERVE BEE CAUTION. Repeat applications as needed up to a total of 4 times but not more often than once every 14 days. Optimum timing and good coverage are essential for effective control.
	European corn borer		1 1/2 to 2	For optimum chinch bug control, use ground
	Western bean cutworm	Cutworms	2	equipment to apply at least 20 gallons of water per acre and direct spray toward stalk to provide thorough coverage.
				For optimum European corn borer control, do not apply in less than 3 gallons of water per acre by air and 15 gallons of water by ground.
				For western bean cutworm, treat when infestation averages 15% and at 90 to 100% tassel emergence. Treatment after 100% silk emergence will reduce effectiveness.
				For optimum cutworm 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 by ground or 5 gallons by air per acre.
				For cutworm control, this product is most effective against species which feed on the upper portions of the plant.

#### RESTRICTIONS AND PRECAUTIONS: FIELD AND POP CORN

- Do not apply within 48 days of harvest of grain and fodder or within 14 days of harvest or grazing of forage or silage.
- Do not apply more than a total of 8 quarts per acre per crop.

## **GRAIN SORGHUM**

CROP	PE	ST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Grain Sorghum	Armyworm Chinch bugs Corn earworm	Fall armyworm Stink bugs Webworms	1 to 2	Repeat applications as necessary up to a total of 4 times but not more often than once every 7 days.
	Southwestern corn borer	·	. 1 1/2	Direct spray into forming heads for optimum control of insects attacking heads.
	Cutworms		2	For optimum chinch bug control, use high gallonage ground application at the base of plants.
				For cutworm control, this product is most effective against species which feed on the upper portions of the plant.

#### RESTRICTIONS AND PRECAUTIONS: GRAIN SORGHUM

- Do not apply within 21 days of harvest for grain or fodder or within 14 days of harvest or grazing of forage or silage.
- Do not apply more than a total of 6 quarts per acre per crop.

RICE

CROP		PEST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Rice	Armyworm Chinch bugs Fall armyworm	Leafhoppers Stink bugs	1 to 1 1/2	Up to 2 applications per crop may be made but not more often than once every 7 days.
	Tadpole shrimp		1 1/2	California only For optimum tadpole shrimp control, apply to water when pest first appears.

#### RESTRICTIONS AND PRECAUTIONS: RICE

• Do,not apply within 14 days of harvest for grain or straw.

• Do not apply more than a total of 4 quarts per acre per crop.

CAUTION: May kill shrimp, crabs, and crayfish.

· Do not apply propanil herbicides within 15 days before or after application of this product or plant injury will result.

SWEET CORN

CROP	PE	ST	QUARTS OF SEVIN <sup>®</sup> 4F PER ACRE	SPECIFIC DIRECTIONS
Sweet Corn	Armyworm Chinch bugs Corn earworm Corn rootworm adults Fall armyworm Flea beetles	Japanese beetle Sap beetles Southwestern corn borer Leafhoppers	1 to 2	OBSERVE BEE CAUTION Repeat applications as necessary up to a total of 8 times but not more often than once every 3 days. Optimum timing and good coverage are essential for effective control
	European corn borer		1 1/2 to 2	For insects attacking silks and ears,
	Western bean cutworm	Cutworms	2	<ul> <li>insecticide sprays should be applied starting when first silks appear and continuing until silks begin to dry. During silking, the minimum retreatment interval (3 days) may not provide adequate levels of protection under conditions of rapid growth or severe pest pressure. The use of an alternative product should be considered in conjunction with this product.</li> <li>For optimum chinch bug control, use ground equipment to apply at least 20 gallons of water per acre and direct spray toward stalk to provide thorough coverage.</li> <li>For optimum European corn borer control, do not apply in less than 3 gallons of water per acre by air and 15 gallons of water by ground.</li> <li>For western bean cutworm, treat when infestation average 15% and at 90 to 100% tassel emergence. Treatment after 100% silk emergence will reduce effectiveness.</li> <li>For optimum cutworm control, apply in a 12-inch band, over the row, using sufficient volume of water to obtain thorough coverage.</li> <li>For broadcast application, use at least 20 gallons by ground or 5 gallons by air per acre.</li> <li>For cutworm control, this product is most effective against species which feed on the upper portions of the plant.</li> </ul>

#### RESTRICTIONS AND PRECAUTIONS: SWEET CORN

• Do not apply within 2 days of harvest of ears, within 14 days of harvest or grazing of forage, or within 48 days of harvest of forage. .

Do not apply more than a total of 16 quarts per acre per crop.

## WHEAT AND PROSO MILLET

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CROP		PEST	QUARTS OF SEVIN <sup>®</sup> 4F PER ACRE	SPECIFIC DIRECTIONS
Wheat Proso Millet	Flea beetles		1/2.to 1	Up to 2 applications per crop may be made but not more often than once every 14 days.
	Cereal leaf beetle		1	
DO NOT USE IN CALIFORNIA	Armyworm	Fall armyworm	1 to 1 1/2	Application is effective against eggs, larvae, and adults of the cereal leaf beetle. Application for armyworm control should be made when armyworms are actively feeding on the upper foliage and night temperatures and not expected to drop below 55°F. If applying by air to lush growth, use a minimum spray volume of 5 gallons per acre to optimize coverage.

#### RESTRICTIONS AND PRECAUTIONS: WHEAT AND PROSO MILLET

• Do not apply within 21 days of harvest for grain or straw or within 7 days of harvest or grazing of forage.

Do not apply more than a total of 3 quarts per acre per crop.

## **CUCURBIT VEGETABLES**

CROP	PEST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Cucurbit Vegetables: Cucumbers	Pickleworm Melonworm	1/2 to 1	Repeat applications as necessary up to a total of 6 times but not more often than once every 7 days
Melons Pumpkins Squash	Cucumber beetles Flea beetles Leafhoppers Squash bugs	1	For optimum control of squash bugs, apply sufficient spray volume for thorough coverage and time sprays for early morning or late afternoon.

#### RESTRICTIONS AND PRECAUTIONS: CUCURBIT VEGETABLES

- Do not apply within 3 days of harvest.
- Do not apply more than a total of 6 quarts per acre per crop.
- Observe plant response precautions.

#### FLAX

CROP	PEST	QUARTS OF SEVIN <sup>®</sup> 4F PER ACRE	SPECIFIC DIRECTIONS
Flax DO NOT USE IN CALIFORNIA	Armyworm	i to 1 1/2	Up to 2 applications per crop may be made but not more often than once every 14 days.

#### RESTRICTIONS AND PRECAUTIONS: FLAX

Do not apply within 42 days of harvest for seed or straw.

Do not apply more than a total of 3 quarts per acre per crop.

## FORAGE CROPS

## ALFALFA, CLOVERS, AND BIRDSFOOT TREFOIL

CROP	PE	ST	QUARTS OF SEVIN <sup>®</sup> 4F PER ACRE	SPECIFIC DIRECTIONS
Alfalfa, Clovers, and Birdsfoot Trefoil	Blister beetles Mexican bean beetle		1/2 to 1	OBSERVE BEE CAUTION. Observe plant response precautions.
	Alfalfa caterpillar Bean leaf beetle Cucumber beetles Green cloverworm Japanese beetle Leafhoppers	Potato leafhopper Three cornered alfalfa hopper Thrips Velvetbean caterpillar	1	On dense growth, use 25 to 40 gallons of water per acre with ground equipment to ensure adequate coverage.
	Alfalfa blotch leafminer Armyworm Cloverhead weevil Gorn earworm Cutworms Egyptian alfalfa weevil larvae	Essex skipper European alfalfa beetle Fall armyworm Lygus bugs Stink bugs Webworms Yellow striped armyworm	1 to 1 1/2 ·	For alfalfa weevil larvae, if pretreatment damage is extensive, cut alfalfa and treat the stubble. This product is not effective against <b>adult</b> alfalfa weevils. For cutworm control, this product is most effective against species which feed on the upper portions of the plant.
	Alfalfa weevil larvae (west of the Rocky Mountains)		1 to 1 1/2	
	Alfalfa weevil larvae (east of the Rocky Mountains)		1 1/2	

#### RESTRICTIONS AND PRECAUTIONS: FORAGE CROPS

- Do not apply more than once per cutting.
- Do not apply within 7 days of harvest or grazing.
- Do not exceed 1 1/2 quarts per acre per cutting.
- · Carbaryl may cause a temporary bleaching of tender alfalfa foliage.

## PASTURE AND GRASSES GROWN FOR SEED

CROP	PI	EST	QUARTS OF SEVIN <sup>®</sup> 4F PER ACRE	
Grasses Grown for Seed	Armyworm Chinch bugs Essex skipper Fall armyworm Striped grass looper	Thrips Range caterpillar Range crane fly Ticks	1 to 1 1/2	Up to 2 applications per year may be made but not more often than once every 14 days. To control thrips in grasses grown for seed, use high spray pressure to improve penetration into boot. Carefully mark swaths to avoid over- application.

#### RESTRICTIONS AND PRECAUTIONS: PASTURE AND GRASSES GROWN FOR SEED

- Do not apply within 14 days of harvest or grazing.
- Do not exceed a total of 3 quarts per acre per year.

#### QUARTS OF SEVIN® 4F CROP PEST SPECIFIC DIRECTIONS PER ACRE 1/2 to 1 Range caterpillar Do not make more than 1 application per year. Rangeland Black grass bug Grasshoppers Range crane fly Carefully mark swaths to avoid over-Mormon cricket application. Ticks 1

## RANGELAND

#### **RESTRICTIONS AND PRECAUTIONS: RANGELAND**

May be harvested or grazed the same day as treatment. .

Do not apply more than 1 quart per acre per year.

CROP	P	EST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Fruiting Vegetables: Tomatoes, Peppers, Eggplant	Colorado potato beetle European com borer Fall armyworm Lace bugs Stink bugs (suppression) Tarnished plant bug Thrips (suppression) Tomato fruitworm Fiea beetles	Tomato hornworm Tomato pinworm	1 to 2 1/2 to 1	Repeat applications as necessary up to a total of 7 times but not more often than once every 7 days. Thorough coverage is essential to effectively suppress stink bugs. When disease transmission is suspected, monitor fields following application and retreat if reinfestation occurs but not more often than once every 7 days.
	Leafhoppers Cutworms		2	For cutworm control, this product is most effective against species which feed on the upper portions of the plant.

## FRUITING VEGETABLES

#### RESTRICTIONS AND PRECAUTIONS: FRUITING VEGETABLES

Do not apply within 3 days of harvest.

Do not apply more than a total of 8 quarts per crop.

	LEAFY VEGETABLES				
CROP		PEST	QUARTS OF SEVIN <sup>®</sup> 4F PER ACRE	SPECIFIC DIRECTIONS	
Leafy vegetables:	Flea beetles Harlequin bug Leafhoppers	·	1/2 to 1	Repeat applications as necessary up to a total of 5 times but not more often than once every 7 days.	
Celery, Dandelion, Endive, Lettuce (head and leaf), Parsley, Spinach, Swiss Chard	Armyworm Aster leafhopper Corn earworm Fall armyworm Imported cabbageworm	Lygus bugs Spittlebugs Stink bugs Tamished plant bug	• 1 to 2		

#### **RESTRICTIONS AND PRECAUTIONS: LEAFY VEGETABLES**

Do not apply within 14 days of harvest. .

Do not apply more than a total of 6 quarts per acre per crop.

## LEGUME VEGETABLES

CROP	Р	ÉST	QUARTS OF SEVIN <sup>®</sup> 4F PER ACRE	SPECIFIC DIRECTIONS
Legume Vegetables: Soybeans, Fresh and Dried Beans ( <i>Phaseolus</i>	Bean leaf beetle Blister beetle Cucumber beetles Grape colapsis	Green cloverworm Japanese beetle Mexican bean beetle Velvetbean caterpillar	1/2 to 1	Repeat applications as necessary up to a total of 4 times but not more often than once every 7 days. For cutworm control, this product is most effective against species which feed on the
species including snap, navy and	Corn earworm		1/2 to 1 1/2	upper portions of the plant. Use lower rates for light to moderate populations and smaller instars and to
kidney), Fresh and Dried Peas ( <i>Pisum</i> species), Lentils, Cowpeas, Southern Peas	Alfalfa caterpillar Colorado potato beetle Flea beetles Leafhoppers	Three cornered alfalfa hopper Thrips Western bean cutworm	1	provide maximum survival of beneficial insects and spiders. Use the higher rates for heavy populations and larger instars.
DO NOT USE ON LENTILS IN CALIFORNIA	Armyworm Cutworms European com borer Fall armyworm	Stink bugs Tarnished plant bug Webworms	1 to 1 1/2	
	Alfalfa looper (suppression) Cowpea curculio (suppression) Painted lady (Thistle caterpillar) Pea leaf weevil	Pea weevil Saltmarsh caterpillar Woollybean caterpillar Yellowstriped armyworm	1 1/2	
	California only: Com earworm (suppression) Limabean podborer (suppression)	Lygus bugs (suppression) Stink bugs (suppression)	1 1/2	

#### RESTRICTIONS AND PRECAUTIONS: LEGUME VEGETABLES

- Do not apply within 14 days of grazing or harvest for forage or within 3 days of harvest of fresh beans or peas or within 21 days of harvest of dried beans or peas, seed, or hay.
- Do not apply more than a total of 6 quarts per acre per crop.
- Do not apply a combination of this product and 2,4-DB herbicides to soybeans as crop injury may result.
- Observe plant response precautions.

## NONCROPLAND

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CROP	PEST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Conservation Reserve Program Acreage	Black grass bug	1/4 to 1/2	Up to 2 applications per year may be made but not more often than once every 14 days.
Set-Aside Program Acreage Wasteland	Mormon cricket Range caterpillar Range crane fly	1/2 to 1	Carefully mark swaths to avoid over- application.
Rights-of-Way Hedgerows Ditchbanks Roadsides	Ticks	1 to 1 1/2	

#### RESTRICTIONS AND PRECAUTIONS: NONCROPLAND

- Do not apply within 14 days of grazing or harvest for forage or hay.
- Do not apply more than a total of 3 quarts per acre per year.

## OKRA\*

CROP	PEST	QUARTS OF SEVIN <sup>®</sup> 4F PER ACRE	SPECIFIC DIRECTIONS
Okra	Corn earworm Stink bugs	1 to 1 1/2	Apply using ground equipment in sufficient volume to insure good coverage.
			Apply as needed on 6 to 8 day intervals. For grasshopper control, refer to the general Grasshopper Section.

#### RESTRICTIONS AND PRECAUTIONS: OKRA

Do not apply within 3 days of harvest.

Do not apply more than a total of 6 quarts per acre per season.

\* Use not permitted in CA unless otherwise directed by supplemental labeling.

CROP	F	PEST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Peanuts	Blister beetles Mexican bean beetle		1/2 to 1	Repeat applications as necessary up to a total of 5 times but not more often than once every 7 days.
	Alfalfa caterpillar Bean leaf beetle Cucumber beetle Green cloverworm Japanese beetle Leafhoppers	Rednecked peanutworm Three cornered alfalfa hopper Thrips Velvetbean caterpillar	1	For optimum control of thrips, use directed or banded sprays with hollow cone spray nozzles. Ensure adequate coverage for the underside of leaves.
	Armyworm Corn earworm Fall armyworm	Stink bugs Webworms	1 to 1 1/2	For cutworm control, this product is most effective against species which feed on the upper portions of the plant.
-	Whitefringed beetle adults	Cutworms	· 2	

PEANUTS

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#### RESTRICTIONS AND PRECAUTIONS: PEANUTS

- Do not apply within 14 days of harvest.
- Do not apply more than a total of 8 quarts per acre per crop.
- Observe plant response precautions.

## PRICKLY PEAR CACTUS\*

CROP	PEST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Prickly Pear Cactus	Cochineal scale (crawlers)	2	Apply using ground equipment in sufficient volume to insure good coverage. Apply as needed on 7 to 10 day intervals.
			For grasshopper control, refer to the general Grasshopper Section.

RESTRICTIONS AND PRECAUTIONS: PRICKLY PEAR CACTUS

Do not apply within 3 days of harvest.

Do not apply more than a total of 6 quarts per acre per season.

\* Use not permitted in CA unless otherwise directed by supplemental labeling.

#### ROOT AND TUBER CROPS ROOT AND TUBER CROPS EXCEPT SUGAR BEETS AND SWEET POTATOES

CROP	P	EST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Root and Tuber Crops:	Flea beetles Leafhoppers		1/2 to 1	Repeat applications as necessary up to a total of 6 times but not more often than once every 7 days.
Garden Beets, Carrots, Horseradish, Parsnips, Radishes, Rutabagas, Salsify, Potatoes	Armyworm Aster leafhopper Colorado potato beetle Corn earworm Cutworms European com borer Fall armyworm	Lace bugs Lygus bugs Spittlebugs Stink bugs Tamished plant bug	· 1 to 2	For cutworm control, this product is most effective against species which feed on the upper portions of the plant.

#### RESTRICTIONS AND PRECAUTIONS: ROOT AND TUBER CROPS EXCEPT SUGAR BEETS AND SWEET POTATOES

• Do not apply within 7 days of harvest.

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• Do not apply more than a total of 6 quarts per acre per crop.

## SUGAR BEETS

CROP		PEST	QUARTS OF SEVIN <sup>®</sup> 4F PER ACRE	SPECIFIC DIRECTIONS
Sugar beets	Armyworm Beet leaf beetle Fall armyworm	Flea beetles Leafhoppers Webworms	1 to 1 1/2	Repeat applications as necessary up to a total of 2 times but not more often than once every 14 days.
	Cutworms		1 1/2	For cutworm control, this product is most effective against species which feed on the upper portions of the plant.

#### **RESTRICTIONS AND PRECAUTIONS: SUGAR BEETS**

- Do not apply within 28 days of harvest for roots or forage.
- Do not apply more than a total of 3 quarts per acre per crop.

## SWEET POTATOES

CROP	P	EST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Sweet Potatoes	Corn earworm Cucumber beetles Flea beetles Sweet potato hornworm	Sweet potato weevil Tortoise beetles Whitefringed beetle	1 to 2	Preplant dip for control of sweet potato weevil: Just prior to planting, dip sweet potato cuttings in a suspension containing 2 gallons of this product in 100 gallons of water (2.6 fluid ounces of this product per gallon of water).
•	Yellowstriped armyworm		2.	For foliar sprays, repeat applications as necessary up to a total of 8 times but not more often than once every 7 days.

#### **RESTRICTIONS AND PRECAUTIONS: SWEET POTATOES**

- Do not apply within 7 days of harvest.
- Do not apply more than a total of 8 quarts per acre per crop with in-season sprays.
  - Do not apply more than a total of 1.2 quarts per acre as a preplant dip treatment.

## SMALL FRUITS AND BERRIES

CROP	PE	EST	QUARTS OF SEVIN <sup>®</sup> 4F PER ACRE	SPECIFIC DIRECTIONS
Small Fruits and Berries: Caneberries, Blueberries, Cranberries, Grapes, Strawberries	European fruit lecanium European raspberry aphid Flea beetles Grape leaffolder Grape leaffoller Japanese beetle Leafhoppers Leafrollers Meadow spittlebug Omnivorous leaftier	Rose chafer Snowy tree cricket Strawberry bud weevil Strawberry clipper Strawberry fuitworm Strawberry leafroller Strawberry weevil Western grapeleaf skeletonizer Western yellowstriped armyworm	1 to 2	OBSERVE BEE CAUTION. Repeat applications as necessary up to a total of 5 times but not more often than once every 7 days. For cutworm control, this product is most effective against species which feed on the upper portions of the plant. In grapes for grape leaffolder control, apply before first brood larvae emerge from rolls.
·	Blueberry maggot Cherry fruitworm Cranberry fireworm Cranberry fruitworms Cranberry twig girdler	Elm spanworm Gypsy moth Spaganothus worm Tarnished plant bug	1 1/2 to 2	In grapes, do not concentrate spray on the bunch or visible residues may result.
	Eight-spotted forester Cutworms Grape berry moth June beetles Omnivorous leafroller	Orange tortrix Raspberry fruitworm Raspberry sawfly Redbanded leafroller Saltmarsh caterpillar	2	

#### RESTRICTIONS AND PRECAUTIONS: SMALL FRUITS AND BERRIES

- Do not apply within 7 days of harvest.
- Do not apply more than a total of 10 quarts per acre per crop.
- · CAUTION: Use in cranberries may kill shrimp and crabs. Do not use in areas where these are important resources.
- Carbaryl may injure Early Dawn and Sunrise varieties of strawberries.

## SUNFLOWERS

CROP		PEST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Sunflowers	Stem weevil Sunflower beetle		1 to 1 1/2	Up to 2 applications may be made but not more often than once every 7 days.
DO NOT USE IN CALIFORNIA	Armyworm Cutworms	Fall armyworm Sunflower moth	1 1/2	For cutworm control, this product is most effective against species which feed on the upper portions of the plant.

#### RESTRICTIONS AND PRECAUTIONS: SUNFLOWERS

• Do not apply within 30 days of grazing or harvest for forage or within 60 days of harvest for seed.

Do not apply more than a total of 3 quarts per acre per crop.

## TOBACCO

CROP	P	EST	QUARTS OF SEVIN <sup>®</sup> 4F PER ACRE	SPECIFIC DIRECTIONS
Tobacco	Budworms Fall armyworm Tobacco flea beetles Hornworms	Japanese beetle June beetle Suckfly	1 to 2	Plant bed and Field Treatment Repeat treatments as necessary up to a total of 4 times per crop but not more often than once every 7 days.
				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.

#### RESTRICTIONS AND PRECAUTIONS: TOBACCO

- Tobacco may be harvested on the day of treatment.
- Do not apply more than a total of 8 quarts per acre per crop.
- Observe plant response precautions.

## TREE FRUIT CROPS

On all tree fruit crops, apply in sufficient volume for adequate coverage. This will vary depending on the pest and its severity, the tree condition, size, and density, and other factors.

## **CITRUS FRUITS**

CROP	PI	EST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Citrus Fruits	Avocado leafroller California orangedog Citrus cutworm Fruittree leafroller	Orange Tortrix Western tussock moth	2 to 3	OBSERVE BEE CAUTION. Repeat applications as necessary up to a total of 8 times but not more often than once every 14 days.
	Citrus rust mite Eriophyid mites	Plant bugs Scale insects [Black scale, brown soft scale, California red scale (except in California), citrus snow scale, yellow scale (except in California)]	3 to 5	For scale control, apply when crawlers are present. For best control of Eriophyid mites including citrus rust mite, apply when pest populations are low.
	Apopka weevil (adult) Citrus root weevils (adults)	Fuller Rose Beetle Little leaf notcher (adult)	5 to 7 1/2	
	California only: California red scale	Yellow scale	5 to 16	Do not make more than 1 application per season for California red scale. Apply when crawlers are present.

#### RESTRICTIONS AND PRECAUTIONS: CITRUS FRUITS

• Do not apply within 5 days of harvest.

· Do not apply more than a total of 20 quarts per acre per crop.

OLIVES

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CROP	PEST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Olives	Scale insects (olive scale, black scale)	5 to 7 1/2	Up to 2 applications per crop may be made but not more often than once every 14 days.

## RESTRICTIONS AND PRECAUTIONS: OLIVES

• Do not apply within 14 days of harvest.

• Do not apply more than a total of 15 quarts per acre per crop.

CROP	PEST		QUARTS OF SEVIN <sup>®</sup> 4F PER ACRE	SPECIFIC DIRECTIONS
Pome Fruits: apples, pears, loquats, crabapples, oriental pears	White apple leafhopper		1/2 to 1 1/2	OBSERVE BEE CAUTION On apples, avoid use during the period from full bloom until 30 days after full bloom unless fruit thinning is desired. Use for pest control
	Apple aphid	Codling moth	1 to 3	during this period also may result in fruit removal.
	Apple aphid Apple maggot Apple mealybug Apple rust mite Bagworms California pearslug (pear sawfly) European apple sawfly Eyespotted bud moth Fruittree leafroller Gypsy moth Japanese beetle Lesser appleworm Lygus bugs Orange tortrix	Pearleaf blister mite Pear psylla Pear rust mite Periodical cicada Plum curculio Redbanded leafroller Rosy apply aphid Scale insects (Forbes scale, Lecanium scale, San Jose scale) Tamished plant bug Tentiform leafminers Woolly apple aphid Yellowheaded fireworm	1 1/2 to 3	Repeat applications as necessary up to a total of 8 times per crop (including thinning sprays on apples) but not more often than once every 14 days. For psylla control, apply when eggs hatch or young nymphs are present. For scale control, apply when crawlers are present.

## POME FRUITS



## POME FRUITS (continued)

CROP	PEST	QUARTS OF SEVIN <sup>®</sup> 4F PER ACRE	SPECIFIC DIRECTIONS
Apples Only,		1 to 3	OBSERVE BEE CAUTION
for Fruit Thinning			Apply 1 to 3 quarts per acre of SEVIN <sup>®</sup> brand 4F Carbaryl Insecticide between 80% petal fall and 16 mm fruit size. Use the higher rates on hard to thin varieties at the early timing which is the 80% petal fall to 6 mm fruit size. Use the lower rates on easy to thin varieties and at the later thinning period which is the 10 to 16 mm fruit size. The rate to use per acre will depend on varieties, tree size, row spacing, weather conditions at the time of and following applications. Consult with the local fruit thinning experts in your area for the proper rate to use under your conditions.
			The optimum spray gallonage will depend on the tree size, planting density, row spacing and amount of foliage. Use sufficient spray volume to insure adequate coverage (100 to 400 gallons/acre). Avoid spray to the point of runoff. Reduce spray coverage to the lower portion of the tree since overthinning may occur here.
			Factors such as climatic temperature, high humidity, frost, tree age, variety, nutrition, previous crop, pruning and bloom may influence fruit thinning results with the product. Exercise caution to avoid possible overthinning. For the most effective results, apply under good drying conditions and when daytime temperatures (°F) will be 70 to low 80's for the following one to three days. Application with daytime temperatures in excess of 80° F may result in overthinning.
			SEVIN <sup>®</sup> brand 4F may be mixed with other fruit thinners, however, use caution to avoid overthinning and other adverse effects. Consult with local fruit thinning experts in your area for recommendations. Refer to the other product labels for specific use directions.
			Consult with local fruit thinning experts in your area for advice on the proper use of this product on your varieties under your growing conditions.
			<b>CAUTION:</b> The use of SEVIN <sup>®</sup> brand 4F may result in fruit deformity under certain environmental conditions. Before using on any variety of apples, the user must weigh the risk versus benefits when using this product, particularly when using between <b>80% petal fall and 6 mm fruit</b> size. Red Delicious are more sensitive to this phenomenon and in particular, the varieties Bisbee, Red Chief and Vallee Spur are very susceptible to conditions causing fruit deformity. Precipitation and temperatures below 65° F increases the possibility of fruit deformity. The use with summer spray oils and wetting agents may increase the risk of fruit deformity and injury.

#### **RESTRICTIONS AND PRECAUTIONS: POME FRUITS**

- Do not apply to quince.
- Do not use on pears between the tight flower cluster up to the 20 mm fruit size. Use during this period may result in undesirable fruit thinning and/or deformed fruit.

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- Do not apply within 3 days of harvest.
- · Do not apply more than a total of 15 guarts per acre per crop.
- Do not make more than a total of 8 applications per crop.

#### FOR PROTECTION OF HONEY BEES:

- Remove all bee hives from orchard to be treated prior to application.
- Do not apply this product if bees are actively foraging in orchard.
- If weed bloom is present, mow the cover crop on the orchard floor prior to applying this product.

## **STONE FRUITS**

CROP	PE	ST	QUARTS OF SEVIN <sup>®</sup> 4F PER ACRE	SPECIFIC DIRECTIONS
Stone Fruits: Apricots, Cherries, Nectarines, Peaches, Plums, and Prunes	Apple pandemis Black cherry aphid Cherry fruitworm Cherry maggot (Cherry fruit fly) Codling moth Cucumber beetles Eastern tent caterpillar Eyespotted bud moth European earwig Fruittree leafroller Green fruitworm Gypsy moth Japanese beetle June beetle Lesser peachtree borer Mealy plum aphid	Orange tortrix Oriental fruit moth Peach twig borer Periodical cicada Plum curculio Prune leafhopper Redbanded leafroller Rose chafer Scale insects (Brown soft scale, Forbes scale, Lecanium scale, Olive scale, Oystershell scale, San Jose scale) Tamished plant bug Tussock moth Variegated leafroller	2 to 3	OBSERVE BEE CAUTION. Repeat applications as necessary up to a total of 3 times per crop but not more often than once every 7 days. An additional application at the dormant or delayed dormant timing may be made. For optimum scale control, apply when crawlers are present. For lesser peachtree borer, best results have been found by thoroughly spraying limbs and tree trunks at weekly intervals during moth flight.
	Californi Black cherry aphid Cherry fruitworm Cherry maggot (Cherry fruit fly) Codling moth Cucumber beetles Eyespotted bud moth European earwig Fruittree leafroller Green fruitworm Mealy plum aphid Orange tortrix	a Only: Oriental fruit moth Peach twig borer Scale insects (Brown soft scale, Forbes scale, Lecanium scale, Olive scale, Oystershell scale, San Jose scale) Tarnished plant bug Tussock moth	3 to 4	OBSERVE BEE CAUTION. Repeat applications as necessary up to a total of 3 times per crop but not more often than once every 14 days. An additional application at the dormant or delayed dormant timing may be made. For optimum scale control, apply when crawlers are present.
	Peach twig borer Scale insects (Brown soft scale, Forbes scale, Lecanium scale, Olive scale, Oystershell scale, San Jose scale)		4 to 5	For dormant or delayed dormant timing, apply in combination with a recommended dormant oil. Refer to the dormant oil product label for additional use directions and restrictions.

#### RESTRICTIONS AND PRECAUTIONS: STONE FRUIT

· Do not apply within 3 days of harvest, except in California. In California, do not apply within 1 day of harvest.

• Do not apply more than a total of 14 quarts per acre per crop.

· Do not apply more than a total of 5 quarts per acre at the dormant or delayed dormant timing.

• Do not apply more than a total of 9 quarts per acre during the production season.

## TREE NUT CROPS

On all tree nut crops, apply in sufficient volume for adequate coverage. This will vary depending on the pest and its severity, the tree condition, size, and density, and other factors.

## PISTACHIOS

CROP	PEST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Pistachios	Brown soft scale Lecanium scale Navel orangeworm	3 to 5	Repeat applications as necessary up to a total of 4 times per crop (including any applications at the dormant or delayed dormant timing) but not more often than once every 7 days. For scale control, apply when crawlers are present.
	Scale insects	4 to 5	For dormant or delayed dormant timing, apply in combination with a recommended dormant oil. Refer to the dormant oil product label for additional use directions and restrictions.

#### RESTRICTIONS AND PRECAUTIONS: PISTACHIOS

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• Do not apply within 14 days of harvest.

• Do not apply more than a total of 15 quarts per acre per crop, including any application at the dormant or delayed dormant timing.

## TREE NUTS

CROP	PE	ST	QUARTS OF SEVIN <sup>®</sup> 4F PER ACRE	SPECIFIC DIRECTIONS
Tree Nuts:	Black margined aphid	Navel orangeworm	2 to 5	OBSERVE BEE CAUTION
Almonds, Chestnuts, Filberts, Pecans,	Calico scale Codling moth European fruit lecanium	Peach twig borer Pecan leaf phylloxera Pecan stem phylloxera		Repeat applications as necessary up to a total of 4 times per crop (including any applications at the dormant or delayed dormant timing) but not more often than once every 7 days.
Walnuts	Fall webworm Filbert aphid Filbert leafroller Filbertworm	Pecan nut casebearer Pecan spittlebug		Use lower rates for pests attacking leaves. Use higher rates for pests attacking fruit and for higher infestations.
	Frosted scale Fruittree leafroller	Pecan weevil San Jose scale		For scale control, apply when crawlers are present.
	Hickory shuckworm Lesser webworm	Twig girdler Walnut caterpillar		For peach twig borer, best results with foliar applications have been found by making applications in "popcorn" or petal fall stages when the May brood begins to hatch.
				For navel orangeworm in almonds and walnuts, best results have been found by timing early and midseason applications to correspond with moth flight peaks.
				For filbert leafroller, best results have been found by making applications when eggs are hatching, repeating application on first appearance of moths and again 3 to 4 weeks later.
				For codling moth in walnuts, best results have been found by making applications when average cross-sectional diameters of developing nuts are 0.5 to 0.75 inches and again during middle or late June as needed.
• •	Chestnut weevil	European earwig	4 to 5	For chestnut weevil, best results have been found with 4 applications at weekly intervals beginning in late July. The last application should be made prior to shuck split.
				For European earwig, thorough coverage of trunks, branches, and nuts is needed for best results.
Almonds only	Peach twig borer	Scale insects	4 to 5	For dormant or delayed dormant timing, apply in combination with a recommended dormant oil. Refer to the dormant oil product label for additional use directions and restrictions.

## RESTRICTIONS AND PRECAUTIONS: TREE NUTS

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Do not apply within 14 days of harvest.

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• Do not apply more than a total of 15 quarts per acre per crop, including any application at the dormant or delayed dormant timing.

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## FORESTED AREAS AND RANGELAND TREES

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Apply in sufficient volume for adequate coverage. This will vary depending on the tree size, density and stage of growth.

CROP	PI	EST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Forested areas:	Ants	Maple leafcutter	1	Observe plant response precautions.
Non-urban	Apple aphid	Mealy bugs		Obtain thorough coverage of upper and lowe
Forests, Tree	Armyworm	Mimosa webworm		leaf surfaces. The addition of a sticker may
Plantations,	Ash whitefly	Nantucket pine tip		improve residual control.
Planted	Azalea leafminer	moth		
Christmas	Bagworms	Oak leafminers		To control scale insects, treat trunks, stems and twigs in addition to plant foliage.
Trees, Parks,	Balsam twig aphid	Oak moth		
Rural Shelter	Birch leafminer	Oak skeletonizer		For optimum worm control, treat when pests
Belts	Blister beetle	Oakworm complex		are small.
Rangeland	Boxelder bug	Oleander caterpillar		Do not use on syrup-producing sugar maples
Trees	Boxwood leafminer	Olive ash borer		where sap is harvested. Applications for
	Brown tail moth	Orange-striped		control of maple leafcutter on sugar maple
	Cankerworms	oakworm Periodical cicada		should be made when larvae are in 2nd instal
1	Catalpa sphinx			after mining and as cases are being formed.
	Chiggers Cooley spruce gall	Pine looper Pine sawfly		Repeat treatments as necessary up to a tota
	adelgid	Pine spittlebug		of 2 times per year but not more often than
	Cutworms	Pitch pine tip moth		once every 7 days.
	Cypress tip moth	Spruce budworm		
	Douglas-fir tussock	Plant bugs	·	For gypsy moth control, use the higher rate for
	moth	Poinsettia hornworm		heavy infestations.
	Eastern spruce gall	Psyllids		
	adelgid	Puss caterpillar		
	Elm leaf aphid	Redhumped		
ļ	Elm leaf beetle	oakworm		
	Elm spanworm	Rose aphid		
	Eriophyid mites	Rose chafer		
	European pine shoot	Rose slug		
	moth	Saddled prominent		
	Fall armyworm	Sawflies (exposed)		
1	Flea beetle	Scale insects		
	Fuchia gall mite	(crawlers)		
	Fuller rose beetle	Sowbugs		
1	Gall midges	Spiney elm		
	Gall wasps	caterpillar		
	Greenstriped	Springtails		
i	mapleworm	Spruce needleminer		
-	Grasshoppers	Subtropical pine tip	•	· ·
	Hackberry nipplegall	moth		
	maker	Tent caterpillars		
	Holly bud moth	Thorn bug		
	Holly leafminer	Thrips (exposed) Ticks		
İ	Jackpine budworm	1		
	Japanese beetle	Walnut caterpillar Webworms		
	Jeffrey pine needleminer	Western hemlock		
	June beetles	looper		1
	Lace bugs	Western spruce		
	Leafhoppers	budworm		N
	Leafrollers	Willow leaf beetles		
Ì			•	1
	Locust borer	Wooly gall anhid		
	Locust borer	Wooly gall aphid Yellow poplar weevil		

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## FORESTED AREAS AND RANGELAND TREES, CONTINUED

CROP	PEST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Forested areas: Non-urban Forests, Tree Plantations, Planted Christmas Trees, Parks, Rural Shelter Beits Rangeland Trees	Elm bark beetle Ips engraver beetles Mountain pine beetle Roundheaded pine beetle Spruce beetle Western pine beetle	2% solution (5 fluid ounces per gallon)	<ul> <li>Direct Trunk Treatment:</li> <li>Effective as a preventative treatment only. Repeat annually as required to prevent beetle attacks.</li> <li>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.</li> <li>For 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.</li> <li>Do not make more than 2 applications per year or repeat applications more often than</li> </ul>

RESTRICTIONS AND PRECAUTIONS: FORESTED AREAS AND RANGELAND TREES

• Do not make more than 2 applications per year.

 To prepare small volumes of spray mixture, use 1/3 fl. oz. (approximately 2 teaspoons) of this product in an adequate amount of water and apply to 500 sq.ft. where rates of 1 quart per acre are indicated.

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

## TREES AND ORNAMENTALS

Apply in sufficient volume for adequate coverage. This will vary depending on the plant or tree size, density, and stage of growth.

CROP	P	EST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Trees,	Ants	Maple leafcutter	1	Observe plant response precautions.
Ornamentals:	Apple aphid	Mealy bugs		Obtain thorough coverage of upper and lowe
(Roses,	Armyworm	Mimosa webworm		leaf surfaces. The addition of a sticker may
Flowers, Other	Ash whitefly	Nantucket pine tip	l	improve residual control.
Herbaceous	Azalea leafminer	moth		To control scale insects, treat trunks, stems
Plants), Woody	Bagworms	Oak leafminers		and twigs in addition to plant foliage.
Plants, Shrubs in Commercial	Balsam twig aphid	Oak moth		-
and Residential	Birch leafminer Blister beetle	Oak skeletonizer Oakworm complex		For optimum worm control, treat when pests
Areas and in	Boxelder bug	Oleander caterpillar		are small.
Nursery	Boxwood leafminer	Olive ash borer		Do not use on syrup-producing sugar maples
Production	Brown tail moth	Orange-striped		where sap is harvested. Applications for
Areas	Cankerworms	oakworm		control of maple leafcutter on sugar maple
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Catalpa sphinx	Periodical cicada		should be made when larvae are in 2nd instal
	Chiggers	Pine looper		after mining and as cases are being formed.
	Cooley spruce gall	Pine sawfly	•	Repeat treatments as necessary up to a total
	adelgid	Pine spittlebug		of 6 times per year but not more often than
	Cutworms	Pitch pine tip moth		once every 7 days.
	Cypress tip moth	Spruce budworm		
	Douglas-fir tussock	Plant bugs		For gypsy moth control, use the higher rate for
	moth	Poinsettia hornworm		heavy infestations.
	Eastern spruce gall	Psyllids		
Į	adelgid	Puss caterpillar		ł
	Elm leaf aphid	Redhumped		
	Eim leaf beetle	oakworm		
	Elm spanworm	Rose aphid		
	Eriophyid mites	Rose chafer		
	European pine shoot	Rose slug		
	moth	Saddled prominent		
	Fall armyworm	Sawflies (exposed)		
	Flea beetle	Scale insects		
	Fuchia gall mite	(crawlers)		
	Fuller rose beetle	Sowbugs		
	Gall midges	Spiney elm		
	Gall wasps	caterpillar		
	Greenstriped	Springtails		
	mapleworm	Spruce needleminer	•	
	Grasshoppers	Subtropical pine tip		
	Hackberry nipplegall	moth		
Ĩ	maker	Tent caterpillars		•
. [	Holly bud moth	Thorn bug		•
	Holly leafminer	Thrips (exposed)		
	Jackpine budworm	Ticks		
ļ	Japanese beetle	Walnut caterpillar	•	
	Jeffrey pine	Webworms		,
	needleminer	Western hemlock		
• [	June beetles	looper	•	
	Lace bugs	Western spruce		
	Leafhoppers	budworm		•
	Leafrollers	Willow leaf beetles		
	Locust borer	Wooly gall aphid		
Ļ		Yellow poplar weevil		
	Gypsy Moth		3/4 to 1	

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## TREES AND ORNAMENTALS, CONTINUED

CROP	PEST	QUARTS OF SEVIN <sup>®</sup> 4F PER ACRE	SPECIFIC DIRECTIONS
Trees, Ornamentals: (Roses, Flowers, Other Herbaceous Plants), Woody Plants, Shrubs in Commercial and Residential Areas and in Nursery Production Areas	Elm bark beetle Ips engraver beetles Mountain pine beetle Roundheaded pine beetle Spruce beetle Western pine beetle	2% solution (5 fluid ounces per gallon)	<ul> <li>Direct Trunk Treatment:</li> <li>Effective as a preventative treatment only. Repeat annually as required to prevent beetle attacks.</li> <li>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.</li> <li>For 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.</li> <li>Do not make more than 2 applications per year or repeat applications more often than once every six months.</li> </ul>

#### RESTRICTIONS AND PRECAUTIONS: TREES AND ORNAMENTALS

• Do not make more than 6 foliar and 2 direct trunk treatments per year.

 To prepare small volumes of spray mixture, use 1/3 fl. oz. (approximately 2 teaspoons) of this product in an adequate amount of water and apply to 500 sq.ft. where rates of 1 quart per acre are indicated.

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

## TURFGRASS

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Apply the recommended rates using pressure-type equipment in sufficient spray volume for thorough coverage and thatch penetration.

CROP	Р	EST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Turfgrass: golf turf, sports fields, sod farms, domestic and commercial lawns, cemeteries, parks, campsites, recreational areas.		Lucerne moth Millipedes Mosquitoes (adults) Scarab beetle adults (May beetle, June beetle, Japanese beetle, green June beetle) Sowbugs Spittlebugs Springtails Ticks Yellowstriped armyworm	2 to 4 (1 1/2 to 3 fi.oz. per 1000 SQ.FT.)	For Armyworm, Cutworm, and Fall Armyworm Control: Do not irrigate treated areas within 24 hrs. following insecticide application. For Green June Beetle Grub (larvae) Control: Make applications when grubs are feeding near the soil surface. Water or irrigate turfgrass soon after treatment. Repeat applications as necessary up to a total of 4 times per year but not more often than once every 7 days.
	Chinch bugs Sod Webworm (lawn moths)		6 to 8 (4.4 to 6 fl.oz. per 1000 SQ.FT)	For Chinch bug Control: Treat entire grass area rather than just damaged areas. Irrigation prior to treatment will aid in penetration of insecticide into turfgrass. Do not irrigate treated areas within 24 hrs. following insecticide application.
	Bluegrass billbug larvae European crane fly Fleas White grubs (Japanese beetle, Chafer beetle, and <i>Phyllophaga</i> spp. larvae) Black turfgrass ataenius beetle larvae Hyperoides weevil (bluegrass weevil) larvae		8 (6 fl.oz. per 1000 SQ.FT.)	<ul> <li>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 turfgrass soon after treatment.</li> <li>For White Grub Control: Applications should be made when grubs are feeding near the soil surface, usually during late March through May, or July through early September, or as recommended by local Agricultural Extension Service agents. Water or irrigate turfgrass soon after treatment.</li> <li>Repeat applications as necessary up to 2 times per year but not more often than once every 7 days.</li> </ul>

RESTRICTIONS AND PRECAUTIONS: TURFGRASS

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

## CONTROL OF SPECIFIC PESTS ACROSS MULTIPLE SITES

## GRASSHOPPERS

CROP	PEST	QUARTS OF SEVIN <sup>®</sup> 4F PER ACRE	SPECIFIC DIRECTIONS
All crops on this label	Grasshoppers	1/2 to 1 1/2*	Apply 1/2 to 3/4 quarts per acre of this product for nymphs on small 'plants or sparse vegetation. Apply 1 to 1 1/2 quarts per acre for mature grasshoppers or applications to dense foliage or if extended residual control is desired. Be certain spray volumes are appropriate to assure adequate coverage.

#### RESTRICTIONS AND PRECAUTIONS: GRASSHOPPER CONTROL

• \*NOTE: Refer to individual site listings elsewhere on this label for use limitations and restrictions. Do not use rates higher than listed for the site or exceed other use restrictions.

## CONTROL OF TICKS WHICH VECTOR LYME DISEASE

For control of juvenile and adult ticks which vector Lyme Disease, apply the recommended amount is sufficient volume for thorough coverage.

CROP/SITE	PEST	QUARTS OF SEVIN <sup>®</sup> 4F PER ACRE	SPECIFIC DIRECTIONS
All crops on this label Pastures Forested Areas Wasteland, Rights-of-Way, Hedgerows, Ditchbanks, Roadsides, Set-Aside and Conservation Reserve Program Acreage Trees and Ornamentals Turfgrass	<i>Ixodes</i> spp. (Deer tick, Bear tick, 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 tick can be obtained 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*.

RESTRICTIONS AND PRECAUTIONS: CONTROL OF TICKS WHICH VECTOR LYME DISEASE

- \*NOTE: Refer to individual site listings elsewhere on this label for use limitations and restrictions. Do not use rates higher than listed for the site or exceed other use restrictions.
- · DO NOT ALLOW PUBLIC USE OF TREATED AREAS DURING APPLICATION OR UNTIL SPRAYS HAVE DRIED.

## IMPORTED FIRE ANTS

CROP/SITE	PEST	QUARTS OF SEVIN® 4F PER VOLUME OF WATER	SPECIFIC DIRECTIONS
Pastures Rangeland Forested Areas Trees and Ornamentals Turfgrass Wasteland	Imported fire ants	3/4 fluid ounce per gallon	DRENCH APPLICATION: 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 mound 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 7 days. Treat new mounds as they appear. Pressurized sprays may disturb the ants and cause migration, reducing product effectiveness.
Nursery Stock, Vegetable Transplants*, Foliage Plants, Bedding Plants (Outdoor Use Only)	Imported fire ants	1 1/2 quarts per 100 gallons	Avoid contact with foliage and treat only the growing media when using on bedding plants. Do not make more than one application, either as a root dip or drench treatments (applied to the point of saturation).

#### **RESTRICTIONS AND PRECAUTIONS: IMPORTED FIRE ANT CONTROL**

• DO NOT ALLOW PUBLIC USE OF TREATED AREAS DURING APPLICATIONS OR UNTIL DRENCH HAS DRIED.

DO NOT USE IN GREENHOUSES.

NOTE: DO NOT USE ON ANY FOOD CROP NOT LISTED ON THIS LABEL. Refer to the specific crop section for additional restrictions and precautions.

To prepare small amounts, use 3/4 fluid ounce (approximately 1 1/2 tablespoons) of SEVIN<sup>®</sup> BRAND 4F per each gallon of mix where 1 1/2 quarts per 100 gallons are indicated.

## ADULT MOSQUITO CONTROL

Apply in sufficient gallonage for thorough coverage.

CROP	PEST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Pastures Rangeland Forested Lands Trees and Ornamentals Turfgrass Wastelands	Mosquitoes (adults)	1/4 to 1*	OBSERVE BEE CAUTION. Treat shrubbery and areas where adult mosquitoes congregate. Treat when adult mosquitoes are active in early mornings or late evenings. Repeat applications as necessary*. 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.

#### RESTRICTIONS AND PRECAUTIONS: ADULT MOSQUITO CONTROL.

- DO NOT ALLOW PUBLIC USE OF TREATED AREAS DURING APPLICATION OR UNTIL SPRAYS HAVE DRIED.
- CAUTION: May kill shrimp and crabs. Do not use in areas where these are important resources.
- \*NOTE: Refer to individual site listings elsewhere on this label for use limitations and restrictions. Do not use rates higher than
  listed for the site or exceed other use restrictions.
- To prepare small volumes of spray mixture, use 1/3 fl. oz. (approximately 2 teaspoons) of this product in an adequate amount of water and apply to 500 sq.ft. where rates of 1 quart per acre are indicated.

## NUISANCE PEST CONTROL

For use as a 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.

PEST	RATE OF SEVIN® 4F	SPECIFIC DIRECTIONS
Ants Bees Brown dog tick Centipedes Cockroaches Crickets Darkling beetle (lesser mealworm or litter beetle) Earwigs Firebrats Fleas Millipedes Scorpions Silverfish Spiders Wasps	1% solution or 2 1/2 fluid ounces per gallon	Observe plant response precautions. Apply as a coarse 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. For use in and around flower beds and ornamental plantings, apply as a coarse wet spray in and around plant beds. May be applied to outdoor sleeping quarters of pets. Do not treat animals. Do not allow animals to use treated area until sprays have dried.

#### RESTRICTIONS AND PRECAUTIONS: NUISANCE PEST CONTROL

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

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

#### **IMPORTANT: READ BEFORE USE**

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and should be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** BAYER CROPSCIENCE MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. BAYER CROPSCIENCE DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE'S ELECTION, THE REPLACEMENT OF PRODUCT.

## **NET CONTENTS: 2.5 GALLONS**

SEVIN is the registered trademark of Bayer.

Bayer CropScience

Bayer CropScience LP P.O. Box 12014, 2 T.W. Alexander Drive Research Triangle Park, North Carolina 27709 1-866-99BAYER (1-866-992-2937)

SEVIN 4F Carbaryl Insecticide (MASTER) Approved 09/27/04, Notification 04/08/05

## CropScience

April 13, 2005

Document Processing Desk (NOTIF) Office of Pesticide Programs (7504C) U.S. Environmental Protection Agency 1801 South Bell Street Arlington, Virginia 22202-4501

(PM: Mr. John Hebert, Team 7)

Dear Reviewer,

#### Re: SEVIN® brand 4F Carbaryl Insecticide EPA Reg. No. 264-349 Notification of Labeling Amendment per PR Notice 98-10

In accordance with PR Notice 98-10, we are notifying the Agency of minor amendments made to the SEVIN® 4F label. The statement "Use not permitted in CA unless otherwise directed by supplemental labeling" was added in the use directions for okra and prickly pear cactus, under "Restrictions and Precautions".

The following documents are enclosed in support of this action:

- A completed Application for Registration (EPA Form 8570-1).
- The Certification Statement required by PR Notice 98-10.
- One (1) copy of the amended labeling with changes highlighted in yellow.

Please call me at 919/549-2718 if you need any additional information.

Sincerely,

an A fun

Danielle A. Larochelle Registration Product Manager

Attachments

Corr. # daL030-05