04 264-335 11/21/97 Page



WASHINGTON, D.C. 20460

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

NOV 2 1 1997

Subject: Sevin brand RP4 Carbaryl Insecticide

EPA Registration No. 264-335

Resubmission of label amendment dated August 26, 1997.

Resubmission dated October 14, 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. As specified on page 2 of this label, and in the October 1, 1996 letter from EPA regarding labels of end use products containing carbaryl as an active ingredient and labeled for residential use on gardens and/or fruit trees, applications can not be repeated more than once a week. As a result change the specific directions for Asparagus on pages 5 and 25 to state not to repeat more often than once every 7 days. Under the heading "SWEET CORN" on pages 7 and 26 the specific directions must be changed so that repeat applications can be made no more frequently than once every 7 days or not more than once a week. On pages 7 and 26 the wording for the insects attacking silks and ears also has to be changed to reflect this change in frequency of applications to be frequency of applications consistent. The under "AGRICULTURE AND COMMERCIAL" crop/site groupings for asparagus and sweet corn (pages 34 and 37) can remain as specified, although when one reads the label they may wonder why there are differences in the application intervals under the different use patterns for the same crops.
- 2. On pages 10, 24, and 42, please change the spelling of "Grape colapsis" to "Grape colaspis".

Submit two copies of your final printed labeling for the above product before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e).

Your release for shipment of the product constitutes acceptance of these conditions.

A copy of the labeling stamped "Accepted with Comments" is enclosed for your records.

Sincerely,

George Tompkins, Ph.D., Entomologist Insecticide-Rodenticide Branch

Registration Branch (7505C)

brand RP4 Carbaryl Insecticide

ACTIVE INGREDIENT:

Carbaryl (1-naphthyl N-methylcarbamate).......43.0% by wt. INERT INGREDIENTS:.....57.0% by wt.

(Contains 4 Pounds Carbaryl Per Gailon)

EPA Reg. No. 264-335

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

in EPA Letter Dated:

Under the Pederal Insecticide. Fungicide, and Rodenticide Act

as amended, for the posticide

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. NOV 2 1 1997

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

registered under EPA Reg. No. 264-335 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 occured.

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 CONVUESTON, UNCONSCIOUSNESS AND RESPIRATORY FAILURE MAY OCCUR. SIGNS AND SYMPTOMS OCCUR RAPIDLY FOLLOWING OVEREXPOSURE TO THIS PRODUCT.

accepted.

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#### PERSONAL PROTECTIVE EQUIPMENT:

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Applicators and other handlers must wear long-sleeved shirt and long pants, waterproof gloves, shoes plus socks, and chemical-resistant headgear for overhead exposure.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning 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. 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 use on any crop not listed on this label or supplemental labeling as any residues remaining may be illegal or harmful. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. The area being treated must be vacated by unprotected persons. Keep unprotected persons out of treated areas until sprays have dried. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Apply when air is calm to avoid drift and contact with eyes and skin.

Start spraying at the farthest corner of the treatment area and work backward to avoid contact with wet surfaces. Allow spray to dry in treated areas before reentering.

For trees taller than 10 feet, consider hiring a licensed professional.

Spray thoroughly to wet upper and lower leaf surfaces, stems and branches.

Do not repeat applications more than once a week.

## 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: long-sleeved shirt and long pants, waterproof gloves, 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 లోగ్ 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.

USER SAFETY REQUIREMENTS

Wear long-sleeved shirt, long pants, shoes plus socks and household latex or rubber gloves when mixing and applying this product.

Wear a hat and eye protection when making overhead applications.

Remove clothing immediately if pesticide soaks clothing. Change clothing as soon as possible after use.

Wash the outside of gloves before removing. As with any pesticide product, wash hands thoroughly immediately after handling and before eating, smoking or using the toilet.

Do not allow children or pets to contact treated area until sprays have dried.

## STORAGE AND DISPOSAL

#### STORAGE

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Store unused product 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. This product may be used following exposure to several freeze-thaw cycles.

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 RP4 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 with a variety of mechanical or hand-operated application equipment.

#### 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.

#### 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.

Carefully observe label instructions for apple thinning to avoid excessive thinning. Combinations with certain herbicides on rice and soybeans may be phytotoxic. Refer to specific directions for appropriate crop.

#### **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, wood, fabrics, and carpet. 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. Staining of fabrics and carpet may be permanent.

RESISTANT SPECIES NOTICE

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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, Southern green stink bug, spotted tentiform leafminer, and tobacco budworm (on cotton) 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 RP4 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 RP4 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 RP4 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. If you should have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

NOTE: When treatment with SEVIN® brand RP4 has been completed, further irrigation over the treated area should be avoided for 24 to 48 hours to prevent washing the chemical off the crop.

## SPECIFIC USE DIRECTIONS FOR HOME AND GARDEN

CROP/SITE GROUPINGS:

Asparagus

Brassica Leafy Vegetable Crops

Cereal Grain Crops (Sweet Corn)

Cucurbit Vegetables

Fruiting Vegetables

Leafy Vegetables

Legume Vegetables

Peanuts

Root and Tuber Crops (Root and Tuber Crops except Sugar Beets and Sweet Potatoes; Sweet Potatoes)

Small Fruits and Berries

Tree Fruit Crops (Citrus Fruits; Olives; Pome Fruits; Stone Fruits)

Tree Nut Crops (Pistachios; Tree Nuts)

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 Around Building Perimeters

Directions for Use with a Hose-End Applicator

Vegetables except Asparagus and Sweet Com

Asparagus

Sweet Com

Small Fruits and Berries

**Turforass** 

Trees and Omamentals

Control of Specific Pests across Multiple Sites

Ticks which Vector Lyme Disease

Imported Fire Ants

Adult Mosquito Control

Nuisance Pest Control Around Building Perimeters

#### 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	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ. FT.	SPECIFIC DIRECTIONS
Asparagus	Apache cicada Cutworms Asparagus beetle	3/4 to 1 1/2	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.
		1 1/2 to 3	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 4 1/2 fl.oz. per 1000 SQ.FT, before harvest of spears.
- Do not apply more than a total of 7 1/2 fl.oz. per 1000 SQ.FT. per year.

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## BRASSICA LEAFY VEGETABLES CROPS

CROP	PEST	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ. FT.	SPECIFIC DIRECTIONS
Broccoli Brussel Sprouts Cauliflower Cabbage Chinese	Flea beetles Harlequin bug Leafhoppers	3/8 to 3/4	Repeat applications as needed up to a total of 4 times but not more often than once every 7 days.
Cabbage Collards Kale Kohlrabi Mustard Greens	Armyworm Lygus bugs Aster leafhopper Spittle bugs Corn earworm Stink bugs Diamondback moth Tamished plant bug Fall armyworm Imported cabbageworm	3/4 to 1 1/2	

## 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 4 1/2 fl.oz. per 1000 SQ.FT. per crop.

CEREAL GRAIN CROPS

## SWEET CORN

CROP	PE	ST	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ.FT.	SPECIFIC DIRECTIONS
Sweet Corn	Armyworm Chinch bugs Com earworm Corn rootworm adults Fall armyworm Flea beetles	Japanese beetle Sap beetles Southwestern corn borer Leafhoppers	3/4 to 1 1/2 -	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 com borer		1 1/8 to 1 1/2	For insects attacking silks and ears,
1	Western bean cutworm	Cutworms	1 1/2	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 adquate 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.
				For optimum chinch bug control, apply at least 20 gallons of total spray mixture per acre and direct spray toward stalk to provide thorough coverage.
				For optimum European corn borer control, do not apply less than 15 gallons of total spray mixture.
				For western bean cutworm, treat when infestation average 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 of total spray mixture per acre. For cutworm control, this product is most effective against species which feed on the upper portions of the plant.

## RESTRICTIONS AND PRECAUTIONS: SWEET CORN

- Do not apply within 2 days of harvest of ears or within 14 days of harvest or grazing of forage.
- Do not apply more than a total of 12 fluid ounces per 1000 SQ.FT, per crop.

## **CUCURBIT VEGETABLES**

CROP	PEST	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ. FT.	SPECIFIC DIRECTIONS
Cucurbit Vegetables: Cucumbers	Pickleworm Melonworm	3/8 to 3/4	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	3/4	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 4 1/2 fl.oz. per 1000 SQ.FT. per crop.
- Observe plant response precautions.

## FRUITING VEGETABLES

CROP	PE	EST	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ. FT.	SPECIFIC DIRECTIONS
Fruiting Vegetables: Tomatoes, Peppers, Eggplant	Colorado potato beetle European com borer Fall armyworm Lace bugs Stink bugs (suppression) Tamished plant bug Thrips (suppression) Tomato fruitworm	Tomato hornworm Tomato pinworm	3/4 to 1 1/2	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.
	Flea beetles Leafhoppers		3/8 to 3/4	-
	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:

- Do not apply within 3 days of harvest.
- Do not apply more than a total of 6 fl.oz. per 1000 SQ.FT. per crop.

## LEAFY VEGETABLES

CROP	PEST	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ. FT.	SPECIFIC DIRECTIONS
Leafy vegetables: Celery, Dandelion,	Flea beetles Harlequin bug Leafhoppers	3/8 to 3/4	Repeat applications as necessary up to a total of 5 times but not more often than every 7 days.
Endive, Lettuce (head and leaf), Parsley, Spinach, Swiss Chard	Armyworm Lygus bugs Aster leafhopper Spittlebugs Com earworm Stink bugs Fall armyworm Tarnished p Imported cabbageworm		

## RESTRICTIONS AND PRECAUTIONS: LEAFY VEGETABLES

- Do not apply within 14 days of harvest.
- Do not apply more than a total of 4 1/2 fl.oz. per 1000 SQ.FT. per crop.

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## LEGUME VEGETABLES

CROP	PE	EST	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ. FT.	SPECIFIC DIRECTIONS
Legume Vegetables: Fresh and Dried Beans (Phaseolus species including snap, navy and kidney), Fresh and Dried Peas	Bean leaf beetle Blister beetle Cucumber beetles Grape colapsis Com earworm	Green cloverworm Japanese beetle Mexican bean beetle Velvetbean caterpillar	3/8 to 3/4 3/8 to 1 1/8	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.  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
( <i>Pisum</i> species), Lentils,				populations and smaller instars and to provide maximum survival of beneficial insects and spiders. Use the higher rates for heavy
Cowpeas, Southern Peas	Alfalfa caterpillar Colorado potato beetle Flea beetles Leafhoppers	Three cornered alfalfa hopper Thrips Western bean cutworm	3/4	populations and larger instars.
	Armyworm Cutworms European com borer Fall armyworm	Stink bugs Tamished plant bug Webworms	3/4 to 1 1/8	
DO NOT USE ON LENTILS IN CALIFORNIA	Alfalfa looper (suppression) Cowpea curculio (suppression) Painted lady (Thistle caterpillar) Pea leaf weevil	Pea weevil Saltmarsh caterpillar Woollybean caterpillar Yellowstriped armyworm	1 1/8	
	California only: Com earworm (suppression) Limabean podborer (suppression)	Lygus bugs (suppression) Stink bugs (suppression)	1 1/8	

### 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 4 1/2 fl.oz. per 1000 SQ.FT. 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.

DEANITE

спор			FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ.FT.	SPECIFIC DIRECTIONS
Peanuts			3/8 to 3/4	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	3/4 -	For optimum control of thrips, use directed or banded sprays with hollow cone spray nozzles. Ensure adequate coverage for the underside of leaves.
	Armyworm Com earworm Fall armyworm	Stink bugs Webworms	3/4 to 1 1/8	For cutworm control, this product is most effective against species which feed on the upper portions of the plant.
	Whitefringed beetle adults	Cutworms	1 1/2	

## RESTRICTIONS AND PRECAUTIONS: PEANUTS

- Do not apply within 14 days of harvest.
- Do not apply more than a total of 6 fluid ounces per 1000 SQ.FT. per crop.
- Observe plant response precautions.

## ROOT AND TUBER CROPS

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

CROP	PEST		FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ.FT.	SPECIFIC DIRECTIONS
Root and Tuber Crops: Garden Beets, Carrots, Horseradish, Parsnips, Radishes, Rutabagas,	Flea beetles Leafhoppers Armyworm Aster leafhopper Colorado potato beetle Com earworm Cutworms	Lace bugs Lygus bugs Spittlebugs Stink bugs Tamished plant bug	3/8 to 3/4 3/4 to 1 1/2	Repeat applications as necessary up to a total of 6 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.
Salsify, Potatoes	European com borer Fall armyworm			

# 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 4 1/2 fluid ounces per 1000 SQ.FT. per crop.

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CROP	P	EST	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ.FT.	SPECIFIC DIRECTIONS
Sweet Potatoes	Corn earworm Cucumber beetles Flea beetles Sweet potato homworm	Sweet potato weevil Tortoise beetles Whitefringed beetle	3/4 to 1 1/2	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 per gallon of water)
	Yellowstriped armyworm		- 11/2	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 6 fluid ounces per 1000 SQ.FT, per crop with in-season sprays.
- Do not apply more than a total of 9/10 fluid ounces per 1000 SQ.FT. as a preplant dip treatment.

## SMALL FRUITS AND BERRIES

CROP	PEST		FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ. FT.	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 leaftier	Rose chafer Snowy tree cricket Strawberry bud weevil Strawberry clipper Strawberry fruitworm Strawberry leafroller Strawberry weevil Western grapeleaf skeletonizer Western yellowstriped armyworm	3/4 to 1 1/2	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 1/8 to 1 1/2	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	1 1/2	

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

- Do not apply within 7 days of harvest.
- Do not apply more than a total of 7 1/2 fl.oz. per 1000 SQ.FT. 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.

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## 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		FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ.FT.	SPECIFIC DIRECTIONS
Citrus Fruits	Avocado leafroller California orangedog Citrus cutworm Fruittree leafroller	Orange Tortrix Western tussock moth	1 1/2 to 2 1/4	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 [such as Black scale, brown soft scale, California red scale (except in California), citrus snow scale, yellow scale (except in California)]	2 1/4 to 3 3/4	For scale control, apply when crawlers are present.  For best control of Eriophyld 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)	3 3/4 to 5 5/8	
	California Only California red scale	Yellow scale	3 3/4 to 12	Do not make more than 1 application per season for California red scale. Apply when crawlers are present.

## RESTRICTIONS AND PRECAUTIONS: CITRUS FRUITS

- For trees taller than 10 feet, consider hiring a licensed professional.
- Do not apply within 5 days of harvest.
- Do not apply more than a total of 15 fluid ounces per 1000 SQ.FT. per crop.

## **OLIVES**

CROP	PEST	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ.FT.	SPECIFIC DIRECTIONS
Olives	Scale insects (such as olive scale, black scale)	3 3/4 to 5 5/8	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

- For trees taller than 10 feet, consider hiring a licensed professional.
- Do not apply within 14 days of harvest.
- Do not apply more than a total of 11 1/4 fluid ounces per 1000 SQ.FT. per crop.

## POME FRUITS

CROP	PEST	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ. FT.	SPECIFIC DIRECTIONS
Pome Fruits: Apples, Pears, Loquats, Crabapples, Oriental Pears	White apple leafhopper  Apple aphid Codling moth	3/8 to 1 1/8  3/4 to 2 1/4	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 during this period also may result in fruit
	Apple aphid Apple maggot Apple mealybug Apple rust mite Bagworms California pearstug (pear sawfly) European apple sawfly Eyespotted bud moth Fruittree leafroller Gypsy moth Japanese beetle Lesser appleworm Lygus bugs Pear psylla Pear rust mite Periodical cica Redbanded lea (Forbes scale insects San Jose scale Lecanium so San Jose scale Tentiform leafr Woolly apple a Yellowheaded fireworm	da afroller hid e, ale, ale, ale) at bug niners	removal.  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		3/4 to 2 1/4	OBSERVE BEE CAUTION For easily thinned varieties: apply 1/5 to 1/3 fl. oz. per 1000 SQ. FT. For difficult to thin varieties: apply 1/3 to 2/3 fl. oz. per 1000 SQ. FT. 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. Rates may vary depending on variety and local orchard conditions. Consult with your County Extension Service or other experts for advice on the proper use of this product.

### RESTRICTIONS AND PRECAUTIONS: POME FRUITS

- For trees taller than 10 feet, consider hiring a licensed professional.
- 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 to Quince.
- Do not apply within 3 days of harvest.
- Do not apply more than a total of 11 1/4 fluid ounces per 1000 SQ. FT. per crop.
- Do not make more than a total of 8 applications per crop.

## STONE FRUITS

CROP	PEST	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ. FT.	SPECIFIC DIRECTIONS
Stone Fruits Apricots, Cherries, Nectarines, Peaches, Plums, and Prunes	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 borer Mealy plum aphid  Crange tortrix Oriental fruit moth Peach twig borer Periodical cicada Plum curculio Prune leafhopper Redbanded leafroller Rose chafer Scale insects (Brown soft scale, Forbes scale, Clive scale, Olive scale, Oystershell scale, San Jose scale)  Tamished plant bug Tussock moth Variegated leafroller Pariodical cicada Plum curculio Prune leafhopper Redbanded leafroller Scale insects (Brown soft scale, Olive scale, Oystershell scale, San Jose scale)  Tamished plant bug Tussock moth Variegated leafroller	1 1/2 to 2 1/4	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.
	California Only:  Black cherry aphid Cherry fruitworm Peach twig borer Cherry maggot Scale insects (Brown soft scale, Forbes scale, Lecanium scale, Olive scale, Eyespotted bud moth European earwig Fruittree leafroller Green fruitworm Mealy plum aphid Orange tortrix  Black cherry aphid Oriental fruit moth Peach twig borer Scale insects (Brown scale, Clive scale, Olive scale, Oystershell scale, San Jose scale) Tamished plant bug Tussock moth	2 1/4 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 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)	3 to 3 3/4	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

- For trees taller than 10 feet, consider hiring a licensed professional.
- 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 10 1/2 fluid ounces per 1000 SQ. FT. per crop.
- Do not apply more than a total of 3 3/4 fluid ounces per 1000 SQ. FT. at the dormant or delayed dormant timing.
- Do not apply more than a total of 6 3/4 fluid ounces per 1000 SQ. FT. 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	FLUID OUNCES OF SEVIN® RP4 PER 1000 . SQ. FT.	SPECIFIC DIRECTIONS
L	Brown soft scale Lecanium scale Navel orangeworm	2 1/4 to 3 3/4	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	3 to 3 3/4	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

- For trees taller than 10 feet, consider hiring a licensed professional.
- Do not apply within 14 days of harvest.
- Do not apply more than a total of 11 1/4 fluid ounces per 1000 SQ. FT. per crop, including any application at the dormant or delayed dormant timing.

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## TREE NUTS

	CROP	PEST	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ. FT.	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 Jose scale Twig girdler Walnut caterpillar	1 1/2 to 3 3/4	OBSERVE BEE CAUTION 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.  Use lower rates for pests attacking leaves. Use higher rates for pests attacking fruit and for higher infestations.  For scale control, apply when crawlers are present.  For peach twig borer, best results with foliar applications have been found by making applications in "popcom" 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 leafroiler, best results have been found by making 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	3 to 3 3/4	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	3 to 3 3/4	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

- For trees taller than 10 feet, consider hiring a licensed professional.
- Do not apply within 14 days of harvest.
- Do not apply more than a total of 11 1/4 fluid ounces per 1000 SQ. FT. per crop, including any application at the dormant or delayed dormant timing.

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## 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.

Noses, Flowers, Other Herbaceous Herbaceous Plants, Woody Plants, and Shrubs  Shrubs	CROP	PE	ST	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ. FT.	SPECIFIC DIRECTIONS
Gypsy Moth 1/2 to 3/4	Ornamentals: Roses, Flowers, Other Herbaceous Plants, Woody Plants, and	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 aphid Elm leaf beetle Elm spanworm Eriophyid mites European pine shoot moth Fall armyworm Flea beetle Fuchia 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	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 Thom bug Thrips (exposed) Ticks Walnut caterpillar Webworms Western hemlock looper Western spruce budworm Willow leaf beetles Wooly gall aphid		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

## TREES AND ORNAMENTALS, CONTINUED

CROP	PEST	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ. FT.	SPECIFIC DIRECTIONS
Trees and Ornamentals: Roses, Flowers, Other Herbaceous Plants, Woody Plants, and Shrubs	Elm bark beetle Ips engraver beetles Mountain pine beetle Roundheaded pine beetle Spruce beetle Western pine beetle	2% solution (5 fluid ounces per gallon)	Direct Trunk Treatment:  Effective as a preventative treatment only. Repeat annually as required to prevent beetle attacks.  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.  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.  Do not make more than 2 applications per year or repeat applications more often than once every six months.

### RESTRICTIONS AND PRECAUTIONS: TREES AND ORNAMENTALS

- · For trees taller than 10 feet, consider hiring a licensed professional.
- Avoid direct application to lakes, streams and ponds.
- DO NOT ALLOW PUBLIC USE OF TREATED AREAS DURING APPLICATIONS OR UNTIL SPRAYS HAVE DRIED.

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## **TURFGRASS**

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

CROP	PE	ST	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ. FT.	SPECIFIC DIRECTIONS
Turfgrass: golf turf, sports fields, domestic and commercial lawns, cemeteries, parks, campsites and recreational areas.	Ants Armyworm Centipedes Chiggers Cutworms Earwigs Essex skipper European chafer Fall armyworm Fiery skipper Grasshoppers Green June beetle larvae Leafhoppers	Luceme moth Millipedes Mosquitoes (adults) Scarab beetle adults (such as May beetle, June beetle, Japanese beetle, green June beetle) Sowbugs Spittlebugs Springtails Ticks Yellowstriped armyworm	1 1/2 to 3	For Armyworm, Cutworm, and Fall Armyworm Control: Do not irrigate treated areas for 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)		4 1/2 to 6	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 (such as Japanese beetle, Chafer beetle, and Phyllophaga spp. larvae) Black turfgrass ataenius beetle larvae Hyperoides weevil (bluegrass weevil)		6	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.  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.  Repeat applications as necessary up to 2
	larvae			times per year but not more often than once every 7 days.

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/SITE	PEST	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ.FT.	SPECIFIC DIRECTIONS
All crops/sites on this label	Grasshoppers	3/8 to 1 1/8*	Apply 3/8 to 4/7 fluid ounces per 1000 SQ.FT. of this product for nymphs on small plants or sparse vegetation. Apply 3/4 to 1 1/8 fluid ounces per 1000 SQ.FT. 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	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ.FT.	SPECIFIC DIRECTIONS
All crops/sites on this label	Ixodes spp. (Deer tick, Bear tick, Black legged tick)  Amblyomma spp. (Lone star tick)	3/4 to 1 1/2*	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 reintroducted 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	FLUID OUNCES OF SEVIN® RP4 PER VOLUME OF WATER	SPECIFIC DIRECTIONS
All crops/sites on this label	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 it mound activity resumes after 7 days. Treat new mounds as they appear. Pressurized sprays may disturb the ants and cause migration, reducing product effectiveness.
All crops/sites on this label	Imported fire ants	1 1/2 quarts per 100 gallons	FOLIAR APPLICATION: (outdoor use only):  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 dreach treaments (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 RP4 per each gallon of mix where 3/4 quarts per 100 gallons are indicated.

## ADULT MOSQUITO CONTROL

Apply in sufficient gallonge for thorough coverage.

CROP/SITE	PEST	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ.FT.	SPECIFIC DIRECTIONS
All crops/sites on this label	Mosquitoes (adults)	3/16 to 3/4*	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*.

### 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 1/4 fl. oz. (approximately 2 teaspoons) of this product in an adequate amount of water and apply to 500 sq.ft. where rates of 3/4 fluid ounces per 1000 SQ.FT. 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® RP4	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 feed 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.

## DIRECTIONS FOR USE WITH A HOSE END APPLICATOR

VEGETABLES EXCEPT ASPARAGUS AND SWEET CORN

<del></del>	VEGETABLES	LAGEL 1 AGE	ARAGUS AI	ND SWEET CORN
CROP	PE	ST	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ.FT.	SPECIFIC DIRECTIONS
Broccoli Brussel Sprouts Cauliflower Cabbage Celery Chinese Cabbage Collards Cowpeas Cucumbers Dandelion Eggplant Endive Fresh and Dried Beans (Phaseolus species including snap, navy and kidney) Fresh and Dried Peas (Pisum species) Kale Kohlrabi Lettuce (head and leaf) Lentils Melons Mustard Greens Parsley Peanuts Peppers Pumpkins Tomatoes Root and Tuber Crops: Garden Beets, Carrots, Horseradish, Parsnips, Radishes, Rutabagas, Salsify, Potatoes Soybeans Southern Peas Spinach Squash Sweet Potatoes	Alfalfa caterpillar Armyworm Aster leafhopper Bean leaf beetle Blister beetle Colorado potato beetle Cucumber beetles Cutworms Diamondback moth European com borer Fall armyworm Flea beetles Grape colapsis Grasshoppers Green cloverworm Harlequin bug Imported cabbageworm Japanese beetle Lace bugs Leafhoppers Melonworm Mexican bean beetle Pickleworm Rednecked peanutworm Spittlebugs Squash bugs Squash bugs Sweet potato hornworm Sweet potato hornworm Sweet potato hornworm Sweet potato hornworm Tamished plant bugs Three cornered alfalfa hopper Thrips	Tomato fruitworm Tomato hornworm Tomato pinworm Tortoise beetles Velvetbean caterpillar Webworms Western bean cutworm Whitefringed beetle adults	9EH 1000 SQ.FT. 3/4	For optimum control of squash bugs time sprays for early morning or late afternoon.  When disease transmission is suspected, monitor plants following application and retreat if reinfestation occurs.  For cutworm control, this product is most effective against species which feed on the upper portions of the plant.  For optimum control of thrips, ensure adequate coverage for the underside of leaves.
Swiss Chard			I	<u> </u>

#### RESTRICTIONS AND PRECAUTIONS: VEGETABLES

- For Broccoli, Brussel Sprouts, Cauliflower, Cabbage, Cucumbers, Eggplant, Kohlrabi, Melons, Peppers, Pumpkins, Tomatoes and Squash do not apply within 3 days of harvest.
- For Root and Tuber Crops and Sweet Potatoes do not apply within 7 days of harvest.
- For Celery, Chinese Cabbage, Collards, Cowpeas, Dandelion, Endive, Fresh and Dried Beans, Fresh and Dried Peas, Kale, Lettuce (head and leaf), Lentils, Mustard Greens, Parisey, Peanuts, Soybeans, Southern Peas, Spinach and Swiss Chard do not apply within 14 days of harvest.
- For all vegetables do not make more than a total of 4 applications per year. Do not apply more often than once every 7 days.
- For all vegetables do not apply more than a total of 4 1/2 fluid ounces per 1000 sq.ft. per year.

## DIRECTIONS FOR USE WITH A HOSE END APPLICATOR, CONTINUED

## **ASPARAGUS**

CROP	F	PEST	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ.FT.	SPECIFIC DIRECTIONS
Asparagus	Apache cicada Asparagus beetle	Cutworms Grasshoppers	1 1/2	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.
			3	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 9 fluid ounces per 1000 SQ.FT. before harvest of spears.
- Do not apply more than a total of 15 fluid ounces per 1000 SQ.FT. per year.

## DIRECTIONS FOR USE WITH HOSE END APPLICATOR, CONTINUED

## SWEET CORN

CROP	PE	ST	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ.FT.	SPECIFIC DIRECTIONS
Sweet Com	Armyworm Chinch bugs Corn earworm Corn rootworm adults Cutworms European com borer Fall armyworm Flea beetles	Grasshoppers Japanese beetle Leafhoppers Sap beetles Southwestern corn borer Western bean cutworm	1 1/2	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. 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 adquate 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. For optimum chinch bug control, apply at least 20 gallons of total spray mixture per acre and direct spray toward stalk to provide thorough coverage. For optimum European corn borer control, do not apply less than 15 gallons of total spray mixture. For western bean cutworm, treat when infestation average 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 of total spray mixture per acre. For cutworm control, this product is most effective against species which feed on the upper portions of the plant.

## RESTRICTIONS AND PRECAUTIONS: SWEET CORN

- Do not apply within 2 days of harvest of ears or within 14 days of harvest or grazing of forage.
- Do not apply more than a total of 12 fluid ounces per 1000 SQ.FT. per crop.



## DIRECTIONS FOR USE WITH HOSE END APPLICATOR, CONTINUED

## SMALL FRUITS AND BERRIES

CROP	PE	ST	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ.FT.	SPECIFIC DIRECTIONS
Small Fruits and Berries: Caneberries, Blueberries, Cranberries, Grapes, Strawberries	Blueberry maggot Cherry fruitworm Cranberry fireworm Cranberry fruitworms Cranberry twig girdler Cutworms Eight-spotted forester Elm spanworm European fruit lecanium European raspberry aphid Flea beetles Grape berry moth Grape leaffolder Grape leaffolder Grape leaffolder Grape leaffolder Grape leaffolder Leafnoppers Leafhoppers Leafhoppers Leafrollers Meadow spittlebug Omnivorous leaftier	Omnivorous leafroller Orange tortrix Raspberry fruitworm Raspberry sawfly Redbanded leafroller Rose chafer Saltmarsh caterpillar Snowy tree cricket Spaganothus worm Strawberry bud weevil Strawberry clipper Strawberry fruitworm Strawberry leafroller Strawberry weevil Tamished plant bug Western grapeleaf skeletonizer Western yellowstriped armyworm	- 1 1/2	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.  In grapes, do not concentrate spray on the bunch or visible residues may result.

### RESTRICTIONS AND PRECAUTIONS: SMALL FRUITS AND BERRIES

- Do not apply within 7 days of harvest.
- Do not apply more than a total of 7 1/2 fluid ounces per 1000 SQ.FT. 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.

## DIRECTIONS FOR USE WITH HOSE END APPLICATOR, CONTINUED

## 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	PE	EST	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ.FT.	SPECIFIC DIRECTIONS
Citrus Fruits	Apopka weevil (adult) Avocado leafroller California orangedog Citrus cutworm Citrus root weevils (adults) Citrus rust mite Eriophyid mites Fruittree leafroller Fuller Rose Beetle Grasshoppers Little leaf notcher (adult)	Orange Tortrix Plant bugs Scale insects (such as Black scale, brown soft scale, California red scale (except in California), citrus snow scale, yellow scale) Western tussock moth	3 3/4	OBSERVE BEE CAUTION.  Repeat applications as necessary up to a total of 8 times but not more often than once every 14 days.  For scale control, apply when crawlers are present.  For best control of Eriophyld mites including citrus rust mite, apply when pest populations are low.
	California only: California red scale		3 3/4	Do not make more than 1 application per season at rates above 7 1/2 fluid ounces. Apply when crawlers are present.

### RESTRICTIONS AND PRECAUTIONS: CITRUS FRUITS

- For trees taller than 10 feet, consider hiring a licensed professional.
- Do not apply within 5 days of harvest.
- Do not apply more than a total of 15 fluid ounces per 1000 SQ.FT. per crop.

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## DIRECTIONS FOR USE WITH HOSE END APPLICATOR, CONTINUED

## STONE FRUIT AND POME FRUIT

CROP	PE	ST	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ. FT.	SPECIFIC DIRECTIONS
Stone Fruits: Apricots, Cherries, Nectarines, Peaches, Plums and Prunes Pome Fruits: Apples, Pears, Loquats, Crabapples and Oriental Pears	Apple aphid Apple maggot Apple maggot Apple mealybug Apple pandemis Apple rust mite Bagworms Black cherry aphid California pearslug (pear sawfly) Cherry fruitworm Cherry maggot (Cherry fruit fly) Codling moth Cucumber beetles Eastern tent caterpillar Eyespotted bud moth European apple sawfly European earwig Fruittree leafroller Green fruitworm Grasshoppers Gypsy moth Japanese beetle June beetle Lesser appleworm Lesser peachtree borer Lygus bugs	Mealy plum aphid Orange tortrix Oriental fruit moth Peach twig borer Pearleaf blister mite Pear psylla Pear rust mite Periodical cicada Plum curculio Prune leafinopper Redbanded leafroller Rose chafer Rosey apple aphid Scale insects (such as Brown soft scale, Forbes scale, Lecanium scale, Olive scale, Oystershell scale, San Jose scale) Tamished plant bug Tentiform leafminers Tussock moth Variegated leafroller White apple leafhopper Woolly apple aphid Yellowheaded fireworm	2 1/4	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. For psylla control, apply when eggs hatch or young nymphs are present.

### RESTRICTIONS AND PRECAUTIONS: STONE FRUIT AND POME FRUIT

- For trees taller than 10 feet, consider hiring a licensed professional.
- Do not apply to Quince.
- Do not apply within 3 days of harvest.
- Do not apply more than a total of 10 1/2 fluid ounces per 1000 SQ. FT. per crop.
- For stone fruits, do not apply more than a total of 6 3/4 fluid ounces per 1000 SQ. FT. during the production season.

## DIRECTIONS FOR USE WITH HOSE END APPLICATOR, CONTINUED

## 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.

## TREE NUTS

Tree Nuts: Almonds, Chestnuts, Filberts, Pecans, Walnuts  Codling moth European earwig European fruit lecanium Fall websorm Filbert aphid Filbert leafroller Filbertworm	3 3/4	OBSERVE BEE CAUTION  Repeat applications as necessary up to a total of 4 times per crop (including any applications at the domant or delayed dormant timing) but not more often than once every 7 days.  Use lower rates for pests attacking leaves. Use higher rates for pests attacking fruit and for higher infestations.
Frosted scale Fruittree leafroller Grasshoppers Hickory shuckworm Lecanium scale Lesser webworm Navel orangeworm Peach twig borer Pecan leaf phylloxera Pecan stem phylloxera Pecan nut casebearer Pecan spittlebug Pecan weevil San Jose scale Twig girdler Walnut caterpillar		For scale control, apply when crawlers are present.  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 peach twig borer, best results with foliar applications have been found by making applications in "popcorn" or petal fall stages when the May brod 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.  For European earwig, thorough coverage of

## RESTRICTIONS AND PRECAUTIONS: TREE NUTS

- For trees taller than 10 feet, consider hiring a licensed professional.
- Do not apply within 14 days of harvest.
- Do not apply more than a total of 11 1/4 fluid ounces per 1000 SQ. FT. per crop, including any application at the domant or delayed dormant timing.

DIRECTIONS FOR USE WITH A HOSE END APPLICATOR, CONTINUED
TURFGRASS

CROP	PE	ST	FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ. FT.	SPECIFIC DIRECTIONS
Turfgrass: golf turf, sports fields, domestic and commercial lawns, cemeteries, parks, campsites and 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 (such as May beetle, June beetle, Japanese beetle, green June beetle) Sowbugs Spittlebugs Springtails Ticks Yellowstriped armyworm	-	For Armyworm, Cutworm, and Fall Armyworm Control: Do not irrigate treated areas for 24 hrs. following insecticide application.  For Green June Beetle Grub (larvae) Control: Make applications when grubs are feeding near the soil surface.  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) Bluegrass billbug larvae European crane fly Fleas White grubs (such as Japanese beetle, Chafer beetle, and Phyllophaga spp. larvae) Black turfgrass ataenius beetle larvae Hyperoides weevil (bluegrass weevil) iarvae		6	For Chinch bug Control: Treat entire grass area rather than just damaged areas. Irrigation pror to treatment will aid in penetration or insecticide into turfgrass. Do not irrigate treated areas within 24 hrs. following insecticide application.  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.  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.  Repeat applications as necessary up to 2 times per year but not more often than once every 7 days.

## DIRECTIONS FOR USE WITH A HOSE END APPLICATOR, CONTINUED

## TREES AND ORNAMENTALS

CROP	PEST		FLUID OUNCES OF SEVIN® RP4 PER 1000 SQ. FT.	SPECIFIC DIRECTIONS
Ornamentals: Roses, Flowers, Other Herbaceous Plants, Woody Plants, and Shrubs  Bi	pple aphid myworm sh whitefly zalea leafminer agworms alsam twig aphid irch leafminer lister beetle oxelder bug oxwood leafminer frown tail moth cankerworms catalpa sphinx chiggers cooley spruce gall adelgid cutworms cypress tip moth couglas-fir tussock moth castern spruce gall adelgid lim leaf aphid lim leaf aphid lim leaf beetle lim spanworm friophyld mites curopean pine shoot moth fall armyworm flea beetle fuller rose beetle fuller rose beetle fall midges fall midges fall wasps freenstriped mapleworm	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 Thom bug Thrips (exposed) Ticks Walnut caterpillar Webworms Western hemlock looper Western spruce budworm Willow leaf beetles Wooly gall aphid Yellow poplar weevil	-	Observe directions on applicator label.

RESTRICTIONS AND PRECAUTIONS: TREES AND ORNAMENTALS

For trees taller than 10 feet, consider hiring a licensed professional.

## DIRECTIONS FOR USE WITH A HOSE END APPLICATOR, CONTINUED

## CONTROL OF SPECIFIC PESTS ACROSS MULTIPLE SITES

		FLUID OUNCES OF SEVIN® RP4	
CROP/SITE	PEST	PER 1000 SQ. FT.	SPECIFIC DIRECTIONS
Ticks Which Vector Lyme Disease	Ixodes spp. (Deer tick, Bear tick, Black legged tick)	3/4 to 1 1/2*	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
All crops/sites on this label	Amblyomma spp. (Lone star tick)	-	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 reintroducted from surrounding areas on host animals. Retreat as necessary to maintain adequate control levels*.
Imported Fire Ants All crops/sites on this label	Imported fire ants	3/4 fl.oz. per mound .	MOUND DRENCH APPLICATION:  Apply approximately 2 gallons of the hose-end spray solution over the surface of the mound. Thoroughly wet mound and surrounding areas to a 4 ft diameter (12 sq.ft.). Do not disturb mound prior to treatment. Direct flow at mound to disrupt and allow solution to 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.
Adult Mosquito Control All crops/sites on this label	Mosquitoes (adults)	3/4	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*.
Nuisance Pest Control	Ants Bees Brown dog tick Centipedes Cockroaches Crickets Darkling beetle (lesser mealworm or litter beetle) Earwigs Firebrats Fleas Millipedes Scorpions Silverfish Spiders Wasps	6 (as a perimeter treatment)	PERIMETER TREATMENT DIRECTIONS: 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:

- 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.
- CAUTION: May kill shrimp and crabs. Do not use in areas where these are important resources.

# SPECIFIC USE DIRECTIONS FOR AGRICULTURE AND COMMERCIAL CROP/SITE GROUPINGS:

**Asparagus** 

Brassica Leafy Vegetable Crops

Cereal Grain Crops (Field and Pop Com; 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	F	PEST	QUARTS OF SEVIN® RP4 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.
	N <sub>W</sub> to the	·		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	PE	st	QUARTS OF SEVIN® RP4 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 Com 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	ST	QUARTS OF SEVIN® RP4 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
1	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.
	No. 10			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.



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CROP	F	PEST	QUARTS OF SEVIN® RP4 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	77.	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® RP4 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® RP4 PER ACRE	SPECIFIC DIRECTIONS
Sweet Com	Armyworm Chinch bugs Com earworm Corn rootworm adults Fall armyworm Flea beetles	Japanese beetle Sap beetles Southwestern com 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	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. 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.  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 average 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: 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® RP4 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		11	
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.

### COTTON

CROP	F	PEST	QUARTS OF SEVIN <sup>®</sup> RP4 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
	Boli weevil Cotton boliworm Fali armyworm Leafrollers Leafhoppers	Lygus bugs Tamished 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 boliworm	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.

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### **CUCURBIT VEGETABLES**

CROP	PEST	QUARTS OF SEVIN® RP4 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® RP4 PER ACRE	SPECIFIC DIRECTIONS
Flax  DO NOT USE IN CALIFORNIA	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.

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### FORAGE CROPS

## ALFALFA, CLOVERS, AND BIRDSFOOT TREFOIL

CROP	PE:	ST	QUARTS OF SEVIN® RP4 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 comered 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 Com 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	PE	≣ST	QUARTS OF SEVIN® RP4 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 overapplication.

### 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.

43.7.63

### **RANGELAND**

CROP		PEST	QUARTS OF SEVIN® RP4 PER ACRE	SPECIFIC DIRECTIONS
Rangeland	Black grass bug Grasshoppers Mormon cricket	Range caterpillar Range crane fly	1/2 to 1	Do not make more than 1 application per year.  Carefully mark swaths to avoid overapplication.
	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	PE	ST	QUARTS OF SEVIN® RP4 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	Tomato hornworm Tomato pinworm	1 to 2	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.
	Flea beetles Leafhoppers		1/2 to 1	
	Cutworms		2	For cutworm control, this product is most effective against species which feed on the upper portions of the plant.

#### 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® RP4 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 Com earworm Fall armyworm Imported cabbageworm	Lygus bugs Spittlebugs Stink bugs Tamished plant bug	1 to 2	<del>-</del>

### 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	PE	ST	QUARTS OF SEVIN® RP4 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.
Fresh and Dried Beans ( <i>Phaseolus</i>	Com earworm		1/2 to 1 1/2	For cutworm control, this product is most effective against species which feed on the upper portions of the plant.
species including snap, navy and kidney), Fresh and Dried Peas (Pisum	Alfalfa caterpillar Colorado potato beetle Flea beetles Leafhoppers	Three cornered alfalfa hopper Thrips Western bean cutworm	1	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.
species),	Armyworm Cutworms European com borer Fall armyworm	Stink bugs Tamished plant bug Webworms	1 to 1 1/2	
Lentils, Cowpeas, Southern Peas DO NOT USE ON LENTILS IN CALIFORNIA	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

CROP	PEST	QUARTS OF SEVIN® RP4 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.

### **PEANUTS**

CROP	P	EST	QUARTS OF SEVIN® RP4 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 Com 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	

### 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.

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

CROP	PE	est	QUARTS OF SEVIN® RP4 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
Garden Beets, Carrots, Horseradish, Parsnips, Radishes, Rutabagas, Salsify, Potatoes	Armyworm Aster leafhopper Colorado potato beetle Com earworm Cutworms European com borer Fall armyworm	Lace bugs Lygus bugs Spittlebugs Stink bugs Tamished plant bug	1 to 2	7 days.  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.

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

### SUGAR BEETS

CROP		PEST	QUARTS OF SEVIN® RP4 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 4 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 4 quarts per acre per crop.

### SWEET POTATOES

CROP	Pi	EST	QUARTS OF SEVIN® RP4 PER ACRE	SPECIFIC DIRECTIONS
Sweet Potatoes	Com 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 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	ST	QUARTS OF SEVIN® RP4 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 leaftier	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	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® RP4 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	PE	:ST	QUARTS OF SEVIN® RP4 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	PE	ST	QUARTS OF SEVIN <sup>®</sup> RP4 PER ACRE	SPECIFIC DIRECTIONS
Citrus Fruits	Avocado leatroller 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 crop 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® RP4 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.

POME FRUITS

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CROP	PE	ST	QUARTS OF SEVIN® RP4 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.
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. Rates may vary depending on variety and local orchard conditions. 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	PE	ST	QUARTS OF SEVIN® RP4 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	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.

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### 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® RP4 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

- 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		· CT	QUARTS OF SEVIN® RP4	SPECIFIC DIRECTIONS
		ST	PER ACRE	
Tree Nuts: Almonds, Chestnuts, Filberts, Pecans, Walnuts	Black margined aphid Calico scale Codling moth European fruit lecanium Fall webworm	Navel orangeworm Peach twig borer Pecan leaf phylloxera Pecan stem phylloxera	2 to 5	OBSERVE BEE CAUTION  Repeat applications as necessary up to a total of 4 times per crop (including any applications at the cormant or delayed dormant timing) but not more often than once every 7 days.
Wanus	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.
1				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 coding 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

- 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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## 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	PF	ST	QUARTS OF SEVIN® RP4	SPECIFIC DIRECTIONS
	<del></del>			
Forested areas: Non-urban Forests, Tree Plantations, Planted Christmas Trees, Parks, Rural Shelter Belts Rangeland Trees	Ants Apple aphid Amyworm 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 Fuchia 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 Thom bug Thrips (exposed) Ticks Walnut caterpillar Webworms Western hemlock looper Western spruce budworm Willow leaf beetles Wooly 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 2 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	]

FORESTED AREAS AND RANGELAND TREES, CONTINUED

CROP	PEST	QUARTS OF SEVIN® RP4 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)	Direct Trunk Treatment:  Effective as a preventative treatment only. Repeat annually as required to prevent beetle attacks.  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.  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.  Do not make more than 2 applications per year or repeat applications more often than once every six months.

### 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.

Plants, Woody Plants, Shrubs in Commercial and Residential Areas and in Nursery Production Areas  Bister be Boxelder Boxwood Brown ta Cankerw Catalpa Chiggers Cooley s adelgi Cutworr Cypress Douglas moth Eastern adelgi Elm leaf Elm leaf Elm spar Eriophyi Europea moth Fall army Flea bee Fuchia g Fuller ro Gall mid Gall was Greenst maple Grassho Hackber maker Holly bu Holly lea Jackpine Japanes Jeffrey			QUARTS OF	
Ornamentals: Roses, Flowers, Other Herbaceous Plants, Woody Plants, Shrubs in Commercial and Residential Areas and in Nursery Production Areas  Roses, Flowers, Other Herbaceous Plants, Woody Plants, Shrubs in Commercial and Residential Areas and in Nursery Production Areas  Roses, Flowers, Other Ash whit Azalea le Bagworn Balsam t Birch lea Blister b Boxeldet Boxwood Brown ta Cankerw Catalpa Chiggers Cooley's adelgii Cutworn Cypress Douglas moth Eastern adelgi Elm leaf Elm leaf Elm leaf Elm leaf Elm spar Eriophyi Europea moth Fall army Flea bee Fuchia g Fuller ro Gall mid Gall was Greenst maple Grassho Hackber maker Holly bu Holly lea Jackpine Japanes Jeffrey	PE	ST	SEVIN <sup>®</sup> RP4 PER ACRE	SPECIFIC DIRECTIONS
Roses, Flowers, Other Herbaceous Plants, Woody Plants, Shrubs in Commercial and Residential Areas and in Nursery Production Areas Boxelder Boxwood Brown ta Cankerw Catalpa Chiggers Cooley's adelgi Cutworm Cypress Douglas moth Eastern adelgi Elm leaf Elm leaf Elm spar Eriophyi Europea moth Fall army Flea bee Fuchia g Fuller ro Gall mid Gall was Greenst maple Grasshot Hackber maker Holly bu Holly lea Jackpine Jeffrey Jeffrey		Maple leafcutter	1	Observe plant response precautions.
Plants, Woody Plants, Shrubs in Commercial and Residential Areas and in Nursery Production Areas  Cankery Catalpa Chiggers Cooley's adelgi Cutworn Cypress Douglas moth Eastern adelgi Elm leaf Elm leaf Elm spar Eriophyi Europea moth Fall army Flea bee Fuchia g Fuller ro Gall mid Gall was Greenst maple Grassho Hackber makei Holly bu Holly lea Jackpine Japanes Jeffrey	orm	Mealy bugs Mimosa webworm Nantucket pine tip		Obtain thorough coverage of upper and lower leaf surfaces. The addition of a sticker may improve residual control.
Commercial and Residential Areas and in Nursery Production Areas Boxelder Boxwood Brown ta Cankerw Catalpa Chiggers Cooley's adelgi Cutworm Cypress Douglas moth Eastern adelgi Eim leaf Elm spar Eriophyi Europea moth Fall army Flea bee Fuchia g Fuller ro Gall mid Gall was Greenst maple Grasshot Hackber maker Holly bu Holly lea Jackpine Japanes Jeffrey		moth Oak leafminers	-	To control scale insects, treat trunks, stems and twigs in addition to plant foliage.
Production Areas  Boxwood Brown ta Cankerw Catalpa Chiggers Cooley's adelgic Cutworm Cypress Douglas moth Eastern adelgic Eim leaf Eim leaf Eim spar Eriophyi Europea moth Fall army Flea bee Fuchia g Fuller ro Gall mid Gall was Greenst maple Grasshot Hackber maker Holly but Holly leaf Jackpine Japanes Jeffrey	eafminer	Oak moth Oak skeletonizer Oakworm complex		For optimum worm control, treat when pests are small.
Cooley's adelgicultivorm Cypress Douglas moth Eastern adelgicultivorm Eastern adelgicultivorm Eim leaf Eim leaf Eim spar Eriophyicultivorm Europea moth Fall army Flea bee Fuchia gruiller ro Gall mid Gall was Greenst maple Grasshoth Hackber maker Holly bu Holly leaf Jackpine Japanes Jeffrey	ood leafminer tail moth rworms a sphinx	Oleander caterpillar Olive ash borer Orange-striped oakworm Periodical cicada Pine looper		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 instantant after mining and as cases are being formed.
Douglas moth Eastern adelgi Elm leaf Elm leaf Elm spar Eriophyi Europea moth Fall army Flea bee Fuchia g Fuller ro Gall mid Gall was Greenst maple Grasshc Hackber maker Holly bu Holly lea Jackpine Japanes	/ spruce gall gid	Pine sawfly Pine spittlebug Pitch pine tip moth		Repeat treatments as necessary up to a tota of 6 times per year but not more often than once every 7 days.
Grassho Hackber maker Holly bu Holly lea Jackpine Japanes Jeffrey	n spruce gall lgid af aphid af beetle banworm lyid mites ean pine shoot h myworm eetle a gall mite rose beetle lidges asps sstriped	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		For gypsy moth control, use the higher rate for heavy infestations.
needle June be Lace bu Leafhop Leafroile Locust t	hoppers erry nipplegall er oud moth eafminer ine budworm lese beetle ly pine dleminer beetles bugs oppers	moth Tent caterpillars Thom bug Thrips (exposed) Ticks Walnut caterpillar Webworms Western hemlock looper Western spruce budworm Willow leaf beetles Wooly gall aphid Yellow poplar weevil		
Gypsy M		<u> </u>	3/4 to 1	4

TREES AND ORNAMENTALS, CONTINUED

CROP	PEST	QUARTS OF SEVIN® RP4 PER ACRE	SPECIFIC DIRECTIONS
Trees and Ornamentals: Roses, Flowers, Other Herbaceous Plants, Woody Plants, Shrubs in Commercial and Residential Areas and in Nursery Production Areas	Elm bark beetle lps engraver beetles Mountain pine beetle Roundheaded pine beetle Spruce beetle Western pine beetle	2% solution (5 fluid ounces per gallon)	Direct Trunk Treatment:  Effective as a preventative treatment only. Repeat annually as required to prevent beetle attacks.  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.  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.  Do not make more than 2 applications per year or repeat applications more often than once every six months.

### 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	PE	:ST	QUARTS OF SEVIN® RP4 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.)	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 Phyllophaga spp. larvae) Black turfgrass ataenius beetle larvae Hyperoides weevil (bluegrass weevil) larvae	•	8 (6 fl.oz. per 1000 SQ.FT.)	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.  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.  Repeat applications as necessary up to 2 times per year but not more often than once every 7 days.

### 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® RP4 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® RP4 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 Omamentals Turforass	Ixodes spp. (Deer tick, Bear tick, Bar tick, Black legged tick)  Amblyomma 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.

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### IMPORTED FIRE ANTS

CROP/SITE	PEST	QUARTS OF SEVIN® RP4 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® BRAND RP4 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® RP4 PER ACRE	SPECIFIC DIRECTIONS
Pastures	Mosquitoes (adults)	1/4 to 1*	OBSERVE BEE CAUTION.
Rangeland Forested Lands Trees and Omamentals Turfgrass			Treat shrubbery and areas where adult mosquitoes congregate. Treat when adult mosquitoes are active in early mornings or late evenings.
Wastelands		,	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® RP4 PER 100 GALLONS OF WATER	SPECIFIC DIRECTIONS
Direct spray on Chicken, Ducks, Geese, Game Birds, Pigeons, Turkeys	Chicken mite Fleas Lice Northern Fowl Mite		For use as a direct spray on Birds by:  1. Misting with Electric Fog Machine: Mix 1/3 quarts (9.6 ounces) of this product in 1 gallon of spray. Use 1 1/2 gallons per 1000 hens in cages, on litter, or on slatted floors. Repeat in 4 weeks if necessary.  2. Spraying with knapsack of cylinder type compressed air sprayers: Mix 1/5 quarts (6.4 ounces) of this product in 5 gallons of spray. Use. 1 gallon per 100 hens in cages, on litter, or on slatted floors. Repeat in 4 weeks if necessary.  For Northern fowl mite control, ensure pressured spray penetrates feathers of vent area on birds.  Direct mist spraying for chicken mite and fleas is a supplement to spraying roosts and buildings for control of these pests.
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.

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## POULTRY INSECT CONTROL

# Darkling Beetle (Lesser Mealworm or Litter Beetle)

SITE	PEST	POUNDS OF SEVIN® RP4 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.	Apply as a dilute spray to floor surface, walls, cracks, posts, and crevices with sufficient volume of finished spray to wet all surfaces thoroughly.  Optimum application timing is immediately after removing old flock from or before placing new flock into the house when beetles are most active.  Ventilate during application. Avoid contamination of feeding and watering units.

#### 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® RP4	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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