

SEVIN® 4L

Insecticide

FOR PROFESSIONAL PEST CONTROL. FOR COMMERCIAL USE ONLY.

ACTIVE INGREDIENT:	BY WEIGHT
Carbaryl (1-naphthyl N-methylcarbamate)	43.4% by wt.
INERT INGREDIENTS	56.6% by wt.
TOTAL	100.0%

EPA Reg. No. 10107-42 EPA Est. No. 10107-NB-1
For MEDICAL and TRANSPORTATION Emergencies ONLY, Call
Chemtrec 1-800-424-9300

SEVIN® is the registered trademark of Rhone-Poulenc Ag Company for Carbaryl Insecticide.

PRECAUTIONARY STATEMENTS
CAUTION
STATEMENT OF PRACTICAL TREATMENT
GENERAL: Contact a physician immediately in all cases of suspected poisoning. Transport to a physician or hospital immediately and SHOW A COPY OF THIS LABEL TO THE PHYSICIAN. If poisoning is suspected in animals, contact a veterinarian.
IF SWALLOWED: Never give anything by mouth to an unconscious or convulsing person. If conscious and not convulsing, drink 1 to 2 glasses of water and induce vomiting by touching the back of the throat with finger.
IF IN EYES: Flush eyes with plenty of water. Get medical attention if irritation persists.
IF ON SKIN: Wash thoroughly with soap and water.
IF INHALED: Move from contaminated atmosphere and call a physician.
SEE ADDITIONAL PRECAUTIONARY STATEMENTS INSIDE BOOKLET.

Manufactured for:
Combelt Chemical Company, • P.O. Box 410 • McCook, Nebraska 68001
REV 10-81

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

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

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

ANTIDOTE STATEMENT

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

NOTE TO PHYSICIAN

Carbaryl is a 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 had 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 overatropinization. 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. Consultation of diagnosis therapy and analysis can be obtained at all hours by calling CHEMTREC 1-800-424-9300.

ENVIRONMENTAL HAZARDS

This product is extremely toxic to aquatic and estuarine invertebrates. Do not apply directly to water and wetlands, except under the forest canopy and use on rice. Discharge from rice fields may kill aquatic and estuarine invertebrates. Do not contaminate water by cleaning equipment of disposal of wastes.

BEE CAUTION: MAY KILL HONEYBEES IN SUBSTANTIAL NUMBERS.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops and 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 Majestic Green Products representative for further information.

DIRECTIONS FOR USE

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING. READ THIS LABEL BEFORE USE. STRICTLY OBSERVE LABEL DIRECTIONS AND CAUTIONS, AND APPLICABLE FEDERAL AND STATE REGULATIONS. DO NOT USE ON ANY CROP NOT LISTED ON THIS LABEL OR SUPPLEMENTAL LABELING AS ANY RESIDUES REMAINING MAY BE TOXIC AND/OR HARMFUL.

GENERAL INFORMATION

SEVIN® 4L Insecticide is a dry powder for dispersion in water and application as an insecticide spray.

ACCEPTED
JAN 10 1992
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 10107-42

APPLICATION

On all crops use sufficient gallonage to obtain thorough and uniform coverage. Observe crop label instructions for specific directions regarding spray volume where they occur. Calibrate spray equipment to deliver the required volume. Use 50 mesh slotted strainers in spray system and 25 mesh slotted strainers behind nozzles.
To clean spray system after use, drain and flush with water and detergent mixture. Refer to the Storage and Disposal directions for disposal instructions.

INSECT CONTROL

Apply when insects or their damage appears. To maintain control repeat at 7 to 14 day intervals or as necessary unless a shorter interval is specified below. Where a dosage range is indicated, use the lower rate on light to moderate infestations, young plants and early instars and the higher rate on heavy infestations, mature plants, advanced instars and adults. Thorough and uniform spray coverage is essential for effective control.

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

TREE FRUIT AND NUT CROPS

Apply the recommended amount of Sevin® 4L Insecticide in 100 gallons of water. Use hand or power-operated sprayer to wet leaves and branches to the dripping point.

FORAGE, FIELD AND VEGETABLE CROPS

Apply in sufficient spray volume to obtain thorough coverage. Where maximum washoff resistance is needed, use up to a 1:1 (vol./vol.) dilution with water. Do not dilute greater than 1:11 where washoff resistance is desired. To prepare small volumes of spray, use 1 tablespoonful (1 fluid ounce) of SEVIN 4L per gallon of water where rates of 1 quart per acre or 1 quart per 100 gallons are indicated in following tables.

INSECT	QTS. PRE-HARVEST SEVIN 4L INTERVAL ACRE	(DAYS)	SPECIFIC DIRECTIONS
All Forage, Field and Vegetable Crops in this section	Grasshoppers	1/2 to 1 1/2	See Specific Forage, Field, or Vegetable crop
Alfalfa Clovers	Blister Beetle, Mexican Bean Beetle	1/2 to 1	Observe plant response precautions
	Alfalfa Caterpillar, Bean Leaf Beetle, Cucumber Beetle, Green Cloverworm, Japanese Beetle, Leafhopper, Three-Cornered Alfalfa Hopper, Thrips, Velvetbean Caterpillar	1	
	Alfalfa Weevil Larvae, Armyworm, Cloverhead Weevil, Corn Earworm, Cutworm, European Alfalfa Weevil Looper, Essex Skipper, European Alfalfa Beetle, Fall Armyworm, Lygus Bug, STINK Webworm, Yellow-Striped Armyworm	1 to 1 1/2	For Alfalfa Weevil Larvae, if pretreatment damage is extensive, cut alfalfa and treat the stubble. Use higher rate in areas east of the Rocky Mountains. On dense growth, use 25 to 40 gallons per acre with ground equipment to ensure adequate coverage.

GENERAL WORKER PROTECTION STATEMENTS

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

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

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

Written oral warnings must be given to workers who are expected to be in treated area or in an area about to be treated with this product. Advise workers to stay out of fields during application and until sprays have dried. Regular long-sleeved work clothing should be worn when working in treated fields. See PRECAUTIONARY STATEMENTS, STATEMENT OF PRACTICAL TREATMENT AND NOTE TO PHYSICIAN for additional information. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: Appropriate signal word (WARNING), area treated with SEVIN® 4L Insecticide, date of application, appropriate clothing, and reentry interval (i.e., until sprays have dried).

PREHARVEST INFORMATION AND LIMITATIONS

Tolerances established under the Federal Food, Drug and Cosmetic Act permit the sale of crops bearing probable carbaryl residues when this product is used in accordance with the label directions. Do not apply at greater rates or at more frequent intervals than are stated on the label.

PLANT RESPONSE PRECAUTIONS

To avoid possible injury to tender foliage, do not apply to wet foliage or during periods of high humidity. Do not use on Boston Ivy, Virginia creeper and maidenhair fern as injury may result. Carbaryl may also injure Virginia and sand pines.

CROP	INSECT	QTS. PRE-HARVEST SEVIN 4L INTERVAL ACRE	(DAYS)	SPECIFIC DIRECTIONS
Asparagus	Asparagus Beetle, Apache Cicada, Asparagus Beetle	1 to 2	1	Treat ferns or brush growth. Do not treat more than once every 3 days.
Beans (including black-eyed peas, crowder or Southern peas, dry beans, green beans, lima beans, navy beans, and snap beans)	Blister Beetle, Mexican Bean Beetle, Alfalfa Caterpillar, Bean Leaf Beetle, Cucumber Beetle, Flea Beetle, Green Cloverworm, Japanese Beetle, Leafhopper, Three-Cornered Alfalfa Hopper, Thrips, Velvetbean Caterpillar, Western Bean Cutworm	1/2 to 1	1	Observe plant response precautions.
	Armyworm, Corn Earworm, Cutworm, European Corn Borer, Fall Armyworm, Stink Bug, Tarnished Plant Bug, Webworm	1 to 1/2	0	
Cowpeas	Cowpea Curculio	2	3	Corn Earworm, Lima Bean Pod Borer, Lygus Bug, Stink Bug
	Flea Beetle, Harlequin Bug	1/2 to 2	3	CALIFORNIA ONLY
Cabbage Broccoli Brussels Sprouts Cauliflower Kohlrabi	Armyworm, Corn Earworm, Fall Armyworm, Imported Cabbageworm	1 to 2	3	

SPRAY PREPARATION

TO ASSURE A UNIFORM SUSPENSION, AGITATE, STIR OR RECIRCULATE ALL SPRAY MIXTURES OF THIS PRODUCT PRIOR TO AND DURING 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® 4L insecticide and then the remaining volume of water. Include rinse water from the 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 accelerate the degradation of spray mixtures containing carbaryl. See COMPATIBILITY STATEMENT below.

COMPATIBILITY

SEVIN® 4L Insecticide has been effectively used without plant injury with most common insecticides, miticides, fungicides, nutrients, adjuvants, and with petroleum oil as used on citrus. If compatibility with another product and the resulting crop response is unknown, it 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 mechanical difficulties or plant injury. Observe all cautions and limitations on labeling of all products used in mixtures. WHEN PREPARING COMBINATION SPRAYS, FIRST ADD SEVIN® 4L INSECTICIDE TO 1/2 THE DESIRED AMOUNT 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, EXCESSIVE RESIDUES 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.

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CROP	INSECT	QTS. PRE-HARVEST SEVIN 4L INTERVAL /ACRE	(DAYS)	SPECIFIC DIRECTIONS
Chinese Cabbage Collards Hanover Salad Horse radish, Kale Mustard Greens Radishes Rutabagas Turnips	Flea Beetle, Harlequin Bug, Leafhopper	1/2 to 1	3	(horse radish, radishes, rutabagas, turnip roots)
	Aster Leafhopper	1 to 1 1/2	14	(Chinese cabbage, collards, Hanover salad, kale, mustard greens & turnip greens)
Carrots Parsnips Parsley	Flea Beetle, Leafhopper	1/2 to 1	0	Treat on a 5 to 7 day schedule.
	Aster Leafhopper, Lygus Bug, Spittlebug	1 to 1 1/2	3	(parsnips)
	Amyworm, Corn Earworm, Fall Armyworm, Slink Bug, Tarnished Plant Bug	1 to 2	14	(parsley)
Corn (Field, Sweet, Popcorn)	Amyworm, Corn Earworm, Corn Rootworm (Adult), European Corn Borer, Fall Armyworm, Flea Beetle, Japanese Beetle, Sap Beetle, Southwestern Corn Borer, Leafhopper	1 to 2	0	OBSERVE BEE CAUTION: For insects attacking silks and ears, apply at 1 to 6 day intervals, starting when first silks appear and continuing until silks begin to dry. For larvae in whorl and foliage feeders, apply as necessary. Optimum timing and good coverage are essential for effective control.
	Western Bean Cutworm	2	0	Treat when infestation averages 15% and at 90% to 100% tassel emergence. Treatment after 100% silk emergence will reduce effectiveness.

CROP	INSECT	QTS. PRE-HARVEST SEVIN 4L INTERVAL /ACRE	(DAYS)	SPECIFIC DIRECTIONS
Corn (cont)	Cutworms	2 to 6 1/2	0	Apply in a 12-inch band, using 12 fl. oz. per 1000 linear feet of row, in at least 15 gallons of water per acre. For broadcast application, use 13 quarts in at least 20 gallons (ground) or 5 gallons (air) of water per acre.
	Cotton	Cotton Fleahopper, Cotton Leafworm, Flea Beetle, Striped Blister Beetle, Thrips	1/2 to 1	7
Cucumber, Melons, Pumpkin, Squash	Boil Weevil, Bollworm, Cotton Leaf Perforator, Fall Armyworm, Leafroller, Leafhopper, Tarnished Plant Bug, Yellow Striped Armyworm (Cotton Cutworm)	1 to 2	7	Treat on a 5 to 7 day schedule for as long as control is necessary. Mid and late season insect control. May be applied after bolls open.
	Pink Bollworm	1 1/2 to 2 1/2	7	Aphid populations will be suppressed by repeated applications of this insecticide.
	Slink Bug, Saltmarsh Caterpillar	2	0	

CROP	INSECT	QTS. PRE-HARVEST SEVIN 4L INTERVAL /ACRE	(DAYS)	SPECIFIC DIRECTIONS
Dandelion Endive (Escarole) Lettuce Salsify	Flea Beetle, Harlequin Bug, Leafhopper	1/2 to 1	3	(head lettuce, salsify roots)
	Aster Leafhopper, Lygus Bug, Spittlebug	1 to 1 1/2	14	(dandelion, endive (escarole), leaf lettuce, salsify tops)
Forage Grasses, Pasture	Amyworm, Black Grass Bug, Chinch Bug, Essex Skipper, Fall Armyworm, Range Caterpillar, Range Crane Fly, Striped Grass Looper, Thrips	1 to 1 1/2	0	To control thrips in grasses grown for seed use high spray pressure to improve penetration into boot.
	White Grub (June Beetle)	1 1/2 to 2	0	
Garden Beet Spinach Swiss Chard	Flea Beetle, Harlequin Bug, Leafhopper	1/2 to 1	3	(garden beet roots)
	Aster Leafhopper, Armyworm, Corn Earworm, Fall Armyworm, Slink Bug, Tarnished Plant Bug	1 to 1 1/2	14	(Garden beet tops, spinach, Swiss chard)
Okra	Corn Earworm, Slink Bug	1 to 2	0	Treat on a 5 to 7 day schedule.
Peanuts	Blister Beetle, Mexican Bean Beetle	1/2 to 1	0	Observe plant response precautions.

CROP	INSECT	QTS. PRE-HARVEST SEVIN 4L INTERVAL /ACRE	(DAYS)	SPECIFIC DIRECTIONS
Peanuts (cont)	Alfalfa Caterpillar, Bean Leaf Beetle, Cucumber Beetle, Green Cloverworm, Japanese Beetle, Leafhopper, Three-Cornered Alfalfa Hopper, Thrips, Velvetbean Caterpillar	1 to 1 1/2	0	
	Amyworm, Corn Earworm, Fall Armyworm, Slink Bug, Webworm	1 to 1 1/2	0	
Peas	White-Fringed Beetle adults, Cutworms	2	0	
	Colorado Potato Beetle, Leafhoppers	1	0	
Potato Tomato Eggplant Pepper	Amyworm	1 to 1 1/2	0	
	Alfalfa Caterpillar, Cutworm, Pea Leaf Weevil, Pea Weevil, Yellow-Striped Armyworm	1 1/2	0	
	Alfalfa Looper	2 1/2	0	WASHINGTON STATE ONLY
Colorado Potato Beetle, Flea Beetle, Leafhopper, European Corn Borer, Fall Armyworm, Lace Bug, Slink Bug, Tarnished Plant Bug, Tomato Fruitworm, Tomato Hornworm, Tomato Pinworm	Cutworm	2	0	

CROP	INSECT	QTS. PRE-HARVEST SEVIN 4L INTERVAL /ACRE	(DAYS)	SPECIFIC DIRECTIONS
Rice	Amyworm, Chinch Bug, Fall Armyworm, Slink Bug	1 to 1 1/2	14	DO NOT APPLY PROPANIL HERBICIDES WITHIN 15 DAYS BEFORE OR AFTER SEVIN 4L APPLICATION OR PLANT INJURY WILL RESULT. Do not use on rice fields in which crayfish and/or catfish farming is included in the cultural practice. MISSISSIPPI DELTA & TEXAS
	Armyworm, Leafhopper, Tadpole Shrimp	2	14	CALIFORNIA ONLY. For optimum tadpole shrimp control apply to water when pest first appears.
Sorghums (milo, grain sorghum, sweet sorghum & hybrids)	Amyworm, Chinch Bug, Corn Earworm, Fall Armyworm, Slink Bug, Webworm	1 to 2	21	(grain)
	Sorghum Midge, Southwestern Corn Borer	1 1/2	0	Direct spray into forming heads for optimum insect control. Treat for sorghum midge when 25% to 20% of heads have emerged from boot and are in bloom. Repeat application 3 to 5 days later if adults are still active. A third application may be necessary in late planted sorghum if midge are abundant.
	Cutworm	2	0	(forage)

CROP	INSECT	QTS. PRE-HARVEST SEVIN 4L INTERVAL /ACRE	(DAYS)	SPECIFIC DIRECTIONS
Soybeans	Bean Leaf Beetle, Cucumber Beetle, Green Cloverworm, Mexican Bean Beetle, Velvetbean Caterpillar	1/2	0	DO NOT APPLY A COMBINATION OF SEVIN 4L and 2,4-D HERBICIDES TO SOYBEANS. For light to moderate populations.
	Corn Earworm	1 1/2 to 3 1/2	0	
	Blister Beetle, Grape Colaspis, Mexican Bean Beetle	1/2 to 1	0	To control heavy infestations, use rate.
	Alfalfa Caterpillar, Bean Leaf Beetle, Cucumber Beetle, Green Cloverworm, Japanese Beetle, Leafhopper, Three-Cornered Alfalfa Hopper, Thrips, Velvetbean Caterpillar	1	0	
Sugar Beets	Amyworm, Corn Earworm, Cutworm, Fall Armyworm, Slink Bug, Webworm	1 to 1 1/2	14	
	Painted Lady (Thistle Caterpillar), Saltmarsh Caterpillar, Yellow-Striped Armyworm	2 to 2 1/2	0	

CROP	INSECT	QTS. PRE-HARVEST SEVIN 4L INTERVAL /ACRE	(DAYS)	SPECIFIC DIRECTIONS
Tobacco	Tobacco Flea Beetle	2 lbs./gal. or 1 qt. per 50 gals. or 6 gals. per 100 sq. yds.	0	IN PLANT BEDS: To prevent injury, avoid excessive applications.
	Green June Beetle Grubs	1/2 qt. per 100 gals.	0	Apply only to areas that larvae have uprooted by sprinkling as a drench with 50 to 100 gallons per 100 square yards.
Tobacco	Budworm, Fall Armyworm, Flea Beetle, Hornworm, Japanese Beetle, June Beetle, Suckly	1 to 2	0	IN FIELDS: 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. If late season applications are necessary, allow three days before pruning or cutting.

SMALL FRUIT CROPS

Recommended dosages refer to quarts of SEVIN 4L per acre. The optimum spray gallonage will depend on plant size, density and stage of growth. Typical spray gallonages per acre range from 100-300 gallons for dilute sprays, 30-100 gallons for concentrate sprays and 10-25 gallons for aerial sprays. do not exceed maximum label rate per acre per application

CROP	INSECT	QTS. PRE-HARVEST SEVIN 4L INTERVAL /ACRE	(DAYS)	SPECIFIC DIRECTIONS
Blackberries Raspberries Dewberries (including Boysenberries and Loganberries)	European Raspberry Aphid, Japanese Beetle, Leafhopper, Leafroller, Rose Chaffer, Snowy Tree Cricket	1 to 2	7	
	Omnivorous Leafroller, Raspberry Sawfly	2	0	CALIFORNIA ONLY
Blueberries	Blueberry Maggot, Cherry Fruitworm, Cranberry Fruitworm, European Fruit Lecanium, Japanese Beetle	1 1/2	0	Apply 3 weeks before harvest and repeat as necessary.
Cranberries	Cutworm, Cranberry Fireworm, Cranberry Fruitworm, Japanese Beetle, Leafhopper, Rose Chaffer	1 1/2 to 3	1	Apply in late bloom and as needed at 7 to 10 day intervals.
Grapes	European Fruit Lecanium, Grape Leaf Folder, Grape Leafhopper, Western Grapeleaf Skeletonizer, Western Yellow-Striped Armyworm	1 to 2	0	Apply before first brood leaf folder larvae emerge from rolls.

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CROP	INSECT	QTS. PRE-HARVEST SEVIN 4L INTERVAL		SPECIFIC DIRECTIONS
		ACRE	(DAYS)	
Grapes (cont)	Cutworm, Eight-Spotted Forester, Grape Berry Moth, Japanese Beetle, June Beetle, Orange Tortrix, Omnivorous Leafroller, RedBanded Leafroller, Saltmarsh Caterpillar	2	0	
Strawberries	Flea Beetle, Meadow Spittlebug, Omnivorous Leaf Tier (Strawberry Fruitworm), Strawberry Leafroller, Strawberry Weevil	1 to 2	1	SEVIN may injure Early Dawn and Sunrise varieties on the Delmarva Peninsula

CROP	INSECT	PRE-HARVEST TSP/ INTERVAL		SPECIFIC DIRECTIONS
		GALLON	(DAYS)	
Almond	Peach twig borer, Fruit tree leafroller, San Jose scale	4	28	Apply in "popcorn" or petal fall stages and again when the May brood of the peach twig borer begins to hatch or thereafter as needed.

CROP	INSECT	PRE-HARVEST TSP/ INTERVAL		SPECIFIC DIRECTIONS
		GALLON	(DAYS)	
Walnut	Caric scale, European fruit lecanium, Fibreworm, Frosted scale, Fruit tree leafroller	1/2	0	For codling moth apply spray when average cross sectional diameters of developing nuts are 1/2 to 3/4 inch. Repeat during middle or late June as needed.
	Codling moth	1/2		
	Navel Orange worm	1		For navel orangeworm, time applications to coincide with peak egg laying activity at time of or following hull split.
	European earwig	2		Spray tree trunks to point of run-off.

TREES AND ORNAMENTALS

For control of certain insects on trees, ornamentals, woody plants and shrubs, apply the recommended amount of Sevin 4L insecticide in 100 gallons of water. Use hand or power-operated sprayer to wet leaves and twigs to the dripping point. Do not use on Boston Ivy, Virginia creeper and maidenhair fern. During early season it may also injure Virginia and sand pines.

Insects	Qts. per 100 Gals.	Specific Directions
Ants, Apple aphid, Armyworm, Azalea leafminer, Bagworms, Birch leafminer, Blister beetle, Boxelder bug, Boxwood leafminer, Brown tail moth, Cankerworms, Catalpa sphinx, Chiggers, cutworms, Cypress tip moth, Eastern spruce gall adelgid, Elm leaf aphid, Elm leaf beetle, Elm spanworm, Eriophyid mites, European pine shoot worm, Fall	1	Observe PLANT RESPONSE PRECAUTIONS. Apply dilute sprays to obtain thorough coverage on upper

TREE FRUIT AND NUT CROPS

CROP	INSECT	PRE-HARVEST TSP/ INTERVAL		SPECIFIC DIRECTIONS
		GALLON	(DAYS)	
Almond	Fruit tree leafroller, Peach twig borer, San Jose scale	1	8	OBSERVE BEE CAUTION - Apply in "popcorn" or petal fall stages and again when the May brood of the peach twig borer begins to hatch or thereafter as needed. Time early and midseason applications to correspond to moth flight peaks. Make a late season application at initiation of hull split or up to 10% hull split.
	Navel Orangeworm			
Apples, Pears	Apple aphid, Apple maggot, Apple rust mite, Apple sucker, Bagworms, California pear slug, (pear sawfly), Eastern tent caterpillar, European apple sawfly, Eyespotted bud moth, Forbes scale, Fruit tree leafroller, Gypsy moth, Green fruitworm, Japanese beetle, Lecanium scales, Lesser appleworm, Lygus bugs, Orange tortrix, Oystershell scale, Pear leaf blister mite, Pear psylla, Pear rust mite, Periodical cicada, Plum curculio, Redbanded leafroller, Rosy apple aphid, San Jose scale, Tarnished plant bug, Tenilform leafminer, Woolly apple aphid, Yellowheaded fireworm	3/4 to 1	1	To avoid undesired apple thinning, delay use until at least 30 days after full bloom. For psylla control, apply when eggs hatch or young nymphs are present. For optimum scale control, apply when crawlers are present.

TREES AND ORNAMENTALS

Insects	Qts. per 100 Gals.	Specific Directions
armyworm, Flea beetles, Fuchsia gall mite, Fuller Gall midges, Gall wasps, Greenstriped mapleworm, Grasshoppers, Gypsy moth, Hackberry nipplefall maker, Holly bud moth, Holly leafminer, Jackpine budworm, Japanese beetle, Jeffrey pine needle-miner, June beetles, Lace bugs, Leafhoppers, Leafrollers, Locust borer, Maple leafcutter, Mealybugs, Mimosa webworm, Nantucket pine tip moth, Oak leafminers, Oak leaf skeletonizer, Oak moth, Oakworm complex, Oleander caterpillar, Olive ash borer, Orangestriped oakworm, Orange tortrix, Periodical cicada, Pine looper, Pine sawfly, Pine spittlebug, Pitch pine tip moth, Plant bugs, Polinettia hornworm, Psyllids, Puss caterpillar, Redhumped oakworm, Rose aphid, Rose chafer, Rose slug, Saddled prominent, Sawflies (exposed), Scale insects, Sowbugs, Spiny elm caterpillar, Springtails, Spruce needleminer, Subtropical pine tip moth, Tent caterpillars, Thrips (exposed), Ticks, Tree hoppers, Walnut caterpillar, Webworms, Western hemlock looper, Willow leaf beetles, Yellow poplar weevil	1	and lower leaf surfaces. To control scale insects, treat trunks, stems and twigs in addition to plant foliage. For optimum worm control, treat when in early instars. Addition of a sticker may improve residual control. 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.
Balsam twig aphid, Cooley spruce gall adelgid, Douglas-fir tussock moth, Spruce budworm, Western spruce budworm	1 to 2	Use the higher rate when large or heavy populations are present.
Ips engraver beetles, Mountain pine beetle, Round headed pine beetle, Spruce beetle, Western pine beetle	16	Effective for beetle control or as a protective treatment.

CROP	INSECT	PRE-HARVEST TSP/ INTERVAL		SPECIFIC DIRECTIONS
		GALLON	(DAYS)	
Citrus Fruits (such as grapefruit, lemons, limes, oranges, tangelos, tangerines, citrus citron, kumquats, and hybrids)	Avocado leafroller, California orange dog, Citrus cutworm, Citrus root weevil, Fruit tree leafroller, Orange tortrix, Western tussock moth, West Indian sugarcane borer (adults)	1	8	Do not apply less than 10 gal. of dilute spray mixture per mature tree. May be mixed with petroleum oils commonly used on citrus.
	Black scale, Brown soft scale, California red scale, Citricola scale, Citrus 1 snow scale, Yellow scale	3/4		
Olives	Olive scale	3/4 to 1	0	For optimum scale control add 1 1/2 gallons of summer oil and apply mixture when crawlers are present. Do not exceed 2 applications per year.
Peaches, Apricots, Nectarines	Apple pandemis, Codling moth, Cucumber beetle, European earwig, Fruit tree leafroller, Gypsy moth, Japanese beetle, June beetles, Lecanium scales, Lesser peachtree borer, Olive scale, Orange tortrix, Oriental fruit moth, Peach twig borer, Periodical cicada, Plum curculio, Redbanded leafroller, San Jose Scale, Tarnished plant bug, Tussock moths, Variegated leafroller	1	1 (peaches) 3 (apricots & nectarines)	For optimum scale control, apply when crawlers are present. For lesser peach tree borer control, spray limbs and tree trunks thoroughly, weekly during moth flight.

TREES AND ORNAMENTALS

Insects	Qts. per 100 Gals.	Specific Directions
Ips engraver beetles, Mountain pine beetle, Roundheaded pine beetle, Spruce beetle, Western pine beetle (cont.)	16	Apply 1 gallon of spray per 50 sq. ft. of bark prior to beetle flight or host-tree attack. Treat tree trunks from ground level up, until trunk diameter is less than 5 inches. Repeat treatments as needed.
Elm bark beetle	16	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.

CROP	INSECT	PRE-HARVEST TSP/ INTERVAL		SPECIFIC DIRECTIONS
		GALLON	(DAYS)	
Pecans	Black margined aphid, Fall webworm, Hickory shuck worm, Lesser webworm, Pecan leaf phyllotaxia, Pecan stem perforator, Pecan casebearer, Pecan spittlebug, Pecan weevil, Twig borer, Walnut caterpillar	2 1/2	0	
Plums, Prunes, Cherries	Codling moth, Eastern Tent caterpillar, Orange tortrix, Tussock moth	3/4	1	For optimum scale control, apply when crawlers are present. For lesser peach tree borer control, spray limbs and tree trunks thoroughly, weekly during moth flight.
	Black cherry aphid, Brown soft scale, Cherry fruitworm, Cherry maggot, European earwig, Eyespotted bud moth, Forbes scale, Fruit tree leafroller, Green fruitworm, Gypsy moth, Japanese beetle, Lecanium scales, Lesser peachtree borer, Mealy plum aphid, Oystershell scale, Peach twig borer, Plum curculio, Prune leafhopper, Redbanded leafroller, Rose chafer, San Jose scale, Variegated leafroller	1		

LAWNS AND RECREATIONAL AREAS

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

SITE	INSECT	AMOUNT OF SEVIN 4L FL. OZ./ QTS/ 1000 SQ. FT. ACRE		SPECIFIC DIRECTIONS
Turf grasses	Ants, Armyworm, Centipedes, Chiggers, Cutworms, Earwigs, Essex skipper, European chafer, Fall armyworm, Fiery skipper, Grasshoppers, Green June beetle grub, June beetles, Leafhoppers, Lucerne moth, Millipedes, Mosquitoes (adults), Sowbugs, Spittle bugs, Springtails, Ticks, Yellowstriped armyworms	11/2 to 3	2 to 4	For Armyworm, Cutworm, and Fall Armyworm control: Do not irrigate treated areas following insecticide application. For Green June Beetle Grub control: Make applications when grubs are feeding near the soil surface. Water or irrigate turfgrasses soon after treatment. DO NOT ALLOW PUBLIC USE OF TREATED AREAS DURING APPLICATIONS OR UNTIL SPRAYS HAVE DRIED.
	Chinch bugs	4.4 to 6	6 to 8	Treat entire grass area rather than just damaged areas. Irrigation of turf grass area before treatment will aid in penetration of insecticide into turf grass.
	Sod Webworm (lawn moths)			Do not irrigate treated areas following insecticide application.

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LAWNS AND RECREATIONAL AREAS

SITE	INSECT	AMOUNT OF SEVIN 4L		SPECIFIC DIRECTIONS
		FL. OZ./	QTS/	
		1000 SQ.FT. ACRE		
Turf grasses (cont.)	Bluegrass billbug, European crane fly, Fleas	6	8	For European Crane Fly Control: Treatments should be applied in early spring, April 1st to April 14th, 15th, or as recommended by local Agricultural Extension Service agents. Water or irrigate turf grasses thoroughly soon after treatment.
	White grubs (such as Japanese beetle, Chafer beetle and <i>Phyllophaga</i> spp. larvae)			For White Grub control: Applications should be made when grubs are feeding near the soil surface, usually during late March through May, or July to early September, or as recommended by local Agricultural Extension Service agents. Water or irrigate turf grasses thoroughly soon after treatment.

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IMPORTED FIREANT CONTROL

SITE	AMT/GAL OF WATER	SPECIFIC DIRECTIONS
Lawns, Cemeteries and Recreational Areas (including turf, golf courses, and parks) Pastures Rangeland Forested Lands and Wasteland	1-1/2 qts. or 1 1/2 Tblsp. per gal.	Apply a total of 2 gallons of the diluted solution over the surface of each mound or at least 1 qt. per 6 inches of mound diameter using a bucket, can, or other appropriate equipment. Thoroughly wet mound and surrounding area to a 4 ft. diameter (12 sq. ft.). Do not disturb mounds prior to treatment. Pours 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° to 80° F or in early morning or late evening hours. Repeat application if mound activity resumes after 10 days. Treat new mounds as they appear. Pressurized sprays may disturb the ants and cause migration, reducing product effectiveness. DO NOT ALLOW PUBLIC USE OF TREATED AREAS DURING APPLICATIONS OR UNTIL SPRAYS HAVE DRIED.

ADULT MOSQUITO CONTROL

SITE	AMT/GAL PER 100 GAL.	SPECIFIC DIRECTIONS
Pastures, Rangelands, Parks, Recreational areas Logging Camps, Military Posts and Adjacent forested lands or Wastelands	1/4 to 1 or 1/2 to 1 Tblsp. per gal.	DO NOT ALLOW PUBLIC USE OF TREATED AREAS DURING APPLICATIONS OR UNTIL SPRAYS HAVE DRIED. Caution: May kill shrimp and crabs. Do not use in areas where these are important resources. OBSERVE BEE CAUTION Treat shrubbery and areas where adult mosquito toes congregate. Treat when adult mosquitoes are active in early mornings or late evenings. Repeat at 7 to 10 day intervals.

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ADULT MOSQUITO CONTROL (cont.)

SITE	AMT/GAL PER 100 GAL.	SPECIFIC DIRECTIONS
(See previous page)		Use 1/4 to 1/2 quart per 100 gallons in mist-blowers, and 1 quart per acre in low pressure ground sprayers. For residual control in subtropical regions apply 4 gallons of prepared spray per 2000 square feet of surface area. Repeat in 3 to 6 months or when necessary.

CONTROL OF TICKS WHICH VECTOR LYME DISEASE

For control of juvenile and adult ticks which vector Lyme Disease, apply the recommended rate in sufficient volume for thorough coverage. To prepare small amounts, use 1 tablespoon (1/2 fluid ounce) of SEVIN® 4L insecticide per gallon of water.

SITE	PEST	QTS/ACRE	SPECIFIC DIRECTIONS
Lawns and Recreational turf grass (including: Lawns & Perimeters, Golf Courses, Sports Fields, Cemeteries, Parks, and Pastures) Shrubs, Ornamentals, Wooded areas (including: Military Posts Logging camps, and Campsites) Wastelands	<i>Ixoides</i> spp. Deer Tick, Bear tick, and Black legged tick	1 to 2	Use the high rate for heavy tick infestations. Use higher spray volumes for dense ground cover or heavy leaf litter and on lush turf with thatch buildup. Target applications for nymphal control in late spring or early summer. Control of adult ticks can be achieved with late summer and fall applications. Do not use spot treatments. Treat entire area and perimeter areas where exposure to ticks may occur. Ticks may be reintroduced from surrounding areas on host animals. Retreat as necessary to maintain adequate control levels. DO NOT ALLOW PUBLIC USE OF TREATED AREAS DURING APPLICATION OR UNTIL SPRAYS HAVE DRIED.
	<i>Amblyomma</i> spp. Lone Star tick		

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PEST CONTROL IN AND AROUND BUILDINGS

GENERAL INFORMATION

Staining may occur on certain surfaces such as stucco, brick, cinder block and wood. Therefore, applications of SEVIN® 4L insecticide to surfaces where a noticeable residue or discoloration is objectionable should be avoided. Do not apply to carpets or draperies as staining may occur. Care should also be exercised to avoid spotting of wallpaper and fabrics.

Do not use this product in commercial food areas, of food handling establishments, restaurants or other places where food is prepared or processed. Do not use in seating areas while food is exposed.

INDOORS

Ants, Crickets, Firebrats, and Silverfish: Mix 3 oz. this product per gallon of water and apply as fine, low pressure (20 psi) spot spray or as crack and crevice application to areas where these pests hide, such as baseboards, storage areas, closets, around water pipes, doors and windows, behind and under refrigerators, cabinets, sinks, stoves, dishwashers, hot water heaters, the underside of shelves, drawers and similar areas. For ants, apply to ant trails, around doors and windows and other places where ants enter premises.

Bees and Wasps: Mix 3 oz. this product per gallon of water and thoroughly spray nest and entrance and surrounding areas where insects alight. It is generally advisable to spray the nests in the evening when the insects are less active and have returned to the nest. For best results, check nest carefully one or two days after spraying to ensure complete kill, then remove and destroy nest to prevent emergence of newly hatched insects.

Brown dog Ticks and Fleas: Mix 3 oz. this product per gallon of water and thoroughly spray infested areas such as pet beds and resting quarters, nearby cracks and crevices, between and under cushions of upholstered furniture, along and behind baseboards, window and door frames and other areas where these pests may be present.

Carpenter Ants: Mix 3 oz. this product per gallon of water and apply to ant trails, around doors and windows and other places where ants enter premises. Where possible, apply this product directly to ant nest of infested wood.

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PEST CONTROL IN AND AROUND BUILDINGS

Centipedes, Earwigs, Millipedes, and Scorpions: Mix 3 oz. SEVIN® 4L insecticide per gallon of water and apply around water pipes, doors and windows, and other places where these pests may enter premises. Spray baseboards, storage areas, garages, carports, basements and other areas where these pests are found.

Cockroaches: Efficacy varies with species sensitivity. This product is generally not highly effective in controlling German cockroaches. However, the following may be controlled with the rates as stated. American roach, Australian roach, Brown roach, Smoky brown roach, and others. Mix 3 oz. this product per gallon of water and apply as a fine, low pressure (psi) spot spray or as crack and crevice application to areas where these pests hide, such as baseboards, storage areas, closets, around water pipes, doors and windows, behind and under refrigerators, cabinets, sinks, stoves, dishwashers, hot water heaters, the underside of shelves, drawers and similar areas.

Spiders: Mix 3 oz. this product per gallon of water and apply to infested baseboards, window and door frames, corners, pipes, storage areas, attics and under eaves. Make spot applications to other areas which these pests are present.

OUTDOORS

Perimeter Treatment: Residual spray for control of ants, bees and wasps, brown dog ticks, carpenter ants, centipedes, cockroaches, crickets, earwigs, firebrats, and silverfish, fleas, millipedes, scorpions and spiders. Mix 16 oz. this product per 50 gallons of water and apply with power spray or other spray methods.

To help prevent infestations of buildings by the above pests, outside perimeter treatment should be in a band 6 to 10 feet wide and confined to shrub beds, foundation plantings and lawn or soil areas immediately adjacent to the structure. Direct application to structures should be made and restricted to cracks and crevices and other areas where insects tend to congregate.

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STORAGE AND DISPOSAL

Storage

Store unused SEVIN® 4L insecticide in original container only, in cool, dry area out of reach of children and animals. Do not store in areas where temperatures frequently exceed 100° F. This product may be used following exposure to several freeze-thaw cycles.

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

Pesticide Disposal

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

Container Disposal

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

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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 CONTACT, 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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