Personal Protective Equipment:

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves
- Chemical-resistant footwear plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls Statements: When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards

For terrestrial uses, do not apply directly to water, or 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. This pesticide contains atrazine, which has been shown to be toxic to aquatic invertebrates. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas.

Ground Water and Surface Water Advisory

Bicep DF contains both the active ingredients atrazine and metolachlor.

Atrazine can travel (seep or leach) through soil and can enter ground water which may be used as drinking water. Atrazine has been found in ground water. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (ground water) is close to the surface and where these soils are very permeable, i.e., well-drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water.

Metolachlor has been identified in limited sampling of ground water and there is the possibility that it may leach through the soil to ground water, especially where soils are coarse and ground water is near the surface. Following application and during rainfall events that cause runoff, metolachlor may reach surface water bodies including streams, rivers, and reservoirs.

Care must be taken when using this product to prevent back siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates.

Check valves or antisiphoning devices must be used on all mixing equipment.

This product may not be mixed/loaded or used within 50 feet of all wells, including abandoned wells, drainage wells, and sink holes.

Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash-water, and rain-water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all The above-specified minimum containment capacities do times. not apply to vehicles when delivering pesticide shipments to the mixing/loading site.

States may have in effect additional requirements regarding well-head setbacks and operational area containment.

This product may not be mixed or loaded within 50 feet of intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be applied aerially or by ground within 66 feet of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 feet around natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66 foot buffer or setback from runoff entry points must be planted to crop or seeded with grass or other suitable crop.

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Ciba Plant Protection Ciba-Geigy Corporation Greensboro, North Carolina 27419

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CGA 135L1B 083

Revised June, 1993 -Atrazine well set-back language, PR Notice 93-3, name & logo changes Revised Aug. 1993 - WPA

[GANNONC.LABELB]BICPDFWS - 8/5/93

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

APR 1 3 1921

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Karen S. Stumpf CIBA-GEIGY CORP. P.O. BOX 18300 GREENSBORO, NC 27419

WITED STATES

Subject: Label Amendment Submission of 08/09/93 in Response to PR Notice 93-7 EPA Reg. No. 100-748 BICEP DF HERBICIDE

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted subject to the comments reflected on the enclosed sheet. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

WHAT THIS ACCEPTANCE MEANS:

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

WHAT YOU NEED TO DO NEXT:

By the next label printing make all the specified changes to your labeling. Send to EPA one (1) copy of the final printed labeling:

 BEFORE selling or distributing any product bearing the final printed labeling

AND

WITHIN one year from date of this acceptance.





Recycled/Recyclable Printed with Soy/Canola link on paper that contains at least 50% recycled liber Page 2

Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL) Office of Pesticide Programs (7505C) U.S. Environmental Protection Agency 401 M Street, SW Washington, D.C. 20460-0001

Hand or courier deliveries of final printed labeling may be made to:

Document Processing Desk (FIN-LABEL) Office of Pesticide Programs Room 266A, Crystal Mall 2 1921 Jefferson Davis Highway Arlington, VA 22202

Sincerely, Jim Tompkins, Deputy Chief Registration Support Branch Registration Division (7505W)

Attachment

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division

Karen S. Stumpf CIBA-GEIGY CORP. P.O. BOX 18300 GREENSBORO NC 27419

Comment for: EPA Reg Nr.100-748 BICEP DF HERBICIDE

The following specific comments pertain to your WPS labeling submission concerning the product cited above:

The glove requirement for "applicators and other handlers" in the "Personal Protective Equipment" section on your proposed labeling is missing or incorrect. Remove the incorrect requirement (if any) and add "Waterproof gloves". The exact location is shown in Sections A and B on Part 1 of the Product Worksheet in Supplment Three-A to PR Notice 93-7.

The glove requirement for "mixers and loaders" in the "Personal Protective Equipment" section on your proposed labeling is missing or incorrect. Remove the incorrect requirement (if any) and add "Waterproof gloves" under "Mixers and Loaders must wear:". The exact location is shown in Sections A and C on Part 1 of the Product Worksheet in Supplement Three-A to PR Notice 93-7.

The glove requirement for early entry in the Agricultural Use Requirements box on your proposed labeling is missing or incorrect. Remove the incorrect requirement (if any) and add "Waterproof gloves". The exact location is shown in Sections F and G on Part 2 of the Product Worksheet in Supplement Three-A to PR Notice 93-7.

Correct the typographical errors circled on your proposed label.

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WPS PROPOSED LABEL

WPS

BOOKLET LABEL FOR 25 LB. BAG

RESTRICTED USE PESTICIDE (GROUND AND SURFACE WATER CONCERNS)

FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.

THIS PRODUCT IS A RESTRICTED-USE HERBICIDE DUE TO GROUND AND SURFACE WATER CONCERNS. USERS MUST READ AND FOLLOW ALL PRECAUTIONARY STATEMENTS AND INSTRUCTIONS FOR USE IN ORDER TO MINIMIZE POTENTIAL FOR ATRAZINE TO REACH GROUND AND SURFACE WATER.

Bicep® DF

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Herbicide

For weed control in corn and grain or forage sorghum

Active Ingredients: Atrazine: 2-chloro-4-ethylamino-	
6-isopropylamino- <u>s</u> -triazine	23.2%
Atrazine related compounds	1.2%
Metolachlor: 2-chloro-N-(2-ethyl-	
6-methylphenyl)- <u>N</u> -(2-methoxy-1-	
methylethyl) acetamide	<u>30.68</u>
Inert Ingredients:	45.0%
Total:	100.0%

KEEP OUT OF REACH OF CHILDREN.

WARNING/AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en <u>detaile</u>. (If you do not understand the label, find someone to explain it to you in detail.)

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-748 EPA Est. 100-LA-1

CGA 135L1B 083

Ciba-Geigy

[GANNONC.LABELB] - BICPDFWS - 8/5/93

ACCEPTED with COMMENTS In EPA Letter Dated

APR 1 3 1994 Under the Federal Insecticide, Fundicide, and Rodenticide Act as amcaded, for the praticide registered under EPA Reg. No. ________

<u>IMPORTANT</u>: Read the entire <u>Directions for Use</u> and the <u>Condi-</u> <u>tions of Sale and Warranty</u> before using this product. If terms are not acceptable, return the unopened product container at once.

Conditions of Sale and Warranty

The <u>Directions for Use</u> 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 <u>Directions for Use</u> subject to the inherent risks referred to above. <u>Ciba-Geigy makes no other express or</u> <u>implied warranty of Fitness or Merchantability or any other</u> <u>express or implied warranty. In no case shall Ciba-Geigy or the Seller be liable for consequential, special, or indirect damages</u> <u>resulting from the use or handling of this product</u>. Ciba-Geigy and the Seller offer this product, and the Buyer and user accept it. subject to the foregoing <u>Conditions of Sale and Warranty</u>, which may be varied only by agreement in writing signed by a duly authorized representative of Ciba-Geigy.

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DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restrictedentry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours. Exception: if the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter a treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves
- Chemical-resistant footwear plus socks
- Protective eyewear



Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Do not enter treated areas without protective clothing until sprays have dried.

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

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General Information

Bicep DF is a selective herbicide recommended as an early preplant, preplant surface-applied, preplant incorporated, preemergence, postemergence broadcast or postemergence-directed treatment for control of most annual grasses and broadleaf weeds in corn and as an early preplant, preplant surface-applied, preplant incorporated, or preemergence treatment for control of most annual grasses and broadleaf weeds in grain or forage sorghum provided the sorghum seed has been properly treated by the seed company with Concept. This product may be tank mixed with Banvel®, Bladex® (4L, 80W, 90DF), Dual® formulations, AAtrex® 4L (80W, Nine-O@), Lorox@ or equivalent, or Princep@ 4L (80W or Caliber 90[®]) for weed control in conventional tillage corn. This product may also be tank mixed with either Gramoxone® Extra or Roundup® alone or in combination with AAtrex, Bladex, Dual or Princep, in minimum- tillage or no-tillage corn, or tank mixed with either Gramoxone Extra or Roundup, in minimum-tillage or no-tillage sorghum.

Following many years of continuous use of atrazine (one of the ingredients in Bicep DF), and products chemically related to atrazine, biotypes of some of the weeds listed on this label which are controlled by the atrazine component have been reported to develop resistance to this and chemically related herbicides. Where this is known or suspected and weeds controlled by this product are expected to be present along with resistant biotypes, we recommend the use of Bicep DF in combination or in sequence with registered herbicides which do not contain triazines. Consult with your State Agricultural Extension Service for specific recommendations.

<u>Precautions: 1) If sorghum seed is not properly pretreated with</u> <u>Concep, Bicep DF will severely injure the crop. 2) Injury may</u> <u>occur to corn or sorghum following the use of Bicep DF under</u> <u>abnormally high soil moisture conditions during early develop-</u> <u>ment of the crop</u>.

Bicep DF alone or in tank mixture with AAtrex, Bladex, Dual, or Princep may be applied early preplant, preplant-surface, preplant incorporated, or preemergence on corn in water or fluid fertilizer. Bicep DF may be applied in tank mix combination with Gramoxone Extra or Roundup with or without the above herbicides preplant surface or preemergence to corn. Apply the early postemergence treatment on corn in water only. Bicep DF alone may also be applied on sorghum early preplant, preplant incorporated, preplant-surface or preemergence in water or in fluid fertilizer.

To avoid spray drift, do not apply under windy conditions. Avoid spray overlap, as crop injury may result.

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

Dry weather following preemergence application of Bicep DF or a tank mixture may reduce effectiveness. Cultivate if weeds develop in conventional tillage corn or sorghum.

Observe all precautions and limitations on the label of each product used in tank mixtures.

Thoroughly clean sprayer or other application device before using. Dispose of cleaning solution in a responsible manner. Do not use a sprayer or applicator contaminated with other materials, or crop damage or sprayer clogging of the application device may occur.

Mixing Instructions

Thoroughly recirculate larger containers and bulk tanks before using. Bicep DF is a dry flowable that may be mixed with water or fluid fertilizer and applied as a spray.

Application in Water or Fluid Fertilizers

<u>Bicep DF Alone</u>: Fill the spray tank one-half to three-fourths full with water or fluid fertilizer, add the proper amount of Bicep DF, then add the rest of the water or fluid fertilizer. Provide vigorous agitation during mixing and application to maintain a uniform suspension.

<u>Tank Mixtures</u>: Fill the spray tank one-half to three-fourths full with water or fluid fertilizer, add the proper amount of Bicep DF, then add AAtrex, Banvel®, linuron, or Princep; next add Dual; then add Gramoxone Extra or Roundup, depending on the tank mix combination desired; and finally add the rest of the water or fluid fertilizer. When Bladex is used in the tank mixture, add it before Bicep DF unless otherwise specified. (See Bladex section under <u>Bicep DF Combinations - Corn</u> for further mixing instructions.) Provide vigorous agitation during mixing and application to maintain a uniform suspension.

<u>Compatibility Test</u>: Check the compatibility of Bicep DF and tank mixtures in fluid fertilizer by mixing proportionate quantities in a small container, as described below, before mixing in the spray tank. Nitrogen solutions or complete fluid fertilizers may replace all or part of the water in the spray. Since liquid fertilizers can vary, even within the same analysis, <u>always check compatibility each time before reuse</u>. Be especially careful when using <u>complete</u> suspension or fluid fertilizers as serious compatibility problems are more apt to occur. Commercial application equipment may improve compatibility in some instances. The following test assumes a spray volume of 25 gals. per acre. For other spray volumes, make appropriate changes in the ingredients. Check compatibility using this procedure:

 Add 1 pint of fertilizer to each of 2 one-quart jars with tight lids.

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- 2) To <u>one</u> of the jars add 1/4 tsp. or 1.2 milliliters of a compatibility agent approved for this use, such as Compex® or Unite® (1/4 tsp. is equivalent to 2 pts. per 100 gals. spray). Shake or stir gently to mix.
- 3) To <u>both</u> jars add the appropriate amount of herbicide(s). If more than one herbicide is used, add them separately with dry herbicides first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix. The appropriate amount of herbicides for this test follows:

<u>Dry herbicides</u>: For each pound to be applied per acre, add 1.4 teaspoons to each jar.

Liquid herbicides: For each pint to be applied per acre add 0.5 teaspoon or 2.5 milliliters to each jar.

- 4) After adding all ingredients, put lids on and tighten, and invert each jar ten times to mix. Let the mixtures stand 15 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the two jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (A) slurry the dry herbicides(s) in water before addition, or (B) add 1/2 of the compatibility agent to the fertilizer and the other 1/2 to the emulsifiable concentrate or flowable herbicide before addition to the mixture. If still incompatible, do not use the mixture.
- 5) After compatibility testing is complete, dispose of any pesticide wastes in accordance with the directions in the <u>Storage and Disposal</u> section at the end of this label.

Application Procedures

<u>Ground Application</u>: Use sprayers that provide accurate and uniform application. Screens in nozzles should be no finer than 50-mesh. Suction and in-line screens should be no finer than 16-mesh. Use a pump with capacity to (1) maintain 35-40 psi at the nozzles, and (2) provide sufficient agitation in tank to keep mixture in suspension. Unless otherwise specified, use a minimum of 10 gals. of spray mixture per acre. Rinse sprayer thoroughly with clean water immediately after use.

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

band width in inchesbroadcast rateamount neededwidth in inchesXper acre=per acre of field

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Within rate ranges in all tables on this label, use the lower rate on soil relatively coarse-textured or low in organic matter; use the higher rate on soil relatively fine-textured or high in organic matter.

Recommendations are based upon soil textures, which are defined as follows:

Coarse - Sand, sandy loam, loamy sand

Medium - Loam, silt loam, silt

Fine - Silty clay loam, sandy clay loam, silty clay, sandy clay, clay loam, clay

Bicep DF Applied Alone - Corn, Grain Sorghum, or Forage Sorghum

Early Preplant, Preplant Surface-Applied, Preplant Incorporated, or Preemergence

Weeds Controlled

carpetweed barnyardgrass (watergrass) cocklebur* browntop panicum common purslane Florida pusley craborass crowfootgrass galinsoga jimsonweed fall panicum foxtail millet lambsquarters giant foxtail morningglory goosegrass nightshades pigweed green foxtail prairie cupgrass ragweed red rice smartweed signalgrass velvetleaf* (Brachiaria) southwestern cupgrass witchgrass yellow foxtail yellow nutsedge*

Weeds Partially <u>Controlled**</u>

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sandbur seedling johnsongrass shattercane sicklepod volunteer sorghum

*Control of these weeds can be erratic especially under dry weather conditions. Control escaped weeds with cultivation or application of an appropriate EPA-registered postemergence herbicide. On fine-textured soiis, only partial control can be expected.

**Control may be improved by following these suggested procedures:

 <u>Thoroughly till moist soil</u> to destroy germinating and emerged weeds. If Bicep DF is to be applied preplant incorporated, this tillage may be used to incorporate Bicep DF if uniform 2 inch incorporation is achieved as recommended under <u>Application Procedures</u>.

- Plant crop into moist soil <u>immediately after tillage</u>. If Bicep DF is to be used preemergence, apply at planting or immediately after planting.
- 3) If available, <u>sprinkler irrigate</u> within 2 days after application. Apply 1/2-1 inch of water. Use lower water volume (1/2 inch) on coarse-textured soils and higher volume (1 inch) on finer textured soils.
- 4) If irrigation is not possible and rain does not occur within 2 days after planting and application, weed control may be decreased. Under these conditions, a uniform, shallow cultivation is recommended as soon as weeds emerge.

Bicep DF Rate Limitations - Corn and Sorghum*

*Where there are state/local requirements regarding atrazine use (including lower maximum rates and/or greater set-backs) which are different from the label, the more restrictive/protective requirements must be followed. Certain states may have established rate limitations within specific geographical areas. Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations.

FOR ALL SOIL APPLICATIONS PRIOR TO CROP EMERGENCE

On <u>Highly Erodible_Soils</u> (as defined by SCS)

If conservation tillage is practiced, leaving at least 30% of the soil covered with plant residues at planting, apply a maximum of 8.2 lbs./A as a broadcast spray. Refer to "B" in tables following.

If the soil coverage with plant residue is less than 30% at planting, a maximum of 6.6 lbs./A may be applied. Refer to "A" in tables following.

On Soils Not Highly Erodible

Apply a maximum of 8.2 lbs./A as a broadcast spray. Refer to "B" in tables following.

FOR POSTEMERGENCE APPLICATION TO CORN

If no atrazine was applied prior to corn emergence, apply a maximum of 8.2 lbs./A broadcast. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 lbs. active ingredient (10.1 lbs. of Bicep DF) per acre per calendar year.

Application Timings

Early Preplant (Corn): Use on medium- and fine- textured soils with minimum-tillage or no-tillage systems in CO, IA, IL, IN, KS, KY, MN, MO, MT, ND, NE, SD, TN, WI, and WY. Apply 2/3 the recommended rate of Bicep DF as a split treatment 30-45 days before planting and the remainder at planting using the rates in Table 1. Applications made less than 30 days prior to planting may be as either a split or single treatment. Use the lower rate for light expected weed infestations and the higher rate for heavy expected weed infestations. On coarse-textured soils, apply 6.6 lbs./A not more than 2 weeks prior to planting. The above procedure may be followed if AAtrex or Dual or Princep is used in tank mixtures with Bicep DF. If weeds are present at the time of treatment, apply in a tank mixture combination with a contact herbicide (for example, Gramoxone Extra or Roundup). Observe directions for use, precautions, and restrictions on the label of the contact herbicide.

On medium- and fine-textured soils with minimum- or no-tillage systems in DE, MD, MI, NY, OH, PA, VA, AND WV, early preplant applications may be applied following the directions for use above. If the amount of rainfall results in unsatisfactory length of weed control following the earlier treatment, a postemergence application of an appropriately labeled broadleaf and/or grass weed herbicide may be used, i.e., AAtrex,

Basagran®, 2,4-D, Banvel, bromoxynil (Brominal® or Buctril®). If the postemergence treatment includes the herbicide used early preplant, do not exceed the labeled rate for corn on a given soil texture. Observe all directions for use, precautions, and limitations on the label of the postemergent herbicide.

Bicep DF may be used according to the above directions to control winter wheat planted as a cover crop in IN, KY, and OH, in addition to providing residual weed control. The wheat must be less than 6 inches tall (preferably still in a dormant or semidormant state coming out of winter) at the time of application. Depending on rainfall, 10-20 days may be required to completely kill the wheat. In the event that adequate rainfall does not occur, control of the winter wheat may be unsatisfactory and the application of a contact herbicide (i.e., Gramoxone Extra or Roundup) may be required before planting the crop.

On medium- and fine-textured soils following final seed bed preparation in the Blackland and Gulf Coast areas of TX, an early preplant application of Bicep DF at 4.9 to 5.9 lbs./A may be made 30-45 days before planting. Grass suppression of 2-3 weeks after planting can be expected as a result of this application. Do not incorporate or disturb the soil before planting and avoid moving the soil during the planting operation. A follow-up application of Dual may be needed in fields with a history of heavy grass pressure. Apply after planting, but before corn and grass weeds emerge.

<u>Notes</u>: (1) If a follow-up application of Dual is needed, do not exceed a total of 2.5 lbs. ai of metolachlor/A including the preplant Bicep DF application on medium or fine-textured soils. On fine-textured soils wit. more than 3% organic matter, do not exceed 3 lbs. ai of metolachlor. (2) To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.

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	Single	Split Application*		
Soil Texture	Application	30-45 DBP**	At Planting	
<u>COARSE</u> : Sand, loamy sand sandy loam	6.6 lbs./A	DO NOT A	PPLY	
<u>MEDIUM</u> : Loam, silt loam silt	A. 6.6 lbs./A E. 6.6-8.2 lbs./A	4.4 lbs./A 4.4 lbs./A to 5.5 lbs./A	2.2 lbs./A 2.2 lbs./A to 2.7 lbs./A	
FINE: Sandy clay loam silty clay loam, silty clay, sandy clay, clay loam clay	A. 6.6 lbs./A B. 8.2 lbs./A	4.4 lbs./A 5.5 lbs./A	2.2 lbs./A 2.7 lbs./A	

Table 1: Bicep DF - Early Preplant - Corn

*Split applications can be made less than 30 days before planting if desired.

**DBP - Days before planting.

- A. Do not exceed this rate on highly erodible soils with less than 30% plant residue cover. Control of certain weeds may be reduced and a tank-mix partner or an application of a postemergence herbicide may be needed.
- B. Use these rales for all other applications.

Early Preplant (Sorghum-Seed Treated with Concep): For minimumtillage and no-tillage systems only, Bicep DF may be applied up to 45 days before planting grain sorghum in IA, IL, eastern KS, MO, NE, and SD using the rates in Table 2. Use only split applications for treatments made 30 to 45 days before planting with 2/3 the recommended rate applied initially and the remaining 1/3 at planting. Applications made less than 30 days prior to planting may be made as either a split or single application.

If weeds are present at the time of treatment, apply in a tank mixture combination with a contact herbicide (for example, Gramoxone Extra or Roundup). Observe directions for use, precautions, and restrictions on the label of the contact herbicide. Under dry conditions, irrigation after application is recommended to move Bicep DF into the soil.

<u>Note</u>: To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished. Do not use on coarse soils. Do not use on medium soils with less than 1.0% organic matter.

On medium- and fine-textured soils following final seed bed preparation in the Blackland, Panhandle, and Gulf Coast areas of Texas, an early preplant application of Bicep DF at 4.9 to 5.9 lbs./A may be made 30-45 days before planting. Grass suppression of 2-3 weeks after planting can be expected as a result of this application. Do not incorporate or disturb the soil before planting and avoid moving the soil during the planting operation. A follow-up application of Dual may be needed in fields with a history of heavy grass pressure. Apply after planting, but before sorghum and grass weeds emerge.

<u>Notes</u>: 1) Do not use on soils with a pH greater than 8.0 if grain sorghum is to be planted. 2) If a follow-up application of Dual is needed, do not exceed a total of 2.25 lbs. ai of metolachlor/A, including the early preplant Bicep DF application on medium-textured soils. On fine-textured soils, do not exceed 2.5 lbs. ai of metolachlor/A.

Soil Texture	Organic Matter Content	Single Application	Split App 30-45 DBP**	lication* At Planting
<u>Coarse</u> : Sand, loamy sand, sandy loam	any level	DO NOT USE	DO NOT	USE
Medium: Loam, silt loam, silt	A.more than 1.0% less than 1.0% B	6.6 lbs./A DO NOT USE 6.6 lbs./A to 7.4 lbs./A	4.4 lbs./A DO NOT 4.4 lbs./A to 4.9 lbs./A	USE 2.2 lbs./A to
Fine: Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay	A.more than 1.0% less than 1.5% B	6.6 lbs./A 6.6 lbs./A to 7.4 lbs. 7.4 lbs./A to 6.2 lbs./A	4.4 lbs./A 4.4 lbs./A to 4.9 lbs./A 4.9 lbs./A to 5.5 lbs./A	2.2 lbs./A 2.2 lbs./A to 2.4 lbs./A 2.4 lbs./A to 2.7 lbs./A

Table 2: Bicep DF - Early Preplant - Grain or Forage Sorghum (Seed treated with Concep)

*Split applications can be made less than 30 days before planting if desired.

**DBP = Days before planting.

- A. Do not exceed this rate on highly erodible soils with less than 30% plant residue cover. Control of certain weeds may be reduced, and a tank-mix partner or an application of a postemergence herbicide may be needed.
- B. Use this rate for all other applications.

<u>Preplant-Surface, Preplant Incorporated or Preemergence (Corn or Sorghum-Seed Treated with Concep)</u>: Apply Bicep DF preplantsurface, preplant incorporated or preemergence using the appropriate rates from Table 3 for corn, or from Table 4 for sorghum.

<u>Preplant-Surface</u>: Apply uniformly to the soil surface within 14 days before planting. Where applications are made to coarse soils more than 7 days before planting, use the rates in Table 1 for corn.

<u>Preplant Incorporated</u>: Apply to the soil and incorporate into the top 2 inches of the soil within 14 days before planting using a finishing disk harrow, rolling cultivator, or similar

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implement capable of providing uniform 2-inch incorporation. Use preplant incorporated if furrow irrigation is used or when a period of dry weather after application is expected. If crop is to be planted on beds, apply and incorporate after bed formation.

<u>Preemergence</u>: Apply to the soil surface at planting (behind the planter), or after planting but before weeds or crop emerge.

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······································	Broadcast rate per acre		
Soil Texture	Less Than 3% Organic Matter	3% Organic Matter or Greater	
<u>COARSE</u> : Sand, loamy sand, sandy loam	4.1 lbs.	4.9 lbs.	
MEDIUM: Loam, silt loam, silt	4.9 lbs.	6.6 lbs.	
FINE: Silty clay loam, sandy clay loam, silty clay, sandy clay, clay loam, clay	6.6 lbs.	A. 6.6 lbs. B. 6.6-8.2 lbs.*	
Muck or peat soils (more than 20% organic matter)	DO NOT USE		

Table 3: Bicep DF - Preplant-Surface, Preplant Incorporated or Preemergence - Corn

*For cocklebur, yellow nutsedge, and velvetleaf control on fine-textured soils above 3% organic matter: Apply 8.2 lbs. of Bicep DF per acre.

- A. Do not exceed this rate on highly erodible soils with less than 30% plant residue cover. Control of certain weeds may be reduced, and a tank-mix partner or an application of a postemergence herbicide may be needed.
- B. Use these rates for all other applications.

(1) In the event of escape of annual broadleaf weeds NOTES: following an early preplant, preplant surface, preplant incorporated, or preemergence treatment of Bicep DF applied alone or in combination, follow with a postemergence application of an appropriately labeled broadleaf and/or grass weed herbicide, i.e., AAtrex, Basagran, Brominal, Buctril, Banvel or 2,4-D. Ιf the postemergence treatment includes the herbicide used in the earlier treatment, do not exceed the labeled rate for corn on a given soil texture. (2) Brominal or Buctril may be applied postemergence alone or in tank mix combination with AAtrex. Do not exceed 1.2 lbs. ai/A of AAtrex in tank mix combination with Brominal or Buctril postemergence. Refer to the Brominal, Buctril and AAtrex labels for specific rates and precautions. (3) If AAtrex is used postemergence following application of

Bicep DF, do not exceed a total of 2.5 lbs. ai/A of atrazine per year.

Table 4: Bicep DF - Preplant-Surface, Preplant Incorporated or Preemergence - Grain or Forage Sorghum* (Seed treated with Concep)

	Organic	
Soil Texture	Matter	Broadcast Rate Per Acre
COARSE:	1	
Sand, lcamy sand, sandy loam	any level	DO NOT USE
MEDIUM AND FINE:	less_than	DO NOT USE
Loam, silt loam, silt, sandy clay loam, clay loam,	1.0%	
silty clay loam, sandy clay, silty clay, clay	more than 1.0%	4.9-6.6 lbs.

*Do not use in NM or TX except in the Texas Panhandle, Gulf Coast and Blacklands areas. Do not apply preplant incorporated in AZ or the Imperial Valley of CA.

Precautions: To avoid possible crop injury, (1) Do not apply Bicep DF on highly alkaline soils (pH greater than 8.0) or on eroded areas where calcareous subsoils are exposed. (2) Do not apply Bicep DF when sorghum is planted in deep furrows because heavy rains following application can cause excessive concertrations of herbicide in the furrow. (3) Do not apply to sorghum grown under dry mulch tillage. (4) Injury may occur if both Bicep DF applied early preplant, preplant surface, preplant incorporated, or preemergence and an at-planting systemic insecticide applied in-furrow are used. (5) In addition, sorghum growing under stress caused by minor element deficiency may be injured by Bicep DF.

<u>Rotational Crops</u>: (1) If treated crop is lost due to poor germination, hail, flood, insects, etc., corn may be replanted immediately or sorghum may be replanted immediately provided the seed has been properly treated with Concep. Do not make a second broadcast application. If the original application was banded and the second crop is planted in the untreated row middles, a second banded treatment may be applied. (2) Corn, sorghum, soybeans, cotton, or peanuts may be planted the spring following treatment. Do not graze or feed forage or fodder from cotton to livestock or illegal residues may result. (3) Injury may occur to soybeans planted the year following application on soils having a calcareous surface layer. (4) In eastern parts of the Dakotas, KS, vestern MN and NE, do not rotate to soybeans sooner than 18 months after application if the rate applied to corn or sorghum was more than 2.0 lbs. ai of atrazine or equivalent band application rate, or soybean injury may occur. (5) If applied after June 10, do not rotate with crops other than corn or sorghum the next year, or crop injury may occur. (6) In the High Plains and Intermountain areas of the West where rainfall is sparse and erratic or where irrigation is required, use only when corn or sorghum is to follow corn or sorghum, or a crop of untreated corn or sorghum is to precede other rotational crops. (7) Do not plant sugar beets, tobacco, vegetables (including dry beans), spring-seeded small grains, or small seeded legumes the year following application, or injury may occur. (8) All other crops may be planted 12 months after application.

Postemergence Broadcast - Corn

Weeds Controlled	·
barnyandgrass (watergrass) cocklebur crabgrass crowfootgrass fall panicum giant foxtail green foxtail yellow foxtail	jimsonweed kochia lambsquarters morningglory mustard pigweed prickly sida purslane ragweed smartweed velvetleaf

Weeds Partially Controlled

yellow nutsedge

Application: Apply early postemergence using the appropriate rate from Table 5. Apply this treatment before crass and broadleaf weeds pass the 2-leaf stage and <u>before corn exceeds 5</u> <u>inches in height</u>. Application to weeds larger than the 2-leaf stage will generally result in unsatisfactory control. Occasional corn 1°af burn may result, but this should not affect later growth or yield. Do not apply postemergence in fluid fertilizer or severe crop injury may occur.

<u>Note</u>: To avoid possible illegal residues, do not graze or feed forage from treated areas for 30 days following application.

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<u>Tab</u>	<u>le</u>	<u>5;</u>	<u>Posteme</u>	rgence	Broad	<u>cast</u>	<u>- Corn</u>
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Soil Texture	Broadcast Rate Per Acre
<u>COARSE</u> : Sand, loamy sand, sandy loam	4.9 lbs.
MEDIUM: Loam, silt loam, silt	6.6 lbs.
FINE: Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay	6.6-8.2 lbs.*

*For better residual control of cocklebur, velvetleaf and yellow nutsedge on fine-textured soils above 3% organic matter, apply 3 qts. of Bicep DF per acre.

Notes: (1) If Bicep DF has been applied early preplant, preplant- surface, preplant incorporated or preemergence, do not exceed a total of 10.4 lbs./A of Bicep DF on a corn crop. (2) If AAtrex (atrazine) or AAtrex plus Dual tank mixtures have been applied early preplant, preplant-surface, preplant incorporated or preemergence, limi+ the Bicep DF early post application not to exceed a <u>total</u> of 2.5 lbs. of the active ingredient in AAtrex or 6 lbs. of the active ingredient in Dual per acre on a corn crop, or illegal residues may result.

<u>Rotational Crops</u>: Follow the preceding crop rotation instructions for <u>Bicep DF Early Preplant</u>, <u>Preplant Surface-Applied</u>, <u>Preplant Incorporated</u>, or <u>Preemergence</u>.

<u>Postemergence - Directed - Corn</u>

Bicep DF may be applied at 4.1-8.2 lbs./A in a minimum of 15 gals. of water as a postemergence directed treatment to corn to extend control of weeds listed in the <u>Early Preplant</u>, <u>Pre-</u> <u>plant Surface-Applied</u>, <u>Preplant Incorporated</u>, <u>Preemergence</u>, or <u>Postemergence Broadcast</u> section of the corn label. Apply using the appropriate rate from Table 6.

For best results, apply Bicep DF to weed free soil following use of a preplant-surface, preplant incorporated or preemergence herbicide, or following a lay-by cultivation. If weeds have emerged at the time of Bicep DF application, apply before grass and broadleaf weeds exceed the 2-leaf stage. Application to

weeds larger than the 2-leaf stage will generally give unsatisfactory control. Apply to corn not exceeding 5-12 inches in height. Minimize contact with corn leaves. Do not apply postemergence in fluid fertilizer, or severe crop injury may occur.

<u>Note</u>: To avoid possible illegal residues, do not graze or feed forage from treated areas for 30 days following application.

Table 6: Postemergence	-	<u>Directed - Corn</u>
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Soil Texture	Broadcast Rate Per Acre
<u>COARSE</u> : Sand, loamy sand, sandy loam	4.1 lbs.
MEDIUM: Loam, silt loam, silt	6.6 lbs.
FINE: Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay	6.6-8.2 lbs.*

*For better residual control of cocklebur, velvetleaf and yellow nutsedge on fine-textured soils above 3% organic matter, apply 8.2 lbs. of Bicep DF per acre.

Notes: (1) If Bicep DF has been applied early preplant, preplant surface, preplant incorporated or preemergence, do not exceed a total of 10.4 lbs./A of Bicep DF on a corn crop. (2) If AAtrex (atrazine) or AAtrex plus Dual tank mixtures have been applied preplant-surface, preplant incorporated or preemergence, limit the Bicep DF post-directed application not to exceed a total of 2.5 lbs. of the active ingredient in AAtrex or 6 lbs. of the active ingredient in Dual per acre on a corn crop, or illegal residues may result.

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Bicep DF Combinations - Corn*

*When tank mixing Bicep DF with AAtrex formulations, refer to the <u>Bicep DF Rate Limitations</u> section of this label. Do not exceed the following:

On highly erodible soils with less than 30% plant residue cover prior to crop emergence	1.6 lbs ai of atrazine
On other soils prior to crop emergence	2.0 lbs. ai of atrazine
Postemergence applications only - any soil	2.0 lbs. ai of atrazine
Preemergence + postemergence applications	2.5 lbs. ai of atrazine

<u>Tank Mixture with AAtrex, Dual, Princep or Bladex - Conventional</u> <u>Tillage</u>

AAtrex (4L, 80W, or Nine-O): Add up to 1 qt. of AAtrex 4L (1.25 lbs. 80W or 1.1 lbs. Nine-O) per acre to the rate of Bicep DF recommended in Table 3 in the southeastern U.S. where high rain-fall can shorten the duration of control of broadleaf weeds, and in all areas where heavy infestations of cocklebur, morning-glory, velvetleaf, or other broadleaf weeds claimed are expected.

<u>Dual</u>: Add up to 1/2 pt. of Dual per acre to the rate of Bicep DF recommended in Table 3 when heavy infestations of yellow nut-sedge, sandbur, or seedling johnsongrass are expected.

<u>Princep (4L, 80W, or Caliber 90)</u>: Add up to 1 qt. of Princep 4L (1.25 lbs. 80W or 1.1 lbs. Caliber 90) per acre to the rate of Bicep DF recommended in Table 3 where heavy infestations of crabgrass or fall panicum are expected or additional control of certain broadleafs is desired.

<u>Bladex (4L, 80W, or 90DF)</u>: Add up to 2 qts. of Bladex 4L (2.5 lbs. 80W or 2.2 lbs. 90DF) per acre. When Bladex is added, the rate of Bicep DF suggested in Table 3 should be reduced by not more than 25% for a given soil texture in the Clarion-Nicollet-Webster soil association in northern Iowa and southern Minnesota, or in other areas where soybean rotational concerns exist.

<u>Note</u>: Check the compatibility of Bicep DF tank mixtures with Bladex before mixing in spray tank by using the procedure

described under <u>Application in Water or Fluid Fertilizers</u>. Always use Unite (or an equivalent compatibility agent) at 2 pts./100 gals. when using Bladex 80W or Bladex 90DF in tank mixtures with Bicep DF. Compatibility testing is especially critical when using Bladex 80W or Bladex 90DF combinations. Always add Bladex to the spray tank before Bicep DF, regardless of which Bladex formulation is used.

Tank Mixtures of Bicep DF Alone or Bicep DF plus AAtrex, Bladex, Dual, or Princep, with Gramoxone Extra or Roundup for Minimum-Tillage or No-Tillage Systems

In minimum-tillage or no-tillage systems where corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides Gramoxone Extra or Roundup should be tank mixed with Bicep DF alone or with Bicep DF plus AAtrex, Bladex, Dual, or Princep. When used as directed, the Gramoxone Extra portion of the tank mixture controls most emerged annual weeds and suppresses many perennial weeds. Roundup combinations will control emerged annual and perennial weeds when applied as directed on the Roundup label. The Bicep DF portion of the tank mixture provides preemergence control of the weeds listed on this label in the <u>Bicep DF Alone</u> section for corn. The addition of AAtrex, Bladex, Dual, or Princep offers the advantage indicated for each under "Conventional Tillage" above.

<u>Application</u>: Apply before, during, or after planting but before corn emerges, at the appropriate rate in Table 7. Up to 1 qt. of AAtrex 4L (1.25 lbs. 80W or 1.1 lbs. Nine-O), or 2 qts. of Bladex 4L (2.5 lbs. 80W or 2.2 lbs. 90DF), or 1/2 pt. of Dual, or 1 qt. of Princep 4L (1.25 lbs. 80W or 1.1 lbs. Caliber 90) per acre may be added to the rate of Bicep DF recommended in Table 7. Add Gramoxone Extra or Roundup at the following broadcast rates:

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<u>Gramoxone Extra</u>: 1.5-2.0, 2.0-2.5 or 2.5-3.0 pts. per acre to 1-3 i ches, 3-6 inches, or 6 inch tall weeds, respectively. Apply surfactant at 1 or 2 pts. per 100 gals. of spray mixture with 75% or greater or 50-74% nonionic active ingredient, respectively. This treatment will not control weeds taller than 6 inches.

<u>Roundup</u>: 1.5 qts. per acre for control of existing annual weeds, or 2-4 qts. per acre for existing perennial weeds. See the Roundup label for weeds controlled and recommended rates for specific weeds.

Apply in 20-60 gals. of water per acre with conventional spray equipment.

Tank Mixtures of Bicep DF Alone or Bicep DF plus AAtrex or Bladex, with 2.4-D or 2.4-D plus Banvel for Minimum-Tillage or No-Tillage Systems

In minimum-tillage or no-tillage systems where corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, Bicep DF may be applied in combination with AAtrex or Bladex. When used as directed, the Bicep DF portion of the tank mixture provides preemergence control of the weeds listed on this label in the <u>Bicep DF Alone</u> section for

Application: Apply Bicep DF before, during, or after planting but before corn emerges, at the appropriate rate in Table 7. Up to 1 qt. of AAtrex 4L (1.25 lbs. 80W or 1.1 lbs. Nine-O) or 2 qts. of Bladex 4L (2.5 lbs. 80W or 2.2 lbs. 90DF) per acre may be added to the rate of Bicep DF recommended in Table 7.

corn. The addition of AAtrex or Bladex offers the advantage

indicated for each under "Conventional Tillage" above.

Where heavy crop residues exist, add an appropriately labeled 2,4-D amine or low volatile ester to the spray tank last and apply in a minimum of 25 gals. of carrier/A.

As carriers, nitrogen solutions and complete liquid fertilizers, applied before ccrn emergence, enhance burndown of existing weeds, and therefore are recommended instead of water. Add X-77® surfactant at 1.0-2.0 qts./100 gals. of diluted spray, or another surfactant cleared for use on growing crops at its recommended rate. Apply before weeds exceed 3 inches in height. If alfalfa is present, add Banvel to the spray mixture at 0.33-0.5 pt./A and apply before alfalfa exceeds 6 inches in height.

For fields with existing sod grasses (e.g., bromegrass, orchardgrass, rye or timothy), when existing weeds exceed 3 inches in height or when very dry conditions exist, add Gramoxone Extra at the rate of 2.5 pts./A in place of or in addition to 2,4-D as indicated above. Do not apply Gramoxone Extra in suspensiontype liquid fertilizer. Observe all directions for use, precautions and limitations on the respective product labels when applying these products in tank mix combination.

<u>Note</u>: When applying Bicep DF and Bladex in tank mix combination, follow directions under <u>Conventional Tillage</u> above to ensure compatibility of these products in the tank mixture.

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Soil Texture	Broadcast Rate Per Acre
<u>COARSE</u> : Sand, loamy sand, sandy loam	4.9 lbs.
MEDIUM: Loam, silt loam, silt	6.6 lbs.
FINE: Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay	A. 6.6 lbs.
	B. 6.6-8.2 lbs.*
Muck or peat soils	DO NOT USE

Table 7: Bicep DF for Minimum-Tillage or No-Tillage Corn

*For cocklebur, yellow nutsedge, and velvetleaf control on fine-textured soils above 3% organic matter, apply 8.2 lbs. of Bicep DF per acre.

- A. Do not exceed this rate on highly erodible soils with less than 30% plant residue cover. Control of certain weeds may be reduced, and a tank-mix partner or an application of a postemergence herbicide may be needed.
- B. Use this rate for all other applications.

Tank Mixture with Linuron for Control of Lambsquarters and Pigweed

For prolonged control of lambsquarters and pigweed in DE, MD, NJ, NY, PA, VA and WV, Bicep DF may be applied preemergence in combination with linuron. Apply Bicep DF according to the rates in Table 3 and linuron according to the rates below.

Soil Texture	Broadcast Rate Per Acre
Sandy loam (1-3% organic matter)	0.67 lb. Lorox@*
Sandy loam (3-6% organic matter)	1.0 lb. Lorox*
Medium and fine-textured soils (1-6% organic matter)	1.0 lb. Lorox*

*When using Lorox L or Lorox DF, use equivalent rates. One pt. of Lorox L equals one lb. of Lorox DF.

Follow instructions and precautions on the Bicep DF and Lorox labels when tank mixing these products.

<u>Rotational Crops</u>: Follow the crop rotation instructions in the <u>Bicep DF Alone</u> section for corn.

<u>Bicep DF Combinations - Grain Sorghum (Seed treated with Concep)</u>

Tank Mixtures of Bicep DF with Gramoxone Extra or Roundup for Minimum-Tillage or No-Tillage Systems

In minimum-tillage or no-tillage systems where grain sorghum is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides Gramoxone Extra or Roundup may be tank mixed with Bicep DF. When used as directed, the Gramoxone Extra portion of the tank mixture controls most emerged annual weeds and suppresses many perennial weeds. Roundup combinations will control emerged annual and perennial weeds when applied as directed on the Roundup label. The Bicep DF portion of the tank mixture provides preemergence control of the weeds listed on this label in the <u>Bicep DF</u> <u>Atplied Alone</u> section.

Refer to the label of each product used in combination and observe the planting details, restrictions, and all other precautions and limitations.

<u>Application</u>: Apply before, during, or after planting but before grain sorghum emerges, at the appropriate rate in Table 8. Add Gramoxone Extra or Roundup at the following broadcast rates:

<u>Gramoxone Extra</u>: 1.5-2.0, 2.0-2.5 or 2.5-3.0 pts. per acre to 1-3 inches, 3-6 inches, or 6 inch tall weeds, respectively. Apply surfactant at 1 or 2 pts. per 100 gals. of spray mixture with 75% or greater or 50-74% nonionic active ingredient, respectively. This treatment will not control weeds taller than 6 inches.

<u>Roundup</u>: 1.5 qts. per acre for control of existing annual weeds, or 2-4 qts. per acre for existing perennial weeds. See the Roundup label for weeds controlled and recommended rates for specific weeds.

Apply in a minimum of 20 gals. of water per acre with conventional spray equipment.

Soil Texture	Organic Matter	Broadcast Rate Per Acre
COARSE: Sand, loamy sand, sandy loam	any level	DO NOT USE
MEDIUM AND FINE: Loam, silt loam, silt, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, clay	less than 1%	DO NOT USE
	1-1.5%	4.9 lbs.
	more than 1.5%	5.7-6.6 lbs.

Table 8: Bicep DF for Minimum-Tillage or No-TillageGrain Sorghum* (Seed treated with Concep)

*Do not use in NM or TX except the Texas Panhandle, Gulf Coast and Blacklands areas. Do not apply preplant incorporated in AZ or the Imperial Valley of CA.

Precautions: To avoid possible crop injury, (1) Do not apply Bicep DF on highly alkaline soils (pH greater than 8.0) or on eroded areas where calcareous subsoils are exposed. (2) Do not apply Bicep DF when sorghum is planted in deep furrows because heavy rains following application can cause excessive concentra-

tions of herbicide in the furrow. (3) Do not apply to sorghum grown under dry mulch tillage. (4) Injury may occur if both Bicep DF applied early preplant, preplant surface, preplant incorporated, or preemergence and an at-planting systemic insecticide applied in-furrow are used. (5) In addition, sorghum growing under stress caused by minor element deficiency may be injured by Bicep DF.

<u>Rotational Crops</u>: Follow the crop rotation instructions in the <u>Bicep DF Alone</u> section.

Roadsides

To control certain annual weeds in established perennial grasses along roadsides in CO, KS, MT, ND, NE, SD, and WY, including barnyardgrass, cheatgrass (downy brome, chess), common (annual) broomweed, crabgrass, fall panicum, giant foxtail, goosegrass, green foxtail, little barley, medusahead, sagewort, tumble mustard, witchgrass, and yellow foxtail, broadcast 1.5 qts./A in a minimum of 10 gallons of water by ground equipment in the fall before ground freezes, or after thawing in the spring, but before the established grasses green-up and before weeds emerge.

Examples of desirable established grasses include big bluestem, bluegrama, bromegrass, buffalograss, crested wheatgrass, Indiangrass, little bluestem, side-oats grama, switchgrass, and western wheatgrass. Apply only once a year. Temporary discoloration or other form of injury to the desirable perennial grasses may occur following application.

Notes: (1) Keep off desirable flowers, ornamentals and shrubs. (2) Do not attempt to reseed treated roadsides with desirable perennial grasses for 12 months after application. To avoid illegal residues, (3) Do not cut or feed roadside grass, hay and (4) Do not allow livestock to graze treated areas.

Storage and Disposal

<u>Storage</u>

Ground water contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

Pesticide Disposal

Do not contaminate water, food, or feed by storage, disposal, or cleaning of equipment. Open dumping is prohibited. 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.