

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

Richard W. Fresh Consep, Inc., A Subsidiary of Verdant Brands, Inc. 213 SW Columbia Street Bend, Oregon 97702-1013

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

APR 1 1 2000

Subject:

Liquid 2 Sevin Home and Garden Insect Spray

EPA Registration No. 769-865

Amendment dated January 14, 2000 in Response to EPA Letter dated 23 November 1999 in response to GDE.

Dear Mr. Fresh:

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. Under the "Statement of Practical Treatment" for "If on Skin" delete the first "with" in the statement so that the statement reads "Wash thoroughly with soap and water".
- 2. Change the PHI for almonds to 14 days on pages 3 and 8.
- 3. Correct the spelling of "Amblyommia" to "Amblyomma" on pages 6 and 7.
- 4. You must correct the EPA Reg. No. on this label. It is incorrectly listed as 769-866 on page 1 and on page 4.

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

Sincerely,

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

ACCHILLO
with COMMUNTS
In EPA Letter Dated:
APR 1 | 2000

LIQUID 2 SEVIN®

brand carbaryl insecticide

HOME and GARDEN INSECT SPRAY

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 769-865

CONTROLS INSECTS ON VEGETABLES, FRUITS & NUTS; LAWN & ORNAMENTAL INSECTS; IMPORTED FIRE ANTS; LYME DISEASE VECTOR TICKS; ADULT MOSQUITOES; PEST CONTROL AROUND BUILDINGS; POULTRY INSECTS; HOSE-END-SPRAYER APPLICATION

Also See Supplemental Labeling For Additional Product Uses

ACTIVE	INGREDIENT:
	111171111111111111111111111111111111111

Contains 2 lbs. Carbaryl per gallon

SEVIN® is a registered Trademark of Rhone Poulenc for Carbaryl Insecticides.

EPA Reg. No 769-865 SureCo., Inc., An Indirect Subsidiary of Verdant Brands, Inc., 9555 James Ave. South, Suite 200, Bloomington, MN 55431 EPA Est. No. 769-GA-1

KEEP OUT OF REACH OF CHILDREN CAUTION

SEE SIDE/BACK PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS. "PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta haya sido explicado ampliamente"

PRECAUTIONARY STATEMENTS

HAZARD TO HUMANS AND DOMESTIC ANIMALS. CAUTION: May be harmful if swallowed. Avoid breathing spray mist or vapors. Do not take internally. Avoid contact with skin, eyes or clothing. Wear regular long-sleeved work clothing. Change to clean clothing daily. Wash hands and face before eating. Wash thoroughly after handling.

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Call a physician or Poison Control Center immediately. Induce vomiting by giving victim 1 to 2 glasses of water and touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious or convulsing person. IF IN EYES: Flush eyes with plenty of water. Get medical attention immediately. IF ON SKIN: Wash with thoroughly with soap and water. IF INHALED: Remove victim to fresh air. Apply artificial respiration if indicated. NOTE TO PHYSICIAN: Carbaryl is a carbamate insecticide which is a cholinesterase inhibitor. Over exposure to this substance may cause toxic signs and symptoms due to the stimulation of the cholinergic nervous system. These effects of over exposure are spontaneously and rapidly reversible. Specific treatment consists of parenteral atropine sulfate. Mild cases may be given 1 to 2 mg intramuscularly every 10 minutes until full atropinization had 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. Dosage for children should be appropriately reduced. Complete recovery from over exposure is to be expected within 24 hours. Narcotics and other sedatives should not be used. Further, drugs like 2-PAM are not recommended unless organophosphate intoxication is also suggested.

USER SAFETY REQUIREMENTS

Wear long-sleeved shirt, long pants, shoes plus socks and household latex or rubber gloves when mixing and applying product. Wear a hat and eye protection when making overhead applications. Remove clothing immediately if pesticiide 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 toilet. Do not allow children or pets to contact treated area until sprays have dried.

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to aquatic and estuarine invertebrates. Do not apply directly to water or areas where surface water is present or to interidal areas below the mean high water mark, except under forest canopy. Do not apply when weather conditions favor drift from area treated. Do not contaminate water when disposing of equipment washwaters. 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 corps 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 1 week after application or to take equally effective precautions.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product through any type of irrigation system. Shake containers prior to use. Do not reuse empty containers or measuring devices for other purposes. Apply with a pressure, power, pump or hose-end sprayer to give thorough coverage when insects or damage appear. Plant Response Precautions: Carbaryl will injure Boston Ivy, Virginia Creeper and Maidenhair fern. During early season it may injure Virginia and Sand Pine species. For Fruits and Vegetables: 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 surfaces, stem and branches. Do not repeat applications more than every 7 days.

VEGETABLE CROPS

All spray rates are underlined as; -(x) tsps/gal. Each rate follows the specific insect names as listed. Do not over dose.

ASPARAGUS: Asparagus beetle, grasshoppers-4 to 8 tsps/gal.. Pre-harvest interval-1 day. Apache cicada, asparagus beetlle-8 to 16 tsps/gal.. Post harvest application only. Treat ferns or brush growth.

BEANS: Black-eyed peas, cowpeas, crowder or southern peas, dry beans, green beans, lima beans, navy beans and snap beans: Blister beetle, Mexican bean beetle-2 to 4 tsps//gal.; alfalfa caterpillar, bean leaf beetle, cucumber beetle, flea beetle, green cloverworm, Japanese beetle, leafhopper, three cornered alfalfa hopper, thrips, velvetbean caterpillar, Western bean cutworm-4 tsps/gal.; armyworm, cutworm, European corn borer, fall armyworm, grasshopper, tarnished plant bug, webworm-4 to 6 tsps/gal.; corn earworm, cowpea curculio, lima bean pod borer, lygus bug, stink bug-8 tsps/gal. Pre-harvest Interval-3 days succulent, 21 days dried, 14 days forage, 21 days hay.

BROCCOLI, BRUSSELS SPROUTS, CABBAGE, CARROTS, CAULIFLOWER, CELERY, CHINESE CABBAGE, COLLARDS, BANDELION, ENDIVE (ESCAROLE), GARDEN BEET, HANOVER SALAD, HORSERADISH, KALE, KOHLRABI, LETTUCE, MUSTARD GREENS, OKRA, PARSNIPS, PARSLEY, RADISHES, RUTABAGAS, SALSIFY, SPINACH, SWISS CHARD, TURNIIPS: Flea beetles, harlequin bug, leafhopper_2 to 4 tsps/gal.; aster leafhopper, grasshopper, lygus bug, spiittlebug-4 to 6 tsps/gal.; armyworm, com earworm, fall armyworm, imported cabbage worm, stink bug, tarnished plant bug-4 to 8 tsps/gal.; Pre-harvest Interval-3 days for broccoli, Brussels sprouts, cabbage, cauliflower, kale, kohlrabi, okra.; 7 days for carrots, horseradish, parsnip, radish, rutabaga, salsify, turnip (roots); 14 days for Chinese cabbage, collards, celery, dandelion, endive, garden beet (tops), Hanover salad, lettuce (head and leaf), mustard greens, parsley, spinach, Swiss chard, turnip (tops).

NOT FOR USE ON CELERY IN CALIFORNIA. Observe plant response precautions. Lettuce: Treat on a 7 day schedule after heads begin to form.

CORN: Armyworm, chinch bug, corn earworm, corn rootworm aduts, European corn borer, fall armyworm, flea beetle, grasshopper, Japanese beetle, leafhopper, sap beetle, southern corn borer-4 to 8 tsps./gal. OBSERVE BEE CAUTION. For insects attacking silks and ears apply at 7 day intervals starting whne first silks appear and continuing until silks begin to dry. For larvae in whorl and foliage feeders, apply as necessary but not more often than every 7 days. Optimum timing and good coverage are essential for effective control. Western bean cutworms-8 tsps/gal. Treat when infestation averages 15% and at 90% to 100% tassel emergence. Treatment after 100% silk emergence will reduce effectiveness. *Pre-harvest Interval*-2 days for sweet corn ears, 14 days for forage and 48 days for fodder. Field and popcorn is 14 days for forage and silage and 48 days for grain and fodder.

CUMBER, MELONS, PUMPKINS, SQUASH: Pickleworm, melonworms-2 to 4 tsps/gal.; cucumber beetles, flea beetles, leafhoppers, squash bugs-4 tsps/gal. Pre-harvest Interval-3 days.

POTATO, TOMATO, EGGPLANT, PEPPER, PEANUTS, PEAS: Bean leaf beetle, blister beetle, Colorado potato beetle, cucumber beetle, flea beetle, green cloverworm, Japanese beetle, leafhopper, Mexican bean beetle, rednecked peanutworm, three conored alfalfa hopper, thrips, velvetbean caterpillar-4 tsps/gal.; alfalfa caterpillar, armyworm, corn earworm, grasshopper, pea leaf weevil, pea weevil, webworms, yellowstriped armyworm-6 tsps/gal.; European corn borer, fall armyworm, lace bug, stink bug, tarnished plant bug, tomato hornworm, tomato pinworm-4 to 8 tsps/gal.; Cutworms, white fringed beetle adults-6 to 8 tsps/gal.. Pre-harvest Interval-3 days for potato, tomato, eggplant and pepper; 14 days for peanuts; 3 days for succulent peas, 21 days for dried peas, 14 days for forage, and 21 days for hay.

SWEET POTATO: Corn earworm, cucumber beetle, flea beetle, grasshopper, sweet potato hornworm, tortoise beetle-4 to 8 tsps/gal. NOT FOR USE IN CALIFORNIA. Apply as a foliar sprat as needed. Yellowstriped armyworm-8 tsps/gal. Sweet potato weevil-4 to 8 tsps/gal. Full coverage is essential. Use lower rate on young plants and higher rate on mature plants. *Pre-harvest Interval-7* days.

FRUIT AND NUTS CROPS

APPLE THINNING: Apply 1 full coverage dilute spray between 10 and 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 carbaryl, exercise caution to avoid possible yield reduction. Apply 1 to 2 tsps/gal. for easily thinned varieties including Cortland, Grimes, Jonathan, McIntosh, Orleans, Rome Beauty, Puritan, Red Delicious, Winesap, Yellow Newton. Apply 2 to 4 tsps/gal. for difficult to thin varieties including Baldwin, Northern Spy, Rhode Island Greening, Steele Red, Turley, Wealthy, Yellow Transparent and York.

APPLE AND PEAR: Apple aphid, apple maggot, apple mealybug, apple rust mite, apple sucker, bagworms, California pear slug (pear sawfly), codling moth, eastern tent caterpillar, European apple sawfly, eyespotted bud moth, Forbes scale, fruittree leafroller, green fruitworm, Japanese beetle, lecanium scale, lesser appleworm, orange tortrix, oystershell scale, pear leaf blister mite, pear psylla, pear rust mite, periodical cicada, redbanded leafroller, rosy apple aphid, San Jose scale, tarnished plant bug, tentiform leafminer, white apple leafhopper, wooly apple aphid, yellowheaded fireworm-4 tsps/gal. Pre-harvest Interval-3 days. 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.

ALMOND: Peach twig borer, San Jose scale, fruittree leafroller-4 tsps/gal. 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, but not more often than every 7 days. Naval orangeworm-4 tsps/gal. 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. Pre-harvest Interval-28 days.

BLACKBERRIES, RASPBERRIES, DEWBERRIES (Boysenberries, Loganberries), GRAPES, STRAWBERRIES (NOTE: carbaryl may injure Early Dawn and Sunrise varieties of strawberries on the Delmarva Peninsula): European fruit lecanium, European raspberry aphid, grape leafroller, grape leaffolder, Japanese beetle, leafhopper, leafroller, meadow spittlebug, omnivorous leaftier (strawberry fruitworm), rose chafer, snowy tree cricket, strawberry weevil, western grapeleaf skeletonizer, western yellowstriped armyworm-4 to 8 tsps/gal.; cutworms, eight spotted forester, grape berry moth, Japanese beetle, June beetle, omnivorous leafroller, orange tortrix, raspberry sawfly, redbanded leafroller, salt marsh caterpillar-8 tsps/gal. Apply before first brood leafroller larvae emerge from rolls. *Pre-harvest Interval-7* days.

BLUEBERRIES: Blueberry maggot, cherry fruitworm, cranberry fruitworm, European fruit lecanium, Japanese beetle-6 tsps/gal. Apply 3 weeks before harvest and repeat as necessary. *Pre-harvest Interval-7* days.

CITUS FRUITS (grapefruit, lemons, limes, oranges, tangelos, tangerines, citrus citron, kumquats and hybrids):
Avocado leafroller, California orangedog, citrus cutworm, citrus root weevil, fruittree leafroller, orange tortrix,
western tussocks moth, West Indian sugarcane borer (adults)-4 tsps/gal.; black scale, brown soft scale, California red

scale, citricola scale, citrus snow scale, yellow scale-3 to 4 tsps/gal. Pre-harvest Interval-5 days. Do not apply less than 10 gallons of dilute spray mixture per mature tree. May be mixed with petroleum oils commonly used on citrus.

CRANBERRIES: Cutworms, cranberry fireworm, cranberry fruitworm, Japanese beetle, leafhopper, rose chafer-6 to 12 tsps/gal. Pre-harvest Interval-7 days. 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.

FILBERTS: Filbert aphid, filbert leafroller, filbertworm-4 tsbs/gal. Pre-harvest Interval-14 days. Apply when leafroller eggs are hatching. Repeat on first appearance of adult filbert moth and again 3 to 4 weeks later.

APRICOTS, CHERRIES, NECTARINES, PEACHES, PLUMS, PRUNES: Apple pandemis, black cherry aphid, brown soft scale, cherry fruitworm, cherry maggot, cucumber beetle, European earwig, eyespotted bud moth, Forbes scale, fruittree leafroller, green fruitworm Japanese beetle, June beetle, lecanium scale, lesser peachtree borer, mealy plum aphids, olive scale, oriental fruit moth, oystershell scale, peach twig borer, periodical cicada, plum curculio, prune leafhopper, redbanded leafroller, rose chafer, San Jose scale, tarnished plant bug, variegated leafroller-4 tsps/gal; codling moth, eastern tent caterpillar, orange tortrix, tussocks moth-3 to 4 tsps/gal. for optimum sale control, apply when crawlers are present. For lesser peach tree borer control, spray limbs and tree trunks thoroughly, weekly, during moth flight. *Pre-harvest Interval*-3 days.

PECANS: Black margined aphid, fall webworm, hickory shuckworm, lesser webworm, pecan leaf phylloxera, pecan nut casebearer, pecan spittlebugs, pecan weevil, twig girdler, walnut caterpillar-4 to 10 tsps/gal. Pre-harvest Interval-14 days.

WALNUT: Calico scale, codling moth, European fruit lecanium, filbertworm, fruittree leafroller, frosted scale-2 tsps/gal. for codling moth, apply when average cross sectional diameters of nuts are ½ to ¾ inch. Repeat during middle of late June if needed. European earwig-8 tsbs/gal. Spray tree trunks to point of run-off. *Pre-harvest Interval*-14 days.

Rev. 1/10/00

Supplemental/Correlative Labeling. Refer to Labeling Affixed to Container for Precautionary and Practical Treatment Statements; Additional Directions For Use

LIQUID 2 SEVIN®

brand carbaryl insecticide

HOME and GARDEN INSECT SPRAY

CONTROLS INSECTS ON VEGETABLES, FRUITS & NUTS; LAWN & ORNAMENTAL PLANTS; IMPORTED FIRE ANTS; LYME DISEASE VECTOR TICKS; ADULT MOSQUITOES; PEST CONTROL AROUND BUILDINGS; POULTRY INSECTS; DIRECTIONS FOR USING A HOSE-END-SPRAYER

ACTIVE INGREDIENT:

Carbaryl: I-Naphthal N-methylcarbamate	21.3%
INERT INGREDIENTS:	<u>78,</u> 7%
TOTAL	100.0%
Contains 2 the Corbard par gallan	

Contains 2 lbs. Carbaryl per gallon

SEVIN® is a registered Trademark of Rhone Poulenc for Carbaryl Insecticides.

EPA Reg. No. 769-866 SureCo., Inc., An Indirect Subsidiary of Verdant Brands, Inc., 9555 James Ave. South, Suite 200, Bloomington, MN 55431

EPA Est. No. 769-GA-1

TREES AND ORNAMENTALS

For dilute spray applications to trees (including shade trees, shelter belts, plantations, parks and recreational areas). ornamentals, woody plants and shrubs, apply the specified dosage per gallon of water in sufficient spray volume to provide thorough coverage. NOTE: 6 teaspoonfuls equal 1 fluid ounce.

FOR TREES WOODY PLANTS AND SHRUBS apply with pressure, power, pump or hose-end sprayer. Do not treat Boston Ivy. Virginia Creeper, Maidenhair Fern; or Virginia or Sand Pine in early in season.

INSECTS CONTROLLED ON TREES AND ORNAMENTALS

Ants, apple aphid, armyworms, azalea leafminer, bagworms, birch leafminer, blister beetles, boxelder bug, boxwood leafminer, browntail moth, cankerworm, catalpa sphinx, chiggers, Cooley spruce gall aphid, cutworms, Cypress tip moth, Douglas Fir tussock moth, Eastern Spruce gall aphid, Elm leaf aphid, Elm leaf beetle, elm span worm, eriophyid mite, European pine shoot moth, fall armyworm, flea beetle, Fuller rose beetls, gall midge, gall wasp, green striped mapleworm, grasshopper, gypsy moth, hackberry nipplegall maker, holly bud moth, holly leafminer, Jackpine budworm, Japanese beetle, Jeffrey Pine needleminer, June beetle, lace bug, leafhopper, leafroller, locust borer, maple leafcutter, mealy bug, mimosa webworm, Nantucket Pine tip moth, Oak leafminer, Oak leaf skeletonizer, oakworm, orange tortrix, periodical cicada, pine sawfly, pine spittlebug, Pitch Pine tip moth, plant bug, Poinsettia hormworm, Psyllids, puss caterpillar, redhumped oakworm, rose aphid, rose chafer, rose slug, saddled prominent, sawflies (exposed), scale insects, sowbug, spiny elm caterpillar, springtails, spruce budworm, spruce needleminer, Subtropical Pine tip moth, tent caterpillar, thorn bug, thrips (exposed), ticks, walnut caterpillar, webworm, Western Hemlock looper, western Spruce budworm, willow leaf beetle, Yellow Poplar weevil-4 tsps/gal. Observe plant response precautions, Apply dilute spray 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 control treat when worms are small. Addition of a sticker may improve residual control.

For lps Engraver Beetle, Mountain Pine beetle, roundheaded pine beetle, Western Pine beetle – use 13.3 fluid ounces per gallon of water. Effective as a preventive treatment only. Repeat annually as required to prevent beetle attacks. Apply I gallon of spray per 50 square feet of bark in late May to early June, or prior to beetle attack. Treat tree trunk from ground level up until trunk diameter is less than 5 inches.

LAWN AND RECREATIONAL AREAS TURF GRASSES

Ants, Armyworm, Bluegrass billbug, Centipedes, Chiggers, Chinchbugs, Cutworms, Earwigs, Essex skipper, European chafer, Fall armyworm, Fiery skipper, Fleas, Grasshoppers, June beetle, Leafhoppers, Lucerne moth, Millipedes, Mosquitoes, Sod Webworm (lawn moths), Sowbug, Springtails, Ticks, White grubs, Yellowstriped armyworm-use 12 fluid ounces per 1000 sq. ft. (16 qts. Per acre) of turf grass. Make application in sufficient spray volume for thorough coverage and turf thatch penetration. Repeat as necessary but not more than every 7 days. For armyworm, cutworm, fall armyworm and sod webworm control do not irrigate treated area following insecticide application. For chinch bug control treat entire turf grass area rather than just damaged areas. Irrigation of turf grass before insecticide application will aid in penetration into turf grass. For white grub control treatment should be applied 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.

IMPORTED FIRE ANT CONTROL

Use 2 tablespoons (1 fluid ounce) per gallon of water. Apply a total of 2 gallons of 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 area to a 4 ft. diameter (12 sq. ft.). Do not disturb mounds 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 10 days. Treat new mounds as they appear. Pressurized spray may disturb the ants and cause migration, reducing product effectiveness.

CONTROL OF TICKS THAT VECTOR LYME DISEASE

May be used for control of juvenile and adult <u>Ixodes</u> spp. (Deer Tick and Black Legged Tick) and <u>Amblyommia</u> spp. Ticks (Lone Star Tick) which vector Lyme disease. Mix 2 tsbs/gal. and begin spray applications to lawns, shrub bends, ornamental plantings, wooded areas and around outside perimeters of home and other buildings in late spring or early summer (May/June) to control juvenile ticks (larvae and nymphs). Do not make spot applications. Treat entire lawn and perimeter of wooded areas and property boundaries where exposure to ticks may occur. Control of adult ticks can be achieved with late summer and fall applications (Aug./Sept.) at the same rate. Ticks may be reintroduced from surrounding areas on host animals. Repeat treatment at 3 to 4 week intervals to maintain adequate control levels.

MOSQUITO CONTROL

YARDS and RECREATIONAL AREAS: Adult Mosquitoes - Precaution- May kill shrimp and crabs. Do not use in areas where shrimp and crabs are important resources. See BEE Precautionary Statement. Avoid direct application to lakes, streams and ponds. For dilute spray ground application to trees (including shade trees, shelter belts, plantations, parks and recreational areas), ornamental, woody plants and shrub, apply 1 to 2 tsps/gal. Treat shrubbery and areas where adult mosquitoes congregate. Treat when adult mosquitoes are active in early morning or late evening. Repeat at 7 to 10 day intervals. For residual control in subtropical regions use 16 fl. Oz. Per gallon of water and apply 4 gallons of prepared spray per 2000 sq. ft. of surface area. Repeat in 3 to 6 months or when necessary.

PEST CONTROL IN AND AROUND BUILDINGS

INSECTS: Brown dog ticks, earwigs, fleas, millipedes, silverfish – 7 ounces/gal. Ants, cockroaches – 17 ounces/gal. For use in and around buildings such as homes, apartments, warehouses, barns and municipal and recreational areas. 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. Do not use this product in commercial food areas of food handling establishments, restaurants or the places where food is prepared and processed. Avoid application to surfaces where visible spay residues are objectionable.

POULTRY INSECT CONTROL

CHICKENS, DUCKS, GEESE, GAME BIRDS, PIGEONS, TURKEYS: Chicken mites, fleas, lice northern fowl mite – for use as a direct spray on birds by: 1. Misting with an electric fog machine: mix 20 ounces of this product in 1 gal. of water. Use 1½ gallons per 1000 hens in cages, on litter or on slatted floor. Repeat in 4 weeks if necessary or 2. Spraying with knapsack or cylinder type compressed air sprayer: Mix 12 ounces in 5 gallons of spray. Use 1 gallon per 100 hens in cages, on litter or on slatted floor. Repeat in 4 weeks if necessary. Direct "mist spraying" for chicken mite and fleas is a supplement to spraying insects and buildings for control of these pests. Do not apply to poultry and game birds within 7 days of slaughter.

POULTRY ROOSTS AND BUILDINGS

INSECTS: Bed bugs, chicken mites, fleas, lice, northern fowl mite – 5 tsps/gal. Fowl tick – 10 ounces/gal. Apply 12 to 25 ounces of spray mixture per 100 sq. ft. of wall, litter or roost surface. Force spray into cracks. Repeat as needed but not any more than every 7 days. Avoid contamination of nests, eggs and feeding and watering troughs. Ventilate while spraying. Do not treat premises within 7 days of slaughter. Lesser mealworm – 33 ounces/gal. Apply 25 ounces of spray mixture per 100 sq. ft. of floor space or litter surface.

DIRECTIONS FOR USE FOR HOSE-END SPRAY APPLICATOR

PLANT RESPONSE PRECAUTIONS: Carbaryl will injure Boston Ivy, Virginia Creeper and Maidenhair Fern. During early season it may injure Virginia and Sand Pine spp.

<u>HOSE-END SPRAYER</u>: This product readily disperses in water to form a spray that can be applied with garden hose applicators (hose-end sprayers) to crops listed. To ensure adequate coverage use moderate to high pressures when applying through hose-end sprayers. <u>Calibrate to deliver 1 fluid ounce per gallon of spray mixture</u>.

VEGETABLE CROPS

For control of all the vegetable pests in the following list apply this product in adequate volume to effectively cover both the upper and lower surfaces of the plant. NOTE: 1) This product is not registered for use on celery and sweet potato in California; 2) Do not treat asparagus more than once every 7 days as excessive residues may result; and 3) The number in parentheses following each vegetable crop grouping refers to the minimum number of days that must be observed between the date of the last application and the date of harvest.

CROPS

Beans, Black-Eyed Peas, Cowpeas, Crowder, Southern Peas, Dry Beans, Green Beans, Lima Beans, Navy Beans and Snap Beans [succulent (3), dried (21), forage (14), hay (21)]. Carrots, Horseradish, Radish, and Rutabaga (7), Celery (14), Parsnips (7) and Parsley (14). Cabbage, Broccoli, Brussels Sprouts, Cauliflower, Kale and Kohlrabi (3). Corn [field and pop: forage and silage (14), grain and fodder (48)] [sweet: ears (2), forage (14), fodder (48)]. Asparagus (1). Cucumbers, Melons, Pumpkins and Squash (3). Dandelion (14), Endive (Escarole)(14), Lettuce (14) and Salsify [roots (7) tops (14)]. Garden Beet [roots (7), tops (14)], Spinach (14) and Swiss Chard (14). Okra (3). Peas [succulent (3), dried (21), forage (14), hay (21)]. Potato (7), Tomato, Eggplant and Pepper (3). Sweet Potato (7). Peanuts (14). Chinese Cabbage, Collards, Hanover Salad, Mustard Greens, and Turnip (tops) (14). Turnip (roots) (7).

PESTS

Alfalfa Caterpillar, Apache Cicada, Armyworm, Asparagus Beetle, Aster Leafhopper, Bean Leaf Beetle, Blister Beetle, Chinch Bug, Colorado Potato Beetle, Cowpea Curculio, Cucumber Beetle, Cutworm, European Corn Borer, Fall Armyworm, Flea Beetle, Grasshopper, Green Cloverworm, Harlequin Bug, Imported Cabbage Worm, Japanese Beetle, Lace Bug, Leafhopper, Lime Bean Pod Borer, Lygus Bug, Melonworm, Mexican Bean Beetle, Pea Leaf Weevil, Pea Weevil, Pickleworm, Red Necked Peanut Worm, Sap Beetle, Southwestern Corn Borer, Spittlebug, Squash Bug, Stink Bug, Sweet Potato Hornworm, Tarnished Plant Bug, Three Cornered Alfalfa Hopper, Thrips, Tomato Hornworm, Tomato Pinworm, Tortoise Beetle, Velvetbean Caterpillar, Webworm, Western Bean Cutworm, White Fringed Beetle, Yellowstriped Armyworm.

TREES AND ORNAMENTAL PLANTS

Thorough coverage of upper and lower leaf surfaces and trunks, stems, and twigs is necessary for optimum control of tree and ornamental pests. Apply to each of these areas until spray run-off is observed.

CROPS

Trees (including shade trees, shelter belts, plantations, parks and recreational areas), Ornamentals (including roses and other herbaceous plants), Woody Plants and Shrubs.

PESTS

Ants, Apple Aphid, Armyworm, Azalea Leafminer, Bagworms, Birch Leafminer, Blister Beetle, Boxelder Bug, Boxwood Leafminer, Browntail Moth, Cankerworm, Catalpa Sphinx, Chiggers, Cooley Spruce Gall Aphid, Cutworm, Cypress Tip Moth, Douglas Fir Tussock Moth, Eastern Spruce Gall Aphid, Elm Leaf Aphid, Elm Leaf Beetle, Elm Span Worm, Eriophyid Mite, European Pine Shoot Moth, Fall Armyworm, Flea Beetle, Fuller Rose Beetle, Gall Midges, Gall Wasps, green striped Mapleworm, Grasshopper, Gypsy Moth, Hackberry Nipplegall Maker, Holly Bud Moth, Holly Leafminer, Jackpine Budworm, Japanese Beetle, Jeffrey Pine Needleminer, June Beetle, Lace Bug, Leafhopper, Leafroller, Locust Borer, Maple Leafcutter, Mealy Bug, Mimosa Webworm, Nantucket Pine Tip Moth, Oak Leafminer, Oak Leaf Skeletonizer, Oakworm Complex, Oleander Caterpillar, Olive Ash Borer, Orange Striped Oakworm, Orange Tortrix, Periodical Cicada, Pine Sawfly, Pine Spittlebug, Pitch Pine Tip Moth, Plant Bug, Poinsettia Hornworm, Psyllids, Puss Caterpillar, Redhumped Oakworm, Rose Aphid, Rose Chafer, Rose Slug, Saddle Promiinet, Sawflies (exposed), Scale Insects, Sowbug, Spiny Elm Caterpillar, Springtails, Spruce Budworm, Spruce Needleminer, Subtropical Pine Tip Moth, Tent Caterpillar, Thorn Bug, Thrips (exposed), Ticks, Walnut Caterpillar, Webworm, Western Hemlock Looper, Western Spruce Budworm, Willow Leaf Beetle, Yellow Poplar Weevil.

CONTROL OF TICKS WHICH TRANSMIT LYME DISEASE: For control of juvenile and adult <u>Ixodes</u> spp. (Deer Tick and Black Legged Tick) and <u>Amblyommia</u> spp. Ticks (Lone Star Tick). Begin applications in late spring or early summer (May/June). Thoroughly treat entire lawn, perimeter wooded areas, and property boundaries including shrub beds, ornamental plantings, and wooded areas where exposures to ticks may occur. Retreat at 3 to 4 week intervals since ticks may be re-introduced from surrounding areas by animals.

FRUIT AND NUT CROPS

For control of all fruit and nut pests listed below, use sufficient spray volume to obtain thorough coverage (spray until run-off). Direct applications toward the lower and upper leaf surfaces, between fruit and nut clusters, and limbs and tree trunk to optimize insect control. NOTE: 1) To avoid undesired apple thinning, delay use until at least 30 days after bloom; 2) Carbaryl insecticide may injure Early Dawn and Sunrise Strawberry varieties on the Delmarva Peninsula; 3) When used on cranberries carbaryl may kill shrimp and crabs; and 4) The number in parenthesis following each fruit and nut crop grouping refers to the minimum number of days that must be observed between the date of the last application and the date of harvest (Pre-harvest Interval).

PRE-HARVEST INTERVAL FOR CROPS

Almond (28). Filberts, Pecans, Walnuts (14). Apples and Pears (3). Citrus Fruits (5) [such as grapefruit, lemons, limes, oranges, tangelos, tangerines, Citrus Citron, kumquats and hybrids]. Peaches, Apricots and Nectarines (3). Plums, Prunes and Cherries (3). Blackberries, Raspberries, Dewberries (Boysenberries, Loganberries), Grapes, Strawberries, Cranberries and Blueberries (7).

PESTS

Apple Aphid, Apple Maggot, Apple Mealybug, Apple Pandemis, Apple Rust Mite, Apple Sucker, Bagworms, Black Cherry Aphid, Black Margined Aphid, Black Scale, Blueberry Maggot, Brown Soft Scale, Calico Scale, California Orangedog. California Pear Slug, California Red Scale, Cherry Fruitworm, Cherry Maggot, Citricola Scale, Citrus Cutworm, Citrus Root Weevil, Citrus Snow Scale, Codling Moth, Cranberry Fireworm, Cranberry Fruitworm, Cucumber Beetle, Cutworms, Eastern Tent Caterpillar, Eightspotted Forester, European Apple Sawfly, European Earwig, European Fruit Lecanium, European Raspberry Aphid, Eyespotted Bud Moth, Fall Webworm, Filbert Aphid, Filbert Leafroller, Filbertworm, Forbes Scale, Fruit Tree Leafroller, Grape Berry Moth, Grape Leaffolder, Green Fruitworm, Hickory Shuckworm, Japanese Beetle, June Beetle, Leafhoppers, Leafrollers, Lecanium Scale, Lesser Appleworm, Lesser Peachtree Borer, Lesser Webworm, Meadow Spittlebug, Mealy Plum Aphid, Naval Orangeworm, Olive Scale, Omnivorous Leaftier, Omnivorous Leaftoller, Orange Tortrix, Oriental Fruit Moth, Oystershell Scale, Peach Twig Borer, Pear Leaf Blister Mite, Pear Pyslla, Pear Rust Mite, Pecan Leaf Phylloxera, Pecan Nut Casebearer, Pecan Spittlebug, Pecan Weevil, Periodical Cicada, Plum Curculio, Prune Leafhopper, Raspberry Sawfly, Red Banded Leafroller, Rose Chafer, Rosy Apple Aphid, Salt Marsh Caterpillar, San Jose Scale, Snowy Tree Cricket, Strawberry Weevil, Tarnished Plant Bug, Tentiform Leafminer, Twig Girdler, Tussocks Moth, Variegated Leafroller, Walnut Caterpillar, Western Grapeleaf Skeletonizer, Western Tussocks Moth, West Indian Surgarcane Borer, White Apple Leafhopper, Wooly Apple Aphid, and Yellow Head Fireworm.

LAWN AND RECREATIONAL AREAS: For optimum control of lawn pests it is essential to ensure good penetration of the turf. For best results mow lawn and make applications after watering or rain. Following application, additional watering of lawn will enhance white grub control. For imported fire ant control, apply directly to the mound and surrounding areas (do not disturb mounds prior to treatment). Treat new mounds as they appear. A volume of 16 to 24 fluid ounces of this product will cover approximately 3500 sq. ft. when diluted as directed. PEST CONTROL: Apply 16 fluid ounces of this product to cover 3000 sq. ft. (32 fluid ounces per 8000 sq. ft.) for control of ants, armyworms, bluegrass billbugs, centipedes, chiggers, chinch bugs, cutworms, earwigs, Essex skipper, European chafer, fall armyworm, fiery skipper, fleas, grasshopper, green June beetle grubs, June beetle, leafhoppers, Lucerne moth, millipedes, adult mosquitoes, sow bugs, springtails, ticks, yellostriped armyworm. Apply 16 fluid ounces of this product to cover 1350 sq. ft. (32 fluid ounces per 2700 sq. ft.) for control of chinch bugs, sod webworms, bluegrass bullbugs, European crane fly, fleas and white grubs (such as Japanese beetle, chafer beetle and Phyllophaga spp larvae.

<u>ADULT MOSQUITO CONTROL</u>: For optimum results, treatments should be made in the early morning or late evening when adult mosquitoes are most active. In yards and recreational areas, apply to ornamentals, woody plants, shrubs, and other areas where adult mosquitoes congregate. (NOTE: CARBARYL MAY KILL SHRIMP AND CRABS. OBSERVE BEE CAUTION).

<u>PEST CONTROL AROUND BUILDINGS:</u> This product may be used around buildings such as homes, apartments, warehouses, barns and municipal and recreational areas to control pests listed below. Thoroughly wet the outside perimeter of dwellings and other areas where pests tend to congregate. PESTS: Brown Dog Tick, earwigs, fleas, and millipedes.

Rev. 1/12/00

)