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Systems Integration Group, Inc.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Luz G. Piwonka Drexel Chemical Company P.O. Box 13327 1700 Channel Avenue Memphis, TN 38113-0327

APR | 1 1999

Subject: Dre

1

Drexel Carbaryl 80S

EPA Registration No. 19713-50

Labels submitted for review dated October 9, 1998

and resubmitted on March 30, 1999.

Dear Ms. Piwonka:

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 changes indicated below before you release the product for shipment bearing the amended labeling:

- 1. Under the crop heading "Dandelion, Endive (Escarole), Lettuce, Salsify" the PHI statement should also include a 14 day PHI for dandelion and endive.
- 2. Under the heading "Sugar Beets" delete the statement "Allow a 14 day pre-harvest interval". The correct PHI follows this statement on the label.

Submit two copies of your final printed labeling before you release the product for shipment. If you have any questions concerning this letter, please contact me at (703) 308-9397.

Sincerely,

George Tompkins, Ph.D., Entomologist

Insecticide-Rodenticide Branch Registration Division (7505C)



ACCEPTED with COMMENTS In EPA Letter Dated:

APR | 4 1999

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

Carbarv

A Wettable Powder for Control of Insect Pests

ACTIVE INGREDIENT:

Carbaryl (1-Naphthyl N-methylcarbamate).. 80.0% OTHER INGREDIENTS: 20.0%

KEEP OUT OF REACH OF CHILDREN **WARNING / AVISO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the tabel, find someone to explain it to you in detail).

See FIRST AID Below

EPA Reg. No. 19713-50

EPA Est. No.

Net Contents:

FIRST AID

IF SWALLOWED: Induce vomiting by placing finger on back of throat. Call a physician. Do not induce vomiting or give anything by mouth to an unconscious person.

IF ON SKIN; Wash skin with soap and plenty of water. If irritation develops get medical attention

IF IN EYES: Immediately flush eyes with plenty of water. If irritation develops get medical attention.

NOTE TO PHYSICIAN: Carbaryl is a moderate, reversible, cholinesterase inhibitor. Atropine is antidotal. DO NOT use 2-PAM, opiates or cholinesterase inhibiting drugs.

Carbaryl is an N-Methyl Carbamate Insecticide

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

WARNING: May be fatal if swallowed. Avoid breathing vapors. Avoid contact with eyes, skin or clothing. Do not use this product in commercial food areas or food handling establishments, restaurants or other places where food is prepared or processed.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear: Long-sleeved shirt and long pants, waterproof gloves, shoes plus socks and dust/mist filtering respirator (MSHA/NIOSH approval prefix number TC-21C) or a NIOSH approved respirator with any R, P or HE filter. Discard clothing and other absorbent materials that have been drenched

or heavily contaminated with this product's concentrate. Do not reuse

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should: 1) Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This product is extremely toxic to aquatic and estuarine invertebrates. For terrestrial uses, do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark, 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 of equipment or disposal of wastes.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds it Bees are visiting the treatment

APPLICATION PROCEDURES
CARBARYL 80S is a dry powder for dispersion in water and application as an insecticidal spray in hydraulic sprayers, mist blowers, low gallonage, ground equipment and aircraft.

USE IN STRICT ACCORDANCE WITH LABEL DIRECTIONS AND PRECAUTIONS.

Special Directions for Preparing Low Gallonage Spray in Low Gallonage Ground Equipment: Use 50-mesh or coarser screens in entire system. Nozzles should be cone type, number 3 or larger. Use clean equipment. Put about % of the required water volume in the spray tank. Close off booms, start pump and maintain moderate by-pass agitation while slowly adding the proper amount of this product. Add remaining water and continue to recirculate until suspension is uniform. then apply using at least 3 gallons per acre of the prepared spray. After spraying, flush tank and lines with clear water.

For Aircraft Application: For preparing spray in mixing or storage tank, follow above directions. To maintain uniform suspension, recirculate at intervals and before pumping into aircraft tank. For best results, use clean equipment and apply at least 1 gallon per acre of the prepared spray. After spraying, flush tanks and lines with clear water

Combination spray mixtures in low gallonage equipment and aircraft: Physical compatibility of this product with other pesticides in low gallonage mixtures is not fully known. Before preparing large amounts. combinations should be tested by fully dispersing this product, then adding the other pesticide and the remaining portion of water. DO NOT USE MIXTURES THAT CURDLE OR PRECIPITATE. Incompatibility will reduce insect control and may cause mechanical difficulties or plant injury. Use caution when applying concentrate spray mixtures. Under adverse growing conditions combinations of this product with some phosphate pesticides may cause toliar injury.

- 1. This product has been effectively used without plant injury with most common insecticides, miticides, fungicides, nutrients, adjuvants and with petroleum oil as used on Citrus.
- 2. Compatibility can be affected by water in your locality, various surfactants and other formulation ingredients. Possible plant injury may occur under adverse conditions such as high humidity, drought, improper fertilization, etc.
- 3. Do not mix this product with nutrients, adjuvants and other pesticides unless your experience indicates that the mixture is effective and will not result in plant injury. If uncertain, prepare a small amount of the mixture and test on a representative portion of the crop.
- 4. Unstable under highly alkaline conditions. Not effective if used with alkaline materials such a Bordeaux, lime, lime sulfur and caseinlime spreaders.

GENERAL PRECAUTIONS

- 1. To avoid possible injury on tender foliage, do not apply when lolfage is wet or when rain or excessive humidity is expected during a the next 2 days.
- 2. Does not control Spider mites but is compatible with most common miticides.

Manufactured By Drexel Chemical Company. P.O. BOX 13327, MEMPHI3, TH 38 173-0327 SINCE 1972

CARBARYL 80S Page 1

IMPORTANT PRE-HARVEST AND GRAZING USE INFORMATION AND LIMITATIONS

Tolerances established under the Federal Food, Drug and Cosmetic Act permit the sale of crops bearing probable this product's residues when it is used in accordance with label directions. Pre-harvest and grazing use limitations are listed at the end of the directions for each crop use.

If this insecticide is used in accordance with label directions, forage and feed crops, including Almond hulls, Bean vines, Carrot tops, Citrus pulp, Cotton forage, Cowpea hay, Peanut hay, Pea vines, Rice straw, Soybean hay and Sugar beet tops, may be grazed or harvested for use as feed for dairy and meat animals without resulting in residues in milk or meat.

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 in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval (REI) and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard. Do not enter or allow worker entry into treated areas during the restricted entry interval of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is: Coveralls, waterproof gloves and shoes plus socks.

Subsequent planting of food and feed crops in treated soil must be made with crops on this or other carbaryl labels.

IMPORTANT: The directions on this label are based on tests and field experience relating to (a) effectiveness; and (b) possible injury to plants and animals; and (c) residues in food, feed, meat and milk. Follow directions for most effective use.

FORAGE, FIELD AND VEGETABLE CROP CONTROL

Recommended dosages refer to pounds of this product per acre. Where a dosage range is indicated, use lower rate on young plants, higher rates on mature plants. Use sufficient spray gallonage to obtain full coverage. This will usually vary from 3 to 40 gallons per acre depending on equipment, degree of insect infestation and stage of crop growth. Keep spray mixtures well agitated. Apply when insect or their damage appears and repeat at 7 to 14 day intervals or as necessary unless shorter intervals are specified below. See specific directions below for Grasshopper control.

ALFALFA, CLOVERS — Use % to 1% pounds for Blister beetle and Mexican bean beetle. Use 1% pounds for Alfalfa caterpillar, Bean leaf beetle. Cucumber beetles, Green cloverworm, Japanese beetle, Leaf-hoppers, Three cornered alfalfa hopper, Thrips and Velvetbean caterpillar. Use 1% to 1% pounds for Armyworm, Corn earworm. Stink bugs and Webworms. Use 1% pounds (Western United States) and 2 pounds (Eastern United States) for control of Alfalfa weevil larvae in the Spring. If pre-treatment damage is extensive, cut the Alfalfa and make the application to the stubble. Use 1% pounds for Cutworm control. On clovers in TX use 2 pounds for Clover head weevil. To avoid possible injury on tender toliage, do not apply when foliage is wet or when rain or excessive humidity is expected during the next 2 days.

ALFALFA — Allow a 7 day pre-harvest interval. CLOVER — Allow a 7 day pre-harvest interval.

ASPARAGUS — Use 11/4 to 21/2 pounds for Asparagus beetle on seedlings or spears. Use 21/4 to 5 pounds for Asparagus beetle and Apache cicada on terms or brush growth in the post-harvest period. Do not apply more often than once every 3 days. Allow a 1 day pre-harvest interval.

BEANS (such as Dry beans, Green beans, Lima beans, Navy beans, Snap beans and Southern peas including Crowder and Black-eyed peas) — Use % pound for Mexican bean beetle, 1½ pounds for Bean leat beetle, Cucumber beetles, Flea beetles, Japanese beetle, Leafhoppers, Velvetbean caterpillar and Western bean cutworm. Use 1½ to 1½ pounds for Armyworm, Cutworms, Com earworm, Stink bugs and Tarrished plant bug. In CA, use 2½ pounds for Corn earworm, Limabean pod borer, Lygus and Stink bugs. Do not harvest within 14 days of grazing or harvest for forage or within 3 days of harvest of fresh Beans or Peas or within 21 days of harvest of Dried beans or Peas, Seed or Hay.

CABBAGE, BROCCOLI, BRUSSELS SPROUTS, CAULIFLOWER, KOHL-RABI — Use % to 1½ pounds for Flea beetles and Harlequin bug. Use 1½ to 2½ pounds for Armyworm, Imported cabbageworm and Corn earworm. Allow a 3 day pre-harvest interval.

CHINESE CABBAGE, COLLARDS, HANOVER SALAD, HORSERADISH, KALE, MUSTARD GREENS, RADISHES, RUTABAGAS, TURNIPS — Use % to 1% pounds for the Flea beetles, Harlequin bug and Leafhoppers. Use 1% to 1% pounds in a 5 to 7 day schedule for Aster leafhopper. Use 1% to 2% pounds for Armyworm, Imported cabbageworm, Corn earworm, Tarnished plant bug and Stink bugs. Allow a 7 day pre-harvest interval for Horseradish, Radishes, Rutabagas and Turnips (roots). Allow a 14 day pre-harvest interval for Chinese cabbage, Collards, Hanover salad, Kale, Mustard greens and Turnips (tops).

CARROTS, PARSNIPS, PARSLEY — Use 35 to 1% pounds for Flea beetles and Leafhoppers. Use 1% to 1% pounds in a 5 to 7 day schedule for Aster leafhopper. Use 1% to 2% pounds for Armyworm, Corn earworm, Tarnished plant bug and Stink bugs. Allow a 7 day pre-harvest interval for Carrots and Parsnips. Allow a 14 day pre-harvest interval for Parsley.

CORN (Field, Pop, Sweet) — Use 1½ to 2½ pounds for Corn earworm, Corn rootworm (adults), European com borer, Fall armyworm, Flea beetles, Japanese beetle, Sap beetles and Leathoppers. For larvae in whorl (budworm damage) and foliage feeders, apply to entire plant. Repeat as necessary. 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. Three or more applications may be required depending on severity of infestation. Timing and good coverage are absolutely essential for effective control.

Use 2½ pounds in at least 15 gallons of water for Culworm control. Spray in 12 inch band over the Corn row to insure adequate stalk coverage. Use proportionate amounts for narrower bands or broadcast. Application of this product to the tassel region of Corn during the pollen shed period will seriously reduce bee population.

For Sweet corn do not apply within 2 days of harvest of ears, within 14 days of harvest or grazing of forage or within 48 days of harvest of fodder. For Field corn and Popcorn do not apply within 48 days of harvest of grain and fodder or within 14 days of harvest or grazing of forage or silage.

COTTON — Use % to 1% pounds for early season Thrips, Flea beetles, Cotton fleahoppers, Striped blister beetle and Cotton leafworm. Use 1% to 2% pounds depending on the size of the Cotton and insect population level, for mid and later season Boll weevil, Bollworms, Fall armyworm, Cotton leaf perforator, Leafrollers, Leafhoppers and Tarnished plant bug and for light-to-moderate infestations of Lygus bugs in Western irrigated Cotton Application should be made every 5 to 7 days as long as control is necessary. For improved Bollworm control, add 1 gallon of blackstrap molasses (feed grade) per ucre in a spray volume not to exceed 20 gallons per acre.

To avoid staining lint, do not use molasses after bolls open. Use 1% to 3% pounds for Pink bollworm on a 5 to 7 day schedule depending on the size of the Cotton and the degree of infestation. Use 2% pounds for Stink bugs and Saltmarsh caterpillar. Aphid populations will be suppressed by repeated applications of this insecticide. May be applied after bolls open. Allow a 28 day pre-harvest interval for seed and a 14 day pre-harvest interval for forage.

COWPEAS -- Use 34 to 11/4 pounds for Blister beetles and Mexican bean beetle. Use 11/4 pounds for Alfalfa caterpillar, Bean leaf beetle, Cucumber beetles, Flea beetles, Green cloverworm, Japanese beetle, Leathoppers, Three-cornered alfalfa hopper, Thrips and Velvetbean caterpillar. Use 11/4 to 11/4 pounds for Armyworm, Corn earworm, Cutworms, Stink bugs and Webworms. Use 21/2 pounds for Cowpea curculio. Apply 4 applications beginning at first bloom and at 5 day intervals thereafter. In CA, use 21/2 pounds for Corn earworm, Lima bean pod borer, Lygus and Stink bugs. To avoid possible injury on tender foliage, do not apply when foliage is wet or when rain or excessive humidity is expected during the next 2 days. Do not harvest within 14 days of grazing or harvest for forage or within 3 days of harvest of fresh Beans or Peas or within 21 days of harvest of dried Beans or Peas, Seed or Hay. CUCUMBER, MELONS, PUMPKIN, SQUASH - Use % to 11/4 pounds for Pickleworm and Melonworm, 11/4 pounds for Cucumber beetles, Flea beetles, Leafhoppers and Squash bug. Avoid excessive applications. To avoid possible injury on tender foliage, do not apply when foliage is wet or when rain or excessive humidity is expected during the next 2 days. Allow a 3 day pre-harvest interval.

DANDELION, ENDIVE (Escarole), LETTUCE, SALSIFY — Use 3/10 1/2 pounds for Flex beetles, Harlequin bug and Leathoppers. Use 1/4 to 1/3 pounds in a 5 to 7 day schedule for Aster leathoppers. Use 1/4 to 2/2 pounds for Amyworm, Imported cabbageworm, Corn carworm, Tamished plant bugs and Stink bugs. For optimum control of Corn earworm after Lettuce heads begin to form, use 2/2 pounds in a 5 to 7 day schedule. To avoid possible injury on Lettuce, do not apply when rain or excessive humidity is expected during the next 2 days. Allow a 14 day pre-harvest interval for Head and Leaf lettuce. Allow a 7 day pre-harvest interval for Salsify roots.

FORAGE GRASSES, PASTURE — Use 11/4 to 1% pounds for Almyworth , and Thrips. For Thrips control in grasses grown for seed, high reprev

CARBARYL BOS Page 2 JIS

pressure may help penetration into boot. Use 2 to 2½ pounds for White grubs (Green June beetles). Allow a 14 day pre-harvest interval.

GARDEN BEET, SPINACH, SWISS CHARD — Use % to 1% pounds for Flea beetles, Harlequin bug and Leafhoppers. Use 1% to 2% pounds for Armyworm, Corn earworm, Tarnished plant bug and Stink bugs. Do not apply within 7 days of harvest of Garden beets (roots). Allow a 14 day pre-harvest interval for Garden beets (tops), Spinach and Swiss chard.

PEANUTS — Use ¾ to 1¼ pounds for Blister beetles and Mexican bean beetle. Use 1¼ pounds for Alfalfa caterpillar, Bean leaf beetle, Cucumber beetles, Green cloverworm, Japanese beetle, Leafhoppers, Three-cornered alfalfa hopper, Thrips and Velvetbean caterpillar. Use 1¼ to 1½ pounds for Armyworm, Corn earworm, Stink bugs and Webworms. To avoid possible injury on tender foliage, do not apply when foliage is wet or when rain or excessive humidity is expected during the next 2 days. Allow a 14 day pre-harvest interval.

PEAS — Use 1¼ pounds for Leafhoppers and Colorado potato beetle. Use 1¼ to 1% pounds for Armyworm. Use 3 pounds for Alfalfa looper in WA State only. Repeat as necessary.

Do not harvest within 14 days of grazing or harvest for forage or within 3 days of harvest of fresh Peas or within 21 days of harvest of dried Peas, Seed or Hay.

POTATO, TOMATO, EGGPLANT, PEPPER — Use % to 1% pounds for Colorado potato beetle, Flea beetles and Leafhoppers. Use 1% to 2% pounds for European corn borer, Fall armyworm. Lacebugs, Tomato fruitworm, Tomato hornworm, Tarnished plant bug and Stink bugs on Potato, Tomato and Eggplant. Use 2% pounds for Cutworm control. Allow a 3 day pre-harvest interval.

RICE — In the MS Delta and TX use 1½ to 1% pounds for Armyworm and Stink bugs. In CA use 2½ pounds for Armyworm, Leathoppers and Tadpole shrimp. For optimum Tadpole shrimp control apply to the water when the pest first appears.

Do not use on Rice fields in which crayfish and/or catfish farming is included in the cultural practice.

Allow a 14 day pre-harvest interval for Grain or Straw.

IMPORTANT: To avoid injury to Rice, do not apply propanil (such as "STAN F-34" or "ROGUE") within 15 days before or after this product is applied. Allow a 14 day pre-harvest interval.

SORGHUMS (such as grain sorghum) — Use 1½ to 2½ pounds for Armyworm, Corn earworm, Stink bugs and Webworms. Use 1½ pounds for Sorghum midge. Use 2½ pounds for Cutworms. For optimum insect control on Grain sorghum, direct spray into the forming heads. Treat for Sorghum midge 3 to 4 days after heads have emerged from boot. Do not apply within 21 days of harvest of Grain or Fodder. Allow a 14 day pre-harvest interval for grazing of Forage or Silage.

Soybeans — For light to moderate populations in Southeastern States colly, use % pound for Bean leaf beetle. Cucumber beetles, Green cloverworm, Mexican bean beetle and Velvetbean caterpillar. Use 35 to 1 pound for Corn earworm.

For clean up of existing populations: Use % to 1% pounds for Blister beetles and Mexican bean beetle. Use 1% pounds for Alfalfa caterpillar, Bean leaf beetles, Cucumber beetles, Green cloverworm, Japanese beetle, Leafhoppers, Three-cornered atfalfa hopper, Thrips and Velvetbean caterpillar. Use 1% to 1% pounds for Armyworm, Corn earworms, Webworms and Stink bugs.

Do not havest within 14 days of grazing or harvest for forage or within 3 days of harvest of fresh Beans or Peas or within 21 days of harvest of dried Beans or Peas, Seed or Hay.

IMPORTANT: Do not apply a combination of this product and 2,4-DB herbicide (such as "BUTYRAC" 175 or "BUTOXONE" SB) to Soybeans.

SUGAR BEETS — Use 1½ to 2½ pounds for Armyworm, Flea beetles, Lealhoppers and Webworms. Allow a 14 day pre-harvest interval. Allow a 28 day pre-harvest interval for Roots and Forage.

TOBACCO

In Plant Beds: For Tobacco flea beetle — Use 2½ level tablespoons per gallon or 1½ pounds per 50 gallons and apply 6 gallons per 100 square yards. For Green June beetle grubs — Use 35 pound per 100 gallons of water when insects or their damage appear. Apply only to areas that larvae have uprooted by sprinkling as a drench with 50 to 100 gallons per 100 square yard. May be applied before or after seeding. Avoid excessive application as plant injury may result.

In Fields: For Budworms, Flea beetles, Japanese beetle, June beetles and Homworms — Use 1½ to 2½ pounds per acre in sufficient water for full coverage of plants. Use lower rate on young plants up to knee high, higher rate on mature plants. Use at least 10 gallons per acre of the prepared spray. Begin treatments when worms are small. Avoid excessive application in bud of plant as Injury may result. Treated fields may be entered immediately after foliage has dried. If late applications are necessary, allow 3 days before priming or cutting.

GRASSHOPPERS — Apply % to 1% pounds as often as necessary to control Grasshoppers on the above forage, field and vegetable crops. Follow pre-harvest and grazing use limitations listed for each of the above crops. A % to 1% pound rate is suggested for Nymphs on small plants or sparse vegetation in wasteland, rangeland, ditchbanks and borders. A 1% to 2% pounds dosage should be used when Grasshoppers are mature or material is applied to crops requiring greater coverage.

TREE FRUIT AND NUT INSECT CONTROL

Recommended dosages refer to pounds of this product per 100 gallons of dilute spray in conventional hydraulic-type sprayers. Apply dilute sprays for full coverage. Spray gallonage will vary according to tree size, density, planting distance and stage of growth. With concentrate and aerial sprays, where lower volumes of spray are applied per acre, the concentration of this product should be increased in the spray mixture so that the amount of this product applied per acre is equivalent to a full coverage dilute spray. Keep spray mixtures well agitated.

ALMONDS — Use 1½ pounds for Fruittree leafroller, Peach twig borer and San Jose scale. Apply in "popcorn" or petal Iall stages and again when the May brood of the Peach twig borer begins to hatch or thereafter as needed. Allow a 14 day pre-harvest interval.

APPLES, PEARS — Application of this product within 30 days after full bloom may provide Apple thinning, to avoid this, delay use until at least 30 days after bloom. Foliar injury may result from combination with Summer oils West of the Rocky Mountains or when used before second cover on York and McIntosh apples East of the Rocky Mountains. Allow a 3 day pre-harvest interval.

West of the Rocky Mountains: Use 1 to 1½ pounds for Apple aphid, Apple rust mite, Apple sucker, Bagworms, California pearslug (Pear sawfly), Codling moth, Eyespotted bud moth, Green fruit worm, Lecanium scales, Lygus bugs, Orange totrix, Oystershell scale, Pearleaf blister mite, Pear psylla, Pear rust mite. San Jose scale, Tentiform leafminers and Woolly apple aphid. For optimum scale control apply when crawlers are present. When heavy Aphid infestations are present, repeated applications may be necessary for optimum control.

East of the Rocky Mountains: Use % pound for Applie aphid, Apple mealybug, Codling moth and White apple leafhopper. When heavy aphid infestations are present, repeated applications may be necessary for optimum control.

Use 1½ pounds for Apple maggot, Bagworms, Eastern tent caterpillar, European apple sawfly, Eyespotted bud moth, Fruit tree leafroller, Green fruitworm, Japanese beetle, Pear psylla. Periodical cicada, Plum curculio, Redbanded leafroller, Rosy apple aphid, Woolly apple aphid, Apple rust mite, Pearleaf blister mite, Pear rust mite, Tarnished plant bug, Tentiform leafminers, Forbes scale, Lecanium scales, Oystershell scale and San Jose scale. For optimum scale control, apply when crawlers are present. To control Rosy apple aphids, apply before leaves are curled. Allow a 3 day pre-harvest interval for Apples & Pears.

Apple Thinning — Many factors influence the degree of Apple thinning obtained with this product. These include tree age, variety, nutrition, previous crop, pruning, degree of set, bloom, weather and use of other chemical thinners. When any of these favor reduced fruit set, caution should be observed in applying this product so that excessive thinning and possible yield reduction will not occur. Recommended dosages refer to pounds of this product per 100 gallons dilute spray.

Concentration: Use $\,$ 5 to $\,$ 6 pound on easily-thinned varieties. Apply for full coverage. On hard-to-thin varieties, use $\,$ 6 to $\,$ 1% pound.

Timing: Apply in one spray timed between 10 to 25 days after full bloom. Varietal Response: Easily-thinned varieties include Cortland, Grimes, Jonathan, McIntosh, Orleans, Rome beauty, Puritan, Red delicious, Winesap, and Yellow newton. Difficult-to-thin varieties include Baldwin, Ben davis, Dutchess, Early mcIntosh, Golden delicious, Lady apple, Northern spy, Rhode Island greening, Steele red, Turley, Wealthy, Yellow transparent and York imperial.

CITRUS FRUITS (such as Citrus Citron, Grapefruit, Hybrids, Kumquats, Lemons, Limes, Oranges, Tangelos and Tangerines) — Use 1½ pounds for California orange dog, Citrus cutworm, Fruittree leafroller, Orange tortrix and Western tussock moth.

Use 1 to 1¼ pounds for Black scale, Brown soft scale, California red scale, Citricola scale, Citrus snow scale and Yellow scale.

Apply lower dosage early in the season or against light infestation and the higher dosage rate in the season or against heavy infestation and situations involving infested fruit. May be used with petroleum oil as used in common practice on Citrus.

Do not apply more than 25 pounds of this product per acre per application. Do not apply less than 10 gallons of dilute spray mixture per mature tree. Allow a 5 day pre-harvest interval for these crops, FILBERT — Use 1½ pounds for Filbert aphid, Filbert leafroller and Filbertworm. Apply when Leafroller eggs are hatching. Repeat on first appearance of adult Filbert moths and again 3 to 4 weeks later, 'Vitto' dilute sprays, 400 gallons per acre is suggested. Allow a 14 day pre-harvest Interval.

octive — Use 1 to 1% pounds with 1½ gallons of Summer oil, in sprays of for Olive scale control. For optimum scale control, apply when crewless are present. A maximum of 2 applications is permitted.

Do not apply more than 18% pounds of this product per acre per, 307; , plication. Allow a 14 day pre-harvest interval. , , , , , , PEACHES, APRICOTS, NECTARINES — Use 1½ pounds for Apple pandemic,

Codling moth, Cucumber beetles, Ruropean earwig', Fruittree leafroller, Japanese beetle, June beetles, Lecanium scale, Lesser peachtree oorgr', Olive scale, Orange tortrix, Oriental fruit moth, Peach twig borors.

CARBARYL 80S Page 3 to 5

Periodical cicada, Plum curculio, Redbanded leafroller, San Jose scale, Tarnished plant bug, Tussock moths and Variegated leafroller. For optimum scale control, apply when crawlers are present. For Lesser peach tree borer control, spray limbs and trunk thoroughly, weekly during moth flight. Allow a 3 day pre-harvest interval on peaches.

Do not apply more than 71/2 pounds of this product per acre per application on Apricots. Allow a 3 day pre-harvest interval for Apricots and

PECANS — Use 11/2 to 3 pounds for Pecan nut casebearer and Pecan weevil. Do not apply more than 9 pounds of this prioduct per acre per application. Pecans have a 14 day pre-harvest interval.

PLUMS, PRUNES, CHERRIES — Use 1% pounds for Black cherry aphid, Brown soft scale, Cherry fruitworm, Cherry maggot, Eyespotted bud moth, Forbes scale, Fruittree leafroller, Japanese beetle, Lecanium scales, Lesser peachtree borer, Mealy plum aphid, Oystershell scale, Peach twig borer, Plum curculio, Prune leafhopper, Redbanded leafroller and San Jose scale. For optimum scale control, apply when crawlers are present. For Lesser peach tree borer control spray limbs and trunk thoroughly, weekly during moth flight. Use 1 pound for Codling moth, Eastern tent caterpillar, Orange tortrix and Tussock moths. Allow a 3 day pre-harvest interval.

WALNUT — Use 34 gound for Catico scale, Codling moth, European fruit lecanium, Fiberworm Frosted scale and Fruittree leafroller, Apply 1,000 gallons of dilute spray per acre for complete coverage. In concentrate spray, use 5 pounds in at least 200 gallons per acre. For Codling moth, apply first spray when average cross sectional diameters of developing nuts reach 1/2 to 3/4 inch. Repeat during middle or late June as needed. Use 21/2 pounds for European earwig. Spray tree trunks to point of run-Allow a 14 day pre-harvest interval.

SMALL FRUIT INSECT CONTROL

Recommended dosages refer to pounds of this product per acre. Keep spray mixtures well agitated. Apply when insects or their damage appear. Repeat at 7 to 10 day intervals or as necessary

BLACKBERRIES, RASPBERRIES, DEWBERRIES (including Boysenberries and Loganberries) — Use 2½ pounds for European rasp-berry aphid, Japanese beetle, Leafhoppers and Leafrollers. In CA, use 21/2 pounds for Omnivorous leafroller and Raspberry sawfly. With dilute spray, 100 to 200 gallons per acre is suggested. Allow a 7 day preharvest interval.

BLUEBERRIES - Use 3 to 6 pounds for Blueberry maggot, Cherry and Cranberry fruitworms, European fruit fecanium and Japanese heetle, Apoly 3 weeks before harvest and repeat 10 days later or as necessary. With dilute sprays, 125 to 150 gallons per acre is suggested. Allow a 7 day pre-harvest interval

CRANBERRIES - Use 1% to 3% pounds for Cranberry fireworms, Cutworms, Fruitworms, Japanese beette and Leafhoppers. Apply in late bloom and as needed at 7 to 10 day intervals. With dilute sprays, 300 gallons per acre is suggested. Allow a 7 day pre-harvest interval

GRAPES - Use 11/4 to 21/2 pounds for European fruit lecanium, Grape leaffolder, Grape leafhoppers and Western grapeleaf skeletonizer. Apply just before first brood leaffolder larvae emerge from rolls and as needed for leafhoppers. Use 21/2 pounds for Cutworms, Grape berry moth, Japanese beetle, June beetle, Orange tortrix, Omnivorous leafroller and Redbanded leatroller. With dilute sprays, 200 gallons per acre is suggested. Allow a 7 day pre-harvest interval.

STRAWBERRIES - Use 11/4 to 21/2 pounds for Meadow spittlebug and Strawberry weevil. This product may injure Early dawn and Sunrise varieties on Delmarva Peninsula. With dilute sprays, 100 to 200 gallons per acre is suggested. Allow a 7 day pre-harvest interval.

LAWN AND AREA INSECT CONTROL

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Use 11/4 pounds of this product in 150 to 200 gallons of water for each 5,000 square feet (21/2 tablespoonfuls in 3 to 4 gallons of water for each 100 square feet) of established lawn area for control of Ants, Bluegrass billbug, Chinch bugs, Cutworms, Earwigs, European chaler, Fall armyworm, Fleas, Green June beetle, Leafhoppers, Millipedes, Mosquitoes, Sod webworm (lawn moths).

In FL use 11/2 pounds for Chinch bug control. Use garden hose spray ers or pressure type equipment. Insure good penetration of turf. For best results, mow lawn and apply immediately after rain or watering. Repeat 2 to 3 weeks later if necessary.

SHADE TREE AND ORNAMENTAL INSECT CONTROL

Use 11/4 pounds per 100 gallons of water (11/4 tablespoonfuls per galion) when insects or their damage appears. Repeat weekly or as needed. This product injures Boston ivy, Virginia creeper and Maidenhair fem. Use on herbaceous annual, biennial and perennial plants (such as Camations, Chrysanthemum, Giadioli and Zinnia) to control: Blister beetles, Boxelder bug, Flea beetles, Japaness beetles, June beetles, Lace bugs, Leafhoppers, Leafrollers, Mealybugs, Plant bugs, Psyllids, Rose aphid, Thrips (exposed). Use on Shrubs, Trees and Woody plants (such as Aborvitae, Azalea, Birch, Dogwood, Elm, Hydrangea, Juniper, Lilac, Maple, Oak, Pine and Rose) to control: Apple aphid, Bagworms, Birch leafminer, Boxelder bug, Boxwood leafminer, Cankerworms, Cooley spruce gall, Eastern spruce gall aphid, Elm leaf aphid, Elm leaf beetle, Eriophyid mite, Gypsy moth, Japanese beetle, June beetles, Lace bugs, Leafhoppers, Leafrollers, Mealybugs, Mimosa webworm, Oak leafminer, Orange tortrix, Periodical cicada, Puss caterpillar, Plant bug, Thorn bug, Thrips (exposed), and Willow leaf beetles. This product does not control Spider mites but is compatible with most common miticides. FOREST TREES INSECT CONTROL (including Shade trees, Shelter belts, Forests, Plantations, Parks and Recreational Areas) - Use 11/4 pounds of this product per acre by aircraft or hydraulic mist blower for Elm spanworm, Forest tent caterpillar, Great Basin tent caterpillar, Gypsy moth, Saddled prominent Spring and Fall cankerworm. Apply when larvae are in early instars. Keep spray mixtures well agitated. Addition of a sticker may improve residual controls.

ADULT MOSQUITOES - On pastures, rangelands and non-agricultural land such as yards, parks, recreational areas, logging camps, military posts and adjacent forested lands or wastelands, use % to % pound per acre in mist blowers. % to 1 pound per acre in aerial sprays or 1% pounds per acre in suitable low pressure ground equipment. Apply in sufficient spray gallonage to effectively cover area to be treated. For optimum control, apply in early morning or evening when air is calm and adult Mosquitoes are active. Use 114 pounds per 100 gallons in hydraulic sprayers or 2 tablespoonfuls per gallon in hand sprayers for treating backyards or other limited areas. Thoroughly cover lower shade tree foliage, shrubbery, flower beds and shaded areas around buildings where adult Mosquitoes congregate. Repeat at 7 to 10 day intervals.

Important: May kill shrimp and crabs. Do not use in areas where shrimo and crabs are important resources.

PEST CONTROL IN AND AROUND BUILDINGS

(For use by Pest Control Operators only)

IN AND AROUND BUILDINGS (such as Apartments, Barns, Homes, Municpal and Recreational Area and Warehouses) - For Ants and Cockroaches, use 1 pound of this product per 4 gallons of water. For Brown dog tick, Earwigs and Millipedes, use 1 pound of this product per 10 gallons of water. Apply as a coarse wet spray or with a paint brush and thoroughly treat cracks and crevices, baseboards, corners, walls, door sills and window frames, sleeping quarters of household pets, ant trails, outside perimeter of dwellings and other areas where insects tend to congregate. Do not use as a space spray. Repeat when necessary, but not more often than twice a week.

ON INTERIOR AND EXTERIOR WALL SURFACES, CEILINGS, EAVES AND ROOFS OR DWELLINGS CONSTRUCTED OF WOOD, BAM-BOO, METAL CEMENT, BRICK, THATCH OR WHITEWASHED CLAY-For residual control of adult Mosquitoes in subtropical and tropical regions, use 1 pound of this product per 4 gallons of water and apply the prepared spray per 2,000 square feet of surface area. Repeat in 3 to 6 months or when necessary

NOTE: Do not use in edible products areas of food processing plants, restaurants or other areas where food is commercially prepared or processed. Do not use in serving areas while food is exposed. Fresh bedding should be placed in animal quarters following treatment. Do not spray animals. Do not spray kennels or other animal areas until animals have been removed. See "IMPORTANT". Do not treat rugs, carpets, drapes and other fabrics as staining may result. Avoid application to structural surfaces where visible spray residue and water stains are objectionable. POULTRY INSECT CONTROL (Chickens, Ducks, Game birds, Geese, Pigeons, Turkeys) — Direct Mist Spray on Birds: Control Chicken mite, Fleas, Lice and Northern fowl mite by:

1. Misting with Electric Fog Machine: Mix % pound (6 ounces) of this product in 1 gallon of spray. Use 11/2 gallons per 1,000 hens in cages, on litter on statted floor. Repeat in 4 weeks if necessary, or

2. Spraying with Knapsack or Cylinder Type Compressed Air Sprayer: Mix 14 pound (4 ounces) of this product in 5 gallons of spray. Use 1 gallon per 100 hens in cages, on litter or on slatted floor. Repeat in weeks if necessary.

Direct mist spraying for Chicken mite and Fleas is a supplement to spraying roosts and buildings for control of these pests. Spray roost and buildings with conventional power spray or knapsack equipment. Control Bedbugs, Chicken mite and Fleas by mixing 11/2 pounds per 23 gallons and applying 1 to 2 gallons per 100 square feet of wall litter or most surface. Increase dosage to 5 pounds per 25 gallions for Fowl tick control. Force spray into cracks and crevices. Repeat as needed, Vertila's while spraying. Avoid contamination of nests, eggs and feeding and wate, ir.g. troughs. Do not apply to poultry and game birds or to their premises within 7 days of harvest.

CARBARYL 80S Page # 615

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal. PESTICIDE STORAGE:

Storage should be under lock and key and secure from access by unauthorized persons and children. Storage should be in a cool, dry area away from any heat or ignition source. Do not allow storage in a damp or humid area. Do not stack over 2 pallets high. Move bags carefully so as not to tear or puncture. Do not move from one area to another unless they are securely sealed to prevent dust from escaping. Keep container tightly sealed when not in use. Keep away from any puncture source. Avoid storage near water supplies, food feed and fertilizer to avoid contamination. Avoid contamination with acids and alkalies. Store in original containers only. If the contents are leaking or material is spilled follow these steps while wearing protective equipment.

- 1. Collect and place in suitable containers for disposal.
- Wash area with soap and water to remove remaining pesticides.
 Follow washing with clear water rinse.
- 4. Do not allow runoff to enter sewer or contaminate water supplies. 5. Dispose of waste as indicated below:

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. CONTAINER DISPOSAL: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landlill or by incineration, or, if allowed by State and Local authorities, by burning. If burned. stay out of smoke.

WARRANTY—CONDITION OF SALE

OUR RECOMMENDATIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the seller. Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith. In no case shall Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such

CARBARYL 80S Page 5 8/5