

001-100-0000-1
In Accordance with EPA Reg. 100-70-1
Based on Draft Labeling Dated
4/4/77

CIBA-GEIGY

Beacon

5 x 1.52 Ounce
Soluble Packets
Total 7.6 Ounces
Net Weight

HERBICIDE
for postemergence weed control
in field corn

Active ingredient	75%
3-[4-(6-Bis (2,4-dichloromethoxy) pyrimidin-2-yl)-1,2-methoxy-carbonylphenyl]sulfonylethyl urea	75%
Inert ingredients	25%
Total	100%

Beacon is a water dispersible granule. Made in Switzerland.
EPA Reg. No. 100-70-1. EPA Est. 602-MB-1

KEEP OUT OF REACH OF CHILDREN

CAUTION

See additional precautionary statements and directions for use on the product label.

The outer protective bag contains Beacon in five small inner water soluble packets. Entire inner packets and contents dissolve in water. After opening outer bag, immediately dump the required number of unopened inner packets into the partially filled sprayer or mix tank. Do not excessively handle the soluble packets or expose them to moisture, because this may cause caking.

CGA 9428050

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. If terms are not acceptable, return the unopened product container at once.

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.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Observe all precautions and limitations on this label and on the labels of each product used in tank mixtures with this product.

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.

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

Reentry Statement

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.

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. Oral warnings must inform workers of areas or fields that may not be entered without specific protective clothing until sprays have dried, and appropriate actions to take in case of accidental exposure, as described under **Precautionary Statements** on this label. 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 warnings must include the following information:

CAUTION: Area treated with Beacon on (date of application). Do not enter without appropriate protective clothing until sprays have dried. In case of accidental exposure, flush eyes or skin with plenty of water. Call a physician for treating cuts, etc. Remove and wash contaminated clothing before reuse.

General Information

Beacon is a selective herbicide applied postemergence for the control of shatter cane, sorghum-milium, johnsongrass, quackgrass, and certain other weeds in field corn grown for silage or grain. Refer to Tables 1 and 2 for a complete listing of weeds controlled.

The level of weed control following Beacon application is dependent upon rate applied, weed species, weed size at application, and growing conditions. Weed control is better when ample soil moisture exists before and after Beacon application than when the soil is dry and weeds are under stress from lack of moisture.

Beacon®

214

Growth of susceptible weeds is inhibited following application of Beacon. The leaves turn yellow and/or red after several days followed by death of the growing point and complete plant death occurs 7 to 30 days after Beacon application depending upon weed species and growing conditions. Weeds not completely killed by Beacon are often stunted and are less competitive to corn. Beacon reaching the soil during a postemergence application provides preemergence control of certain weed species.

Beacon application to field corn at labeled rates rarely causes corn injury. When injury occurs, it is of short duration and yields are not affected. Beacon may be applied to all field corn hybrids except the few that have been classified by CIBA-GEIGY Corporation as "potentially susceptible" to injury following Beacon application (Refer to precaution No. 5 in the Precautions section which follows the Field Corn-Beacon Combinations section of this label).

Application Procedures

Ground Spray Equipment: Use stainless steel, aluminum, fiberglass, or polyethylene spray tanks. Spray nozzles should be uniformly spaced and of the same size and should provide accurate and uniform application.

To assure accuracy, calibrate sprayer at the beginning of the season before use and recalibrate frequently, especially when changing carriers. For ground application, use a minimum of 10 gals. of water/A. Higher volumes (e.g., 20 gals./A) should be used under severe weed infestations to ensure adequate spray coverage.

Use a pump with capacity to (1) maintain 35-40 PSI pressure at nozzles and (2) provide sufficient agitation within the tank to keep product in suspension. Lower pressures may be used with extended range or low pressure nozzles. A centrifugal pump which provides propeller shear action for dispersing and mixing the product is recommended. The pump should provide a minimum of 20 gals./minute/100 gals. tank size circulated through correctly positioned sparger tubes or jets. Agitation during both mixing and application is essential. Use screens to protect the pump and to prevent nozzles from clogging. Screens placed on the suction side of the pump should be 16-mesh or coarser. Do not place a screen in recirculation line. Use 50-mesh or coarser screens between the pump and boom, and when required, at the nozzles. Check nozzle manufacturer's recommendations.

Good weed coverage with the spray mixture is essential for optimum weed control results. Observe sprayer nozzles frequently during the spraying operation to ensure that the spray pattern is uniform. Avoid application under conditions when uniform coverage cannot be obtained or when excessive spray drift may occur. To reduce spray drift, do not apply under windy conditions. Allow adequate distance between target area and desirable vegetation to prevent drift to nontarget areas. Avoid spray overlap, because crop injury may result. Use a nozzle spacing and boom height arrangement that avoid applying an excessive rate or Beacon directly over the corn rows. Avoid all direct or indirect contact (such as spray drift) of Beacon with crops other than corn since injury may occur.

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

Note: Do not apply this product with aerial equipment.

Mixing Instructions

1. Make sure the spray tank is clean before mixing. If it is contaminated with material, clogging may occur or injury to corn may result.
2. Fill the spray tank 1/4-1/2 full with clean water and begin agitation.
3. Make certain that the agitation system is working properly and creates a rippling or rolling action on the liquid surface.
4. Drop the required number of unopened water-soluble packets containing Beacon into the spray tank while continuing agitation and allowing time to fully disperse.
5. Follow by adding either a nonionic surfactant with a minimum of 80% of the constituents effective as a spray adjuvant (e.g., X-77®), at the rate of 1 qt. per 100 gals. of spray volume (0.25% v/v) or a petroleum- or vegetable-based crop oil concentrate containing not less than 10% emulsifier at 1 to 4 pints per acre as specified on the oil adjuvant label. The concentration of the oil adjuvant should not exceed 2.5% v/v. Liquid nitrogen fertilizer (28 to 34% nitrogen-ammonium form) may also be added at 1 to 2 pints per acre. The concentration of liquid nitrogen should not exceed 1.25% v/v. Do not use liquid fertilizer as the spray carrier.
6. Fill the spray tank approximately 3/4 full.
7. If Banvel, Butrol or 2, 4-D is desired as a tank mix partner, add it next while continuing to agitate. Do not use crop oil concentrate as the spray adjuvant or add liquid nitrogen when using these tank mixtures.
8. Complete filling the tank, maintaining sufficient agitation at all times to ensure surface action until the spray tank mixture is uniform.
9. An anti-foaming agent may be added to reduce excessive foaming, if it occurs.
10. Do not leave spray in the spray tank without continuous agitation. Always maintain agitation to avoid separation and buildup of undesirable residues on the walls of the spray tank.
11. Empty the spray tank during the spraying operation to reduce the chance for loss of any herbicidal activity.

Cleaning Equipment after Beacon Application

Because many crops are extremely sensitive to very low rates of Beacon, special attention must be given to cleaning equipment before spraying a crop other than corn. Mix only as much spray solution as needed. Immediately after spraying, clean equipment thoroughly using this procedure:

1. Flush tank, hoses, boom and nozzles with clean water for 10 minutes over an approved rinse pad.

2. Refill spray tank with water, and add 1/2 gallon chlorine bleach (containing 5 1/4% sodium hypochlorite such as Clorox) per 100 gals. of water. Let stand in tank for 15 minutes while agitating before flushing through hoses, boom and nozzles. Drain tank at an approved disposal site or noncrop area of the field.
3. Flush tank, hoses, boom and nozzles thoroughly with water to remove all traces of chlorine bleach and dispose of rinse water as indicated in number 2 above.
4. Clean nozzles and screens separately after completing the above procedures.

Field Corn - Beacon Applied Alone

Grass and broadleaf weeds which are controlled following postemergence application of Beacon are listed in Tables 1 and 2. If weeds other than those listed in Tables 1 and 2 are anticipated, apply an appropriately labeled preplant, preemergence, or postemergence herbicide or herbicide combination. Dual®, Bicep®, and Dual plus AAtrex® are examples of herbicide treatments that can precede Beacon application. Consult their respective labels for directions, precautions, and limitations before applying.

Beacon is packaged in water soluble packets. One packet treats 2 acres at the standard use rate of Beacon (0.76 oz./A). The standard use rate may be applied as a single application or a split application (2 applications of 0.38 oz./A). Table 3 indicates the number of packets required to treat various acreages with a single or split Beacon application.

Apply Beacon plus spray adjuvant postemergence over-the-top, directed or semi-directed when weed(s) are within the height range specified for optimum control in Tables 1 and 2 and when the free-standing height of the corn is between 4 and 20 inches. Complete weed coverage is essential for optimum effectiveness of Beacon. Use crop nozzles for directed or semidirected applications.

Apply a single application of Beacon at the standard use rate for control of susceptible weeds approaching the maximum height specified in Tables 1 and 2, and for greater preemergence control of weeds from late germinating seeds.

Cultivation or split application of the standard use rate is recommended to control reinfestation that may occur from regrowth or late germination of weeds and to improve weed control under dry conditions. The second application of the split should be made when the new weed growth is within the height range for optimum control listed in Tables 1 and 2 and before the corn height exceeds 20 inches.

Notes: To avoid possible illegal residues, (1) Do not graze or feed forage from Beacon treated corn to livestock within 30 days after application, (2) Do not apply more than the standard use rate/A of Beacon, and (3) Complete all Beacon applications before the corn height exceeds 20 inches.

Table 1—Grass Weed Species Controlled in Field Corn with Beacon.

Grass Weed Species	Weed Height Range for Optimum Control (Inches)
Shattercane (<i>Sorghum bicolor</i>)	
Sorghum-almum (<i>Sorghum almum</i>)	4 to 12
Seeding johnsongrass (<i>Sorghum halepense</i>)	
Rhizome johnsongrass (<i>Sorghum halepense</i>) [*]	8 to 16
Quackgrass (<i>Agropyron repens</i>) ^{**}	4 to 8
Fall Panicum (<i>Panicum dichotomiflorum</i>)	Less than 2

^{*}Regrowth may occur. Control unacceptable regrowth with cultivation or the split application as described above.

^{**}Control of quackgrass is slower compared to other grass weed species.

Table 2—Broadleaf Weed Species Controlled in Field Corn with Beacon.

Broadleaf Weed Species	Weed Height Range for Optimum Control (Inches)
Canada thistle (<i>Cirsium a. vense</i>) [*]	
Common ragweed (<i>Ambrosia artemisiifolia</i>)	2 to 9
Giant ragweed (<i>Ambrosia trifida</i>)	
Cocklebur (<i>Xanthium</i> spp.)	
Devilsclaw (<i>Proboscidea louisianica</i>)	
Eastern Black Nightshade (<i>Solanum nigrum</i>)	
Florida beggarweed (<i>Desmodium illinoense</i>)	
Jerusalem artichoke (<i>Helianthus tuberosus</i>)	
Jimsonweed (<i>Datura stramonium</i>)	
Kochia (<i>Kochia scoparia</i>)	1 to 4
Ladysthumb (<i>Polygonum persicaria</i>)	
Pennsylvania smartweed (<i>Polygonum pennsylvanicum</i>)	
Pigweed (<i>Amaranthus</i> spp.)	
Prickly sida (<i>Sida spinosa</i>)	
Sunflower (<i>Helianthus</i> spp.)	
Velvetleaf (<i>Abutilon theophrasti</i>)	
Common lambsquarters (<i>Chenopodium album</i>) [*]	Less than 1.5

^{*}Provides partial control/suppression.

Table 3—Number of Beacon Water Soluble Packets Required to Treat Various Acreages With a Single or Split Application of the Standard Use Rate.

Number of Acres to Treat	Number of Water Soluble Packets		
	Single Application	Split Application	
		1st Application	2nd Application
2	1 packet	—	—
4	2 packets	1 packet	1 packet
6	3 packets	—	—
8	4 packets	2 packets	2 packets
10	5 packets (1 bag)	—	—
12	6 packets	3 packets	3 packets
14	7 packets	—	—
16	8 packets	4 packets	4 packets
18	9 packets	—	—
20	10 packets (2 bags)	5 packets (1 bag)	5 packets (1 bag)

1 bag contains 5 packets.

Field Corn—Beacon Combinations

For postemergence control of broadleaf weeds not controlled by Beacon, tank mixtures with Banvel (dicamba), Buctril (bromoxynil), or 2, 4-D may be used to increase the spectrum of control. When used in tank mixture with these herbicides, apply Beacon as recommended in preceding Tables 1 and 2 and use the tank mix partner as directed on its label.

Precautions: Do not use crop oil concentrate as the spray adjuvant or add liquid nitrogen when using these tank mixtures. Use only a nonionic surfactant with a minimum of 80% of the constituents effective as a spray adjuvant at the rate of 1 qt per 100 gals. of spray volume (0.25% v/v).

Precautions

Follow the precautions listed below to reduce chances for crop injury and/or to avoid reduced weed control:

1. Apply Beacon postemergence over-the-top when free-standing corn height is between 4 and 20 inches. Corn plants less than 4 and greater than 20 inches tall may be more susceptible to injury.
2. Beacon should not be applied if corn is under severe stress due to drought, flooding, disease, insect damage, or nutrient deficiency.
3. Beacon should not be applied if the insecticide Counter[®] is applied to the crop at any time during the season. The likelihood of severe corn injury is increased following Beacon application if Counter is used. If insecticides other than Counter are applied at the time of corn seeding, wait at least 20 days after planting to apply Beacon.
4. Do not apply a foliar postemergence application of an organophosphate insecticide within 10 days before or after Beacon application.
5. Beacon may be applied to field corn hybrids except the few that are classified by CIBA-GEIGY Corporation as potentially susceptible to injury following Beacon application. Consult your chemical dealer, seed supplier, or representative of the Agricultural Division of CIBA-GEIGY Corporation for a current listing of field corn hybrids classified as "potentially susceptible" to Beacon. The list is available only in states where "potentially susceptible" hybrids is (are) marketed.
6. Do not apply Beacon in tank mixtures with insecticides, fungicides, other herbicides, or any other chemicals not recommended on this label.
7. Aphids or other insects infesting johnsongrass may move to the corn crop following control of the johnsongrass with Beacon. The insects may transmit viral diseases to the corn resulting in corn stunting, leaf discoloration, and yield loss. Virus resistant corn hybrids and/or control of the insects may be used to reduce the likelihood of disease development.
8. Do not irrigate within 4 hours after Beacon application. Rainfall occurring within 4 hours after Beacon application may reduce weed control.
9. Do not allow spray drift to nontarget crops or other desirable plants.

Crop Failure

If corn treated with Beacon is lost due to a catastrophe (for example, hailstorm), corn hybrids with good tolerance to Beacon (refer to current list of tolerant corn hybrids) may be replanted 14 days or more after application unless dry weather has persisted. For control of weeds in replanted corn, Beacon may be applied postemergence a second time only if the total Beacon applied during the cropping season does not exceed the standard rate.

Rotational Crops

The following crops may be rotated at the intervals indicated following an application of Beacon to corn.

Rotational Crop	Interval	Notes
Winter wheat	3 months	Injury may occur if dry weather prevails during much of the time between Beacon application and seeding of wheat.
Alfalfa, corn, cotton, dry beans, peanuts, sorghum, soybeans, sunflowers, spring seeded small grains	8 months	Injury may occur to sorghum if dry weather prevails during much of the time between Beacon application and seeding of sorghum.
All other crops	18 months	

For rotational crop restrictions when Beacon is used in tank mixtures, refer to the rotations above for Beacon and to the respective product labels of any mixing partner for additional restrictions.

Storage and Disposal

Pesticide Storage and Disposal

Storage: Store in a cool, dry place. Do not store this product under wet conditions. Handle outer bag carefully when stored at temperatures less than 50°F to avoid breakage of inner soluble packets.

Pesticide Disposal: Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. Open dumping is prohibited. Wastes resulting from the use of this product are toxic. Improper disposal of unused pesticide, spray mixture or rinsate is a violation of federal law. Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to federal, state or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office.

Container Disposal: Do not reuse outer bag. Dispose of outer bag in a sanitary landfill, or by incineration, or by open burning, if allowed by state and local authorities. If burned, keep out of smoke.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire or other emergency, call 1-800-888-8372 day or night.

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION

Causes eye irritation. Harmful if inhaled or absorbed through skin. Avoid contact with skin, eyes, or clothing. Wear long-sleeved shirt and gloves when mixing/loading or applying this product. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

Statement of Practical Treatment

If in eyes: Flush eyes with plenty of water. Get medical attention.

If inhaled: Remove victim to fresh air.

If on skin: Wash with plenty of soap and water. Get medical attention.

Environmental Hazards

Do not contaminate water when disposing of equipment wash waters. Do not apply directly to water or wetlands.

AAtrex[®], Beacon[®], Bicep[®], and Dual[®] are trademarks of CIBA-GEIGY Corporation.
U.S. Patent Nos. 3,937,730 and 4,478,635.

Banvel[®] trademark of Sandoz Chemical Corp. for dicamba.
Buctril[®] trademark of Rhone-Poulenc Chemical Company for bromoxynil.
Counter[®] trademark of American Cyanamid Company for terbufos.
X-77[®] trademark of KALO Agricultural Chemicals, Inc.

© 1990 CIBA-GEIGY Corporation

Agricultural Division
CIBA-GEIGY Corporation
Greensboro, North Carolina 27419
CGA 94L8 050

4/4

Beacon

CIBA-GEIGY

Herbicide

For postemergence
weed control in field corn

Active ingredient: 3-[4, 6-Bis
(difluoromethoxy)-pyrimidin-2-yl]-1-(2-
methoxycarbonylphenylsulfonyl) urea 75%
Inert ingredients: 25%

Total: 100%

Made in Switzerland.

Beacon is a water dispersible granule.

See directions for use in the attached booklet.

EPA Reg. No. 100-785

EPA Est. 602-MO-1

Beacon is a trademark of CIBA-GEIGY Corporation

U.S. Patent No. 4,478,635

5 x 1.52 Ounce

Soluble Packets

Total 7.6 Ounces

Net Weight

Keep Out of Reach of Children
Caution

Precautionary Statements

Hazards to Humans and
Domestic Animals

Causes eye irritation. Harmful if inhaled or absorbed through skin. Avoid contact with skin, eyes, or clothing. Wear long-sleeved shirt and gloves when mixing, loading, or applying this product. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

Statement of Practical Treatment

If in eyes: Flush eyes with plenty of water. Get medical attention.

If inhaled: Remove victim to fresh air.

If on skin: Wash with plenty of soap and water. Get medical attention.

Environmental Hazards

Do not contaminate water when disposing of equipment wash waters. Do not apply directly to water or wetlands.

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

Container Disposal: Do not reuse outer bag. Dispose of outer bag in a sanitary landfill or by incineration or by open burning if allowed by state and local authorities. If burned, keep out of smoke.

©1990 CIBA-GEIGY Corporation

Agricultural Division
CIBA-GEIGY Corporation
Greensboro, NC 27419
CGA 94L8 050