

10F5  
PM 12  
10163-60

OCT 18 1984

Ms. B. M. Bowman  
Cowan Company  
P.O. Box 5696  
Yuma, AZ 85364

Dear Ms. Bowman:

Subject: Cowan Carbaryl 4  
Product Name Change & General Revision of Label  
EPA Registration No. 10163-60  
Your Application Dated August 29, 1984

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. A stamped copy is enclosed for your records.

In your Environmental Hazards paragraph delete "This product may be toxic to fish, birds and other wildlife. Birds and other wildlife in treated areas may be killed. Do not apply when weather conditions favor drift from areas treated. Do not apply where runoff is likely to occur."

Sincerely yours,

Ray S. Ellenberger  
Product Manager (12)  
Insecticide-Rodenticide Branch  
Registration Division (TS-767)

Enclosure

RD/IRB:DCR-39452:Ellenberger:RD-110ng:Kendrick & Co.:898-1270:10/11/84:Del.10/23/84

SEARCHED	INDEXED	SERIALIZED	FILED				

PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

May be harmful if swallowed. Avoid breathing vapors or spray mist. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Do not take internally. Wear regular long-sleeved work clothing. Change to clean clothing daily.

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

ENVIRONMENTAL HAZARDS

This product may be toxic to fish, birds and other wildlife. Birds and other wildlife in treated areas may be killed. Do not apply when weather conditions favor drift from areas treated. Do not apply where runoff is likely to occur.

This pesticide is extremely toxic to aquatic and estuarine invertebrates. Do not apply directly to water or wetlands. Do not contaminate water by cleaning of equipment or disposal of wastes. Apply this product only as specified on this label.

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 if bees are visiting the treatment area.

PHYSICAL AND CHEMICAL HAZARDS

Not to be stored in areas where temperatures frequently exceed 100°F.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not enter treated areas without protective clothing until sprays have dried. Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

# GOWAN CARBARYL 4

ACTIVE INGREDIENT:

Carbaryl (1-naphthyl methylcarbamate).....

INERT INGREDIENTS:.....

TOTAL

Contains 4 lbs. Carbaryl per gallon.

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION** **BEST AVAILABLE**

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED, call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

IF INHALED, remove victim to fresh air.

IF IN EYES, immediately flush eyes with plenty of water for at least 15 minutes.

IF ON SKIN, wash skin with soap and water.

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

NET CONTENTS \_\_\_\_\_ GALLONS

## GOWAN COMPANY

AGRICULTURAL CHEMICALS

12500 E. Co.

P.O. Box

EPA Reg. No. 10163-60 AA

Yuma, AZ

EPA Est. No.

(602)

written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written and oral warnings must include the following information: CAUTION-- area treated with Carbaryl on (date of application). Do not enter without appropriate protective clothing until sprays have dried. In case of accidental exposure, follow instructions under Statement of Practical Treatment section.

#### STORAGE AND DISPOSAL

Store in cool, dry area. Do not store in areas where temperatures frequently exceed 100°F. DO NOT contaminate water, food or feed by storage or disposal.

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: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

#### DIRECTIONS FOR USE

Gowan Carbaryl 4 insecticide is for dispersion in water and low volume application in hydraulic sprayers, mist blowers, low gallonage ground equipment and aircraft. Tolerances established under the Federal Food, Drug and Cosmetic Act permit the sale of crops bearing probable carbaryl residues when ~~Protho-Sominal~~ is used in accordance with label directions. If ~~Protho-Sominal~~ is used in accordance with label directions, forage or feed crops may be grazed or harvested for use as feed for dairy or meat animals without resulting residues in meat or milk. READ THIS LABEL USE IN STRICT ACCORDANCE WITH DIRECTIONS AND CAUTIONS.

#### EQUIPMENT CARE:

- 1) Flush entire spray system with clear water to remove other chemicals before using ~~Protho-Sominal~~. DO NOT FLUSH WITH KEROSENE OR DIESEL FUEL.
- 2) Use 50 mesh or coarser screens in entire system.
- 3) Nozzles should be fan type, number 3 or larger. Cone nozzles may be used if applying at least 3 gallons of finished spray per acre.
- 4) After spraying, flush tank and lines with clear water.

#### SPRAY PREPARATION:

- 1) ~~Protho-Sominal~~ may be applied undiluted or diluted. For other crops, see direction 2 through 5.
- 2) Add required amount of water to spray or mix tank and provide moderate agitation while adding ~~Protho-Sominal~~. Refer to specific crop headings for directions on amount of water to use.

3) For combination sprays ~~Protho-Sominal~~ must be added to at least an equal volume of water and mixed thoroughly before another pesticide is added (See General Cautions).

4) Recirculate spray mixture at frequent intervals after mixing to maintain a uniform suspension.

5) Mix only as much spray as can be applied on day of mixing.

#### IMPORTANT

Use clean equipment. Flush tank and lines with clear water before and after spraying.

Screens should be 50 mesh or coarser. Gowan Carbaryl 4  
Provide moderate agitation while adding ~~Protho-Sominal~~ to water in spray or mix tank. Recirculate at intervals to maintain a uniform suspension.

#### GENERAL CAUTIONS

1) Physical Compatibility of ~~Protho-Sominal~~ with other pesticides is not fully known. Incompatible mixtures curdle or precipitate and may injure crops or reduce control. Compatibility can be affected by water in your locality, various surfactants and other formulation ingredients. Do not apply if physically incompatible. Gowan Carbaryl 4

2) Do not mix ~~Protho-Sominal~~ with nutrients or adjuvants or other pesticides unless your experience indicates that the mixture is safe and effective. If uncertain, prepare a small amount of the mixture and test on a representative portion of the crop.

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

4) 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 two days.

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 and safest use.

Consult State Agricultural Experiment Stations or State Agricultural Extension Service for additional information as the timing will vary with local conditions.

NOTE TO USER: Subsequent planting of food and feed crops in treated soil must be made with crops on this or other carbaryl label(s).

#### COTTON INSECT CONTROL

Recommended dosages refer to quarts of ~~Protho-Sominal~~ per acre. Use 1/2 to 1 quart for early-season thrips, flea beetles, cotton fleahopper, striped blister beetle and cotton leafworm.

Use 1 to 2 quarts for mid-season and late season boll weevil, bollworms, fall armyworm, cotton leaf perforator, leaf rollers, leathoppers, and tarnished plant bug. Also for light-to-moderate infestations of Lygus bug in Western irrigated cotton. Applications should be made every 5 to 7 days as long as control is necessary.

Use 1 1/2 to 2 1/2 quarts for pink bollworm on a 5 to 7 day schedule depending on the size of the cotton and degree of infestation.

Use 2 quarts for stink bug and salt-marsh caterpillar.

Use 1/2 to 1 1/2 quarts for grasshoppers. The highest dosage should be used when grasshoppers are mature or material is applied on partly defoliated plants.

Aphid populations will be suppressed by repeated application of this insecticide. ~~Protho-Sominal~~ does not control spider mites. Where infestations are

BEST AVAILABLE COPY

encountered  
To avoid st

Do not apply

FORAGE AND  
Recommendations  
Insects or the  
Apply sufficient  
of finished a  
control.

SUGAR BEETS  
Use 1 to 2 quarts  
Do not apply  
GRASSHOPPER  
Apply 1/2 to 1  
listed forage  
each of the listed  
plants or species  
A 1 to 1 1/2 quarts  
material is a  
applies to the  
sugarbeets.

ALFALFA AND  
Recommendations  
Use 1/2 to 1 quart  
Use 1 quart for  
cloverworm,  
thrips and velvet  
Use 1 to 1 1/2 quarts  
and webworm  
Use 1 1/2 quarts  
treatment for  
Use 1 1/2 quarts  
To avoid possible  
when rain or  
WARNING! Do not  
to soybeans.

Do not apply

SORGHUMS (in  
Use 1 to 2 quarts  
Use 1 1/2 quarts  
Use 2 quarts for  
sorghum, direct  
days after head  
Do not apply to  
sorghums used

TOBACCO INSECT  
Special instructions  
water and use  
coverage.

Use 1 to 2 quarts  
hornworm. Use 1  
mature plants.  
application in plants  
Treated fields may  
late application

encountered use a recommended miticide. <sup>Gowan Carbaryl 4</sup>  
To avoid staining lint do not use ~~Prothiofen~~ after bolls open.

do not apply within 7 days of harvest.

#### FORAGE AND FIELD CROP INSECT CONTROL <sup>Gowan Carbaryl 4</sup>

Recommended dosages refer to quarts of ~~Prothiofen~~ per acre. Apply when insects or their damage appear and repeat 7 to 14 days later if necessary. Apply sufficient gallonage to obtain full coverage but not less than one gallon of finished spray per acre. See specific directions below for grasshopper control.

##### SUGAR BEETS

Use 1 to 2 quarts for armyworms, leathoppers and webworms. Do not apply within 14 days of harvest.

##### GRASSHOPPERS

Apply 1 2 to 1 1 2 quarts as often as necessary to control grasshoppers on the listed forage crops. Follow pre harvest and grazing use limitations listed for each of the listed crops. A 1 2 to 1 quart rate is suggested for nymphs on small plants or sparse vegetation in wasteland, rangeland, ditchbanks and borders. A 1 to 1 1 2 quart dosage should be used when grasshoppers are mature or material is applied to crops requiring greater coverage. This information applies to the following forage crops: Alfalfa, soybeans, sorghums and sugarbeets.

##### ALFALFA AND SOYBEANS

Recommended dosages refer to quarts of ~~Prothiofen~~ per acre. <sup>Gowan Carbaryl 4</sup>  
Use 1 2 to 1 quart for blister beetle and Mexican bean beetle.  
Use 1 quart for alfalfa caterpillar, bean leaf beetle, cucumber beetle, green cloverworm, Japanese beetle, leathoppers, three-cornered alfalfa hopper, thrips and velvet bean caterpillar.  
Use 1 to 1 1 2 quarts for armyworms, corn earworm (bollworm), stink bugs and webworms.  
Use 1 1 2 quarts for control of alfalfa weevil larvae in the spring. If pre-treatment damage is extensive, cut the alfalfa and apply to stubble.  
Use 1 1 2 quarts for cutworm control on alfalfa.  
To avoid possible injury to tender foliage, do not apply when foliage is wet or when rain or excessive humidity is expected during the next two days.  
**WARNING!** Do not apply a combination of ~~Prothiofen~~ and 2, 4-DB herbicide to soybeans. <sup>Gowan Carbaryl 4</sup>

do not apply within 5 days of harvest on Alfalfa.

##### SORGHUMS (Including MILO AND GRAIN SORGHUM)

Use 1 to 2 quarts for armyworms, corn earworm, stink bugs and webworms.  
Use 1 1 2 quarts for sorghum midge and Southwestern corn borer.  
Use 2 quarts for cutworm control. 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. No time limitation on sorghums used for forage.

##### TOBACCO INSECT CONTROL

Special instructions: When using conventional ground equipment, dilute with water and use 25-40 gallons of finished spray per acre. Apply for full coverage.

Use 1 to 2 quarts for budworm, flea beetle, Japanese beetle, June beetle and cutworm. Use lower rate on young plants up to June high, higher rate for mature plants. Begin treatments when worms are small. Avoid excessive application in plant bud as injury may result. Treated fields may be entered immediately after foliage has dried. If multiple applications are necessary, allow 3 days before pruning or cutting.

##### VEGETABLE INSECT CONTROL <sup>Gowan Carbaryl 4</sup>

Suggested dosages refer to quarts of ~~Prothiofen~~ per acre. Where a dosage range is indicated, use lower rate on young plants; higher rate on mature plants. Keep spray mixtures well agitated. Apply when insects or their damage appear. Repeat at 7 to 10-day intervals or as necessary unless shorter interval is specified below. Apply sufficient gallonage to obtain full coverage but not less than one gallon of finished spray per acre. See specific directions below for grasshopper control.

##### CORN

Use 1 1 2 quarts for corn earworm, corn rootworm adults, grasshoppers, European corn borer, Southwestern corn borer, fall armyworm, flea beetles, Japanese beetle, sap beetle and leathoppers. Use 2 quarts for Western bean cutworm. For larvae in whorl (budworm damage) and foliage feeders, apply to entire plant if necessary. For insects attacking silks and ears, apply at least every 2 or 3 days 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. <sup>Gowan Carbaryl 4</sup>  
Application of ~~Prothiofen~~ to the tassel region of corn during the pollen shed period will seriously reduce bee populations.  
Use 2 quarts in at least 15 gallons of water for cutworm control. Spray in 12 band over corn row.

##### BEANS

(Green beans, lima beans, snap beans, cowpeas and black-eyed peas)  
Use 1 2 quart for Mexican bean beetle.  
Use 1 quart for bean leaf beetle, cucumber beetles, flea beetles, Japanese beetle, leathoppers, velvet bean caterpillar and Western bean cutworm.  
Use 1 to 1 1 2 quarts for armyworms, cutworms, corn earworm, stink bugs and tarnished plant bug.  
In California, use 2 quarts for corn earworm, lima bean pod borer, Lygus and stink bugs.

Do not apply within 3 days of harvest on Cowpeas.

##### POTATO, TOMATO AND PEPPER

Use 1 2 to 1 quart for Colorado potato beetle, flea beetles and leathoppers.  
Use 1 to 2 quarts for European corn borer, fall armyworm, lace bugs, tomato fruitworm, tomato hornworm, tarnished plant bugs and stink bugs. Use 2 quarts for cutworm control.

##### GRASSHOPPERS

Apply 1 2 to 1 1 2 quarts as often as necessary to control grasshoppers on the listed vegetable crops; corn, beans, potato, tomato, and peppers.

##### SMALL FRUIT INSECT CONTROL <sup>Gowan Carbaryl 4</sup>

Recommended dosages refer to quarts of ~~Prothiofen~~ per acre. Use sufficient spray gallonage to obtain full coverage. Keep spray mixtures well agitated. Apply when insects or their damage appear. Repeat at 7 to 10-day intervals or as necessary.

##### CRANBERRIES

Use 2 quarts for cutworms, fireworms, fruitworms, Japanese beetle and leathoppers. Apply in late bloom end as needed at 7 to 10-day intervals. A dilute spray of 300 gallons per acre is suggested. Do not apply within 1 day of harvest.

##### STRAWBERRIES

Use 1 to 2 quarts for strawberry leaf roller. A dilute spray of 100 to 200 gallons per acre is suggested. Do not apply within 1 day of harvest.

Our recommendation be reliable. The user, no guarantee or the results to be established safe pre injury or damage, or other materials.

rev/app

BEST AVAILABLE COPY

**NOTICE ON CONDITIONS OF SALE**

Where a dosage rate on mature insects or their larvae unless shorter obtain full coverage as specific directions.

Our recommendations for use of this product are based upon tests believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice. The buyer must assume all responsibility, including injury or damage, resulting from its misuse as such, or in combination with other materials.

200

rev/app

grasshoppers, European, flea beetles, for Western bean cutworms, apply to and ears, apply at and continuing until and depending on and essential for

during the pollen control Spray in 12

(black eyed peas)

beetles, Japanese Bean cutworm, Great stink bug and at borer, Lygus and

composites,

and leafhoppers, lace bugs, tomato stink bugs Use 2

grasshoppers on the peppers

14 and per acre Use day mixtures well about at 7 to 10 day

beetle and leaf cutworms A Dilute (within 1 day of

of 100 to 200 of harvest



**BEST AVAILABLE COPY**

4