

Page 1 of 2

ACCEPTED  
NOV 23 1987  
264-345

SEVIN® brand FR  
Carbaryl Insecticide

For Agricultural or Commercial Use Only

ACTIVE INGREDIENT:

Carbaryl (1 naphthyl N-methylcarbamate) . . . . . 40.38% by wt.

INERT INGREDIENTS: . . . . . 59.62% by wt.

This product contains the toxic inert ingredient formaldehyde.  
(Contains 4 Pounds Carbaryl Per Gallon)

E.P.A. Reg. No. 264-345

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

KEEP OUT OF REACH OF CHILDREN

CAUTION

See page 2 for additional PRECAUTIONARY STATEMENTS.

IN CASE OF EMERGENCY TELEPHONE COLLECT (24 HOURS A DAY) IN THE U.S.A.

(304) 744-3487.

FOR GENERAL INFORMATION CALL 800-334-9745.

NET CONTENTS: \_\_\_\_\_

Made in U.S.A.

UNION CARBIDE AGRICULTURAL PRODUCTS COMPANY, INC  
P. O. Box 12014, T. W. Alexander Drive  
Research Triangle Park, NC 27709

SEVIN is a registered trademark of Union Carbide Corporation for carbaryl insecticides.

APC Form No. \_\_\_\_\_

0178G/Pending/10-29-84

29-5-

## PRECAUTIONARY STATEMENTS

### CAUTION

#### 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. Change to clean clothing daily. Wash hands and face before eating. Wash thoroughly after handling.

#### ANTIDOTE STATEMENT

ATROPINE SULFATE IS HIGHLY EFFECTIVE AS AN ANTIDOTE. See NOTE TO PHYSICIAN below.

#### STATEMENT OF PRACTICAL TREATMENT

##### GENERAL

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

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

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

**IF ON SKIN:** Wash thoroughly with soap and water.

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

##### NOTE TO PHYSICIAN

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.

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 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 unless organophosphate intoxication is also suggested.

To aid in confirmation of a diagnosis, urine samples should be obtained within 24 hours of exposure and immediately frozen. Analyses will be arranged by Union Carbide Agricultural Products Company, Inc.

Consultation on therapy can be obtained at all hours by calling the Union Carbide emergency number (304) 744-3487.

#### ENVIRONMENTAL HAZARDS

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

#### BEE CAUTION

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. Do not use when value of bees as pollinators is more important than insect control. Before applying, warn beekeepers to locate hives beyond bee flight range until one week after application or to take other equally effective precautions.

#### DIRECTIONS FOR USE

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

#### GENERAL INFORMATION

SEVIN® brand FR Carbaryl Insecticide is a suspension of microfine SEVIN carbaryl insecticide in an aqueous medium. It readily disperses in water to form a spray which may be applied by air or ground. READ THIS LABEL BEFORE USE. STRICTLY OBSERVE LABEL DIRECTIONS AND CAUTIONS, AND APPLICABLE FEDERAL AND STATE REGULATIONS.

#### 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 or 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 information on accidental exposures. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: appropriate signal word (CAUTION), area treated with SEVIN® brand FR Carbaryl Insecticide, date of application, appropriate clothing, and re-entry interval (i.e., until sprays have dried).

#### PREHARVEST AND GRAZING USE 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 label directions. If used as directed, treated forage may be grazed or used as feed for dairy and meat animals without causing illegal residues in meat or milk. This product may be applied up to and including the day of harvest or grazing of forage crops. Application may be made without removing livestock from area being treated.

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

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

#### PLANT RESPONSE PRECAUTIONS

To avoid possible injury to tender foliage, do not apply to wet foliage or when rain or high humidity is expected during the next two days.

Do not use on Boston Ivy, Virginia creeper and maidenhair fern as injury will result. During early season, it may also injure Virginia and sand pines.

Observe label instructions on apple thinning and on combinations with certain herbicides on rice and soybeans.

#### SPRAY PREPARATION

TO ASSURE A UNIFORM PRODUCT, AGITATE, STIR OR RECIRCULATE ALL CONTAINERS OF "SEVIN®" BRAND FR CARBARYL INSECTICIDE 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 FR Carbaryl Insecticide, and then the remaining volume of water. Include rinse water from container. Dilution of 1 volume of SEVIN® brand FR Carbaryl Insecticide with 1 volume of water will allow maximum resistance to washoff by rainfall or overhead irrigation.

Dilutions higher than 1:11 are not recommended when residual insect control from washoff resistance is desired. 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 MIXTURES FOR PROLONGED PERIODS.

### COMPATIBILITY

SEVIN® brand FR Carbaryl Insecticide, when diluted with 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 of SEVIN® brand FR Carbaryl Insecticide 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®" BRAND FR 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, EXCESSIVE RESIDUES OR PLANT INJURY.

Unstable under highly alkaline conditions. Not effective if used with alkaline materials such as Bordeaux, lime-sulfur and casein-lime spreaders.

### APPLICATION

On all crops, use sufficient gallonage to obtain thorough and uniform coverage. Calibrate spray equipment to deliver the required volume. The flow rate of SEVIN® brand FR Carbaryl Insecticide diluted 1:1 with water is similar to water. Use 50 mesh slotted strainers in spray system. Avoid applications just before rainfall as poor insect control may result. To clean spray system after use, drain and flush with water. Refer to Storage and Disposal directions for proper disposal of this rinse water.

### INSECT CONTROL

Apply when insects or their damage appear. 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 lower rate on young plants and early instars and higher rate on mature plants, advanced instars and adults. Thorough and uniform spray coverage is essential for effective control.

SEVIN® brand FR Carbaryl Insecticide does not control spider mites. If spider mites are a problem, use a registered miticide.

Regional differences have been noted in the susceptibility of certain strains of fall armyworm to SEVIN® brand FR Carbaryl Insecticide. If local experience indicates inadequate control, use an alternative pesticide.

FORAGE, FIELD AND VEGETABLE CROPS

Apply in sufficient spray volume to obtain thorough coverage. Where maximum washoff resistance is needed dilution with water. Do not dilute greater than 1:11 where washoff resistance is desired. To prepare 1 tablespoonful (1/2 fluid ounce) of SEVIN brand FR Carbaryl insecticide per gallon of water where rate 1 quart per 100 gallons are indicated in the tables below.

CROP	INSECT	QUARTS OF "SEVIN" BRAND FR/ACRE	PRE-HARVEST INTERVAL (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 Control	Use 1/2 to 1 plants or borders, range adult grass dense vege
Alfalfa Clovers	Blister beetles	1/2 to 1	0 (clovers)	Observe pl
	Mexican bean beetle			
	Alfalfa caterpillar	1	7 (alfalfa)	
	Bean leaf beetle			
	Cucumber beetles			
	Green cloverworm			
	Japanese beetle			
	Leafhoppers			
	Three cornered alfalfa hopper			
	Thrips			
	Velvetbean caterpillar			
	European alfalfa beetle	1 to 1 1/2		For alfalf pretreatme cut alfalf Use higher the Rocky growth use acre with ensure ade
	larvae			
	Armyworm			
	Cloverhead weevil			
	Corn earworm			
	Cutworms			
	Egyptian alfalfa weevil larvae			
	Essex skipper			
Asparagus	Asparagus beetle	1 to 2	1	Treat fern Do not tre 3 days.
	Apache cicada	2 to 4	Post harvest application only	
	Asparagus beetle			
Beans (including blackeyed peas, cowpeas, crowder or southern peas, dry beans, lima beans, navy beans and snap beans)	Blister beetles	1/2 to 1		Observe pl
	Mexican bean beetle			
	Alfalfa caterpillar		0 (except cowpeas)	
	Bean leaf beetle		3 (cowpeas)	
	Cucumber beetles			
	Flea beetles			
	Green cloverworm			
	Japanese beetle			
	Leafhoppers			
	Three cornered alfalfa hopper			
	Thrips			
	Velvetbean caterpillar	1		
	Western bean cutworm			

CROP	INSECT		QUARTS OF "SEVIN" BRAND FR/ACRE	PRE-HARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
Beans (cont'd)	Armyworm	Fall armyworm		0	
	Corn earworm	Stink bugs		(except cowpeas)	
	Cutworms	Tarnished plant bug	1 to 1 1/2	3	
	European corn borer	Webworms		(cowpeas)	
	<u>Cowpea curculio</u>		<u>2</u>		
	Corn earworm	Lygus bugs			
	Limabean pod borer	Stink bugs	2		CALIFORNIA ONLY
Cabbage	Flea beetles	Harlequin bug	1/2 to 1	3	
Broccoli					
Brussels Sprouts	Armyworm	Imported cabbage-worm	1 to 2		
Cauliflower	Corn earworm				
Kohlrabi	Fall armyworm				
	Flea beetles	Leafhoppers		3	
	Harlequin bug		1/2 to 1	(horseradish, radishes, rutabagas and turnip roots)	
Chinese cabbage				14	
Collards				(Chinese cabbage, collards, Hanover salad, kale, mustard greens, and turnip tops)	
Hanover salad					
Horseradish					
Kale	<u>Aster leafhopper</u>		<u>1 to 1 1/2</u>		
Mustard greens					
Radishes	Armyworm	Imported cabbage-worm	1 to 2		
Rutabagas	Corn earworm	Stink bugs			
Turnips	Fall armyworm	Tarnished plant bug			
Carrots				0	
Parsnips	Flea beetles	Leafhoppers	1/2 to 1	(carrots)	
Parsley					
	Aster leafhopper	Spittlebugs	1 to 1 1/2	3	
	Lygus bugs			(parsnips)	Treat on a 5 to 7 day schedule.
	Armyworm	Stink bugs		14	
	Corn earworm	Tarnished plant bug	1 to 2	(parsley)	
	Fall armyworm				

CROP	INSECT	QUARTS OF "SEVIN" BRAND FR/ACRE	PRE- HARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS	
Corn (field, sweet, pop)	Armyworm Corn earworm Corn rootworm adults European corn borer Fall armyworm Flea beetles	Japanese beetle Sap beetles Southwestern corn borer Leafhoppers	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		Treat when infestation averages 15% and at 90% to 100% tassel emergence. Treatment after 100% silk emergence will reduce effectiveness.
	Cutworms		2 to 6 1/2	0	Apply in a 12 inch band, using 6 fluid ounces per 1000 linear feet of row, in at least 15 gallons of water per acre. For broadcast application use 6.5 quarts in at least 20 gallons (ground) or 5 gallons (air) of water per acre.
Cotton	Cotton fleahopper Cotton leafworm Flea beetles	Striped blister beetle Thrips	1/2 to 1		Early season insect control.
	Boll weevil Bollworms Cotton leaf- perforator Fall armyworm Leafrollers Leafhoppers	Furnished plant bug Yellowstriped 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.
	Lygus bugs		1 to 2		For light to moderate populations in Western irrigated cotton.
	Pink bollworm		1 1/2 to 2 1/2		Aphid populations will be suppressed by repeated applications of this insecticide.
	Stink bugs	Saltmarsh cater- pillar	2		



CROP	INSECT		QUARTS OF "SEVIN" BRAND FR/ACRE	PRE-HARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
Cucumber Melons Pumpkin Squash	Pickleworm	Melonworm	1/2 to 1		Observe plant response precautions.
	Cucumber beetles Flea beetles	Leafhoppers Squash bugs	1	0	Avoid excessive applications.
Dandelion Endive (Escarole) Lettuce Salsify	Flea beetles Harlequin bug	Leafhoppers	1/2 to 1	3 (head lettuce & salsify roots)	Observe plant response precautions.
	Aster leafhopper Lygus bugs	Spittlebugs	1 to 1 1/2	14	Treat on a 5 to 7 day schedule after heads begin to form.
	Amyworm Corn earworm Fall armyworm	Imported cabbage-worm Stink bugs Tarnished plant bug	1 to 2	(dandelion, endive (escarole), leaf lettuce & salsify tops)	
Forage grasses Pasture	Amyworm Black grass bugs Chinch bugs Essex skipper Fall armyworm	Range caterpillars 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 grubs (green June beetle)		1 1/2 to 2		
Garden beet Spinach Swiss chard	Flea beetles Harlequin bug	Leafhoppers	1/2 to 1	3 (garden beet roots)	Treat on a 5 to 7 day schedule.
	Aster leafhopper		1 to 1 1/2	14	
	Amyworm Corn earworm Fall armyworm	Stink bugs Tarnished plant bug	1 to 2	(garden beet tops, spinach, Swiss chard)	
Okra	Corn earworm	Stink Bugs	1 to 2	0	Treat on a 5 to 7 day schedule.
Peanuts	Blister beetles	Mexican bean beetle	1/2 to 1		Observe plant response precautions.

See Attached Product Bulletin

CROP	INSECT	QUARTS OF "SEVIN " BRAND FR/ACRE	PRE- HARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS	
Peanuts (cont'd)	Alfalfa caterpillar	Rednecked	1	0	Observe plant response precautions.
	Bean leaf beetle	peanutworm			
	Cucumber beetles	Three cornored			
	Green cloverworm	alfalfa hopper			
	Japanese beetle	Thrips			
Leafhoppers	Velvetbean Caterpillar				
	Armyworm	Stink bugs	1 to 1 1/2		
	Corn earworm	Webworms			
	Fall armyworm				
	Whitefringed beetle adults		2		
	Cutworms				
Peas	Colorado potato beetle		1	3	
	Leafhoppers				
	Armyworms		1 to 1 1/2		
	Alfalfa caterpillar	Pea weevil	1 1/2		
	Cutworms	Yellowstriped armyworm			
Pea leaf weevil					
	Alfalfa looper		2 1/2		For processing peas in Washington State only.

15  
88  
1

CROP	INSECT		QUARTS OF "SEVIN" BRAND FR/ACRE	PRE-HARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
Potato Tomato Eggplant Pepper	Colorado potato beetle Flea beetles Leafhoppers		1/2 to 1		
	European corn borer Fall armyworm Lace bugs Stink Bugs Cutworms	Tarnished plant bug Tomato fruitworm Tomato hornworm Tomato pinworm	1 to 2	0	
Rice			2		CAUTION: May kill shrimp and crabs. Do not use in areas where these are important resources. Do not use on rice fields in which crayfish and/or catfish farming are included in the cultural practice.
	Armyworm Chinch bugs	Fall armyworm Stink bugs	1 to 1 1/2	14	DO NOT APPLY PROPANIL HERBICIDES WITHIN 15 DAYS BEFORE OR AFTER APPLICATION OF THIS PRODUCT OR PLANT INJURY WILL RESULT. MISSISSIPPI DELTA & TEXAS
	Armyworm Leafhoppers	Tadpole shrimp	2		CALIFORNIA ONLY. For optimum tadpole shrimp control apply to water when pest first appears.
Sorghums (milo, grain sorghum, sweet sorghum and hybrids)	Armyworm Chinch bugs Corn earworm	Fall armyworm Stink bugs Webworms	1 to 2	21 (grain)	Direct spray into forming heads for optimum insect control. Treat for sorghum midge when 25 to 30 percent of heads have emerged from boot and are in bloom. Repeat application 3 to 5 days later if adults are still active. A third application may be necessary in late planted sorghum or if midge are abundant. For chinch bugs use high gallonage ground application directed at the base of plants.
	Sorghum midge Southwestern corn borer		1 1/2	0 (forage)	
	Cutworms		2		
Soybeans	Bean leaf beetle Cucumber beetles Green cloverworm Corn earworm Blister beetles Grape colaspis Mexican bean beetle	Mexican bean beetle Velvetbean caterpillar	1/2 1/2 to 3/4 1/2 to 1	0	DO NOT APPLY A COMBINATION OF THIS PRODUCT AND 2,4-DB HERBICIDES TO SOYBEANS AS CROP INJURY MAY RESULT. For light to moderate populations. To control heavy infestations, use higher rate.

706 U . . . . .  
 1907

11  
 926

CROP	INSECT	QUARTS OF "SEVIN " BRAND FR/ACRE	PRE- HARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
	Alfalfa caterpillar Bean leaf beetle Cucumber beetles Green cloverworm Japanese beetle Leafhoppers	Three cornered alfalfa hopper Thrips Velvetbean caterpillar	1	
	Armyworm Corn earworm Cutworms	Fall armyworm Stink bugs Webworms	1 to 1 1/2	0 To control heavy infestations, use higher rate.
	Painted lady (Thistle cater- pillar)	Saltmarsh cater- pillar Yellowstriped armyworm	2 to 2 1/2	
Sugar beets	Armyworm Beet leaf beetle Fall armyworm Cutworms	Flea beetles Leafhoppers Webworms	1 to 1 1/2 1 1/2	14
Tobacco	Tobacco flea beetle		2 lbs/gallon or 1 qt./50 gal. and apply 6 gal/100 sq. yards	0 IN PLANT BEDS To prevent plant injury, avoid excessive applications.
	Green June beetle grubs		1/2 qt./100 gallons	0 Apply only to areas that larvae have uprooted by sprinkling as a drench with 50 to 100 gallons per 100 square yards.
	Budworms Fall armyworm Flea beetles Hornworms	Japanese beetle June beetle Suckfly	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 priming or cutting.
Wheat	Cereal leaf beetle		1	0 DO NOT USE IN CALIFORNIA. Application is effective against eggs, larvae, and adults. Do not plant rotational crops not listed on the product label within 18 months follow- ing treatment
	Armyworm Fall armyworm		1 to 1 1/2	0 (forage) 21 (grain)

TREE FRUIT AND NUT CROPS

For dilute sprays apply the specified dosage per 100 gallons of water. For concentrate and aerial sprays increase the concentration of SEVIN brand FR Carbaryl insecticide in the spray mixture to apply an amount per acre equivalent to that in a dilute spray. The optimum spray gallonage will depend on tree size, density and stage of growth. Typical spray gallonages per acre range from 200-300 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	QUARTS OF "SEVIN" BRAND FR/100 GAL.	PRE-HARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
APPLE THINNING			Apply 1 full coverage dilute spray between 10 to 25 days after full bloom. If 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.
Apples only	1/4 to 1/2	1	Consult with your County Extension Service or other experts for advise on the proper use of this product. For easily thinned varieties including Cortland, Grimes, Jonathan, McIntosh, Orleans, Rome Beauty, Puritan, Red Delicious, Winesap, Yellow Newtown.
	1/2 to 1	1	For difficult to thin varieties including Baldwin, Ben Davis, Duchess, Early McIntosh, Golden Delicious, Lady Apple, Northern Spy, Rhode Island Greening, Steele Red, Turley, Wealthy, Yellow Transparent and York Imperial.

CROP	INSECT	QUARTS OF "SEVIN" BRAND FR/100 GAL.	PRE-HARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
Almond	Peach twig borer San Jose scale Fruit tree leafroller	1	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.
	Navel orangeworm			Time early and mid season applications to correspond to moth flight peaks. Make a late season application at initiation of hull split or up to 10% hull split. Do not apply more than 5 quarts per acre.

13  
925

CROP	INSECT	QUARTS OF "SEVIN" BRAND FR/100 GAL.	PRE-HARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS	
Apples, Pears	Apple aphid Apple rust mite Apple sucker Bagworms California pear-slug (pear sawfly) Codling moth Eyespotted bud moth Green fruitworm Lecanium scales Lesser appleworm	Lygus bugs Orange tortrix Oystershell scale Pear leaf blister mite Pear psylla Pear rust mite San Jose scale Tentiform leaf-miners Woolly apple aphid	3/4 to 1	1	WEST OF THE ROCKY MOUNTAINS  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.
	Apple mealybug Apple aphid Codling moth	White apple leafhopper	1/2		
	Apple Maggot Apple rust mite Bagworms Eastern tent caterpillar European apple sawfly Eyespotted bud moth Forbes scale Fruitree leafroller Green fruitworm Japanese beetle Lecanium scales Lesser appleworm Oystershell scale	Pear psylla Pear leaf blister mite Pear rust mite Periodical cicada Plum curculio Redbanded leafroller Rosy apple aphid San Jose scale Tarnished plant bug Tentiform leafminers Woolly apple aphid Yellowheaded fireworm	1	1	EAST OF THE ROCKY MOUNTAINS  To avoid undesired apple thinning, delay use until at least 30 days after full bloom.  For optimum scale control apply when crawlers are present.
	Citrus Fruits application, (such as grapefruit, lemons, limes, oranges, tangelos, tangerines, citrus citron, kumquats and hybrids)	Avocado leafroller California orangedog Citrus cutworm Citrus root weevil Fruitree leafroller  Black scale Brown soft scale California red scale	Orange tortrix Western tussock moth West Indian sugarcane borer (adults)  Citricola scale Citrus snow scale Yellow scale	1	5

CROP	INSECT	QUARTS OF "SEVIN" BRAND FR/100 GAL.	PRE-HARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS	
Filbert	Filbert aphid Filbert leafroller Filbertworm	1	0	Apply when leafroller eggs are hatching. Repeat on first appearance of adult filbert moths and again 3 to 4 weeks later.	
Olives	Olive scale	3/4 to 1	0	For optimum scale control add 1 1/2 gallons of summer oil and apply mixture when crawlers are present. Do not exceed 2 applications per year. Do not apply more than 15 quarts of this product per acre per application.	
Peaches Apricots to Nectarines	Apple pandemis Codling moth Cucumber beetles European earwig Fruittree leafroller 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 3 3	1 (peaches) 3 (apricots & nectarines)	Do not apply more than 6 quarts of this product per acre per application to apricots.  For optimum scale control apply when crawlers are present. Spray limbs and trunk thoroughly, weekly during moth flight.
Pecans application.	Black margined aphid Fall webworm Hickory shuckworm Lesser webworm Pecan leaf phylloxera	Pecan nut casebearer Pecan spittlebug Pecan weevil Twig girdler Walnut caterpillar	1 to 2 1/2	0	Do not apply more than 7.2 quarts of this product per acre per application.
Plums Prunes Cherries	Black cherry aphid Brown soft scale Cherry fruitworm Cherry maggot European earwig Eyespotted bud moth Forbes scale Fruittree leafroller Green fruitworm Japanese beetle Lecanium scales Codling moth Eastern tent caterpillar	Lesser peachtree borer Mealy plum aphid Oystershell scale Peach twig borer Plum curculio Prune leafhopper Redbanded leafroller Rose chafer San Jose scale Variegated leafroller Orange tortrix Tussock moth	1 1	1	Do not apply more than 6 quarts of this product per acre per application.  For optimum scale control apply when crawlers are present.  For lesser peachtree borer control, spray limbs and tree trunks thoroughly, weekly during moth flight.

01  
84  
11

CROP	INSECT	QUARTS OF "SEVIN" BRAND FR/100 GAL.	PRE- HARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
Walnut	Calico scale European fruit Iecanium	Filbertworm Fruitree leafroller Frosted scale	1/2	Apply 1000 gallons of dilute spray per acre for mature trees.
	Codling moth		0	For codling moth apply first spray when average cross-sectional diameters of developing nuts are 1/2 to 3/4 inch. Repeat during middle or late June as needed.
	European earwig		2	Spray tree trunks to point of run-off.

#### SMALL FRUIT CROPS

Recommended dosages refer to quarts of SEVIN brand FR Carbaryl insecticide 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 of aerial sprays. Do not exceed maximum label rate per acre per application.

CROP	INSECT	QUARTS OF "SEVIN" BRAND FR/ACRE	PRE- HARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS	
Blackberries Raspberries Dewberries (including boysen- berries and logan- berries)	European raspberry aphid Japanese beetle	Leafhoppers Leafrollers Rose chafer Snowy tree cricket	1 to 2	7	
	Omnivorous leafroller Raspberry sawfly		2	CALIFORNIA ONLY.	
Blueberries	Blueberry maggot Cherry fruitworm Cranberry fruitworm	European fruit Iecanium Japanese beetle	1 1/2	0	Apply 3 weeks before harvest and repeat as necessary.
Cranberries	Cutworms Cranberry fireworms Cranberry fruit- worms	Japanese beetle Leafhoppers Rose chafer	1 1/2 to 3	1	CAUTION: May kill shrimp and crabs. Do not use in areas where these are important resources. Apply in late bloom and as needed at 7 to 10 day intervals.

10  
10  
10



CROP	INSECT	QUARTS OF "SEVIN" BRAND FR/ACRE	PRE-HARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS	
Grapes	European fruit lecanium Grape leaffolder Grape leafhopper	Western grapeleaf skeletonizer Western yellow-striped armyworm	1 to 2	Apply before first brood leaffolder larvae emerge from rolls.	
	Cutworms Eight-spotted forester Grape berry moth Japanese beetle June beetles	Orange tortrix Omnivorous leaf-roller Redbanded leaf-roller Saitmarsh caterpillar	2		
Strawberries	Flea beetles Meadow spittlebug Omnivorous leaflier (strawberry fruit-worm)	Strawberry leaf-roller Strawberry weevil	1 to 2	1	Carbaryl may injure Early Dawn and Sunrise varieties on the Delmarva Peninsula.

#### TREES AND ORNAMENTALS

For dilute-spray ground applications to trees (including shade trees, shelter belts, forests, plantations, parks and recreational areas), ornamentals, woody plants and shrubs, apply the specified dosage per 100 gallons of water. For concentrate-spray ground applications, apply the specified dosage per acre in sufficient spray volume to provide thorough coverage. To prepare small volumes of spray, use 1 tablespoon (1/2 fluid ounce) of SEVIN brand FR Carbaryl insecticide per gallon of water, where rates of 1 quart are indicated. For aerial applications to forest trees (including shade trees, shelter belts, plantations, parks and recreational areas) and commercially grown ornamentals, woody plants and shrubs, apply the specified dosage per acre in sufficient spray volume to provide thorough coverage. Avoid direct application to lakes, streams and ponds.

CROP-SPECIFIC DIRECTIONS	INSECT	QUARTS OF "SEVIN" BRAND FR
GROUND APPLICATION Trees (including shade trees, shelter belts, forests, plantations, parks and recreational areas). Ornamentals (including	Ants Apple aphid Armyworm Azalea leafminer Bagworms Birch leafminer Blister beetle Boxelder bug Boxwood leafminer Brown tail moth Cankerworms Catalpa sphinx Chiggers	Grasshoppers Gypsy moth Hackberry nipple-gall maker Holly bud moth Holly leafminer Jackpine budworm Japanese beetle Jeffrey pine needleminer June beetles Lace bugs Leafhoppers
	Plant bugs Poinsettia hornworm Psyllids Puss caterpillar Redhumped oakworm Rose aphid Rose chafer Roseslug Saddled prominent Sawflies (exposed) Scale insects Sowbugs Spiny elm	1
		Observe plant response precautions. Apply dilute sprays to obtain thorough coverage of upper 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.

17925

CROP	INSECT	QUARTS OF "SEVIN" BRAND FR	SPECIFIC DIRECTIONS
roses, flowers and other herbaceous plants). Woody Plants and Shrubs. AERIAL APPLICATION Forest trees (including shade trees, shelter belts, forests, plantations, parks and recreational areas) and Commercially Grown Ornamentals (including roses, flowers and other herbaceous only. plants), Woody Plants and Shrubs.	Cooley spruce/ gall aphid Cutworms/ Cypress tip moth/ Douglas-fir/ tussock moth Eastern spruce/ gall aphid Elm leaf aphid/ Elm leaf beetle/ Elm spanworm/ Eriophyid mites/ European pine/ shoot moth Fall armyworm/ Flea beetles/ Fuller rose beetle/ Gall midges/ Gall wasps Green striped/ mapleworm	Leafrollers/ Locust borer/ Maple leafcutter/ Mealybugs/ Mimosid webworm/ Nantucket pine/ tip moth Oak leafminer/ Oak leaf skeletizer/ Oakworm complex/ Oleander/ caterpillar Olive ash borer/ Orange-striped/ oakworm Orange tortrix/ Periodical/ cicada Pine sawfly/ Pine spittlebug Pitch pine tip/ moth	caterpillar Springtails/ Spruce budworm/ Spruce needleminer/ Subtropical pine/ tip moth Tent caterpillar/ Thorn bug/ Thrips, (exposed)/ Ticks/ Walnut caterpillar/ Webworms/ Western hemlock/ looper Western spruce/ budworm Willow leaf/ beetles Yellow poplar/ weevil
	Ips engraver beetles/ Mountain pine beetle /	Roundheaded pine beetle Western pine beetle	20 Effective as a preventive treatment Repeat annually as required to prevent beetle attacks. Apply 1 gallon of spray per 50 square feet of bark in late May to early July, or prior to beetle attack. Treat tree trunks from ground level up, until trunk diameter is less than 5 inches.

LAWNS AND RECREATIONAL AREAS

CROP	INSECT	SPECIFIC DIRECTIONS	
Lawns and Recreational areas (including turf, golf courses and parks)	Ants Armyworm Bluegrass billbug Centipedes Chiggers Cutworms Earwigs Essex skipper European chafer Fall armyworm Flery skipper Fleas Grasshoppers	June beetles Leafhoppers Lucerne moth Millipedes Mosquitoes Sod webworms (lawn moths) Sowbugs Springtails Ticks Yellowstriped armyworm	Use 1 quart of this product in 150 to 200 gallons of spray mixture per 5000 square feet of established lawn, recreational area, roadway or path border. For best results, mow lawn and apply after watering or rain. Insure good penetration of turf. Garden hose or pressure applicators may be used. Repeat 2 to 3 weeks later if necessary.
	Chinch bugs	White grubs	
		Use 1 1/2 quarts of this product in 150 to 200 gallons of spray per 5000 square feet.	

§ MOSQUITO CONTROL

For dilute-spray ground applications to trees (including shade trees, shelter belts, forests, plantations, parks and recreational areas), ornamentals, woody plants and shrubs, apply the specified dosage per 100 gallons of water. For concentrate-spray ground applications, apply the specified dosage per acre in sufficient spray volume to provide thorough coverage. To prepare small volumes of spray, use 1 tablespoon (1/2 fluid ounce) of SEVIN brand FR Carbaryl insecticide per gallon of water, where rates of 1 quart are indicated. For aerial applications to forest trees (including shade trees, shelter belts, plantations, parks and recreational areas) and commercially grown ornamentals, woody plants and shrubs, apply the specified dosage per acre in sufficient spray volume to provide thorough coverage. Avoid direct application to lakes, streams and ponds.

CROP	QUARTS OF "SEVIN" BRAND FR/100 GAL.	SPECIFIC DIRECTIONS
Pastures, Rangelands, Parks, Recreational Areas, Logging Camps, Military Posts and Adjacent Forested lands or Wastelands	1/4 to 1 (1/2 to 1 tablespoonful per gallon)	ADULT MOSQUITOS 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 mosquitoes congregate. Treat when adult mosquitoes are active in early mornings or late evening. Repeat at 7 to 10 day intervals.  Use 1/4 to 1/2 quart per 100 gallons of mistblowers, 1/2 to 1 quart per acre in aerial sprays and 1 quart per acre in low pressure ground sprayers.
	25	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.

19 9 25

PEST CONTROL AROUND BUILDINGS  
LIMITED TO PEST CONTROL OPERATORS ONLY

INSECT	QUARTS OF "SEVIN " BRAND FR/100 GAL.	SPECIFIC DIRECTIONS
		For external use around buildings only. Do not treat animals.
Ants Cockroaches	20 (20 tablespoonsful/ gallon)	Apply as a coarse wet spray or with a paint brush to outdoor sleeping quarters of pets, outside perimeter of dwellings and other areas where insects tend to congregate.
Brown dog tick Earwigs Fleas Millipedes Silverfish	10 (10 tablespoonsful/ gallon)	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 serving areas while food is exposed. Avoid application to surfaces where visible spray residues are objectionable.

POULTRY ROOST AND BUILDINGS ONLY

POULTRY QUARTERS	QUARTS OF "SEVIN " BRAND FR/100 GAL.	SPECIFIC DIRECTIONS
Bed bugs Chicken mite Fleas Lice Northern fowl mite	4	DO NOT TREAT POULTRY OR GAME BIRDS. Apply 1 to 2 gallons of spray mixture per 1000 square feet of wall, litter or roost surface. Force spray into cracks. Repeat as needed. Avoid spraying of nests, eggs, and feeding and watering troughs.
Fowl tick	16	Ventilate while spraying. (do not treat premises within 7 days of slaughter.
Lesser mealworms	50	Apply 2 gallons of spray mixture per 1000 square feet of floor space or litter surface. Repeat as needed. Ventilate while spraying. Do not treat premises within 7 days of slaughter.

26925

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

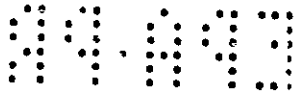
Triple rinse (or equivalent). Then offer for recycling or reconditioning or dispose of in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If container is burned, stay out of smoke.

#### LIMITED WARRANTY AND DISCLAIMER

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

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

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



DIRECTIONS FOR USE (con't)

CROP	INSECT	QUARTS OF "SEVIN" BRAND FR/ACRE	PREHARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
Pasture	Armyworm Black grass bugs Chinch bugs Essex Ripper Fall armyworm Range caterpillars Range crane fly Striped grass hoper Thrips	1 to 1 1/2	0 (aerial application) 14 (ground application)	To control thrips grown for seed pressure to imp into boot.  Apply a maximum tions per year. days between ap allow foraging 14 days of last tion by ground. pastures can be hay on day of t  Carefully mark over-applicatio
	Grasshoppers			Refer to the ge heading above.
Rangeland	Black grass bug Mormon cricket Range crane fly Range caterpillars	1/2 to 1	0	FOR AERIAL APPL  Apply a maximum per year. Allo between applica  Carefully mark over-applicatio
	Grasshoppers			Refer to the ge heading above.

DIRECTIONS FOR USE (con't)

CROP	INSECT	QUARTS OF "SEVIN" BRAND FR/ACRE	PREHARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
Wasteland, Rights-of- Way, Hedgerows, Ditchbanks, Roadsides	Black grass bug	1/2 to 1	0 (aerial application)	Apply a maximum of 2 applications per year. Allow at least 14 days between applications.
	Mormon cricket Range crane fly Range caterpillar		14 (ground application)	
Grasshoppers				Do not allow foraging or cut for hay within 14 days of last application by ground. Aerially treated areas can be grazed or cut for hay on day of treatment.
				Carefully mark swaths to avoid over-application.
				Refer to the general GRASSHOPPER heading above.

**IMPORTANT:** Before using SEVIN brand FR carbaryl insecticide, read and carefully observe the Precautionary Statements and all other information appearing on the product label. This bulletin contains revised directions for use of this product which may not appear on the package label. Follow directions carefully.

OBSERVE ALL DIRECTIONS, RESTRICTIONS AND PRECAUTIONS ON THE FEDERAL LABEL FOR SEVIN BRAND FR CARBARYL INSECTICIDE.

NOT  
 TO BE  
 USED

6672y/8-20-86

000104

August 1986

000104

1-226-110



UNION CARBIDE AGRICULTURAL  
 PRODUCTS COMPANY, INC.  
 T. W. ALEXANDER DRIVE  
 P.O. BOX 12014  
 RESEARCH TRIANGLE PARK, NC 27709

DIRECTIONS FOR USE

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING.  
 CAREFULLY CALIBRATE ALL APPLICATION EQUIPMENT.

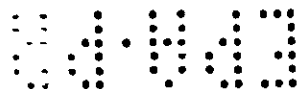
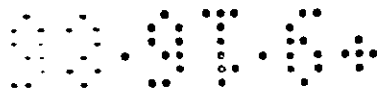
CROP	INSECT	QUARTS OF "SEVIN" BRAND FR/ACRE	PREHARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
Grapes	European fruit lecanium	1 to 2	7	Apply before first brood leaf- folder larvae emerge from rolls.
	Grape leaffolder Grape leafhopper			
Grapes	Orange tortrix Omnivorous leafroller	2		
	Redbanded leaf- roller			
	Japanese beetle			
	Spitmarsh caterpillar			
	June beetles			

**IMPORTANT:** Before using SEVIN brand FR Carbaryl insecticide, read and carefully observe the Precautionary Statements and all information appearing on the product label. This bulletin contains revised directions for use of this product which may not appear on the package label. Follow directions carefully.

OBSERVE ALL DIRECTIONS, RESTRICTIONS AND PRECAUTIONS ON THE FEDERAL LABEL FOR SEVIN BRAND FR CARBARYL INSECTICIDE.

August 1986

6672y/8-20-86



**PRODUCT BULLETIN**

SEVIN® Brand FR Carbaryl<sup>1</sup>  
 Insecticide. EPA Reg. No. 264-345  
 Revised Directions for Use on  
 Grapes

25923