

Bicep

Herbicide

For weed control in corn and grain or forage sorghum

Active Ingredients:
 Atrazine: 2-chloro-4-ethylamino-6-isopropylamino-s-triazine 20.8%
 Atrazine related compounds 1.1%
 Metolachlor: 2-chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl) acetamide 27.5%
Inert Ingredients: 50.6%
Total: 100.0%

Bicep contains 4.5 lbs. active ingredients per gallon

Keep Out of Reach of Children.

Caution

See additional precautionary statements inside booklet.

EPA Reg. No. 100-590

EPA Est. 100-LA-1

Bicep® trademark of CIBA-GEIGY
 U.S. Patent No. 3,937,730
 (metolachlor)

See directions for use inside booklet

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Agricultural Division
 CIBA-GEIGY Corporation
 Greensboro, North Carolina 27419
 CGA 56L1M 024

2 1/2 Gallons
 U.S. Standard Measure

CIBA-GEIGY

DIRECTIONS FOR USE AND CONDITIONS OF SALE AND WARRANTY

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

Conditions of Sale and Warranty

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

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

Directions for Use

FAILURE TO FOLLOW ALL PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY OR ILLEGAL RESIDUES

Do not apply Bicep to corn or sorghum seed. Bicep is a selective herbicide and will not control weeds in corn or sorghum seed. Bicep will severely injure the crop if applied to the seed. Do not apply Bicep to the seed. Do not apply Bicep to the seed. Do not apply Bicep to the seed.

Do not enter treated areas without protective clothing until sprays have dried.

Because certain states may require re-entry 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 be given which 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 Bicep on (date of application). Do not enter without appropriate protective clothing until sprays have dried. In case of accidental exposure, flush eyes or skin with plenty of water. Call a physician if irritation persists. Remove and wash contaminated clothing before re-use."

Bicep is a selective herbicide recommended as a preplant surface-applied, preplant incorporated, preemergence, or early postemergence treatment for control of most annual grasses and broadleaf weeds in corn (field corn, silage corn, sweet corn, or popcorn) and as a 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 Concep®. This product may be tank mixed with Dual® 8E, AAtrex® 4L (4LC, 80W, Nine-O®), or Princep® 4L (80W or Caliber® 90) for weed control in conventional tillage corn. This product may also be tank mixed with either paraquat or Roundup® alone or in combination with Princep, in minimum-tillage or no-tillage corn, or with either paraquat or Roundup, in minimum-tillage or no-tillage sorghum.

Precautions: 1) If sorghum seed is not properly pretreated with Concep, Bicep will severely injure the crop. 2) Under high soil moisture conditions prior to crop emergence, injury may occur following the use of Bicep. The crops will normally outgrow this effect.

Bicep alone or in tank mixture with AAtrex, Dual, Princep, paraquat or Roundup may be applied preplant incorporated, preplant surface, or preemergence on corn in water or fluid fertilizer. Apply the early postemergence treatment on corn in water only. Bicep alone may also be applied on sorghum preplant incorporated, preplant surface, or preemergence in water or in fluid fertilizer.

Bicep may be applied in water by aircraft. Applications in fluid fertilizer should be only by ground equipment.

This product may also be applied in irrigation water through center pivot irrigation systems.

Dry weather following preemergence application of Bicep 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 prior to use. Do not use a sprayer contaminated with any other materials, or crop damage or sprayer clogging may result.

Note (Bicep Alone and in Tank Mixtures) Use only on corn and grain or forage sorghum.

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Maximum Application Rates

Do not apply more than 1.5 pounds of Bicep per acre per year. Do not apply more than 1.5 pounds of Bicep per acre per year. Do not apply more than 1.5 pounds of Bicep per acre per year.

Dry Bulk Granular Fertilizers

Maximum application rate for Bicep granular fertilizer is 1.5 pounds per acre per year. Do not apply more than 1.5 pounds of Bicep per acre per year.

Do not apply more than 1.5 pounds of Bicep granular fertilizer per acre per year. Do not apply more than 1.5 pounds of Bicep granular fertilizer per acre per year.

All Federal and state regulations relating to dry bulk granular fertilizer labeling, registration, and application are the responsibility of the individual and/or company selling the herbicide fertilizer mixture.

Apply 1.5-4.50 pounds per acre of dry granular fertilizer impregnated with Bicep.

Do not impregnate Bicep on ammonium nitrate, potassium nitrate, or sodium nitrate either alone or in blends with other fertilizers.

Do not combine Bicep with a single superphosphate (0-20-0) or triple superphosphate (0-46-0).

Do not use Bicep on straight limestone, since absorption will not be achieved. Fertilizer blends containing limestone can be impregnated.

Prepare the granular herbicide fertilizer mixtures by using any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender. Nozzles used to spray Bicep onto the fertilizer must be placed to provide uniform spray coverage.

If the herbicide fertilizer mixture is too wet, use a highly absorptive powder, such as Microcel E (Johns-Manville Products Corporation), diatomaceous earth or finely powdered clay, to obtain a dry free-flowing mixture. Add the absorptive powder separately and uniformly to the herbicide fertilizer mixture and blend to form a suitable free-flowing mixture. Generally, less than 2% by weight of absorptive powder will be needed.

Calculate amounts of Bicep by the following formula:

$$\frac{2,000}{\text{lbs. of fertilizer per acre}} \times \text{qts. of Bicep per acre} = \text{qts. of Bicep per ton of fertilizer}$$

For best results, apply this mixture uniformly to soil with properly calibrated equipment immediately after blending, and incorporate according to directions.

Precaution: Do not use on crops where bedding occurs following the herbicide fertilizer application or injury may occur.

Application in Water or Fluid Fertilizers

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

Tank Mixtures: Fill the spray tank one-half to three-fourths full with water or fluid fertilizer, add the proper amount of Bicep, then add AAtrex or Princep, Dual, paraquat or Roundup, and finally add the rest of the water or fluid fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform suspension.

Compatibility Test: Check the compatibility of Bicep 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, **always check compatibility each time before re-use.** Be especially careful when using complete 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:

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

One jar to be used only for 1/2 milliliters of a liquid compatibility agent approved for the use, such as Compex. The other jar to contain 1/2 pint of water per 100 gals. spray volume. Stir gently to mix.

both: Add the appropriate amount of herbicides. Before the herbicide is used, add them separately with the herbicides first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently but thoroughly mix. The appropriate amount of herbicides for the test follows:

Dry herbicides: 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 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.

Application Procedures

Ground Application: Use sprayers that provide accurate and uniform application. Screens in nozzles and in suction and in-line strainers should be no finer than 50-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:

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

Aerial Application (for Bicep alone): Use aerial application only where broadcast applications are specified. Apply a minimum of 1 gal. of water for each 1 gal. of this product applied per acre, but for rates below 1 gal./acre, use in sufficient water to equal 2 gals./acre of total spray. Avoid applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft., using low drift nozzles at a maximum pressure of 40 psi, and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive nontarget plants, apply Bicep by aircraft at a minimum upwind distance of 400 ft. from sensitive plants.

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.

Center Pivot Irrigation Application: Bicep alone or in mixtures with other herbicides which are registered for center pivot application may be applied in irrigation water pre-emergence (after planting but before weeds or crop emerge) at rates recommended on this label. Use only center pivot systems that apply water uniformly. Prepare a mixture with a minimum of 1 part of water to 1 part herbicide(s), and inject this mixture into the center pivot system using a positive displacement pump. Injecting a larger volume of a more dilute mixture per hour will usually provide more accurate calibration of metering equipment. Maintain sufficient agitation to keep the herbicide in suspension. Apply in 1/2-1 inch of water. Use the lower water volume (1/2 inch) on coarser textured soils and the higher volume (1 inch) on finer textured soils. More than 1 inch of water at application may reduce weed control by moving the herbicide below the effective zone in the soil. Refer to supplemental literature published by CIBA-GEIGY for more information on calibration.

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Precautions for center pivot applications: 1) Apply only through irrigation systems containing anti-siphon and check valves to prevent contamination of well during shut down and overflow of solution tank. 2) Inject ahead of any right angle turn in the main line to insure adequate mixing. 3) Chemical injection pumps and water pumps must have interlocking controls to insure simultaneous shut-off. 4) Application when drift may occur from windy conditions or when system joints and connections are leaking, or when nozzles are not providing uniform distribution may cause crop injury. 5) Where sprinkler distribution patterns do not overlap sufficiently, unacceptable weed control may result. Where sprinkler distribution patterns overlap excessively, crop injury may result.

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.

Bicep Applied Alone — Corn, Grain Sorghum, or Forage Sorghum

Preplant Surface-Applied, Preplant Incorporated, or Preemergence

Weeds Controlled		Weeds Partially Controlled*
barnyardgrass (watergrass)	black nightshade	sandbur
browntop	carpetweed	seedling
panicum	cocklebur	johnsongrass
crabgrass	common purslane	snattercane
crowfootgrass	Florida pusley	volunteer sorghum
fall panicum	galinsoga	
giant foxtail	hairy nightshade	
goosegrass	Jimsonweed	
green foxtail	lambquarters	
red rice	morningglory	
signalgrass (Brachiaria)	pigweed	
southwestern cupgrass	ragweed	
witchgrass	smartweed	
yellow foxtail	velvetleaf	
yellow nutsedge		

* Control of these weeds can be erratic due partially to variable weather conditions. Control may be improved by following these suggested procedures:

1. Thoroughly till moist soil to destroy germinating and emerged weeds. If Bicep is to be applied preplant incorporated, this tillage may be used to incorporate Bicep if uniform 2 inch incorporation is achieved as recommended under **Application Procedures**.
2. Plant crop into moist soil immediately after tillage. If Bicep is to be used preemergence, apply at planting or immediately after planting.
3. If available, **sprinkler irrigate** within 2 days after application. Apply 1/2 inch of water. Use lower water volume (1/2 inch) on coarse textured soils. Also refer to the section on **Center Pivot Irrigation Application** for this method of application.
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.

Application Timing:

Preplant Surface-Applied (Corn): Use on medium- and fine-textured soils with minimum tillage or no-tillage systems in CO, IN, IL, IA, KS, KY, MN, MO, MT, NE, ND, SD, WI, and WY. Apply 1/3 the recommended rate of Bicep (3.2-4 qts/A) on medium soils and 4-5 qts/A on fine soils as a split treatment 30-45 days before planting and the remainder at planting. 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 3.2 qts/A not more than 2 weeks prior to planting. The above procedure also may be followed if AAtrex or Dual BE or Prin-

cept is used in tank mixtures with Bicep. If weeds are present at the time of treatment, apply in a tank mixture combination with a contact herbicide (for example, paraquat or Roundup). Observe directions for use, precautions, and restrictions on the label of the contact herbicide.

NOTE: 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.

Preplant Surface-Applied (Sorghum-Seed Treated with Concep): For minimum tillage and no-tillage systems only. Bicep may be applied up to 45 days before planting grain sorghum in IL, IA, eastern KS, MO, NE, and SD. Use only split applications for treatments made 30 to 45 days before planting with 1/3 of the recommended rate applied initially and the remaining 2/3 at planting. On medium soils with greater than 1.5% organic matter, and on fine soils with less than 1.5% organic matter, apply 3.2-3.6 qts/A of Bicep, on fine soils with greater than 1.5% organic matter, apply 3.6-4 qts/A of Bicep. Applications made less than 30 days prior to planting may be as either a split or a single application.

If weeds are present at the time of treatment, apply in a tank mixture combination with a contact herbicide (for example, paraquat 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 into the soil.

NOTE: 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 1.5% organic matter.

Preplant Incorporated or Preemergence (Corn or Sorghum-Seed Treated with Concep): Apply Bicep preplant incorporated or preemergence using the appropriate rates from Table 1 for corn, or from Table 2 for sorghum.

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

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

Table 1: Bicep Preplant Surface-Applied, Preplant Incorporated, or Preemergence—Corn (Field Corn, Silage Corn, Sweet Corn, Popcorn)

Soil texture	Broadcast rate per acre	
	Less than 3% organic matter	3% organic matter or greater
COARSE Sand, loamy sand, sandy loam	2 qts	2-4 qts
MEDIUM Loam, silt loam, silt	2-4 qts	3-2 qts
FINE Silty clay loam, sandy clay loam, silty clay, sandy clay, clay loam, clay	3-2 qts	3-2-4 qts*
Muck or peat soils	DO NOT USE	

*For cocklebur, yellow nutsedge, and velvetleaf control on fine-textured soils above 3% organic matter. Apply 4 qts of Bicep per acre.

Table 2: Bicep - Grain or Forage Sorghum † (Seed treated with Concep)

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% 1-1.5% more than 1.5%	DO NOT USE 2-4 qts 2.8-3.2 qts

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

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

Rotational Crops: 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. Injury may occur to soybeans planted in north-central and northwest Iowa, south-central and southwest Minnesota, northeast Nebraska, and southeast South Dakota the year following application on soils having a calcareous surface layer. 3) If applied after June 10, do not rotate with crops other than corn or sorghum the next year, or crop injury may occur. 4) 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 be planted the following year, or a crop of untreated corn or sorghum is to precede other rotational crops. 5) Small grains may be planted 15 months following treatment. 6) All other crops may be planted 18 months after application.

Postemergence — Corn

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

Application: Apply early postemergence using the appropriate rate from Table 3. Apply this treatment before grass and broadleaf weeds pass the 2-leaf stage and before corn exceeds 5 inches in height. Application to weeds larger than the 2-leaf stage will generally result in unsatisfactory control. Occasional corn leaf 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.

Table 3: Postemergence — Corn

Soil texture	Broadcast rate per acre
COARSE Sand, loamy sand, sandy loam	2-4 qts
MEDIUM Loam, silt loam, silt	3-2 qts
FINE Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay	3-2-4 qts *

*For better control of cocklebur, morningglory, velvetleaf, and yellow nutsedge on fine-textured soils above 3% organic matter, apply 4 qts. of Bicep per acre.

Rotational Crops: Follow the preceding crop rotation instructions for Bicep Preplant Surface-Applied Preplant Incorporated, or Preemergence.

Bicep Combinations — Corn

Tank Mixture with AAtrex, Princep, Dual 8E, or Bladex* — Conventional Tillage

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

Dual 8E: Add up to 1/2 pt. of Dual 8E per acre to the rate of Bicep recommended in Table 1 when heavy infestations of yellow nutsedge, sandbur, or seedling johnsongrass are expected.

Princep (4L, 80W, or Caliber 90): 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 recommended in Table 1 in the northeastern U.S. where heavy infestations of crabgrass or fall panicum are expected.

Bladex (4L, 80W, or 90WDG) [Field Corn and Silage Corn Only]: Add up to 2 qts. of Bladex 4L (2.5 lbs. 80W or 2.2 lbs. 90WDG) per acre. When Bladex is added, the rate of Bicep suggested in Table 1 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.

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

Tank Mixtures of Bicep Alone or Bicep plus AAtrex, Bladex, Dual 8E, or Princep, with Paraquat 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 paraquat or Roundup may be tank mixed with Bicep alone or with Bicep plus AAtrex, Bladex, Dual 8E, or Princep. When used as directed, the paraquat 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 portion of the tank mixture provides preemergence control of the weeds listed on this label in the Bicep alone section for corn. The addition of AAtrex, Bladex, Dual 8E, or Princep offers the advantage indicated for each under "Conventional Tillage" above.

Application: Apply before, during, or after planting but before corn emerges, at the appropriate rate in Table 4. Up to 1 qt. of AAtrex 4L/4LC (1.25 lbs. 80W or 1.1 lbs. Nine-O), or 2 qts. of Bladex 4L (2.5 lbs. 80W or 2.2 lbs. 90WDG), or 1/2 pt. of Dual 8E, 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 recommended in Table 4. Add paraquat or Roundup at the following broadcast rates:

Paraquat: 1-2 pts. * per acre plus 8 oz. of X-77* Spreader per 100 gals. of spray mixture. Use the lower rate for control.

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Control weeds less than 4 inches tall and the higher rate for weeds 4-6 inches tall. This treatment will not consistently control weeds taller than 6 inches.

Roundup: 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.

*Based on a product containing 2 lbs. a.i./gal.

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

Table 4: Bicep for Minimum-Tillage or No-Tillage Corn

Soil texture	Broadcast rate per acre
COARSE Sand, loamy sand, sandy loam	2.4 qts.
MEDIUM Loam, silt loam, silt	3.2 qts.
FINE Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay	3.2-4 qts.*
Muck or peat soils	DO NOT USE

*For cocklebur, yellow nutsedge, and velvetleaf control on fine textured soils above 3% organic matter, apply 4 qts. of Bicep per acre.

Rotational Crops: Follow the crop rotation instructions in the Bicep Alone section for corn.

Bicep Combinations — Grain Sorghum (Seed treated with Concep)

Tank Mixtures of Bicep with Paraquat 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 paraquat or Roundup may be tank mixed with Bicep. When used as directed, the paraquat 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 portion of the tank mixture provides preemergence control of the weeds listed on this label in the Bicep Applied Alone section.

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

Application: Apply before, during, or after planting but before grain sorghum emerges, at the appropriate rate in Table 5. Add paraquat or Roundup at the following broadcast rates:

Paraquat: 1-2 pts. * per acre plus 8 oz. of X-77 Spreader per 100 gals. of spray mixture. Use the lower rate for control of annual weeds less than 4 inches tall and the higher rate for weeds 4-6 inches tall. This treatment will not consistently control weeds taller than 6 inches.

Roundup: 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.

*Based on a product containing 2 lbs. a.i./gal.

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

Table 5: Bicep for Minimum-Tillage or No-Tillage Grain Sorghum† (Seed treated with Concep)

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, silty sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, clay	less than 1%	DO NOT USE
	1-1.5%	2.4 qts.
	more than 1.5%	2.8-3.2 qts.

†Do not use in NM, OK, or TX except in northeast OK and Texas Gulf Coast and Blacklands areas. Do not apply pre-plant incorporated in AZ or the Imperial Valley of CA.

Rotational Crops: Follow the crop rotation instructions in the Bicep Alone Section.

Storage and Disposal

Pesticide Disposal

Do not contaminate water, food, or feed by storage or 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. 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 empty container. Triple rinse (or equivalent) and offer for recycling or reconditioning, or puncture and dispose of 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 (919) 292-7100 day or night.

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION

Harmful if swallowed, inhaled, or absorbed through the skin. Avoid breathing vapors or spray mist. Causes eye and skin irritation. May be a skin sensitizer. Avoid contact with eyes, skin or clothing. Do not contaminate food or feed.

Practical Treatment: If swallowed, contact your local poison control center, hospital, or physician. If the patient is unconscious, maintain breathing and heartbeat (cardiopulmonary resuscitation). If the patient is conscious and alert, induce vomiting (syrup of ipecac or stimulate the back of the throat with a finger). **NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.**

In case of contact, immediately flush eyes or skin with plenty of water. Remove and wash contaminated clothing before re-use. Get medical attention if irritation persists.

Note to Physician: There is no specific antidote. If swallowed, induce emesis or lavage stomach. The use of an aqueous slurry of activated charcoal should be considered.

Environmental Hazards

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

AAtrex* trademark of CIBA-GEIGY for atrazine.

Bicep* trademark of CIBA-GEIGY.
U.S. Patent No. 3,937,730 (metolachlor).

Bladex* trademark of Shell Chemical Company for cyanazine.

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Complex* trademark of KALO Agricultural Chemicals, Inc.

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U.S. Patent No. 4,070,389.

Dual* trademark of CIBA-GEIGY for metolachlor.
U.S. Patent No. 3,937,730.

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Agricultural Division
CIBA-GEIGY Corporation
Greensboro, North Carolina 27419
A 5611M 024

Bicep*

Bicep®

Herbicide

For weed control in corn
and grain or forage
sorghum

Active Ingredients:
Atrazine: 2-chloro-4-ethyl-
amino-6-isopropylamino-
s-triazine 20.8%
Atrazine related
compounds 1.1%
Metolachlor:
2-chloro-N-(2-ethyl-6-
methylphenyl)-N-(2-
methoxy-1-methyl-
ethyl) acetamide 27.5%
Inert Ingredients: 50.6%
Total: 100.0%

Bicep contains 4.5 lbs.
active ingredients per
gallon.

EPA Reg. No. 100-590
EPA Est. 100-LA-1

Bicep® trademark of
CIBA-GEIGY
U.S. Patent No. 3,937,730
(metolachlor)

See directions for use
in attached booklet.

2½ Gallons
U.S. Standard Measure

Keep Out of Reach of
Children.

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