

# Milogard® 4L

## Herbicide

For weed control in sorghum (milo and sweet sorghum)

Milogard 4L contains 4 lbs. active ingredient per gal.

**Active Ingredient:**  
 Propazine: 2-chloro-4,6-bis (isopropylamino)-s-triazine ..... 43%  
**Inert Ingredients:** 57%  
**Total:** 100%

**Gallons**  
 U.S. Standard Measure

**Caution:**  
 Keep out of reach of children.

Harmful if swallowed. Prolonged or repeated inhalation of mist or contact with skin may be harmful.

Do not contaminate domestic or irrigation water supplies, lakes, streams, or ponds.

Do not reuse container. Destroy when empty.

Milogard® trademark of CIBA-GEIGY for propazine  
 U.S. Patent No. 2,891,855

EPA Reg. No. 100-584

Agricultural Division  
 CIBA-GEIGY Corporation  
 Greensboro, North Carolina 27409

CGA 10L10 016

**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

Milogard 4L is a selective herbicide that may be applied before planting or after planting before sorghum or weeds emerge. Milogard 4L controls annual morningglory, carpetweed, lambsquarters, pigweed, ragweed, foxtail, smartweed, and velvetleaf.

Since Milogard enters the weeds mainly through their roots, incorporation or moisture is needed to move it into the weed root zone. Should weeds develop, a shallow cultivation or rotary hoeing will generally result in better weed control. Use for weed control in greenhouses.

**ACCEPTED**

*Oct 6, 1964*

*100-584*

#### Mixing Instructions

Mix this product with water, nitrogen solutions, or complete liquid fertilizers and apply as a spray. Pour this product into the tank during or after filling. Hydraulic (jet) or mechanical agitation is recommended during mixing and application to keep the material in suspension. All return lines to the tank must discharge below liquid level and agitation should not be so violent as to cause air bubbles to form in the liquid. Wash sprayer thoroughly after use.

To determine compatibility, pour the product into a small container of liquid, fertilizer or nitrogen solution in approximate proportion to be mixed in spray tank. Stir or shake thoroughly and stand 5 minutes. If it remains mixed, or can be remixed readily, the mixture is compatible and can be used.

#### Ground Application

For the most uniform distribution of broadcast applications use flat fan-type nozzles. For band applications, use flat fan even spray nozzles. Screens and strainers should be no finer than 50-mesh. Use a pump with capacity to (1) provide sufficient hydraulic agitation during mixing and application to keep the material in suspension and (2) maintain 30-40 psi operating pressure. Use a minimum of 10 gals. of water per acre. For band treatments, use a proportional volume.

For band applications, calculate the amount to be applied per acre as follows:

$$\frac{\text{band width in inches}}{\text{row width in inches}} \times \text{broadcast rate per acre} = \text{amount needed per acre}$$

#### Aerial Application

Apply in a minimum of 5 gals. of water per acre. Do not apply where uniform coverage cannot be obtained or where excessive spray drift may occur. Avoid application directly to humans or animals. Flagmen or loaders should avoid inhalation of spray mist or contact with skin and should wash thoroughly before eating and at the end of each day's operation.

#### Directions for Use

For preplant and preemergence applications, nitrogen solutions or complete liquid fertilizers may replace all or part of the water as a carrier with this product. See mixing instructions, under General Information.

**Preplant (Kansas, Nebraska, eastern Colorado, and South Dakota)**

Apply in the spring after plowing. If sorghum is planted on a flat soil surface, apply during or after final seedbed preparation. If sorghum is planted on beds, apply only after bed formation. Best weed control results are obtained when this product is applied within 2 weeks before planting. Shallow incorporation, not more than 2 inches deep, following application will generally result in better weed control, particularly under dry or minimum moisture conditions.

Broadleaf and grass weed control	
Soil texture	Broadcast* rate per acre
Sand, loamy sand	DO NOT USE
Sandy loam, loam	4 pts.
Silt loam, clay loam	4.8 pts.
Heavy clay or high organic matter soil	DO NOT USE

\*See the General Information section to calculate amount per acre for band treatment.

**Preplant (Oklahoma, New Mexico, Texas, the Gulf Coast states, Arkansas, and Georgia)**

Apply this product in the spring after plowing. If sorghum is planted on a flat soil surface, apply during or after seedbed preparation. If sorghum is planted on beds, apply only after bed formation. Best weed control results are obtained when this product is applied within 4 weeks before planting. Shallow incorporation, not more than 2 inches deep, following application will generally result in better weed control, particularly under dry or minimum moisture conditions. Do not incorporate preplant applications on sandy loam soils in the states listed in this section.

Soil texture	Broadleaf weed control	Broadleaf and grass weed control
	Broadcast* rate per acre	Broadcast* rate per acre
Sand, loamy sand	DO NOT USE	DO NOT USE
Sandy loam, loam	2.4 pts.	4 pts.**
Silt loam, clay loam	2.4 pts.	4.8 pts.
Heavy clay or high organic matter soil in the Gulf Coast states, Arkansas, and Georgia	2.4 pts.	6.4 pts.

\*See the General Information section to calculate amount per acre for band treatment.

\*\*To avoid crop injury, use only 2.4 pts. per acre on sandy loam in Oklahoma, New Mexico and Texas (except Texas Gulf Coast). Controls broadleaf weeds only.

**Preemergence**

Apply the amount shown in the following table at planting time or immediately after planting before weeds and sorghum emerge

Soil texture	Broadleaf weed control (Oklahoma, New Mexico, Texas and desert regions of Arizona and California only)	Broadleaf and grass weed control (all areas except as noted)
	Broadcast* rate per acre	Broadcast* rate per acre
Sand, loamy sand	DO NOT USE	DO NOT USE
Sandy loam, loam	2.4 pts.	4 pts.**
Silt loam, clay loam	2.4 pts.	4.8 pts.
Heavy clay or high organic matter soil in the Gulf Coast states, Arkansas, and Georgia	2.4 pts.	6.4 pts.

\*See the General Information section to calculate amount per acre for band treatment.

\*\*To avoid crop injury, use only 2.4 pts. per acre on sandy loam in Oklahoma, New Mexico and Texas (except Texas Gulf Coast). Controls broadleaf weeds only.

**Precaution (both preplant and preemergence)** Crop damage may result from applications on highly alkaline soil, or on eroded areas.

**Rotational Crops:** Do not rotate to any crop other than sorghum except 1) In Arkansas, Louisiana, the Texas Gulf Coast, Texas Blacklands, and the Southeast, cotton, soybeans, or corn may be planted 12 months after treatment. Do not plant other crops for 18 months after treatment. 2) In Oklahoma, New Mexico, and

West Texas, cotton or corn may be planted 12 months after a broadcast application of 2.4 pts. or after a 10-20 inch band application which was proportional to a broadcast rate of 4 pts. or less. If a higher rate per acre was used in these areas, only corn may be planted 12 months after treatment. Do not plant other crops for 18 months after treatment. 3) In all other sorghum growing regions, corn may be planted 12 months after treatment. Do not plant other crops for 18 months after treatment. 4) If replanting is necessary, sorghum may be replanted in soil treated with this product. Do not make a second application as injury may occur.

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U.S. Patent No. 2,891,855.

**RED DEADWEED, REDROOT PIGWEED, ROSARYPEA, RUSSIAN THISTLE, SHEPHERDSPURSE, SMARTWEED, SPANISH NEEDLES, SPURGE, TEAWEED, TEXAS PANDICUM (HURRAHGRASS), WILD BARLEY, WILD MUSTARD, WILD RADISH, AND YELLOW WOOD-SORREL.**

Apply CASORON G-4 either in early spring before seeds of annual weeds germinate or after cultivation has removed the growing weeds. Distribute granules uniformly over the soil surface. If treatment is followed by application of 1/2 to 1 inch of water by overhead irrigation the lower rates are recommended. Shallow incorporation immediately after application is recommended in southern areas. In other areas, shallow incorporation or sprinkler irrigation is suggested when applications are made during periods of high temperatures.

**FRUIT AND NUTS IN ORCHARDS AND NURSERIES**

CASORON G-4 may be used on the following crops; do not allow livestock to graze treated orchards:

A. Almond, Apple, Avocado, Blueberry, Cherry, Fig (California only), Grape, Mango, Nectarine, Peach, Pear, Prune Plum, Filbert, Pecan (Do not use on pecan seedlings within 6 months of planting), and English Walnut. May be used on bearing, non-bearing and nursery stock. Do not apply until 4 weeks after transplanting. Do not make application within one month of harvest of nuts or stone fruits nor within five months of harvest of figs. Apply 100 to 150 pounds per acre for annual weed control based on area actually treated. For control of perennial weeds apply 150 pounds per acre. Follow General Directions above.

B. Blackberry and Raspberry: For control of annual weeds follow General Directions above except use only on established plantings and do not apply more than 100 pounds per acre. Do not apply during new shoot emergence.

C. Citrus (bearing and non-bearing granges, grapefruit, tangerines, lemons, and limes) in groves: Apply 75 to 150 pounds per acre and incorporate immediately to a depth of 1 to 2 inches by use of power driven rotary hoe. Do not apply less than one year after transplanting, do not apply before water ring is removed.

On citrus nurseries CASORON G-4 may be used for control of annual weeds in the following citrus root stocks: Cleopatra mandarin, rough lemon, sour orange, and sweet orange. Apply CASORON G-4 to weed-free soil at 100 to 150 pounds per acre. Make first application in early spring after removal of banks, and second in early summer, not less than 90 days after the first. Apply broadcast and irrigate lightly with overhead system (1/4 to 1/2 inch).

Do not apply CASORON G-4 during 6 months following possible freeze damage on any citrus.

**WOODY ORNAMENTALS, SHELTERBELTS AND FOREST PLANTINGS**

**ESTABLISHED AND IN NURSERIES**

For control of annual weeds CASORON G-4 may be used on the following plants. Apply 100 to 150 pounds of CASORON G-4 per acre, based on area actually treated. Do not apply until 4 weeks after transplanting. Follow General Directions above.

For control of perennial weeds listed, apply 150 to 200 pounds per acre. Do not apply more than 150 pounds per acre on AZALEA, BOXWOOD, EUONYMUS, FORSYTHIA, HEATHER, HOLLY, IVY, LILAC, LEUCOTHOE. Do not apply more than 150 pounds per acre on plantings less than one year old. Follow General Directions listed above.

NOTICE STATEMENTS CAREFULLY.

**CAUTION**

HARMFUL IF SWALLOWED. Do not breathe dust. Do not allow contact with eyes or on skin. Use with caution. Avoid contamination of feed and food stuffs. Keep out of reach of children. Do not store with propagative structures such as seed, bulbs, tubers, nursery stock, etc., or with feed or food products. Do not reuse empty container. Destroy by burying in a safe place. Do not apply herbicides to plants under unusual stress, resulting from drought, frost, insects, nematodes, etc., as injury may result.

Use of CASORON G-4 on plants not listed on the label may result in damage.

**NOTICE**

Seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when such use and/or handling is contrary to label instructions.

**WEED CONTROL IN CRANBERRIES**

Control of perennial and annual, broadleaved and grassy weeds (including rushes and sedges) in cranberries can be obtained by use of CASORON G-4. The following weeds are controlled: Sensitive Fern, Bracken Fern, Royal Fern, Hair Cap Moss, Common Horsetail, Water Horsetail (pipes), Rush (Juncus spp.), Dodder, Bluejoint grass, Rattlesnake grass (Manna grass), Summer grass, Velvetgrass, Bent Grasses, Little Hairgrass, Crabgrass, Rice Cutgrass, Bunch grass, Muskrat grass, Nutsedge (Nutgrass), Short Wiregrass, Videleaf grass, Stargrass, Woolgrass, Cotton grass, Needlegrass, Oniongrass, Arrowweed, Tear Thumb, Beggarsticks, Knotweed, Loosestrife, Marsh St. Johnswort, Tideland clover, Ragweed, Sorrell, Wild Strawberry, Aster, Buckbean, Hawkweed, Western Lilaeopsis, Marsh Pea, Plantain, Smartweed (Marshpepper, Pennsylvania, Spotted, Swamp and Water).

Application should be made in early spring while perennial weeds are still dormant and annual weeds have not started to germinate or in late fall after crop has been harvested. Apply pre-bloom or post-harvest.

**Spring Treatment**

AREAS OTHER THAN PACIFIC NORTHWEST—Apply 100 pounds of CASORON G-4 per acre. Do not make spring application if treatment was made the previous fall. See specific directions for spring treatment in the Pacific Northwest.

PACIFIC NORTHWEST—Two equal applications may be made in early spring with an interval of 3 to 6 weeks between treatments. Total application should be 100 pounds per acre.

**Fall Treatment**

In all growing areas apply 100 to 150 pounds of CASORON G-4 per acre in the fall after crop has been harvested. Do not make fall application if treatment was made the previous spring. Use high rate only on very weedy bogs, or on bogs abandoned because of weeds.

**PRECAUTIONS**

Distribute CASORON G-4 uniformly. Avoid over-application which may result from over-lapping during treatment. Temporary reddening of cranberry plants may occur especially with late spring application or when applied on sandy bogs. Do not apply after cranberry plants start to bloom as yields may be reduced. Do not use on young beds or newly sanded beds or on bogs prior to or immediately after mowing for vines.

**OTHER USES**

**NUTSEDGE CONTROL:** To control nutsedge (nutgrass) on mineral soils in areas on which containers of nursery stock are to be grown or held—and also for control in non-crop areas—apply 250 to 500 pounds of CASORON G-4 per acre and incorporate immediately to a depth of 4 to 6 inches. Seasonal control of annual weeds will also be obtained. Containers of plants listed above may be placed on treated soil immediately. Do not transplant into treated soil.

**UNDER ASPHALT:** For general weed control under asphalt (in areas such as roadways, parking lots, recreational areas), after final grade is achieved, apply 250 to 300 lbs. per acre. (5-3/4 to 7 lbs. per 1,000 sq. ft.). Treated area should be covered with asphalt as soon as possible. For re-surfacing work, existing weeds should be sprayed with a contact herbicide prior to CASORON application.

Amur Corktree	Filbert	Nandina
Arbor Vitae	Flowering Almond	Oak
Ash	Flowering Quince	Osmanthus
Azalea <sup>1</sup>	Forsythia	(Holly-olive)
Barberry	Gardenia	Pachistima
Beauty Bush	Goldenrain tree	Pecan
Birch	Hackberry	Photinia
Boxelder	Heather	Pine
Boxwood	Holly (Ilex spp.) <sup>2</sup>	Pittosporum
Camellia	Honeysuckle	Poplar
Caragana	Ivy (Hedera helix)	Privet
Cleyera japonica	Juniper	Pyracantha
Cotoneaster	Kinnikinnick	Rhododendron
Cottonwood	Laurel	Rockrose
Crabapple	Leucothoe	Rose
Deutzia	Lilac	Russian Olive
Dogwood	Linden	Spiraea
Eastern Red Cedar	Locust	Squaw-carpet
Elm	Magnolia	Weigela
Etwood Cypress	Maple	Willow
English Walnut	Mock Orange	Yew (Taxus)
Euonymus	Mountain Ash	

<sup>1</sup> Kurume, Mollis, Hardy hybrid types and hardy native species only.  
<sup>2</sup> Except I. crenata, I. rotunda, I. vomitoria.

**PRECAUTIONS**

Do not use in seed beds, transplant or cutting beds or greenhouses. Do not apply until 6 months after rooting of cuttings in the field, or after planting rooted cuttings. Do not apply CASORON G-4 on fruit stock within 3 months prior to or following grafting or budding of root stocks or planting of new grafts. Do not apply more than the maximum recommended amount of CASORON G-4 per growing season. Do not use on "St. Lucie fine sand", "Arzell fine sand" or other light sand soil. Do not graze livestock in treated areas. Store in a tightly closed container in a dry place.