

PM 25

10163-94

1976

GOWAN PROMETRYNE 4L

HERBICIDE

ACTIVE INGREDIENT:	% BY WT.
Prometryn (2,4-bis(isopropylamino)-6-methylpicric acid).....	44.4%
INERT INGREDIENTS.....	55.6%
Total.....	100.0%

Contains 4 lbs. Prometryn per gallon.

**KEEP OUT OF REACH OF CHILDREN
CAUTION****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, or, if available, by administering syrup of ipecac. Do not induce vomiting or give anything by mouth to an unconscious person.

IF INHALED, remove victim to fresh air. Apply artificial respiration if indicated.

IF IN EYES, flush eyes with plenty of clear water for at least 15 minutes. Get medical attention if irritation persists.

IF ON SKIN, wash with soap and water.

NOTE TO PHYSICIAN: If ingested, there is no specific antidote. Induce emesis or lavage stomach. Give saline laxative and supportive therapy.

NET CONTENTS 2½ GALLONS**Gowan**

EPA REG. No. 10163-94
EPA Est. No. 9779-AR-13

P.O. Box 5569
Yuma, Arizona 85366-5569
(602) 783-8844

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

Harmful if swallowed, inhaled or absorbed through skin. Avoid breathing vapors or spray mist. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS

Do not apply directly to water or wetlands (swamps, bogs, marshes, and potholes). Do not contaminate water when disposing of equipment washwaters. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from area treated.

DIRECTIONS FOR USE

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

RE-ENTRY STATEMENTS

Do not enter treated areas without protective clothing until sprays have dried. Because certain states may require more restrictive re-entry 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 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 Prometryn 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.

CROP USE DIRECTIONS

See directions for use inside booklet.

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GOWAN PROMETRYNE 4L

DIRECTIONS FOR USE

Gowan

P.O. Box 5569
Yuma, Az. 85366-5569

EPA Reg. No. 10163-94
EPA Est. No. 9772-AR-13

DIRECTIONS FOR USE

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

Do not apply this product through any type of irrigation system.

Gowan Prometryne 4L is a selective herbicide that may be applied either before or after weeds emerge for control of most annual broadleaf weeds and grasses, including groundcherry, lambsquarter, annual morningglory, malva, mustard, black nightshade, pigweed (carelessweed), purslane, Florida pusley, ragweed, smartweed, teasweed (prickly sida), barnyardgrass (watergrass), crabgrass, foxtail, goosegrass, junglerice, *Panicum* spp., signalgrass (and other *Brachiaria* spp.), and wild oats. Prometryne also controls shallow-germinating seedlings of cocklebur, coffeeweed, and sandbur. It does not control johnsongrass, bermudagrass, other established perennials, or sprangletop at selective rates.

When applied before weeds emerge, Prometryne enters weeds through their roots. Thus, its effectiveness depends on moisture to move it into the soil. Under very dry soil conditions after application, a shallow cultivation or rotary hoeing will generally result in better weed control.

When applied to emerged weeds, Prometryne provides foliar knockdown and/or residual control of later germinating weeds, depending on the rate applied.

Following many years of continuous use of this product and chemically related products, biotypes of some of the weeds listed on this label have been reported which cannot be effectively controlled by this and related herbicides. Where this is known or suspected, we recommend the use of this product in combination with other registered herbicides which are not triazines. Consult with your State Agricultural Extension Service for specific recommendations.

FAILURE TO FOLLOW PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR PERFORMANCE, AND/OR ILLEGAL RESIDUES.

Equipment and Mixing

Thoroughly clean sprayer prior to use. Do not use a sprayer contaminated with 2,4-D or other materials, as crop damage or sprayer clogging may result.

Use conventional spray equipment with hydraulic or mechanical agitation except in California and Arizona where only mechanical agitators are recommended. Screens in nozzles and in suction and in-line strainers should be no finer than 50-mesh. Use a pump with capacity to maintain 35-40 psi at the nozzle. If hydraulic agitation is used, the pump should also provide sufficient agitation in the tank to keep the mixture in suspension.

Nozzles: For preplant incorporated or pre-emergence application, use flat fan nozzle tips. For post-emergence band application, use off-center nozzle tips. For post-emergence broadcast application, use flat fan or off-center nozzle tips. Use flood nozzle tips only in Arizona and California for lay-by treatment in cotton at least 18 inches tall.

Mixing: (1) Fill spray tank 1/2 to 3/4 full with clean water. (2) Start agitation. (3) Pour the product directly from the container into the spray tank partially filled with water, and then add the rest of the water. (4) Provide agitation during mixing and application to maintain a uniform suspension.

Cleaning: Wash sprayer thoroughly with clean water immediately after use. Do not use the same sprayer on sensitive crops, as even small residues of Prometryne in the tank may cause injury to these crops.

Seedbed Preparation

To insure proper placement of Gowan Prometryne 4L, seedbeds must be well prepared and as free as possible from trash and clods. A firm seedbed is best for obtaining effective weed control. Uniformity in height and width of seedbed is essential for proper post-emergence applications of Prometryne. Seedbeds should be low and flat. Take care to avoid cloner marks. Wide planter packing wheels and rollers are recommended. Wheel furrows should be uniform in depth. Mount the sprayer so that it follows the same rows as the planter.

Band Treatment

For band treatment, calculate the amount of Gowan Prometryne 4L needed by the formula:

band width in inches broadcast rate amount needed
row width in inches per acre per acre of field

COTTON

Do not allow livestock to feed or graze on treated cotton crops.

Gowan Prometryne 4L may be applied preplant incorporated or pre-emergence and/or post-emergence as recommended in the following tables. The post-emergence application may follow preplant incorporated or pre-emergence treatment of Gowan Prometryne 4L.

Apply Gowan Prometryne 4L in a minimum of 20 gals. of water per acre as broadcast or band application at the rates indicated in the following tables.

Do not use on glandless cotton varieties or crop injury will occur.

Note: Do not feed treated forage to livestock, or graze treated areas.

PREPLANT INCORPORATION (Arizona, California, and New Mexico):

Apply Gowan Prometryne 4L at the appropriate rate as a broadcast or band treatment. If broadcast, treat the flat soil surface prior to listing. If banded, apply over partially finished or finished beds. Incorporate up to 4 inches deep immediately after application with PTO-driven equipment, double disk, rolling cultivator, or bed conditioner.

Preplant Incorporation

Region	Soil Texture	Broadcast rate per acre
Arizona, California, and New Mexico	sand, loamy sand	Do not use
	sandy loam (AZ & CA only)	2.4-3.2 pts.
	sandy loam, loams (NM only)	3.2 pts.
	silt loam, clay	4.8 pts.

Precautions: Do not use Gowan Prometryne 4L in cut areas of newly leveled fields, in areas of excess salt, or in areas where flooding over the beds is likely to occur or crop injury may result. Do not plant cotton in tractor wheel depressions or crop injury may result. On mulch planted cotton, water back only after cotton seedlings are well established. In New Mexico, apply either preplant incorporated or pre-emergence (not both)—See Pre-emergence section.

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Gowan Prometryne 4L may be applied aerially and preplant incorporated for weed control in furrow-irrigated cotton (except in California).

Use aerial application only where broadcast applications are specified. Apply in a minimum of 5 gallons per acre of total spray. Avoid applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. To assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft., using low drift nozzles at a maximum pressure of 40 psi, and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive non-target plants, apply Gowan Prometryne 4L by aircraft at a minimum upwind distance of 400 ft. from sensitive plants.

Avoid application to humans or animals. Flagmen and loaders should avoid inhalation of spray mist and prolonged contact with skin, and should wash thoroughly before eating and at the end of each day's operation.

PRE-EMERGENCE

Apply at planting or shortly after planting at the appropriate rate. Gowan Prometryne 4L may be used on cotton planted flat, on beds, or in furrows. To avoid concentration of Prometryne in the seed furrow, do not make broadcast applications to cotton planted in furrows deeper than 2 inches. Band applications may be made to cotton planted in furrows deeper than 2 inches, but band width should not exceed the width of the bottom of the furrow. If banded, do not cover treated bands with soil when cultivating between row middles. Do not use on sand or loamy sand on shallow soils with rocky subsoils or in areas with calcium carbonate pings.

Cotton may be replanted in soil previously treated with Gowan Prometryne 4L. Do not apply a second pre-emergence application of Prometryne or injury may occur.

Pre-emergence

Region	Soil Texture	Broadcast rate per acre
Mid-South and Southeast other than Mississippi River Delta in Mississippi	sandy loam	3.2-4 pts.
	silt and clay loam	4.8 pts.
	Sharkey clay (Arkansas only)	5.6 pts.
Mississippi River Delta in Mississippi	sandy loam	4-4.8 pts.
	silt and clay loam	5.6 pts.
	Sharkey clay	Do not use
Blacklands of Texas and Oklahoma, Texas Gulf Coast, and Texas Coastal Bend	loam	2.4 pts.
	clay	4.8 pts.
Rio Grande Valley of Texas*	loam	3.2 pts.
	clay	4.8 pts.
High Plains, Rolling Plains and Edwards Plateau of Texas, Southwest Texas and New Mexico**	sand, loamy sand	Do not use
	sandy loam	1.6 pts.
	loam, sandy clay loam	2.4 pts.
	other clay soils	3.2 pts.
Arizona and California		Do not use

*Rio Grande Valley of Texas—Furrow irrigation cotton—If adequate rain does not fall soon after application, a shallow cultivation will insure good weed control.

**New Mexico—Apply either preplant incorporated or pre-emergence (not both)—See Preplant Incorporation section.

Winter Weed Control in Texas

For control of winter weeds only, such as henbit (purpletop) and seedling dock on fall bedded cotton land in the Texas Gulf Coast and Blacklands of Texas, apply 1.2-1.6 pts. of Prometryne per acre in the fall or winter to land that will be planted to cotton the following spring. For best results, apply before weeds emerge. Gowan Prometryne 4L will give effective control of emerged henbit if applied before it reaches 4-6 inches tall. For post-emergence henbit control, add a suitable surfac-

tant, such as X-77®, at 0.5% of spray volume or an emulsifiable oil at 1.0% of spray volume to the spray tank.

POST-EMERGENCE DIRECTED:

Be especially careful in applying Gowan Prometryne 4L post-emergence to prevent contact of the spray with cotton leaves, or injury may occur. Use precision application equipment so the spray is accurately directed to the base of the cotton plants and still thoroughly covers the soil and weeds beneath the cotton plants. Apply during calm periods to prevent drift. Use leaf lifters or shields if leaf contact cannot be avoided merely by directing the spray. Apply only when all plants have exceeded the minimum recommended height. Apply to level, well prepared surfaces such as relatively weed-free beds made with bed-shapers.

Do not apply to furrow planted cotton until furrows are leveled (plowed in).

Do not treat cotton under stress from drought, cultivator damage, or fertilizer application.

When applying to emerged weeds, add 2 qts. of surfactant per 100 gals. of spray mixture. Use a surfactant that is compatible with Prometryne 4L when applied in cotton and is approved by EPA for use on food and feed crops. Examples include X-77®, Trionic, and Trium.

CHEMICAL HOE (Emerged Weeds Only):

Apply Gowan Prometryne 4L at the appropriate rate two or three times if necessary. In cotton 3-6 inches tall, be extremely careful to avoid spray contact with cotton leaves by applying Prometryne 4L with a precision applicator equipped with fenders or shields such as Bell Row Shield, Dickey Fenders, or W&A Fenders. In cotton less than 12 inches tall, apply only if cotton is bed or flat-planted.

Chemical Hoe

Height of cotton and area of use	Height of weeds	Broadcast rate per acre
3 to 6 inches (Arkansas, Louisiana, Mississippi, Missouri, Tennessee, and Texas)	less than 1 inch	1 pt.
6 or more inches (all regions)	less than 2 inches	1.2-1.5 pts.

LAY-BY (Emerged Weeds and Germinating Weeds):

Apply Gowan Prometryne 4L at the appropriate rate once per season when cotton is at least 12 inches tall (18 inches where flood nozzles are used in Arizona and California). Apply before weeds are 2 inches tall.

Lay-By

Region	Soil texture	Broadcast rate per acre
Mid-South and Southeast	sandy	2.4 pts.
	loam	2.8 pts.
	clay	3.2 pts.
Blacklands of Texas and Oklahoma	loam	1.6 pts.
	clay	3.2 pts.
High Plains of Texas and New Mexico	sandy	1.6 pts.
	loam and clay	2.4 pts.
Southwest Texas	loam	2.4 pts.
	clay	3.2 pts.
Rio Grande Valley of Texas		Do not use
Arizona and California (Do not use in the Coachella Valley)	sandy and loamy sand	Do not use
	sandy loam	2.4-3.2 pts.
	loam	3.2 pts.

Rotational Crops

The following vegetable and cover crops may be planted in the fall when Prometryne 4L was applied on cotton by no more than one of these methods that year: preplant incorporated, pre-emergence, or only one chemical hoe treatment.

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Vegetables

Cabbage, okra, onions, peas, and beets, sweet corn.

Cover Crops (must be plowed down and not used for food or feed)

Oats, sorghum, winter barley, winter rye, winter wheat.

Spring-seeded crops in California and Arizona and spring-seeded vegetables in the Rio Grande Valley of Texas should not be planted until after April 1.

Gowan Prometryne 4L Combination for Cotton

A tank mix of Gowan Prometryne 4L and Trifluralin or a tank mix of Gowan Prometryne 4L and Prowl may be applied and preplant incorporated for weed control in cotton.

These tank mixes may be applied aerially and preplant incorporated (except in California). Use aerial application only where broadcast applications are specified. Apply in a minimum of 5 gals. per acre of total spray. Avoid applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. To assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft., using low drift nozzles at a maximum pressure of 30 psi, and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive non-target plants, apply Gowan Prometryne 4L by aircraft at a minimum upwind distance of 400 ft. from sensitive plants. Avoid application to humans or animals. Pilgrims and loaders should avoid inhalation of spray mist and prolonged contact with skin, and should wash thoroughly before eating and at the end of each day's operation.

Prowl Tank Mixture (Arizona, California, New Mexico, and the upper and lower El Paso Valley of Texas):

This preplant incorporated tank mixture controls all weeds listed on this label and on the Prowl cotton label. Apply prior to listing or over partially finished or finished beds and incorporate immediately. Refer to the Prowl label for specific spraying and incorporation methods. Continuous agitation in the spray tank is required to keep the material in suspension.

Fill tank $\frac{1}{2}$ to $\frac{3}{4}$ full with clean water and agitate. Premix one part Gowan Prometryne 4L with one part water and add this diluted mixture into the partially-filled tank while agitating. After complete mixing, add Prowl to the tank. Fill the remainder of the tank with water while agitating.

Apply the tank mixture with ground equipment in at least 10 gals. of water per acre or by air in at least 5 gals. of water per acre (according to tank mix directions above) at the appropriate rates from table below.

Tank mixture with Prowl

Soil Texture	Broadcast Rate Per Acre	
	Prowl	Gowan Prometryne 4L
Sand, loamy sand		Do not use
Sandy loam	1-1.5 pts.	2.4-3.2 pts.
Loam	1.5-2 pts.	3.2 pts.
Silt loam, silty, sandy clay loam	1.5-2 pts.	3.2-4.8 pts.
Clay loam, silty clay loam, clay	1.5-3 pts.	3.2-4.8 pts.

Use the high rate for each soil texture above if heavy weed populations are anticipated. Use the 3 pt. rate of Prowl for heavy, clay soils.

Precautions: To Avoid crop injury, 1) Do not use in cut areas of newly leveled fields, in areas of excess salt, or in areas where flooding over the bed is likely to occur. 2) Do not plant cotton in tractor wheel depressions. 3) Do not use this tank mixture when cotton is irrigated up. 4) On mulch planted cotton, water back only after cotton seedlings are well established.

Note: Do not feed treated forage to livestock, or graze treated areas, or illegal residues may result.

Rotational Crops: If treated crop is lost, cotton may be replanted. Do not rework the soil. Refer to the Prowl label and the Cotton section of this label for rotational crop restrictions.

Trifluralin Tank Mixture (Arizona, California, New Mexico and the upper and lower El Paso Valley of Texas):

Any EPA registered 4 or 5 lbs. per gallon Trifluralin product may be used for this tank mix.

This combination controls weeds listed on this label and on the Trifluralin label. This combination also controls shallow-germinating seedlings of cocklebur and coffee-weed.

Note: Under conditions of very soft water, conduct a compatibility test with Prometryne 4L and Trifluralin to assure compatibility before mixing in spray tank. Follow procedures on the Trifluralin label for soil preparation and incorporation. Apply the tank mix combination to the flat soil before disking. Pour Gowan Prometryne 4L directly into spray tank one-half to three-fourths full of water, allow it to disperse with agitation, add Trifluralin, and then add the rest of the water. Continuous agitation in the spray tank is required to keep the material in suspension. Apply the tank mixture by ground in at least 20 gals. of water per acre or by air in at least 5 gals. of water per acre (according to tank mix directions above) at the appropriate rates from table below.

Tank Mix with Trifluralin

Soil Texture	Broadcast Rate Per Acre		
	4 lb./gal. Trifluralin	5 lb./gal. Trifluralin	Gowan Prometryne 4L
Sand, loamy sand			Do Not Use
Sandy loam	1 qt.	0.8 pt.	2.4-3.2 pts.*
Medium soils	1.5 pts.	1.2 pts.	4 pts.
Fine soils	2 pts.	1.6 pts.	4 pts.
Muck or peat			Do Not Use

*Use less than 3.2 pints per acre only in Arizona and California.

Precautions: To avoid crop injury, 1) Do not use in cut areas of newly leveled fields, in areas of excess salt, or in areas where flooding over the bed is likely to occur. 2) Do not plant cotton in tractor wheel depressions. 3) On mulch planted cotton, water back only after cotton seedlings are well established.

Note: Do not feed treated forage to livestock, or graze treated areas, or illegal residues may result.

Rotational Crops: Cabbage, celery, okra, onions, and peas may be planted in the fall after a spring application of Trifluralin + Prometryne. Winter barley, rye, and wheat can be planted in the fall if they are plowed down and not used for food or feed. Refer to the Trifluralin label for other directions and precautions.

Trifluralin Split Application (Arizona and California):

Apply a preplant incorporated application of Trifluralin as directed on that label, except use the appropriate rate from the table above. Do not apply Trifluralin before January 1. Follow at planting or just before planting with a preplant incorporated treatment of Prometryne 4L as directed in the Cotton section of this label, except use the appropriate rate from the table above.

DSMA or MSMA

For faster knockdown of the weeds controlled by Prometryne 4L alone, apply 1-1.3 pints of Prometryne 4L plus 3 lbs. active ingredient of DSMA or 2 lbs. active ingredient of MSMA per acre, following the same directions, precautions, and limitations as given on this label for Prometryne 4L applied alone, postemergence directed (chemical hoe). If needed, make a second application 1-3 weeks after the first application. Do not apply after first bloom.

Several formulations of DSMA and MSMA are available under various trade names from several manufacturers. Observe the directions, limitations, and precautions on the label of the product used.

CELERY—EXCEPT IN CALIFORNIA

Seedbeds (Florida)

Broadcast 1.2-1.6 pts. in a minimum of 20 gals of water per acre after celery has 2-5 true leaves. Application may be made over the celery. Apply only after seedbed covers have been removed from seedbeds for at least one week. Apply only once per year to seedbeds.

Transplants

Apply one application at the appropriate rate from the Table in a minimum of 20 gals. of water per acre during the 2-6 week period after transplanting. Within the rate ranges given, use the lower rate on relatively coarse-textured soils and soils low in organic matter; use the higher rate on relatively fine-textured soils.

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