CAUTION

Harmful if swallowed, inhaled or absorbed through skin. Causes eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or spray mist.

Statement of Practical Treatment

If in eyes: Flush eyes with plenty of water. Call a physician if irritation persists.

If swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger or, if available, by administering syrup of ipecac. Do not induce vomiting or give anything by mouth to an unconscious person.

If inhaled: Remove victim to fresh air. Get medical attention.

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

Note to Physician: If Bicep II is ingested, induce emesis or lavage stomach. The use of an aqueous slurry of activated charcoal should be considered.

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 II 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.*

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.

*For exceptions to this restriction, see the Environmental Hazards section of the Precautionary Statements in attached booklet.

Chemigation Prohibition

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

Container Disposal

Do not reuse empty container. Triple rinse (or equivalent), 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.

See directions for use in attached booklet.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

EPA Reg. No. 100-710

EPA Est. 100-LA-1

Bicep II® trademark of Ciba-Geigy Corporation
U.S. Patent Nos. 4,022,611 and 4,618,361

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

Ciba-Geigy

CGA 103L1F 083

[GANNONC.LABELB]BICPIIWP - 6/25/93

PM 23 100-710 Page 1 of 41 File

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 31 1994

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Karen S. Stumpf
CIBA-GEIGY CORP.
P. O. Bocx 18300
Greensboro, NC 27419

Subject: Label Amendment Submission of 07/13/93 in Response to PR Notice 93-7
EPA Reg. No. 100-710
BICEP II 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.

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

WPS
(Front Cover of Removable Booklet)
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 II®

Herbicide

For weed control in corn
and grain or forage sorghum

2 1/2 Gallons
U.S. Standard Measure

ACCEPTED
with COMMENTS
In EPA Letter Dated
MAR 31 [illegible]
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.
100-710

Active Ingredients:	
Atrazine*: 2-chloro-4-ethylamino-6-isopropylamino-s-triazine	27.4%
Atrazine related compounds*	1.4%
Metolachlor: 2-chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl) acetamide	34.8%
Inert Ingredients:	36.4%
Total:	100.0%

*Bicep II typically contains 2.67 lbs. atrazine + relateds per gallon.

KEEP OUT OF REACH OF CHILDREN.

CAUTION

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-710
EPA Est. 100-LA-1

CGA 103L1F 083

Ciba-Geigy

[GANNONC.LABELB] - BICPIIWP - 6/25/93

DIRECTIONS FOR USE AND CONDITIONS OF SALE AND WARRANTY

IMPORTANT: Read the entire Directions for Use and the Conditions of Sale and Warranty before using this product. If terms are not acceptable, return the unopened product container at once.

Conditions of Sale and Warranty

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

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

DIRECTIONS FOR USE

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

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 restricted-entry 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 the 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

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.

General Information

Bicep II is a selective herbicide recommended as an early preplant, preplant surface-applied, preplant incorporated, or preemergence 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 Concep®. This product may be tank mixed with Banvel®, Bladex® (4L, 90DF), Dual® formulations, AAtrex® 4L (Nine-O®), Lorox® or equivalent, or Princep® 4L (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 II), 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 II in combination or in sequence with registered herbicides which do not contain triazines. Consult with your State Agricultural Extension Service for specific recommendations.

Precautions: 1) If sorghum seed is not properly pretreated with Concep, Bicep II will severely injure the crop. 2) Injury may occur to sorghum following the use of Bicep II under abnormally high soil moisture conditions during early development of the crop.

Bicep II 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 II 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 II alone may also be applied on sorghum early preplant, preplant incorporated, preplant-surface or preemergence in water or in fluid fertilizer.

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

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.

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

Dry weather following preemergence application of Bicep II 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

Shake 2 1/2 gal. jugs well or thoroughly recirculate larger containers and bulk tanks before using. Bicep II is a liquid that may be mixed with water or fluid fertilizer and applied as a spray. Bicep II may also be sprayed onto dry bulk granular fertilizer and applied with the granular fertilizer.

Dry Bulk Granular Fertilizers

Many dry bulk granular fertilizers may be impregnated or coated with Bicep II and used to control weeds in corn or Concep-treated sorghum.

When applying Bicep II with dry bulk granular fertilizers, follow all directions for use and precautions on the Bicep II label regarding target crops, rates per acre, soil texture, application methods, and rotational crops.

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

Prepare the herbicide/fertilizer mixture by using any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender. Nozzles used to spray Bicep II onto the fertilizer must be placed to provide uniform spray coverage. Care should be taken to aim the spray onto the fertilizer only, avoiding the walls of the blender.

If the herbicide/fertilizer mixture is too wet, add a highly absorptive material, such as Agsorb® or similar granular clay

materials, to obtain a dry free-flowing mixture. Absorptive materials should be added only after the herbicide has been thoroughly blended into the fertilizer mixture. Best application results will be obtained by using a granule of 6/30 particle size or of a size similar to that of the fertilizer material being used. Generally, less than 2% by weight of absorptive material will be needed. Avoid using more than 5% absorptive material by weight.

Calculate the amount of Bicep II to be used by the following:

2,000 lbs. of fertilizer per acre	X	qts. of Bicep II per acre	=	qts. of Bicep II per ton of fertilizer

Pneumatic (Compressed Air) Application: High humidity, high urea concentrations, low fertilizer use rates, and dusty fertilizer may cause fertilizer mixture to build up or plug the distributor head, air tubes, or nozzle deflector plates. To minimize buildup, premix Bicep II with a noncombustible/nonflammable mineral seal oil at up to a 1:1 ratio of Bicep II to mineral seal oil per acre and spray mixture uniformly onto fertilizer. Mineral seal oil additive may be used either in a fertilizer blender or through direct injection systems. Use only those oils recommended by Ciba-Geigy, i.e., KERMAC #600™ or CV-600 or a similar mineral seal oil. Drying agents should not be used when using oil additives.

Notes: (1) Some separation of the Bicep II + mineral seal oil mixture may occur. To assure uniform application, use in-tank agitation to keep the products mixed. (2) Bicep II + mineral seal oil mixture may not be mixed with water or fluid fertilizer and applied through a liquid sprayer or crop injury may occur. (3) When impregnating Bicep II in a blender before application, a drier mixture may be obtained by substituting a drying agent for mineral seal oil. The use of clay granules such as Agsorb is recommended over the other types of absorptive material. (4) Drying agents are not recommended for On-The-Go impregnation equipment.

Precautions: To avoid potential for explosion, (1) Do not impregnate Bicep II on ammonium nitrate, potassium nitrate, or sodium nitrate either alone or in blends with other fertilizers. (2) Do not combine Bicep II with a single superphosphate (0-20-0) or treble superphosphate (0-46-0). (3) Do not use Bicep II on straight limestone, since absorption will not be achieved. Fertilizer blends containing limestone can be impregnated.

Application

Apply 200-700 pounds of the herbicide/fertilizer mixture per acre. For best results, apply the mixture uniformly to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is

11 7 41

essential in order to prevent possible crop injury or injury to subsequent rotational crops. Non-uniform application may also result in unsatisfactory weed control. In areas where conventional tillage is practiced, a shallow incorporation of the mixture into the soil is recommended to obtain satisfactory weed control. On fine or medium-textured soils in areas where soil incorporation is not planned, i.e., reduced tillage situations or in some conventional till situations, make applications approximately 30 days before planting to allow moisture to move the herbicide/fertilizer mixture into the soil. On coarse-textured soils, make applications approximately 14 days prior to planting.

Precautions: (1) To help avoid rotational crop injury, make applications as early as possible, since Bicep II impregnated onto dry bulk granular fertilizers can be expected to last longer in the soil than when Bicep II is applied as a spray in water or fluid fertilizer. (2) To avoid potential crop injury, do not use the herbicide/fertilizer mixture on crops where planting beds are to be formed.

Application in Water or Fluid Fertilizers

Bicep II Alone: Fill the spray tank one-half to three-fourths full with water or fluid fertilizer, add the proper amount of Bicep II, 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 II, 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 II unless otherwise specified. (See Bladex section under Bicep II Combinations - Corn for further mixing instructions.) Provide sufficient agitation during mixing and application to maintain a uniform suspension.

Compatibility Test: Check the compatibility of Bicep II 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 reuse. 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.

2) To one 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 both 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:

   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(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 Storage and Disposal section at the end of this label.

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:

band width in inches / row width in inches	X	broadcast rate per acre	=	amount needed per acre of field

Low Carrier Application (Broadcast Ground Application Only):

Use sprayers such as Melroe Spra-Coupe, Hagie, John Deere Hi-Cycle®, or Willmar Air Ride® that provide accurate and uniform application. Only water may be used as a carrier. Screens in suction and in-line strainers should be 50-mesh. Manufacturers may require that tip screens as fine as 100-mesh be used with some nozzles. Use a pump with capacity to (1) maintain up to 35-40 psi at the nozzles, and (2) provide sufficient agitation in tank to keep mixture in suspension. Use a minimum of 5 gallons of spray mixture per acre. Maximum recommended sprayer speed is 15 mph. Rinse sprayer thoroughly with clean water immediately after each use.

Note: Low pressure nozzles are recommended to reduce drift and increase application accuracy. Care should be taken when using automatic rate controlling devices to spray the material within the rated working pressure and flow ranges of the nozzle selected. Nozzle screens should be used when recommended by the manufacturer. All nozzles should be placed on 20-inch centers, except flooding types which should be placed on 40-inch centers. When Flat Fan type nozzles are used, angles of 80° or 110° are recommended. Always read and follow the manufacturer's directions for optimum setup and performance of their nozzles or tips.

Aerial Application (for Bicep II 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 II 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.

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 II Applied Alone - Corn, Grain Sorghum, or Forage Sorghum

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

Weeds Controlled		Weeds Partially Controlled**
barnyardgrass (watergrass)	carpetweed	sandbur
browntop panicum	chickweed	seedling johnsongrass
crabgrass	cocklebur*	shattercane
crowfootgrass	common purslane	sicklepod
fall panicum	Florida pusley	volunteer sorghum
foxtail millet	galinsoga	
giant foxtail	henbit	
goosegrass	jimsonweed	
green foxtail	lambsquarters	
prairie cupgrass	morningglory	
red rice	mustards	
signalgrass (Brachiaria)	nightshades	
southwestern cupgrass	pigweed	
witchgrass	ragweed	
yellow foxtail	smartweed	
yellow nutsedge*	velvetleaf*	

*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 soils, only partial control can be expected.

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

1) In corn, apply up to the maximum single application rate in Table 1 for your given soil texture and rate limitation based on your soil conservation practices.

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

3) Plant crop into moist soil immediately after tillage. If Bicep II is to be used preemergence, apply at planting or immediately after planting.

4) If available, sprinkler irrigate 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.

5) 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 II 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.

Note: For purposes of calculating total atrazine active ingredient applied, Bicep II contains 2.67 lbs. ai per gal. (0.6675 lb. ai per qt.)

16 3 41

FOR ALL SOIL APPLICATIONS PRIOR TO CROP EMERGENCE

- On Highly Erodible Soils (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 3.0 qts./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 2.4 qts./A may be applied. Refer to "A" in tables following.

- On Soils Not Highly Erodible

  Apply a maximum of 3.0 qts./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 3.0 qts./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 (3.75 qts. of Bicep II) 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 II 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 2.4 qts./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 II. Substitute a fluid fertilizer for some or all of the water carrier for burndown of existing annual weeds listed on this label up to the 2-leaf stage of development. The addition of crop oil concentrate to the spray mixture will enhance the burndown activity. If larger 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 post-emergence application of an appropriately labeled broadleaf and/or grass weed herbicide may be used, i.e., AAtrex, Beacon®, Basagran®, 2,4-D, Banvel, bromoxynil (Brominal® or Buctril®), Marksman®. 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 II 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 semi-dormant 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 II at 1.8 to 2.2 qts./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.

Notes: (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 II application on medium or fine-textured soils. On fine-textured soils with 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.

18 7 41

Table 1: Bicep II - Early Preplant - Corn

Soil Texture	Single Application	Split Application* 30-45 DBP**	Split Application* At Planting
COARSE Sand, loamy sand sandy loam	2.4 qts./A	DO NOT	APPLY
MEDIUM Loam, silt loam silt	A. 2.4 qts./A	1.6 qts./A	0.8 qt./A
	B. 2.4-3.0 qts./A	1.6 qts./A to 2.0 qts./A	0.8 qt./A to 1.0 qt./A
FINE Sandy clay loam, silty clay loam, silty clay, sandy clay, clay loam clay	A. 2.4 qts./A	1.6 qts./A	0.8 qt./A
	B. 3.0 qts./A	2.0 qts./A	1.0 qt./A

*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 rates for all other applications.

Early Preplant (Sorghum-Seed Treated with Concep): For minimum-tillage and no-tillage systems only, Bicep II 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.

Substitute a fluid fertilizer for some or all of the water carrier for burndown of existing annual weeds listed on this label

up to the 2-leaf stage of development. The addition of crop oil concentrate to the spray mixture will enhance the burndown activity. If larger 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 II 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 1.0% organic matter.

On medium- and fine-textured soils following final seed bed preparation in the Blackland, Panhandle, and Gulf Coast areas of TX, an early preplant application of Bicep II at 1.8 to 2.2 qts./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.

Notes: 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 II application on medium-textured soils. On fine-textured soils, do not exceed 2.5 lbs. ai of metolachlor/A.

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

Soil Texture	Organic Matter Content	Single Application	Split Application* 30-45 DBP**	Split Application* At Planting
COARSE Sand, loamy sand, sandy loam	any level	DO NOT USE	DO NOT USE	
MEDIUM Loam, silt loam, silt	A more than 1.0%	2.4 qts./A	1.6 qts./A	0.8 qt./A
	less than 1.0% B. - - - - - - - - -	DO NOT USE - - - - - - - -	DO NOT USE - - - - - - -	- - - - - -
	more than 1.0%	2.4 qts./A to 2.7 qts.	1.6 qts./A to 1.8 qts./A	0.8 qt./A to 0.9 qt./A
FINE Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay clay	A more than 1.0%	2.4 qts./A	1.6 qts./A	0.8 qt./A
	1.0%-1.5%	2.4 qts./A to 2.7 qts.	1.6 qts./A to 1.8 qts./A	0.8 qt./A to 0.9 qt./A
	B. - - - - - - - - -	- - - - - - - -	- - - - - - -	- - - - - -
	more than 1.5%	2.7 qts./A to 3.0 qts.	1.8 qts./A to 2.0 qts./A	0.9 qt./A to 1.0 qt./A

*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 rates for all other applications.

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

Preplant Surface: 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.

Preplant Incorporated: 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 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.

22 of 41

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

Soil Texture	Broadcast Rate Per Acre	
	Less Than 3% Organic Matter	3% Organic Matter or Greater
COARSE Sand, loamy sand, sandy loam	1.5 qts.	1.8 qts.
MEDIUM Loam, silt loam, silt	1.8 qts.	2.4 qts.
FINE Silty clay loam, sandy clay loam, silty clay, sandy clay, clay loam, clay	2.4 qts.	A. 2.4 qts. B. 2.4-3 qts.*
Muck or peat soils (more than 20% organic matter)	DO NOT USE	

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

NOTES: (1) In the event of escape of annual broadleaf weeds following an early preplant, preplant surface, preplant incorporated, or preemergence treatment of Bicep II applied alone or in combination, follow with a postemergence application of an appropriately labeled broadleaf and/or grass weed herbicide, i.e., AAtrex, Beacon, Basagran, Brominal, Buctril, Banvel, 2,4-D or Marksman. If 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 or another product containing atrazine is used postemergence following application of Bicep II, do not exceed a total of 2.5 lbs. ai/A of atrazine per year. (4) Substitute a fluid fertilizer for some or all of the water carrier for burndown of existing annual weeds listed on this label up to the 2-leaf stage of development. The addition of crop oil concentrate to the spray mixture will enhance the burndown activity. If larger weeds are present, add a contact herbicide as noted in the Bicep II Combinations section of this label.

Table 4: Bicep II - Preplant Surface, Preplant Incorporated or Preemergence - 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 1.0%	DO NOT USE
	more than 1.0%	1.8-2.4 qts.

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

Note: Substitute a fluid fertilizer for some or all of the water carrier for burndown of existing annual weeds listed on this label up to the 2-leaf stage of development. The addition of crop oil concentrate to the spray mixture will enhance the burndown activity. If larger weeds are present at the time of treatment, add a contact herbicide as noted in the Bicep II Combination section of this label.

Precautions: To avoid possible crop injury, (1) Do not apply Bicep II on highly alkaline soils (pH greater than 8.0) or on eroded areas where calcareous subsoils are exposed. (2) Do not apply Bicep II when sorghum is planted in deep furrows because heavy rains following application can cause excessive concentrations of herbicide in the furrow. (3) Do not apply to sorghum grown under dry mulch tillage. (4) Injury may occur if both Bicep II 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 II.

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 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, western MN and NE, do not rotate to soybeans for 18 months following 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 15 months after application.

Bicep II Combinations - Corn*

*When tank mixing Bicep II with AAtrex formulations, refer to the Bicep II Rate Limitations 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 soils	2.0 lbs. ai of atrazine
Preemergence + postemergence applications	2.5 lbs. ai of atrazine

Tank Mixture with AAtrex, Dual, Princep or Bladex - Conventional Tillage

AAtrex (4L or Nine-O): Add up to 1 qt. of AAtrex 4L (1.1 lbs. Nine-O) per acre to the rate of Bicep II recommended in Table 3 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: Add up to 1/2 pt. of Dual per acre to the rate of Bicep II recommended in Table 3 when heavy infestations of yellow nutsedge, sandbur, or seedling johnsongrass are expected.

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

Bladex (4L or 90DF): Add up to 2 qts. of Bladex 4L (2.2 lbs. 90DF) per acre. When Bladex is added, the rate of Bicep II 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 IA and southern MN, or in other areas where soybean rotational concerns exist.

Note: Check the compatibility of Bicep II 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 90DF in tank mixtures with Bicep II. Compatibility testing is especially critical when using Bladex 90DF combinations. Always add Bladex to the spray tank before Bicep II, regardless of which Bladex formulation is used.

Tank Mixtures of Bicep II Alone or Bicep II 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 II alone or with Bicep II 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 II portion of the tank mixture provides preemergence control of the weeds listed on this label in the Bicep II Alone section for corn. The addition of AAtrex, Bladex, Dual, 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 5. Up to 1 qt. of AAtrex 4L (1.1 lbs. Nine-O), or 2 qts. of Bladex 4L (2.2 lbs. 90DF), or 1/2 pt. of Dual, or 1 qt. of Princep 4L (1.1 lbs. Caliber 90) per acre may be added to the rate of Bicep II recommended in Table 5. Add Gramoxone Extra or Roundup at the following broadcast rates:

> Gramoxone Extra: 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-..% nonionic active ingredient, respectively. This treatment will not 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.

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

Tank Mixtures of Bicep II Alone or Bicep II 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 II may be applied in combination with AAtrex or Bladex. When used as directed, the Bicep II portion of the tank mixture provides preemergence control of the weeds listed on this label in the Bicep II Alone section for corn. The addition of AAtrex or Bladex offers the advantage indicated for each under Conventional Tillage above.

Application: Apply Bicep II before, during, or after planting but before corn emerges, at the appropriate rate in Table 5. Up to 1 qt. of AAtrex 4L (1.1 lbs. Nine-O) or 2 qts. of Bladex 4L

(2.2 lbs. 90DF) per acre may be added to the rate of Bicep II recommended in Table 5.

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 corn 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 suspension-type liquid fertilizer. Observe all directions for use, precautions and limitations on the respective product labels when applying these products in tank mix combination.

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

Table 5: Bicep II for Minimum-Tillage or No-Tillage Corn

Soil Texture	Broadcast Rate Per Acre
COARSE Sand, loamy sand, sandy loam	1.8 qts.
MEDIUM Loam, silt loam, silt	2.4 qts.
FINE Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay	A. 2.4 qts. B. 2.4-3 qts.*
Muck or peat soils	DO NOT USE

*For cocklebur, yellow nutsedge, and velvetleaf control on fine-textured soils above 3% organic matter, apply 3 qts. of Bicep II 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 II may be applied preemergence in combination with linuron. Apply Bicep II 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 II and Lorox labels when tank mixing these products.

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

Bicep II Combinations - Grain Sorghum (Seed treated with Concep)

Tank Mixtures of Bicep II 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 II. 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 II portion of the tank mixture provides preemergence control of the weeds listed on this label in the Bicep II 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 6. Add Gramoxone Extra or Roundup at the following broadcast rates:

Gramoxone Extra: 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.

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.

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

Table 6: Bicep II 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, silt, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, clay	less than 1%	DO NOT USE
	1-1.5%	1.8 qts.
	more than 1.5%	2.1-2.4 qts.

*Do not use in NM or TX except the TX 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 II on highly alkaline soils (pH greater than 8.0) or on eroded areas where calcareous subsoils are exposed. (2) Do not apply Bicep II when sorghum is planted in deep furrows because heavy rains following application can cause excessive concentrations of herbicide in the furrow. (3) Do not apply to sorghum grown under dry mulch tillage. (4) Injury may occur if both Bicep II 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 II.

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

Storage

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. 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), 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 1-800-888-8372 day or night.

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION

Harmful if swallowed, inhaled or absorbed through skin. Causes eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or spray mist.

Statement of Practical Treatment

If in eyes: Flush eyes with plenty of water. Call a physician if irritation persists.

If swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger or, if available, by administering syrup of ipecac. Do not induce vomiting or give anything by mouth to an unconscious person.

If inhaled: Remove victim to fresh air. Get medical attention.

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

Note to Physician: If Bicep II is ingested, induce emesis or lavage stomach. The use of an aqueous slurry of activated charcoal should be considered.

Personal Protective Equipment:

Applicators and other handlers (other than mixers and loaders) must wear:

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

Mixers and Loaders must wear:

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

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 statement:

When handlers use closed systems, enclosed cabs, or aircraft 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 II 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 times. The above-specified minimum containment capacities do 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.

AAtrex®, Beacon®, Bicep II®, Caliber 90®, Concep®, Dual®, Nine-O® and Princep® trademarks of Ciba-Geigy Corporation
U.S. Patent Nos. 4,022,611; 4,478,635; 4,618,361

Agsorb® trademark of Oil-Dri Corporation

Banvel® and Marksman® trademarks of Sandoz Chemical Corporation

Basagran® trademark of BASF Company

Bladex® and Lorox® trademarks of E. I. duPont de Nemours and Company (Inc.)

Brominal® and Buctril® are trademarks of Rhône-Poulenc Ag Company

Compex® trademark of KALO Agricultural Chemicals, Inc.

Gramoxone® trademark of Zeneca Ag Products

Hi-Cycle™ trademark of John Deere Company

KERMAC #600™ trademark of Kerr McGee Refining Corporation

Roundup® trademark Monsanto Company

Unite® trademark of HACO, Inc.

Willmar Air Ride® trademark of Willmar Manufacturing

X-77® trademark of Chevron Chemical Company

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

CGA 103L1F 083	Revised	November 30, 1992 adm. amendments
	Revised	March 26, 1993 - alternate method of improving partial control
	Revised	June, 1993 - atrazine env. hazards wording, PR Notice 93-3, name and logo changes
	Revised	August, 1993 - WPS

[GANNONC.LABELB]BICPIIWP - 6/25/93

(Container Label)

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 II®
Herbicide

For weed control in corn
and grain or forage sorghum

Active Ingredients:

Atrazine*: 2-chloro-4-ethylamino-6-isopropylamino-s-triazine	27.4%
Atrazine related compounds*	1.4%
Metolachlor: 2-chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl) acetamide	34.8%
Inert Ingredients:	36.4%
Total:	100.0%

*Bicep II typically contains 2.67 lbs. atrazine + relateds per gallon.

2 1/2 Gallons
U.S. Standard Measure

KEEP OUT OF REACH OF CHILDREN

CAUTION

Precautionary Statements

Hazards to Humans and Domestic Animals