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10 MAR 1993

Ms. Karen S. Stumpf
Ciba Plant Protection
CIBA-GEIGY Corporation
P. O. Box 18300
Greensboro, NC 27419

Dear Ms. Stumpf:

Subject: Beacon® Herbicide
EPA Registration Number 100-705
Application Dated October 9, 1992, Request
To Apply Beacon Herbicide Aerially; and
Your Letters Dated February 5, 1993, Expressing
Your Concern for Lack of EPA Protocols for Tier III
Nontarget Plant Phytotoxicity Study and March 4, 1993
Submission of Revised Proposed Labeling To Include
Aerial Application

The proposed amendment to allow aerially application of the subject pesticide product has been determined to be acceptable under section 3(c)(7)(A) of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), provided that you:

1. Added the following percautionary use statements to the March 6, 1993 proposed labeling, under the heading "Spray Drift Use Precautions"

"AVOID SPRAY DRIFT

Do not allow spray from ground or aerial equipment to drift onto adjacent land or crops. When drift may be a problem, do everything possible to reduce spray drift, including:

- o Do not spray if wind speeds are or become excessive. Do not spray if wind speed is 10 MPH or greater. If sensitive crops or plants are downwind, extreme caution must be used under all conditions. Do not spray if winds are gusty.

- o Use extreme caution when conditions are favorable for drift (High tempeatures, drought, low relative humidity), especially when sensitive plants are located nearby.

- o Drift from aerial applications of the herbicide is likely to resultuin in damage to sensitive plants adjaceent to tne treatment site. This damage can occur at levels below the concentrations that can be detected with chemical analysis.

o Do not apply when a temperature inversion exists. If an inversion condition is suspected, consult with local wheather services before making an application.

o Further reductions in drift can be obtained by:

1. Using large droplet size sprays. Do not use nozzles that produce small droplets. Orient nozzles downward and slightly backward as needed to reduce drift for ground applications.

2. Orienting nozzles straight back with the windstream, using straight stream orificee for aerial application. Use the lowest number of nozzles practical with the largest possible orifice size to obtain the minimum one GPA volume. Application height and boom length should be set according to manufacturer's instructions to minimize drift.

3. Reducing the volume of spray mixture (for example a minimum of 10 GPA for ground applications) by using lower flow rate nozzles. Using lower pressure with the appropriate nozzle to obtain higher volumes will also reduce spray drift.

4. Apply as close to target plants as practical while maintaining a good spray pattern for adequate coverage."

1. Submit five (5) printed copies of your final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA Section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely yours,

Joanne I. Miller
Product Manager (23)
Fungicide-Herbicide Branch
Registration Division (H-7505C)

Enclosure

E.Wilson:diskette #0007b, 03-01-93

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AERIAL LABEL

Rcvd 3-9-93.
NAC Eugene Wilson

Beacon®
Herbicide

For postemergence
weed control
in field corn and popcorn

Active Ingredient:

3-[4,6-Bis(difluoromethoxy)-pyrimidin-2-yl]-1-(2-methoxycarbonylphenylsulfonyl)urea	75%
Inert Ingredients	25%
Total:	100%

ACCEPTED
with COMMENTS
In EPA Letter Dated:
10 MAR 1993
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

Made in Switzerland.

Beacon is a water-dispersible granule.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-705

EPA Est. 100-NC-2^{G} (Sample Packet)
32761-MO-3^{F} 11773-IA-1^{W}
100-SW-001©

Superscript is first letter of lot number on bag.

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 rupturing.

5 X 1.52 Ounce Water-Soluble Packets
Total 7.6 Ounces
Net Weight

CGA 34L8

[GANNONC.LABELB]BEACON-A - 3/3/93

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 physician if irritation persists. Remove and wash contaminated clothing before reuse."

General Information

Beacon is a selective herbicide applied postemergence for the control of shattercane, sorghum-almum, johnsongrass, quackgrass, and certain other weeds in field corn grown for silage or grain and popcorn. Application may be made by ground or aerial equipment to young, actively growing weeds. Refer to Tables 1 and 2 for a complete listing of weeds controlled.

The level of weed control following Beacon application is dependent upon 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.

Where reference is made to weeds partially controlled, partial control can mean either erratic control from good to poor or consistent control at a level below that generally considered acceptable for commercial weed control.

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 at labeled rates rarely causes corn injury. When injury occurs, it is generally of short duration and yields are not affected.

Precautions

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

1. Apply either a single postemergence Beacon application at the standard use rate (0.76 oz./A) or the initial application of a split postemergence application (2 applications of 0.38 oz./A) over-the-top directed or semi-directed when free-standing corn height is between 4 and 20 inches. Corn plants less than 4 inches tall may be more susceptible to injury. The second Beacon application of the split must be applied directed with drop nozzles when corn is between 20 inches tall and before tassel emergence.
2. Beacon should not be applied if corn is under severe stress due to drought, flooding, disease, insect damage, or nutrient deficiency.
3. If organophosphate insecticides (i.e., AAstar®, Dyfonate®, Lorsban®, or Thimet®), are applied at planting or before applying Beacon, temporary injury may occur following the Beacon application. Do not apply terbufos (Counter®) at planting, before, or within seven days after applying Beacon. If terbufos (Counter) has been applied before making a Beacon application, the likelihood of severe crop injury is increased. Do not make a foliar postemergence or soil application of an organophosphate insecticide within 10 days before and 7 days after a Beacon application.
4. Beacon may be applied to all field corn hybrids, except the few that are classified by CIBA-GEIGY Corporation as poten-

tially 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.

5. Beacon can be applied to popcorn and inbred lines of field corn. Popcorn and inbred lines grown for hybrid seed production may be severely injured by Beacon application. Not all inbred lines or popcorn hybrids have been tested for sensitivity to Beacon. The response of specific inbreds or popcorn hybrids to Beacon has not been established where an organophosphate insecticide has been used. Therefore, inbred lines and popcorn should be thoroughly tested for potential sensitivity to Beacon under prevailing conditions before treating large acreage. Do not use Beacon on sweet corn.

6. 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.

7. Do not irrigate within 4 hours after Beacon application. Rainfall occurring within 4 hours after Beacon application may reduce weed control.

8. Crop competition with the weeds is particularly important for season-long control of target grasses. Some regrowth may occur where the corn crop is not competitive. Best performance can be obtained by following weed height and application recommendations listed later in this label.

9. Decaying johnsongrass rhizomes have been shown to release compounds which can stunt corn. The potential for corn stunting may be reduced if rhizome masses are broken up through tillage prior to planting corn.

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 the 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 of Beacon directly over the corn rows. Boom height for broadcast over-the-top application should be based upon the free-standing height of the corn.

Do not apply Beacon as a band application directly over the corn rows. Beacon must be applied postemergence over-the-top, directed, or semi-directed. If the corn canopy would prevent adequate weed coverage, apply Beacon directed or semi-directed with drop nozzles even if the corn height is less than 20 inches. Beacon must be applied directed with drop nozzles when corn is between 20 inches tall and before tassel emergence. 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.

Aerial Application: Apply Beacon in water using a minimum spray volume of 3 gals. per acre. Include a nonionic surfactant, i.e., X-77®, at 1 qt. per 100 gals. of spray mix (0.25% volume/volume), or a good quality crop oil concentrate at no more than 2 pts. per acre (See Mixing Instructions below). Avoid application under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. Make appli-

cations at a maximum height of 10 ft. above the corn with low drift nozzles at a maximum pressure of 40 psi and wind speed not exceeding 10 mph to assure accurate Beacon application within the target area.

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.

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 gallon or less per acre. Liquid nitrogen fertilizers should not be used as a substitute for crop oil concentrate or nonionic surfactant in the spray mixture. Do not use liquid fertilizer as the spray carrier.
6. Fill the spray tank approximately 3/4 full.
7. If Banvel, Buctril 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. Make only sufficient spray mixture which can be used the day in which it will be sprayed. Beacon will remain active in the spray solution for at least 48 hours.

Cleaning Equipment after Beacon Application

Because many crops are extremely sensitive to 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. Prepare a tank cleaning solution of one gallon of household ammonia per 50 gallons of water. Use sufficient cleaning solution to thoroughly rinse all surfaces.
2. When available, use a pressure rinser to clean the inside of the spray tank with this solution. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.
3. Dispose of rinsate in an appropriate manner. Spray the cleaning solution on untreated corn, or return to a rinsate tank for later use as make-up water for spraying corn.
4. Repeat steps 1-3.
5. Remove nozzles and screens and clean separately after completing the above procedures to avoid injury to crops sprayed after the Beacon/corn application.

Beacon Applied Alone

Grass and broadleaf weeds which are controlled following postemergence application of a full (0.76 oz./A) rate 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). Apply a single application of Beacon at the standard use rate 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 drop nozzles for directed or semi-directed applications.

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. A waiting period of seven days after Beacon application is recommended before making a cultivation or weed control may be reduced. Where shattercane is the target weed species, Beacon may be applied at cultivation but some regrowth of shattercane may occur. Apply Beacon ahead of cultivators; do not cultivate and then apply Beacon.

For optimum control of johnsongrass, cultivation or split application of the standard use rate (2 applications of 0.38 oz./A) is recommended to control reinfestation that may occur from regrowth. Alternatively, apply 0.50 oz./A (3 acres/packet) at the first application, followed by an application of 0.25 oz./A (6 acres/packet) to control regrowth. The initial application of the split should be made when the weed height is within the range specified for optimum control in Table 1 and when the free-standing corn height is between 4 and 20 inches. The second application of the split should be made when the new weed growth is within the height range for optimum control listed in Table 1 and before tassel emergence.

After several years' use of Beacon or other products for johnsongrass or shattercane control, stands of these weeds may be substantially reduced. In fields with only seedling johnsongrass or with light populations of shattercane, use a split application of Beacon by applying 0.5 oz./A (3 acres per packet) of Beacon. Follow with a second application of 0.26 oz./A (6 acres per packet) to control rhizome johnsongrass or any shattercane which may germinate in later flushes.

The number of packets required to treat various acreages with a single or split Beacon application is listed in Table 4.

Notes: To avoid possible illegal crop residues: (1) Do not graze or feed forage from Beacon treated corn to livestock within 30 days after application, (2) Do not harvest silage within 45 days after application, (3) Do not harvest grain within 60 days after application, (4) Do not apply more than the standard use rate/A of Beacon, and (5) Complete all Beacon applications to corn before tassel emergence.

Table 1 - **Grass Weed Species Controlled with Beacon.**

Grass Weed Species	Weed Height Range for Optimum Control (inches)
Shattercane or volunteer sorghum (Sorghum bicolor) Sorghum-almum (Sorghum almum) Seedling johnsongrass (Sorghum halepense)	4 to 12
Rhizome johnsongrass (Sorghum halepense)*	8 to 16
Quackgrass (Agropyron repens)**	4 to 8
Fall Panicum (Panicum dichotomiflorum)	Less than 2
Foxtails (Setaria spp.)***	1-2
Sandbur (Cenchrus spp.)***	1-4
Annual Ryegrass (Lolium multiflorum)	1-4
Yellow Nutsedge (Cyperus esculentus)***	1-4

*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.

***Partial control/suppression. Control is most effective under conditions favorable for weed growth (i.e., adequate moisture, optimum temperature conditions). Do not use Beacon to control these species if the weeds are subject to stress conditions (i.e., drought, cold temperature, etc.), or are not actively growing. Some other means of control should be used if infestations are severe.

Table 2 - **Broadleaf Weed Species Controlled with Beacon Applied at 0.76 oz./A.**

Broadleaf Weed Species	Weed Height Range for Optimum Control (inches)
Canada thistle (Cirsium arvense)* Common ragweed (Ambrosia artemisiifolia) Giant ragweed (Ambrosia trifida) Horseweed (Marestail, Conyza canadensis)* Horsenettle (Solanum carolinense)*	2 to 9
Burcucumber (Sicyos angulatus) Cocklebur (Xanthium spp.) Devilsclaw (Proboscidea louisianica) Black Nightshade (Solanum nigrum) Eastern Black Nightshade (Solanum ptycanthum) Florida beggarweed (Desmodium tortuosum) Hairy Nightshade (Solanum sarrachoides) Jerusalem artichoke (Helianthus tuberosus) Jimsonweed (Datura stramonium) Kochia (Kochia scoparia) Ladysthumb (Polygorum persicaria) Pennsylvania smartweed (Polygonum pensylvanicum) Pigweed (Amaranthus spp.) Prickly sida (Sida spinosa) Puncturevine (Tribulus terrestris) Wild Radish (Raphanus raphanistrum) Russian thistle (Salsola iberica)* Sunflower (Helianthus spp.) Sesbania (Sesbania exaltata) Velvetleaf (Abutilon theophrasti)**	1 to 4
Alfalfa (Medicago sativa)* Common lambsquarters (Chenopodium album)* Morningglory (Ipomoea spp.)* Sicklepod (Cassia obtusifolia) Wild Mustard (Sinapis arvensis)	Less than 1.5

*Provides partial control/suppression.

**Crop oil concentrate plus liquid nitrogen fertilizer (1 gallon per acre) are recommended as spray adjuvants.

Beacon applied at 0.38 oz./A (4 acres per packet) will control the broadleaf weeds listed in Table 3 when applied at the specified heights. Additionally, Beacon applied at 0.38 oz./A will provide partial control/suppression of shattercane, sorghum-almum, and seedling johnsongrass under conditions favorable for

weed growth (i.e., adequate moisture, no excessively cool temperatures, etc.). If residual control of the broadleaf weed species is desired, or if prevailing weather or soil conditions (cold temperatures, drought, etc.) are not favorable for weed growth, use Beacon at the rates listed in Table 2, or in combination with other broadleaf herbicides as described in the Beacon Combinations for Broadleaf Weed Control section.

Table 3: Broadlead Weed Species Controlled with Beacon Applied Alone at 0.38 oz./A*

Broadleaf Weed Species	Weed Height Range for Optimum Control (inches)
Cocklebur (*Xanthium strumarium*)	1-4
Common Ragweed (*Ambrosia artemisiifolia*)	2-6
Eastern Black Nightshade (*Solanum ptycanthum*)	1-4
Giant Ragweed (*Ambrosia trifida*)	2-6
Jimsonweed (*Datura stramonium*)	1-4
Pennsylvania smartweed (*Polygonum pensylvanium*)	1-2
Redroot Pigweed (*Amaranthus retroflexus*)	1-3
Sunflowers (*Helianthus spp.*)	1-4

*If residual control is desired, or if conditions are unfavorable for weed growth (i.e., drought, cool temperature), use the 0.76 oz./A (2 acres per packet rate of Beacon.

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Table 4 - 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		
		Split Application	
	Single 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.

Beacon Combinations for Broadleaf Weed Control

Precautions: (1) Do not use crop oil concentrate as the spray adjuvant or add liquid nitrogen when using the following 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). (2) CIBA-GEIGY generally does not recommend tank-mixtures of Beacon with other agricultural products not listed on this label due to the possibility of reduced control, crop injury, or other undesirable interactions. If Beacon is applied in tank mixture with other products, follow the most restrictive labeling requirements.

Beacon Standard Rate (0.76 oz./A, 2 acres/packet) Tank Mixtures:

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 this label and use the tank mix partner as directed on its label.

Beacon Broadleaf Rate (0.38 oz./A, 4 acres/packet) Tank Mixtures

Beacon applied at 0.38 oz./A will control/suppress the weeds listed in

Table 5 when tank mixed with Banvel
Table 6 when tank mixed with Buctril
Table 7 when tank mixed with 2,4-D

Weeds should be actively growing at application. If weeds exceed the heights listed in Tables 5-7, use either the 0.76 oz./A rate of Beacon alone or in tank mixture with the full rate of the tank mix partner. A preemergence herbicide should be applied for grass control, and may improve control of some of the weeds listed in Tables 5-7. Follow all restrictions on the labels of the tank mix partners.

*The rates of 2,4-D listed in Table 7 are in pts. of 4 lb./gal./formulations/A. If another formulation is used, adjust the dosages to apply the same amount of active ingredient/A.

Precautions: Do not use crop oil concentrate as a spray additive when using these tank mixtures.

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Table 5: Broadleaf Weeds Controlled or Suppressed with Tank Mixtures of Beacon at 0.38 oz./A with Banvel*

Broadleaf Weed Species	Pints of Banvel	Weed Height Range for Optimum Control (in.)
Common Lambsquarters	1/4 - 1/2	1 - 3
Pigweeds	1/4 - 1/2	1 - 5
Velvetleaf	1/2	1 - 4
Burcucumber	1/4 - 1/2	1 - 4
Common Ragweed	1/4 - 1/2	2 - 6
Giant Ragweed	1/4 - 1/2	2 - 6
Ladysthumb	1/4 - 1/2	1 - 4
Pennsylvania Smartweed	1/4 - 1/2	1 - 4
Canada Thistle	1/2	1 - 3
Black Nightshade	1/4 - 1/2	1 - 4
E. Black Nightshade	1/4 - 1/2	1 - 4
Common Sunflower	1/4 - 1/2	2 - 6
Jimsonweed	1/4 - 1/2	1 - 4
Cocklebur	1/4 - 1/2	1 - 4
Hemp Dogbane**	1/2	1 - ?
Poison Ivy**	1/2	1 - 3
Pokeweed**	1/2	1 - 3

*Best control is obtained if weeds are at the listed heights at application. Use the higher rate of Banvel if conditions are unfavorable for weed growth (i.e., drought, cool temperatures, etc.)
**Partial control/suppression.

18804-25

Table 6: Broadleaf Weeds Controlled or Suppressed with Tank Mixtures of Beacon at 0.38 oz./A with Buctril*

Broadleaf Weed Species	Pints of Buctril	Weed Height Range for Optimum Control (in.)
Common Lambsquarters	1/2 - 3/4	1 - 8
Pigweeds	1/2 - 3/4	1 - 5
Velvetleaf	3/4 - 1	1 - 4
Burcucumber	1/2 - 3/4	1 - 3
Common Ragweed	1/2 - 3/4	2 - 6
Giant Ragweed	1/2 - 3/4	2 - 6
Ladysthumb	1/2 - 3/4	1 - 4
Pennsylvania Smartweed	1/2 - 3/4	1 - 4
Black Nightshade	1/2 - 3/4	1 - 4
E. Black Nightshade	1/2 - 3/4	1 - 4
Common Sunflower	1/2 - 3/4	2 - 6
Jimsonweed	1/2 - 3/4	1 - 4
Cocklebur	1/2 - 3/4	1 - 4

*Best control is obtained if weeds are at the listed heights at application. Use the higher rate of Buctril if conditions are unfavorable for weed growth (i.e., drought, cool temperatures, etc.)
**Partial control/suppression.

Table 7: Broadleaf Weeds Controlled or Suppressed with Tank Mixtures of Beacon at 0.38 oz./A with 2,4-D (Rates in pts. of 4 lb./gallon product)*

Broadleaf Weed Species	Rates of 2,4-D	Weed Height Range for Optimum Control (in.)
Common Lambsquarters	1/2 - 1	1 - 3
Pigweeds	1/2 - 1	1 - 5
Velvetleaf	1/2 - 1	1 - 4
Burcucumber	1/2 - 1	1 - 3
Common Ragweed	1/2 - 1	2 - 6
Giant Ragweed	1/2 - 1	2 - 6
Ladysthumb	1/2 - 1	1 - 4
Pennsylvania Smartweed	1/2 - 1	1 - 4
Canada Thistle	1/2 - 1	1 - 3
Black Nightshade	1/2 - 1	1 - 4
E. Black Nightshade	1/2 - 1	1 - 4
Common Sunflower	1/2 - 1	2 - 6
Jimsonweed	1/2 - 1	1 - 4
Cocklebur	1/2 - 1	1 - 4
Hemp Dogbane**	3/4 - 1	1 - 3
Poison Ivy**	3/4 - 1	1 - 3
Honeyvine Milkweed**	3/4 - 1	1 - 3
Common Milkweed**	3/4 - 1	1 - 3
Pokeweed**	1	1 - 3

*Best control is obtained if weeds are at the listed heights at application. Use the higher rate of 2,4-D if conditions are unfavorable for weed growth (i.e., drought, cool temperatures, etc.)
**Partial control/suppression.

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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
Field corn	14 days	Refer to crop failure section.
Winter wheat, Winter barley, Rye	3 months	Injury may occur if dry weather prevails during much of the time between Beacon application and seeding of winter cereals.
Alfalfa, sweet corn, popcorn, cotton, dry beans, peanuts, sorghum, soybeans, sunflowers, spring seeded small grains	8 months	Injury may occur to sorghum, alfalfa, or sunflowers if dry weather prevails during much of the time between Beacon application and seeding of these crops.
All other crops	18 months	

Notes: (1) 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. (2) Do not use in the Red River Valley

areas of Minnesota or N Dakota unless corn will be the only crop grown in the following two seasons.

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 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 apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters or rinsate.

AAtrex®, Accu-Pak™, Beacon®, Bicep®, and Dual® trademarks of CIBA-GEIGY Corporation
U.S. Patent Nos. 4,022,611 and 4,478,635

Banvel® trademark of Sandoz Chemical Corp.

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Lorsban® trademark of DowElanco Company

X-77® trademark of Chevron Chemical Company

Agricultural Division
CIBA-GEIGY Corporation
Greensboro, North Carolina

CGA 98L8

[GANNONC.LABELE]BEACON-A - 3/3/93

PSL
Back Label

Beacon®

Herbicide

For postemergence
weed control
in field corn and popcorn

Active Ingredient:	
3-[4,6-Bis(difluoromethoxy)-pyrimidin-2-yl]-1-(2-methoxycarbonylphenylsulfonyl)urea	75%
Inert Ingredients	25%
Total:	100%

Made in Switzerland.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See directions for use in attached booklet.

EPA Reg. No. 100-705

EPA Est. 100-NC-2^{G} (Sample Packets Only)
32761-MO-3^{F}
11773-IA-1^{W}
100-SW-001©

Superscript is first letter of lot number on bag.

Beacon is a water-dispersible granule.

Beacon® trademark of CIBA-GEIGY Corporation
U.S. Patent No. 4,478,635

Agricultural Division
CIBA-GEIGY Corporation
Greensboro, NC 27419

CGA 94L8

5 X 1.52 Ounce Water-Soluble Packets
Total 7.6 Ounces
Net Weight

CIBA-GEIGY

KEEP OUT OF REACH OF CHILDREN

CAUTION

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Environmental Hazards

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters or rinsate.

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.

1/21/91 - split application and adm. amendments
10/4/91 - adm. amendments
2/13/92 - adm. amendments (Counter and cultivation)
5/21/92 - tank mixture recommendation
10/29/92- adm. amendments
3/3/93 - aerial application