



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

SEP 10 1994

BARBARA BROWN
DREXEL CHEMICAL COMPANY
BOX 9306
MEMPHIS, TN 38109

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Subject: Label Amendment Submission of 9/30/93 Response to PR Notice 93-7
EPA Reg. No. 19713-363
DREXEL CARBARYL 85 SPRAYABLE

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted subject to the comments reflected on the enclosed sheet. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

WHAT THIS ACCEPTANCE MEANS:

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

WHAT YOU NEED TO DO NEXT:

By the next label printing make all the specified changes to your labeling. Send to EPA one (1) copy of the final printed labeling:

- BEFORE selling or distributing any product bearing the final printed labeling
- AND
- WITHIN one year from date of this acceptance.



Recycled/Recycle is
Printed with Soy/Canola ink
contains at least 50% recycled fiber

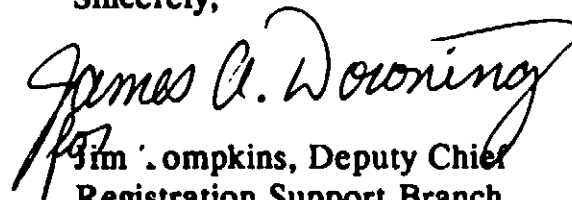
Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs (7505C)
U.S. Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460-0001

Hand or courier deliveries of final printed labeling may be made to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202

Sincerely,



Jim Tompkins, Deputy Chief
Registration Support Branch
Registration Division (7505W)

Attachment

3317

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division

Barbara Brown
DREXEL CHEMICAL CO
BOX 9306
MEMPHIS TN 38109

Comment for: EPA Reg Nr.19713-363
DREXEL CARBARYL 85 SPRAYABLE

The following specific comments pertain to your WPS labeling submission concerning the product cited above:

Add the following statement to the "Personal Protective Equipment" section of your label: "Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them." The exact location of this statement is shown in Section A on Part 1 of the Product Worksheet in Supplement Three-A to PR Notice 93-7.

Add "N-Methyl Carbamate" to your label in one of the locations shown in Section E on Part 2 of the Product Worksheet in Supplement Three-A to PR Notice 93-7.

Remove the statement "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." from its current position within the Agricultural Use Box and place it above the Agricultural Use Box.

Delete the crossed-out statements on your proposed label. They are redundant statements or phrases.

Correct the typographical errors circled on your proposed label.

DREXEL
Carbaryl 85 Sprayable

For Agricultural or Commercial Use Only
For Control of Insect Pests

ACTIVE INGREDIENT:	By Wt.
Carbaryl (1-naphthyl N-methyl-carbamate).....	85%
INERT INGREDIENTS:.....	15%
TOTAL:.....	100%

KEEP OUT OF REACH OF CHILDREN
WARNING/AVISO

PRECAUCION-AL-USUARIO:--Si-usted-no-lee-ingles,-no-use-este
producto-hasta-que-la-etiqueta-le-haya-sido-explicado
ampliamente-

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

EPA REG. NO. 19713-363
EPA EST. NO. 19713-

WPS DELETIONS/REVISIONS 9/93

Manufactured by:
Drexel Chemical Company
P.O. Box 9306
Memphis, TN 38109

ACCEPTED
with COMMENTS
in EPA Letter Dated

APR 16 1994
Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
19713-363

BEST AVAILABLE COPY

STATEMENT OF PRACTICAL TREATMENT

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 A PHYSICIAN: Carbaryl is a carbamate insecticide, which is a cholinesterase inhibitor. Overexposure to the 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 over atropinization. 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 over exposure 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.

PRECAUTIONARY STATEMENTS**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

WARNING: MAY BE FATAL 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.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

Long-sleeved shirt and long pants

Waterproof gloves

Shoes plus socks

Dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C)

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
 Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
 Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
 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.

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

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 for rice uses. 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: MAY KILL HONEYBEES IN SUBSTANTIAL NUMBERS. This product is highly toxic to bees exposed to direct treatment on blooming crops and weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area. Contact your cooperative Agricultural Extension Service for further information.

DIRECTIONS FOR USE
 It is a violation of the federal law to use this product in a manner inconsistent with its labeling.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

BEST AVAILABLE COPY

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not 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.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

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

- Coveralls
- Waterproof gloves
- Shoes plus socks

GENERAL INFORMATION

CARBARYL 85 Sprayable is a micro-line powder for dispersion to water and application as an insecticidal spray in hydraulic sprayers, mist blowers, low-volume ground equipment and aircraft. 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-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-areas-or-in-an-area-about-to-be treated-with-this-product.-Advise-workers-to-stay-out-of-fields during-applications-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 exposure.-When-oral-warning-are-given, warning-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,-WARNING,-area-treated-with-carbaryl
(date-of-application),-appropriate-clothing-and-reentry-interval
(i.e.-until-sprays-have-dried),~~

PREHARVEST AND GRAZING USE INFORMATION AND LIMITATIONS

Tolerances established under the Federal Food, Drug and Cosmetics Act permit the sale of crops bearing probable carbaryl residues when this product is used in accordance with the label directions. If used as directed, treated forage may be grazed or used as feed for dairy and meat animals, without causing illegal residues in meat and 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 apples thinning and on combinations with certain herbicides on rice.

SPRAY PREPARATION

TO ASSURE A UNIFORM SUSPENSION, AGITATE, STIR OR RECIRCULATE ALL CARBARYL 85 SPRAYABLE SPRAY MIXTURE PRIOR TO AND DURING USE. Remove oil, rust, scale, pesticide residues and other foreign matter from mix tanks and entire spray system. Flush with clean water. Fill spray or mix tank with 1/2 to 3/4 the desired amount of water. Start mechanical or hydraulic agitation. Slowly add the required amount of CARBARYL 85 Sprayable and then the remaining volume of water. Prepare only as much spray mixture as can be applied on the day of mixing. MAINTAIN CONTINUOUS AGITATION DURING MIXING AND APPLICATION TO ASSURE UNIFORM SUSPENSION. DO NOT STORE SPRAY MIXTURE FOR PROLONGED PERIODS.

COMPATIBILITY

Compatibility of CARBARYL 85 Sprayable with spray formulations of other pesticides is not fully known. Before preparing large amounts, combinations should be tested on a small scale. Curdling, precipitation, greasing, layer formation or increased viscosity are symptoms of incompatibility. Incompatibility will reduced insect control and may cause mechanical difficulties or plant injury. Observe all cautions and limitations on labeling of all products used in mixture. WHEN PREPARING COMBINATION SPRAYS, FIRST ADD CARBARYL 85 SPRAYABLE TO AT LEAST HALF THE DESIRED AMOUNT OF WATER, MIX THOROUGHLY, AND THEN ADD COMBINATION PRODUCTS TO THE MIXTURE DO NOT APPLY TANK MIX COMBINATIONS UNLESS

YOUR PREVIOUS EXPERIENCE INDICATES THE MIXTURE IS EFFECTIVE AND WILL NOT RESULT IN APPLICATION PROBLEMS, EXCESSIVE RESIDUES OR PLANT INJURY. Unstable under highly alkaline conditions. Not effective if used with alkaline conditions. Not effective if used with alkaline materials such as Bordeaux, lime-sulfur and casein-lime spreader.

APPLICATION

On all crops use sufficient gallonage to obtain thorough and uniform coverage. Calibrate spray equipment to deliver the required volume. Use 50 mesh acted strainers in spray system and 25 mesh slotted strainers behind nozzles. Avoid application just before rainfall as poor insect control may result. To clean spray system after use, drain and flush with water. Refer to the Storage and Disposal directions for proper disposal of rinse water.

DIRECTIONS FOR USE THROUGH SPRINKLER IRRIGATION SYSTEMS

Apply this product only through sprinkle irrigation systems including center pivot and solid set. Do not apply this product through any other type or irrigation system. Spray Preparation: Remove scale, pesticide residues, and other foreign matter from the chemical tank and entire injector system. Flush with clean water. Application Instruction: First prepare a suspension of CARBARYL 85 Sprayable in a mix tank. Fill tank with 1/2 to 3/4 the desired amount of water. Start mechanical or hydraulic agitation. Add the required amount of CARBARYL 85 Sprayable, and then chem making volume of water. (Suspension concentrations using the appropriate dosage per acre recommended on this label of CARBARYL 85 Sprayable per 1 to 4 gallons of water are recommended). Then set a sprinkler to deliver 0.1 to 0.3 inch of water per acre. Start sprinkler and uniformly inject the suspension of CARBARYL 85 Sprayable into the irrigation matter line so as to deliver the desired rate per acre. The suspension of CARBARYL 85 Sprayable should be injected with a positive displacement pump into the main line at of a right angle turn to ensure adequate mixing. If you should have any other questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts. Note: When treatment with CARBARYL 85 Sprayable has been completed, further field irrigation over the treated area should be avoided for 24 to 48 hours to prevent washing the chemical off the crop.

GENERAL PRECAUTIONS FOR APPLICATIONS THROUGH SPRINKLER IRRIGATION SYSTEMS

Maintain continuous agitation in mix tank during mixing and application to assure a uniform suspension. Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute solution per unit time. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid

back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump water when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Do not apply when wind speed favors drift beyond the area intended for treatment. Do not apply when wind speed favors drift, when system connection or fittings leak when nozzles do not provide uniform distribution or when lines containing the product must be dismantled and drained. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop may result from non-uniform distribution of treated water. Allow sufficient for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. A person knowledgeable of the chemigation system and responsible for its operation shall shut the system down and make necessary adjustments should the need arise. Do not connect an irrigation system (including greenhouse systems) use for pesticide application to a public water system unless the label-prescribed safety devices for public water supplies are in place.

INSECT CONTROL

Apply when insects or their damage appear. To maintain control repeat at 7 to 14 day intervals as necessary unless a shorter intervals specified below. Where a dosage range is indicated, use lower rate on young plants and early instars and higher rates on mature plants, advanced instars and adults. Thorough and uniform spray coverage is essential for effective control. CARBARYL 85 Sprayable 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 CARBARYL 85 Sprayable. If local experience indicates inadequate control, use an alternative pesticide.

FORAGE FIELD CROP INSECT CONTROL

Recommended dosages refer to kilograms of CARBARYL 85 Sprayable per hectare. Use sufficient spray volume to ensure thorough coverage. This will usually vary from 50 to 400 liters per hectare depending on equipment, degree of insect infestation, and stage of crop growth. Keep spray mixtures well agitated. Apply when insects or their damage appear and repeat 7 to 14 days later if necessary. See specific directions below for grasshopper control. Alfalfa, Clovers, Cowpeas, Peanuts and Soybeans. Use 0.7 to 1.4 kg for blister beetles and Mexican bean beetles.

Use 1.4 kg for alfalfa caterpillar, bean leaf beetle, cucumber beetles, green cloverworm, Japan beetle, leafhoppers, three cornered alfalfa hopper, thrips, and velvetbean caterpillar. Use 1.4 to 2.0 kg for armyworms, corn earworms, stinkbugs and webworms. Some leaf injury may occur if applications are made when tender is wet. Do not apply to alfalfa and cowpeas within 3 days of harvest.

COTTON INSECT CONTROL

Recommended dosage refer to kilograms of CARBARYL 85 Sprayable per hectare. Use at least 28 liters of total mixture per hectare and increase to higher volumes on larger plants.

Use 0.7 to 1.4 kg for early season thrips, flea beetles, cotton fleahopper, stripped blister beetles and cotton leafworms.

Use 1.4 to 2.6 kg depending on the size of the cotton and insect population level for mid-and late-season bollweevil, bollworm, fall armyworm, cotton leafperformer, leafrollers, leafhoppers, tarnished plant bugs and light to moderate infestation of lygus bugs. Applications for boils weevil should be made every five to seven days as long as control is necessary.

Use 2.0 to 3.3 kg for pink bollworm on a five to seven day schedule depending on the size of the cotton and degree of infestations.

Use 2.7 kg for stink bugs and salt marsh caterpillars.

Use 0.7 to 2.0 kg for grasshoppers.

The higher dosage should be used when grasshoppers are mature or material is applied on partly defoliated plants. Aphid populations will be suppressed by repeated applications of this Insecticide. May be applied after boils open. Do not apply within 7 days of harvest.

Rice Forage Grasses and Pasture: Use 1.4 to 2.0 kg for armyworms, stink bugs and thrips.

For thrips control in grasses grown for seed, high spray pressure may help penetration into boot.

Do not apply within 14 days of harvest of rice. No time limitation on forage grasses and pasture.

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 is included in the cultural practice.

Sorghum (Including Milo and Grain Sorghum): Use 1.4 to 2.6 kg for armyworms, corn earworm, stink bugs and webworms. Use 2.0 kg for sorghum midge. For optimum insect control of grain sorghum, direct spray into the forming heads. Treatment for sorghum midge control should be made 3 to 4 days after heads have emerged from boot.

Do not apply within 21 days harvest of grain.

No time limitation or sorghums used for forage.

Sugar Beets: Use 1.4 to 2.6 kg for armyworms, leafhoppers and webworms. Do not apply within 14 days of harvest.

GRASSHOPPERS

Apply 0.7 to 2.0 kg as often as necessary to control grasshoppers on the above crops. A 0.7 to 1.4 kg rate is suggested for nymphs of small plants or sparse vegetation in wasteland, rangeland, ditchbanks and borders. A 1.4 to 2.0 kg dosage should be used when grasshoppers are mature or material is applied to crops requiring greater coverage.

Suggested dosages refer to kilograms of this product per hectares. Where a dosage range is indicated, use lower rate on young plants; higher rate on mature plants. Use sufficient volume to obtain full coverage. Keep spray mixture well agitated. Apply when insects or their damage appear. Repeat at 7 to 10 day intervals or as necessary unless a shorter interval is specified below.

Beans (Green Beans, Lima Beans, Snap Beans, Cowpeas, and Blackeyed Peas: Use 0.7 kg for Mexican bean beetle; 1.4 kg for bean leaf beetle, cucumber beetles, flea beetles, Japanese beetle, leafhoppers, velvetbean caterpillar, and western bean cutworm. Use 1.4 to 2.6 kg for armyworms, cutworms, corn earworm, lima bean pod borer, lygus bugs, stink bugs and tarnished plant bugs. Do not apply to cowpeas within 3 days of harvest.

Corn: Use 1.4 to 2.6 kg for corn earworm, corn rootworm adults, European corn borer, fall armyworm, flea beetles, Japanese beetles, leafhoppers and sap beetles. For larvae in whorl (budworm damage) and foliage feeders, apply to entire plant. Repeat as necessary. For insects attacking silks and ears, apply at 2 to 3 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. Application of this product to the tassel region of corn during the pollen shed period will seriously reduce bee populations.

Cucumber, Melons, Pumpkin, and Squash: Use 0.7 to 1.4 kg for pickleworm and melonworm; 1.4 kg for cucumber beetles, flea beetles, leafhopper and squash bugs. Avoid excessive applications. Some leaf injury may occur if treatments are made when tender foliage is wet or in the presence of prolonged high humidity.

Potato, Tomato, Eggplant and Pepper: Use 0.7 to 1.6 kg for Colorado potato beetle, flea beetles and leafhoppers. Use 1.4 to 2.6 kg for European corn borer, fall armyworm, lace bugs, tomato fruitworm, tomato hornworm, tarnished plant bugs and stink bugs. Use 2.6 kg for cutworm control on potato, tomato and eggplant.

Okra: Use 1.4 to 2.6 kg for corn earworm and stink bugs. Repeat at 5 to 7 day intervals or as necessary.

Cabbage, Broccoli, Brussels Sprouts, Cauliflower and Kohlrabi: Use 0.7 to 1.4 kg for flea beetles and harlequin bug. Use 1.4 to 2.6 kg for armyworms, cabbage caterpillars, and corn earworms. Where cabbage looper is the principal problem, use an alternative pesticide that is specifically recommended. For control of small cabbage loopers in home gardens (or in commercial plantings after edible portions begin to form) use CARBARYL 85 Sprayable in a 5 to 7 day schedule. Do not apply within 3 days of harvest of these crops.

Lettuce and Carrots: Use 0.7 to 1.4 kg for flea beetles, harlequin bug and leafhoppers. To control six-spotted leafhopper (aster yellows vector) apply 1.4 to 2.0 kg in a 5 to 7 day schedule. Use 1.4 to 2.6 for armyworms, cabbage caterpillars, corn earworm, spittlebugs, tarnished plant bugs and stink bugs. For optimum control of corn earworm after heads begin to form apply 2.6 kg in a 5 to 7 day schedule.

TOBACCO INSECT CONTROL

In Plant Beds: For tobacco flea beetle, use 300 grams per 100 liters and apply 27 liters per 100 square meters. For green June beetle grubs, use 75 grams per 100 liters of water. Sprinkle as a drench at 225 to 450 liters per 100 square meters.

In fields: For budworms, flea beetles, Japanese beetles, June beetles and hornworms, use 1.4 to 2.6 kg in at least 90 liters of water per hectare. Full coverage of plants is essential. Begin treatments when worms are small. Avoid excessive application. Treated fields may be entered immediately after foliage has dried. If late application are necessary, allow three days before priming or cutting. Where cabbage looper is the principal problem, use an alternative pesticide that is specifically recommended. For control of small cabbage loopers in home gardens (or in commercial plantings after edible portion begin to form) use 1.4 to 2.6 kg in a 5 to 7 day schedule. Do not apply within 3 days of harvest of head lettuce. Do not apply within 14 days of harvest of leaf lettuce. No time limitation on carrots.

TREE FRUIT INSECT CONTROL

Recommended dosages refer to grams of CARBARYL 85 Sprayable per 100 liters of dilute spray. Keep spray mixture well agitated. Apply for full coverage in normal spray schedules at petal fall and every 10 days thereafter. Application of this product within 30 days after full bloom may also provide fruit thinning; to avoid this, delay use until at least 30 days after bloom. May cause foliar injury if used before second cover on York and Macintosh apples. Foliar injury may also result if used in combination with summer oils.

Apples and Pears: Use 150 grams for apple maggot, apple mealybug, apple rust mite, apple sucker, bagworm, California pear slug, codling moth, eastern tent caterpillar, European apple sawfly, eye-spotted budmoth, fruittree leafroller, green apple aphid, green fruitworm, Japanese beetle, lygus bugs, orange tortrix, pear leaf blister mite, pear psylla, pear rust mite, periodical cicada, plum curculio, redbanded leafroller, rosy apple aphid, tarnished plant bug, tentform leafminers, white apple leafhopper, wooly apple aphid, Forbes scale, Lecanium scales, oystershell scale and San Jose scale. For optimum scale control, apply when crawlers are present. To control rosy apple aphid, apply before leaves are curled. Apply at 10 day intervals for apple maggot control. For psylla control apply when eggs hatch or when young nymphs are present. When heavy aphid infestations are present, repeated applications may be necessary for optimum control. Do not apply 1 day of harvest of apples and pears.

Peaches, Apricots and Nectarines: Use 150 grams for codling moth, cucumber beetles, European earwig, Japanese beetle, Pandemis moth, June beetles, Sesser peachtree borer, orange tortrix, oriental fruit moth, peach twig borer, periodical cicada, plum curculio, fruittree leafroller, redbanded leafroller, platynois flavendans, tarnished plant bug, tussock moth, lecanium scales, San Jose scale and olive scale. For optimum scale control, apply when crawlers are present. For lesser peachtree borer control, spray limbs and trunk thoroughly at weekly intervals during moth flight. Do not apply within 1 day of harvest of peaches. Do not apply within 3 days of harvest of apricots and nectarines. Plum, Prunes and Cherries: Use 150 grams for black cherry aphid meal plum aphid. cherry fruit fly, cherry fruitworm, eye-spotted bud moth, fruittree leafroller, redbanded leafroller, Japanese beetle, lesser peachtree borer twig borer, plum curculio, prune leafhopper, brown soft scale, Forbes scale, lecanium scales, oystershell scale, and San Jose scale. For optimum scale control, apply when crawlers are present. For lesser peachtree borer control, spray limbs and trunk thoroughly. Use 105 grams for eastern tent caterpillar, codling moth, orange tortrix, and tussock moth. Do not apply within 1 day of harvest.

CITRUS INSECT CONTROL

Recommended dosage refers to grams of CARBARYL 85 Sprayable per 100 liters dilute spray. Keep spray mixture well agitated. Apply only in full cover sprays. Do not apply less than 93 liters of spray mixture per mature tree.

Grapefruit, Lemons, Limes Oranges, Tangelos, Tangerines, Citrus Citron, Kumquats, and Hybrids of These:

Use 150 grams for California orange dog, citrus cutworm, fruittree leafroller, orange tortrix and western tussock moth. Use 106 to 150 grams for black scale, brown soft scale, California red scale, citricola scale and yellow scale. Apply lower dosage early in the season or against light infestation and the higher dosage late 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 within 5 days of harvest of these crops.

TREE NUT INSECT CONTROL

Recommended dosages refer to grams of CARBARYL 85 Sprayable per 100 liters of dilute spray. Keep spray mixture well agitated. Apply for full coverage in normal spray schedule.

Almond: Use 150 grams for peach twig borer, San Jose scale and fruittree leafroller. 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.

Filbert: Use 150 grams for filbert aphid, filbert leafroller and filbert moth. A dilute spray of 3740 liters per hectare is suggested. Apply when leafroller eggs are hatching. Repeat on first appearance of adult filbert moths and again 3 to 4 weeks later.

Walnut: Use 75 grams for codling moth, frosted scale, European fruit lecanium scale, calico scale, fiberworm and fruittree leafroller. Spray 9000 liters per hectare for complete coverage in concentrate sprays use 750 grams in at least 1870 liters per hectare. For codling moth, apply first spray when average cross sectional diameters of developing nuts reaches 1 to 2 centimeters. Repeat during middle or late June as needed. Use 300 grams for European earwig. Spray the trunks to point of run-off.

SMALL FRUIT INSECT CONTROL

Recommended dosages refer to kilograms of this product per hectare. Use sufficient spray volume to obtain full coverage. Keep spray mixture well agitated. Apply when insects or their damage appear. Repeat at 7 to 10 day interval or as necessary.

Grapes: Use 1.4 to 2.6 kg for European fruit lecanium grape leafroller, grape leafhopper and grape leaf skeletonizer. Apply just before first brood leafroller larvae emerge from rolls and as needed for leafhoppers. Use 2.6 kg for grape berry moth. Japanese beetle, June beetle and redbanded leafroller. A dilute spray of 1870 liters per hectare is suggested.

Strawberries: Use 1.4 to 2.6 kg for meadow spittlebug, strawberry leafroller and strawberry weevil. A dilute spray of 935 to 1870 liters per hectare is suggested. Do not apply within 1 day of harvest.

Blueberries: Use 2.0 to 2.6 kg for blueberry maggot, cherry and cranberry fruitworms, European fruit lecanium and Japanese beetle. Apply 3 weeks before harvest and repeat 10 days later or as necessary. A dilute spray of 1170 to 1400 liters per hectare is suggested.

Cranberries: Use 2.0 to 4.0 kg for cutworms, fireworms, fruitworms, Japanese beetle, and leafhoppers. Apply in late bloom and as needed at 7 to 10 day intervals. A dilute spray of 2800 liters per hectare is suggested. Do not apply within 1 day of harvest. CAUTION: May kill shrimp or crabs. Do not use in areas where these are important resources.

ORNAMENTAL INSECT CONTROL

CARBARYL 85 Sprayable at recommended concentrations can be safely used on a wide range of ornamental plants, flowers, shrubs, and shade trees including rose, carnation, gladiolus, zinnia, chrysanthemum, lilac, arborvitae, juniper, hydrangea, azalea, elm, maple, oak dogwood, birch and pines. Do not use on Boston Ivy as injury will result. Use 150 grams per 100 liters of water when insects or their damage appear. Repeat weekly or as needed. Do not use on Boston Ivy as injury will result.

- | | | |
|-----------------|------------|------------|
| blister beetle | lace bug | plant bug |
| flea beetle | leafhopper | psyllid |
| boxelder bug | leafroller | rose aphid |
| Japanese beetle | mealybug | thrips |
| June beetle | | (exposed) |

Use on shrubs, trees and woody plants (rose, lilac, arborvitae, juniper, hydrangea, azaleas, elm maple, oak dogwood, birch pine etc.) to control:

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|-------------------|----------------|--------------------|
| apple aphid | June beetle | periodical cicada |
| bagworm | lace bug | puss caterpillar |
| birch leafminer | leafhopper | rose aphid |
| boxelder bug | leafroller | roseslug |
| boxwood leafminer | mealybug | scale insects |
| elm leaf aphid | mimosa webworm | tent caterpillar |
| elm leaf beetle | oak leafminer | thrips (expose) |
| gypsy moth | orange tortrix | willow leaf beetle |
| Japanese beetle | | |

LAWN INSECT CONTROL

Use 150 grams in 200 liters of water for each 50 square meters of established lawn area for the control of:

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|--------------|---------------|------------|
| chinch bugs | fall armyworm | fleas |
| leafhoppers | cutworms | mosquitoes |
| sod webworms | earwigs | millipedes |
| (lawn moths) | ants | |

Use garden hose sprayers or pressure type equipment and apply full water volume to ensure good penetration of turf. For best results, mow lawn and apply immediately after rain or watering. Repeat 2 to 3 weeks later if necessary.

POULTRY INSECT CONTROL

Chickens, Partridges, Pheasants and Pigeons--Direct Mist Spray on Birds: Control Northern fowl mite, chicken mite, lice and fleas by:

- (1) Misting with electric fog machine by mixing 45 grams per liter of spray and applying 6 liters 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 by mixing 55 grams per 10 liters of spray and applying 4 liters per 100 hens in cages, on litter, or on slatted floor. Repeat in 4 weeks if necessary.

In or Around Poultry Houses: Use 600 grams per 100 liters of water for chicken mite, fleas, and bedbugs. Use 2200 grams per 100 liters of water for fowl tick. Spray 4 to 8 liters per 100 square meters of wall, bedding, litter or roost surfaces. Force spray into cracks and crevices. Repeat as needed. Ventilate while spraying. Do not use on poultry or game birds. Do not treat nest litter. Avoid direct contamination of eggs. Do not apply to poultry and game birds or their premises within 7 days of slaughter.

STORAGE AND DISPOSAL**STORAGE**

Store in original container only. Store in cool, dry area out of reach of children and animals. Do not store in areas where temperatures frequently exceed 100 degrees F.

PESTICIDE DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Waste 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 landfill or by incineration, or, if allowed by state and local authorities, by burning. If bag is 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, mixture with other chemical 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 Drexel or the Seller 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 Drexel Chemical Company and is accepted as such by the Buyer.