

Caparol®

4L

Herbicide

For selective weed control in cotton and celery

Active Ingredient:
Prometryn: 2,4-bis
(isopropylamino)-
6-(methylthio)-s-
triazine 44.4%

Inert
Ingredients: 55.6%
Total: 100.0%

2½
Gallons
U.S. Standard
Measure

Caparol 4L contains 4 lbs. active ingredient per gal. Shake well before using.

Keep Out of Reach of Children.

Warning

See additional precautionary statements at end of label booklet.

See directions for use inside booklet.

Caparol® trademark of CIBA-GEIGY for prometryn

EPA Reg. No. 100-620

EPA Est. 100-AL-1

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Agricultural Division
CIBA-GEIGY Corporation
Greensboro, NC 27419
CGA 17L6

CIBA-GEIGY

DIRECTIONS FOR USE AND CONDITIONS OF SALE AND WARRANTY

IMPORTANT: Read the entire Directions for Use and the Conditions of Sale and Warranty before using this product

Conditions of Sale and Warranty

The Directions for Use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of CIBA-GEIGY or the Seller. All such risks shall be assumed by the Buyer.

CIBA-GEIGY warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use subject to the inherent risks referred to above. CIBA-GEIGY makes no other express or implied warranty of Fitness or Merchantability or any other express or implied warranty. In no case shall CIBA-GEIGY or the Seller be liable for consequential, special, or indirect damages resulting from the use or handling of this product. CIBA-GEIGY and the Seller offer this product, and the Buyer and user accept it, subject to the foregoing Conditions of Sale and Warranty, which may be varied only by agreement in writing signed by a duly authorized representative of CIBA-GEIGY.

General Information

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

Caparol 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, lambsquarters, annual morning-glory, malva, mustard, black nightshade, pigweed (carelessweed), purslane, Florida pusie, ragweed, smartweed, leafweed (prickly sida), barnyardgrass (watergrass), crabgrass, foxtail, goosegrass, junglerice, *Panicum* spp., signalgrass (and other *Brachiaria* spp.), and wild oats. Caparol also controls shallow-germinating seedlings of cocklebur, coffee-weed, and sandbur. It does not control johnsongrass, bermudagrass, other established perennials, or sprangletop at selective rates.

When applied before weeds emerge, Caparol 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, Caparol 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 nozzles. 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 preemergence application, use flat fan nozzle tips. For postemergence band application, use off-center nozzle tips. For postemergence 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 ½ to ¾ 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 Caparol in the tank may cause injury to these crops.

Seedbed Preparation

To insure proper placement of Caparol 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 postemergence applications of Caparol 4L. Beds should be low and flat. Take care to avoid planter marks. Wide planter packing wheels or 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 Caparol 4L needed by the formula:

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

Cotton

Caparol 4L may be applied preplant incorporated or preemergence and/or postemergence as recommended in the following tables. The postemergence applications may follow preplant incorporated or preemergence treatments of Caparol 4L.

Apply Caparol 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 gins and less cotton varieties or crop injury will occur.

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

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Preplant Incorporation (Arizona, California, and New Mexico)

Apply Caparol 4L at the appropriate rate in Table 1 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.

Table 1: Preplant Incorporation

Region	Soil texture	Broadcast rate per acre
Arizona	sand, loamy sand	Do not use
California and New Mexico	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 Caparol 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 preemergence (not both) — see Preemergence section.

Preemergence

Apply at planting or shortly after planting at the appropriate rate in Table 2. Caparol 4L may be used on cotton planted flat, on beds, or in furrows. To avoid concentration of Caparol 4L 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 while cultivating untreated row middles. Do not use on sand or loamy sand, on shallow soils with caliche subsoils, or in areas with caliche outcroppings.

Cotton may be replanted in soil previously treated with Caparol 4L. Do not apply a second preemergence application of Caparol or injury may occur.

Table 2: Preemergence

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 preemergence (not both) — See Preplant incorporation section.

Winter Weed Control in Texas

For control of winter weeds only, such as herbicide-resistant and seedling dock in fall-bedded cotton, and in the Texas Gulf Coast and Blacklands of Texas, apply 1.2-1.6 pts of Caparol 4L 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. Caparol 4L will give effective control of emerged weeds if applied before they reach 3 to 6 inches tall. For postemergence weed control, add 1 qt of surfactant, such as X-77, at 1.5% spray volume or an equal volume of 10% of spray volume to the spray tank.

Postemergence Directed

Be especially careful in applying Caparol 4L postemergence 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 clod-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 Caparol 4L when applied in cotton and is approved by EPA for use on food and feed crops. Examples include X-77, Tronic, and Triton.

Chemical Hoe (Emerged Weeds only) Apply Caparol 4L at the appropriate rate in Table 3, two or three times if necessary. In cotton 3-6 inches tall, be extremely careful to avoid spray contact with cotton leaves by applying Caparol 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 10 inches tall, apply only if cotton is bed or flat-planted.

Table 3: 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	1-1.3 pts

Lay-by (Emerged Weeds and Germinating Weeds) Apply Caparol 4L at the appropriate rate in Table 4, 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.

Table 4: 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)	sand 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 Caparol 4L was applied on cotton by no more than one of these methods that year: preplant incorporated, preemergence, or only one chemical insect treatment.

Vegetables

Cabbage,okra, onions, peas, red 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.

Caparol 4L Combinations for Cotton

Prowl (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 mixing, spraying, and incorporation methods. Continuous agitation in the spray tank is required to keep the material in suspension.

Apply the tank mixture with ground equipment in at least 10 gals of water per acre at the appropriate rates from Table 5

Table 5: Tank Mixture with Prowl

Soil texture	Broadcast rate per acre	
	Prowl	Caparol 4L
sand loamy sand	Do not use	
sandy loam	1.1-1.5 pts	2.4-3.2 pts
loam	1.5-2 pts	3.2 pts
silt loam silt 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 at one of heavy weed populations are anticipated. Use the 3 pt rate of Prowl for heavy clay soils.

Precautions: 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 as crop injury may result. Do not plant cotton in tractor wheel depressions or crop injury may result. Do not use this tank mixture when cotton is irrigated as crop injury may result. 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.

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.

Tolban® 4E

Use in a tank mixture with Caparol 4L either preplant incorporated or post-directed incorporated at lay-by, or apply Tolban 4E preplant incorporated followed by Caparol 4L preemergence in cotton for control of all weeds listed on both labels. Refer to the Tolban 4E label for all directions, precautions, and limitations.

Treflan® EC Tank Mixture (Arizona, California, New Mexico and the upper and lower El Paso Valley of Texas)

This combination controls weeds listed on this label and on the Treflan label. This combination also controls shallow-germinating seedlings of cocklebur and coffeeweed.

Follow procedures on the Treflan label for soil preparation and incorporation. Apply the tank mix combination to the final soil before disking. Pour Caparol 4L directly into spray tank one-half to three-fourths full of water, allow it to disperse with agitation, add Treflan EC 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 in at least 20 gals of water per acre at the appropriate rates from Table 6.

Table 6: Tank Mixture with Treflan EC

Soil texture	Broadcast rate per acre	
	Treflan EC	Caparol 4L
sand loamy sand	Do not use	
sandy loam	1 pt	2.4-3.2 pts*
medium soils	1 1/2 pts	4 pts
fine soils	2 pts	4 pts
muck or peat	Do not use	

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

Precautions: 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 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.

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

Rotational Crops: Cabbage, celery, okra, onions, and peas may be planted in the fall after a spring application of Treflan + Caparol. 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 Treflan EC label for other directions and precautions.

Treflan EC Split Application (Arizona and California)

Apply a preplant incorporated application of Treflan EC as directed on that label, except use the appropriate rate from Table 6. Do not apply Treflan EC before January 1. Follow at planting or just before planting with a preplant incorporated treatment of Caparol 4L as directed in the Cotton section of this label, except use the appropriate rate from Table 6.

DSMA or MSMA

For faster knockdown of the weeds controlled by Caparol 4L alone apply 1-1.3 pts of Caparol 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 Caparol 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

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.

Direct-seeded Celery (California only)

Apply Caparol 4L at rates given below in a minimum of 20 gals of water per acre. Within the rate ranges given use the lower rates on coarse-textured soils and soils low in organic matter, use the higher rates on fine-textured soils and soils high in organic matter.

Preemergence: Broadcast 2.4-3.2 pts per acre at planting or shortly after planting before celery emerges.

Postemergence: Broadcast 1.6-2 pts per acre after celery has 2-5 true leaves. Application may be made over the celery. Apply before weeds are 2 inches tall.

To Avoid Injury to Direct-seeded Celery: (1) Make either one pre-emergence or one postemergence application (not both) per celery crop. (2) Do not use on sand or loamy sand. (3) Do not apply if celery is under water stress. (4) Do not apply postemergence treatments of Caparol 4L with other pesticides. Apply only after foliar applications of other pesticides are dry. (5) Do not apply within two weeks after an application of a herbicidal oil, such as carotol oil.

Transplants

Apply one application at the appropriate rate from Table 7 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 and soils high in organic matter. Application may be made over the celery. Apply before weeds are 2 inches tall.

Table 7: Transplanted Celery

State	Soil	Broadcast rate per acre
Florida	sandy or muck	1.6-3.2 pts
	coarse-textured	2-3.2 pts
California	fine-textured	3.2-4 pts
	coarse-textured	3.2-4.8 pts
Hawaii	fine-textured	4.8-6.4 pts
	coarse-textured	3.2-4.8 pts
Michigan	fine-textured or muck	2-4 pts
Wisconsin	fine-textured	3.2-4 pts

Rotational Crops

The following crops may be seeded 5 months after applying no more than 4 pts Caparol 4L per acre on celery: Cabbage, celery, corn, onions, peas, and red beets.

Storage and Disposal

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container. Pesticide spray mixture or rinsate that cannot be used according to label instructions must be disposed of according to federal, state, or local procedures under the Resource Conservation and Recovery Act. Triple rinse (or equivalent) and offer container for recycling or reconditioning or dispose of in a sanitary landfill or by incineration if permitted by state and local authorities.

Precautionary Statements

Hazards to Humans and Domestic Animals

WARNING

May be fatal if inhaled. Harmful if swallowed or absorbed through the skin. Avoid breathing vapors or spray mist. Avoid contact with eyes, skin or clothing.

First Aid: If inhaled, move to clean air. If swallowed, give milk or water, if conscious, induce vomiting by placing finger in back of throat. Get medical attention. In case of contact with the eyes, flush with plenty of water for 15 minutes, for skin, wash with soap and water. Get medical attention if irritation persists.

Environmental Hazards

Do not contaminate any body of water by direct application, cleaning of equipment or disposal of wastes. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from areas treated.

Caparol[®] trademark of CIBA-GEIGY for prometryn

Prowl[®] trademark of American Cyanamid for pendimethalin

Tolban[®] trademark of CIBA-GEIGY for profluralin

U.S. Patent Nos. 3,546,295, 3,672,864

Treflan[®] trademark of Elanco Products for trifluralin

X-77[®] trademark of KALO Laboratories, Inc.

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Herbicide

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triazine 44.4%

Inert Ingredients: 55.6%
Total: 100.0%

Caparol 4L contains 4 lbs active ingredient per gal

Shake well before using

See directions for use in attached booklet.

EPA Reg. No. 100-620
EPA Est. 100-AL-1

2 1/2 Gallons
U.S. Standard Measure

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