



PM 04

264-349

8/20/97

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

Jennifer L. Phillips  
Rhone-Poulenc Ag Company  
P.O. Box 12014, 2 T.W. Alexander Drive  
Research Triangle Park, N.C. 27709

AUG 20 1997

Subject: Sevin brand 4F Carbaryl Insecticide  
EPA Registration No. 264-349  
Amendment dated July 17, 1997

Dear Dr. Phillips:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable provided that you make the labeling change indicated below before you release the product for shipment bearing the amended labeling:

1. In the Specific Directions (Page 14) for Sweet Potatoes where the requested change is, change the portion that reads "(2.6 fluid ounces per gallon of water)" to "(2.6 fluid ounces of this product per gallon of water)".

A copy of the labeling stamped "Accepted with Comments" is enclosed for your records. Submit two copies of your final printed labeling before you release the product for shipment.

Sincerely,

*George Tompkins*  
George Tompkins, Ph.D., Entomologist  
Insecticide-Rodenticide Branch  
Registration Branch (7505C)

# SEVIN® brand 4F Carbaryl Insecticide

ACCEPTED  
with COMMENTS  
in EPA Letter Dated

2 7 30

AUG 20 1997

FOR AGRICULTURAL OR COMMERCIAL USE ONLY

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

**ACTIVE INGREDIENTS:**

Carbaryl (1-naphthyl N-methylcarbamate)..... 43.0% by Wt.

**INERT INGREDIENTS:**

57.0% by Wt.

(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 1-800-334-9745

### STATEMENT OF PRACTICAL TREATMENT

Carbaryl is an N-Methyl Carbamate Insecticide.

**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. Get medical attention.

**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.

**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 Rhône-Poulenc Ag Company.

Consultation on therapy can be obtained at all hours by calling the Rhône-Poulenc 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 Rhône-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 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 restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

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

### STORAGE

Store unused SEVIN® 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

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 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® brand 4F 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.

### 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® 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® brand 4F, and then the remaining volume of water. (Suspension concentrations using the appropriate dosage per acre recommended on this label of SEVIN® 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® brand 4F into the irrigation water line so as to deliver the desired rate per acre. The suspension of SEVIN® 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® 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)
- Cotton
- 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)
- Peanuts
- 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
- Turfgrass
- Control of Specific Pests Across Multiple Sites
  - Grasshoppers
  - Ticks which Vector Lyme Disease
  - Imported Fire Ants
  - Adult Mosquito Control
- Nuisance Pest Control
- Poultry 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.

**ASPARAGUS**

CROP	PEST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
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	<b>Application to ferns or brush growth following harvest of spears:</b> 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	PEST	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 Tarnished 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	PEST	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	<p><b>OBSERVE BEE CAUTION.</b></p> <p>Repeat applications as needed up to a total of 4 times but not more often than once every 14 days.</p> <p>Optimum timing and good coverage are essential for effective control.</p> <p>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.</p> <p>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.</p> <p>For western bean cutworm, treat when infestation averages 15% and at 90 to 100% tassel emergence. Treatment after 100% silk emergence will reduce effectiveness.</p> <p>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.</p> <p>For cutworm control, this product is most effective against species which feed on the upper portions of the plant.</p>
	European corn borer	1 1/2 to 2	
	Western bean cutworm Cutworms	2	

### 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	PEST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Grain Sorghum	Armyworm Chinch bugs Corn earworm.	Fall armyworm Stink bugs Webworms	1 to 2
	Southwestern corn borer		1 1/2
	Cutworms		2
			Repeat applications as necessary up to a total of 4 times but not more often than once every 7 days.  Direct spray into forming heads for optimum control of insects attacking heads.  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
	Tadpole shrimp		1 1/2
			Up to 2 applications per crop may be made but not more often than once every 7 days.  <b>California only</b> 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	PEST	QUARTS OF SEVIN® 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
	European corn borer	1 1/2 to 2	<p>OBSERVE BEE CAUTION</p> <p>Repeat applications as necessary up to a total of 8 times but not more often than once every 3 days.</p> <p>Optimum timing and good coverage are essential for effective control</p> <p>For insects attacking silks and ears, 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.</p> <p>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.</p> <p>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.</p> <p>For western bean cutworm, treat when infestation average 15% and at 90 to 100% tassel emergence. Treatment after 100% silk emergence will reduce effectiveness.</p> <p>For optimum cutworm control, apply in a 12-inch band, over the row, using sufficient volume of water to obtain thorough coverage.</p> <p>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.</p>
	Western bean cutworm    Cutworms	2	

**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

CROP	PEST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Wheat Proso Millet	Flea beetles	1/2 to 1	<p>Up to 2 applications per crop may be made but not more often than once every 14 days.</p> <p>Application is effective against eggs, larvae, and adults of the cereal leaf beetle.</p> <p>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.</p>
<b>DO NOT USE IN CALIFORNIA</b>	Cereal leaf beetle	1	
	Armyworm                      Fall armyworm	1 to 1 1/2	

**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.

**COTTON**

CROP	PEST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Cotton	Cotton fleahopper Cotton leafhopper Flea beetles	Striped blister beetle Thrips	1/2 to 1  For optimum control of early season pests, use banded and/or directed sprays. Total coverage is essential for maximum control
	Boll weevil Cotton bollworm Fall armyworm Leafrollers Leafhoppers	Lygus bugs Tarnished plant bug Yellowstriped armyworm (cotton cutworm)	1 to 1 1/2  Repeat applications as necessary up to a total of 4 times but not more often than once every 7 days.  Use for light to moderate populations of Lygus bugs in Western irrigated cotton only.
	Cutworms Pink bollworm	Saltmarsh caterpillar Stink bugs	1 1/2  Aphid populations may be suppressed by application of this insecticide.  For cutworm control, this product is most effective against species which feed on the upper portions of the plant.

**RESTRICTIONS AND PRECAUTIONS: COTTON**

- Do not apply within 28 days of harvest for seed or within 14 days of harvest for forage.
- Do not apply more than a total of 6 quarts per acre per crop.

**CUCURBIT VEGETABLES**

CROP	PEST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Cucurbit Vegetables: Cucumbers Melons Pumpkins Squash	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
	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® 4F PER ACRE	SPECIFIC DIRECTIONS
Flax  <b>DO NOT USE IN CALIFORNIA</b>	Armyworm	1 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	PEST	QUARTS OF SEVIN® 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 Corn 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 adult 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	PEST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Pasture and 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.

**RANGELAND**

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

**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.

**FRUITING VEGETABLES**

CROP	PEST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Fruiting Vegetables: Tomatoes, Peppers, Eggplant	Colorado potato beetle European corn borer Fall armyworm Lace bugs Stink bugs (suppression) Tarnished plant bug Thrips (suppression) Tomato fruitworm	Tomato hornworm Tomato pinworm	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.  For cutworm control, this product is most effective against species which feed on the upper portions of the plant.
	Flea beetles Leafhoppers	1/2 to 1	
	Cutworms	2	

**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® 4F PER ACRE	SPECIFIC DIRECTIONS
Leafy vegetables:  Celery, Dandelion, Endive, Lettuce (head and leaf), Parsley, Spinach, Swiss Chard	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.
	Armyworm Aster leafhopper Corn earworm Fall armyworm Imported cabbageworm	Lygus bugs Spittlebugs Stink bugs Tarnished plant bug	

**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	PEST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS	
Legume Vegetables: Soybeans,	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 upper portions of the plant.  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.
Fresh and Dried Beans (Phaseolus species including snap, navy and kidney), Fresh and Dried Peas (Pisum species),	Corn earworm		1/2 to 1 1/2	
	Alfalfa caterpillar Colorado potato beetle Flea beetles Leafhoppers	Three cornered alfalfa hopper Thrips Western bean cutworm	1	
	Armyworm Cutworms European corn borer Fall armyworm	Stink bugs Tarnished plant bug Webworms	1 to 1 1/2	
Lentils, Cowpeas, Southern Peas	Alfalfa looper (suppression) Cowpea curculio (suppression) Painted lady (Thistle caterpillar) Pea leaf weevil	Pea weevil Saltmarsh caterpillar Woollybean caterpillar Yellowstriped armyworm	1 1/2	
<b>DO NOT USE ON LENTILS IN CALIFORNIA</b>	<b>California only:</b> Corn 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**

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.  Carefully mark swaths to avoid over-application.
Set-Aside Program Acreage Wasteland	Mormon cricket Range caterpillar Range crane fly	1/2 to 1	
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.

**PEANUTS**

CROP	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
	Armyworm Corn earworm Fall armyworm	Stink bugs Webworms	1 to 1 1/2
	Whitefringed beetle adults	Cutworms	2

**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.

**ROOT AND TUBER CROPS**

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

CROP	PEST	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 corn borer Fall armyworm	Lace bugs Lygus bugs Spittlebugs Stink bugs Tarnished plant bug	

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

- Do not apply within 7 days of harvest.
- Do not apply more than a total of 6 quarts per acre per crop.

**SUGAR BEETS**

CROP	PEST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Sugar beets	Armyworm Beet leaf beetle Fall armyworm	Flea beetles Leafhoppers Webworms	1 to 1 1/2
	Cutworms		1 1/2

**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 4 quarts per acre per crop.

### SWEET POTATOES

CROP	PEST	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	<b>Preplant dip for control of sweet potato weevil:</b> 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 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	PEST	QUARTS OF SEVIN® 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 leafroller Japanese beetle Leafhoppers Leafrollers Meadow spittlebug Omnivorous leaf-tier Rose chafer Snowy tree cricket Strawberry bud weevil Strawberry clipper Strawberry fruitworm Strawberry leafroller Strawberry weevil Western grapeleaf skeletonizer Western yellowstriped armyworm	1 to 2	<b>OBSERVE BEE CAUTION.</b>  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.
<b>DO NOT USE IN CALIFORNIA</b>	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	PEST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Tobacco	Budworms Fall armyworm Tobacco flea beetles Hornworms	Japanese beetle June beetle Suckfly	1 to 2
			<b>Plant bed and Field Treatment</b> 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	PEST	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
	<b>California only:</b> 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

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.  For optimum scale control, a tank mixture with 1 1/2 gallons of summer oil per 100 gallons of spray mixture can be applied when crawlers are present. Refer to summer oil product label for additional use directions and restrictions.

#### 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.

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## POME FRUITS

CROP	PEST	QUARTS OF SEVIN® 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                  Pearleaf blister mite Apple maggot                  Pear psylla Apple mealybug              Pear rust mite Apple rust mite              Periodical cicada Bagworms                      Plum curculio California pearslug          Redbanded leafroller (pear sawfly)              Rosy apply aphid European apple sawfly      Scale insects (Forbes scale, Eyespotted bud moth        Lecanium scale, Fruittree leafroller            San Jose scale) Gypsy moth                    Tarnished plant bug Japanese beetle              Tentiform leafminers Lesser appleworm            Woolly apple aphid Lygus bugs                     Yellowheaded Orange tortrix                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.
Apples Only, for Fruit Thinning		1 to 3	OBSERVE BEE CAUTION  For easily thinned varieties: apply 1/4 to 1/2 quart per 100 gal. of spray mixture. For difficult to thin varieties: apply 1/2 to 1 quart per 100 gal. of spray mixture.  Apply 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. <b>Rates may vary depending on variety and local orchard conditions.</b>  Consult with your County Extension Service or other experts for advice on the proper use of this product.

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

### STONE FRUITS

CROP	PEST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS																																		
Stone Fruits: Apricots, Cherries, Nectarines, Peaches, Plums, and Prunes	<table border="0"> <tr><td>Apple pandemis</td><td>Orange tortrix</td></tr> <tr><td>Black cherry aphid</td><td>Oriental fruit moth</td></tr> <tr><td>Cherry fruitworm</td><td>Peach twig borer</td></tr> <tr><td>Cherry maggot</td><td>Periodical cicada</td></tr> <tr><td>(Cherry fruit fly)</td><td>Plum curculio</td></tr> <tr><td>Codling moth</td><td>Prune leafhopper</td></tr> <tr><td>Cucumber beetles</td><td>Redbanded leafroller</td></tr> <tr><td>Eastern tent caterpillar</td><td>Rose chafer</td></tr> <tr><td>Eyespotted bud moth</td><td>Scale insects (Brown soft scale, Forbes scale, Lecanium scale, Olive scale, Oystershell scale, San Jose scale)</td></tr> <tr><td>European earwig</td><td>Tarnished plant bug</td></tr> <tr><td>Fruittree leafroller</td><td>Tussock moth</td></tr> <tr><td>Green fruitworm</td><td>Variegated leafroller</td></tr> <tr><td>Gypsy moth</td><td></td></tr> <tr><td>Japanese beetle</td><td></td></tr> <tr><td>June beetle</td><td></td></tr> <tr><td>Lesser peachtree borer</td><td></td></tr> <tr><td>Mealy plum aphid</td><td></td></tr> </table>	Apple pandemis	Orange tortrix	Black cherry aphid	Oriental fruit moth	Cherry fruitworm	Peach twig borer	Cherry maggot	Periodical cicada	(Cherry fruit fly)	Plum curculio	Codling moth	Prune leafhopper	Cucumber beetles	Redbanded leafroller	Eastern tent caterpillar	Rose chafer	Eyespotted bud moth	Scale insects (Brown soft scale, Forbes scale, Lecanium scale, Olive scale, Oystershell scale, San Jose scale)	European earwig	Tarnished plant bug	Fruittree leafroller	Tussock moth	Green fruitworm	Variegated leafroller	Gypsy moth		Japanese beetle		June beetle		Lesser peachtree borer		Mealy plum aphid		2 to 3	<p>OBSERVE BEE CAUTION.</p> <p>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.</p> <p>For optimum scale control, apply when crawlers are present.</p> <p>For lesser peachtree borer, best results have been found by thoroughly spraying limbs and tree trunks at weekly intervals during moth flight.</p>
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**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	<b>For dormant or delayed dormant timing,</b> 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

- 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.

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## TREE NUTS

CROP	PEST		QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Tree Nuts: Almonds, Chestnuts, Filberts, Pecans, Walnuts	Black margined aphid Calico scale Codling moth European fruit lecanium Fall webworm Filbert aphid Filbert leafroller Filbertworm Frosted scale Fruittree leafroller Hickory shuckworm Lesser webworm	Navel orangeworm Peach twig borer Pecan leaf phylloxera Pecan stem phylloxera Pecan nut casebearer Pecan spittlebug Pecan weevil San José scale Twig girdler Walnut caterpillar	2 to 5	<p><b>OBSERVE BEE CAUTION</b></p> <p>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.</p> <p>Use lower rates for pests attacking leaves. Use higher rates for pests attacking fruit and for higher infestations.</p> <p>For scale control, apply when crawlers are present.</p> <p>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.</p> <p>For navel orangeworm in almonds and walnuts, best results have been found by timing early and midseason applications to correspond with moth flight peaks.</p> <p>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.</p> <p>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.</p>
	Chestnut weevil	European earwig	4 to 5	<p>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.</p> <p>For European earwig, thorough coverage of trunks, branches, and nuts is needed for best results.</p>
Almonds only	Peach twig borer	Scale insects	4 to 5	<p><b>For dormant or delayed dormant timing</b>, apply in combination with a recommended dormant oil. Refer to the dormant oil product label for additional use directions and restrictions.</p>

**RESTRICTIONS AND PRECAUTIONS: TREE NUTS**

- 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.

## FORESTED AREAS AND RANGELAND TREES

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

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

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 Belts 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)	<p><b>Direct Trunk Treatment:</b></p> <p>Effective as a preventative treatment only. Repeat annually as required to prevent beetle attacks.</p> <p>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.</p> <p>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.</p> <p>Do not make more than 2 applications per year or repeat applications more often than once every six months.</p>

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



TREES AND ORNAMENTALS, CONTINUED

CROP	PEST	QUARTS OF SEVIN® 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)	<p><b>Direct Trunk Treatment:</b></p> <p>Effective as a preventative treatment only. Repeat annually as required to prevent beetle attacks.</p> <p>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.</p> <p>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.</p> <p>Do not make more than 2 applications per year or repeat applications more often than once every six months.</p>

**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**

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

CROP	PEST	QUARTS OF SEVIN® 4F PER ACRE	SPECIFIC DIRECTIONS
Turfgrass: golf turf, sports fields, sod farms, domestic and commercial lawns, cemeteries, parks, campsites, recreational areas.	Ants Armyworm Centipedes Chiggers Cutworms Earwigs Essex skipper European chafer Fall armyworm Fiery skipper Grasshoppers Green June beetle larvae Leafhoppers 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 fl.oz. per 1000 SQ.FT.)	<p><b>For Armyworm, Cutworm, and Fall Armyworm Control:</b> Do not irrigate treated areas within 24 hrs. following insecticide application.</p> <p><b>For Green June Beetle Grub (larvae) Control:</b> Make applications when grubs are feeding near the soil surface. Water or irrigate turfgrass soon after treatment.</p> <p>Repeat applications as necessary up to a total of 4 times per year but not more often than once every 7 days.</p>
	Chinch bugs Sod Webworm (lawn moths)	6 to 8  (4.4 to 6 fl.oz. per 1000 SQ.FT)	<p><b>For Chinch bug Control:</b> 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.</p>
	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.)	<p><b>For European Crane Fly Control:</b> 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.</p> <p><b>For White Grub Control:</b> 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.</p> <p>Repeat applications as necessary up to 2 times per year but not more often than once every 7 days.</p>

**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® 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 in sufficient volume for thorough coverage.

CROP/SITE	PEST	QUARTS OF SEVIN® 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	<b>DRENCH APPLICATION:</b> 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® 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*	<b>OBSERVE BEE CAUTION.</b> 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.

**POULTRY INSECT CONTROL**

SITE	PEST	QUARTS OF SEVIN® 4F PER 100 GALLONS OF WATER	SPECIFIC DIRECTIONS
Direct spray on Chicken, Ducks, Geese, Game Birds, Pigeons, Turkeys	Chicken mite Fleas Lice Northern Fowl Mite		<p>FOR USE AS A DIRECT SPRAY ON BIRDS BY:</p> <p>1. <b>Misting with Electric Fog Machine:</b> 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. <b>Spraying with knapsack of cylinder type compressed air sprayers:</b> 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 is a supplement to spraying roosts and buildings for control of these pests.</p>
Poultry Quarters	Bed bugs Chicken Mite Fleas Lice Northern Fowl Mite	4 (2 1/2 tablespoons per gallon)	Apply 1 to 2 gallons of spray mixture with conventional power spray of 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 (10 tablespoons per gallon)	Ventilate while spraying.

**POULTRY INSECT CONTROL**  
**Darkling Beetle**  
**(Lesser Mealworm or Litter Beetle)**

SITE	PEST	POUNDS OF SEVIN® 4F PER 1000 sq. ft.	SPECIFIC DIRECTIONS
Poultry Quarters	Darkling beetle (Lesser mealworm or litter beetle)	5/8 to 1 1/4 pounds per 1000 sq. ft.	<p>Apply as a dilute spray to floor surface, walls, cracks, posts, and crevices with sufficient volume of finished spray to wet all surfaces thoroughly.</p> <p>Optimum application timing is immediately after removing old flock from or before placing new flock into the house when beetles are most active.</p> <p>Ventilate during application. Avoid contamination of feeding and watering units.</p>

**RESTRICTIONS AND PRECAUTIONS: POULTRY INSECT CONTROL**

- Do not treat birds or premises within 7 days of slaughter.

### 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.

#### 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.

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SEVIN 4F Carbaryl Insecticide (PENDING) Submitted 7/9/97.