

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

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

SEP 25 2003

Albaugh, Inc. c/o Pyxis Regulatory Consulting, Inc. ATTN: Michael Kellogg 11324 17<sup>th</sup> Ave. Ct. NW Gig Harbor. WA 98332

Dear Mr. Kellogg:

Subject: Fast Track Amendment for Atrazine Product

Product: Dicambazine

EPA Registration Number: 42750-41

Submission Date: 04/24/03

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended is acceptable, provided you make the following changes before you release the product for shipment.

1. Change the PPE section to the following:

- "Some materials that are chemical-resistant to this product are barrier laminate > 14 mils, neoprene rubber > 14 mils, polyvinyl chloride (PVC) > 14 mils, butyl rubber > 14 mils, or viton > 14 mils. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart."
  - "Mixers, loaders, applicators and other handlers not using Engineering Controls must wear: Coveralls over long sleeved shirt and long pants

Chemical resistant gloves

Chemical resistant footwear plus socks

Chemical resistant headgear (if overhead exposure)

A NIOSH approved dust mist filtering respirator with any N, R, P or HE filter

A chemical resistant apron (if exposed to undiluted product)"

• "Mixers, loaders, applicators and other handlers using Engineering Controls must wear:

Long-sleeved shirt and long pants

Chemical resistant gloves and apron for mixers and loaders

Shoes plus socks

See Engineering Controls for additional requirements"

Note to registrant: You must drop the N type filter from the respirator statement if the product contains or is used with oil.

- Add "Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them." after "Follow manufacturers instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry."
- 2. The Engineering Controls section must include the following text:

"Mixers and loaders supporting aerial applications at a rate greater than 3 lbs active ingredient per acre must use a closed system that meets the requirements for dermal and inhalation protection listed in the WPS for Agricultural Pesticides [40 CFR 170.240(d)(4)] and must

-wear the PPE required above for handlers using engineering controls,

-wear protective eyewear if the system operates under pressure, and

-be provided and have immediately available for use in an emergency, such as a spill or equipment breakdown: coveralls, chemical resistant footwear and dust mist respirator.

Pilots must use an enclosed cockpit in a manner that is consistent with the WPS for Agricultural Pesticides [40 CFR 170.240(d)(4)].

Flaggers supporting aerial applications must use an enclosed cab that meets the definition on the WPS Standard for Agricultral Pesticides [40 CFR 170.240(d)(5)] for dermal protection. In addition, such applicators and flaggers must

-wear the PPE required above for handlers using engineering controls

-either wear the type of respirator specified in the PPE above or use an enclosed cab that provides

inhalation protection equivalent to a dust mist respirator.

-be provided and must have immediately available for use in an emergency when they must exit the cab in the treated area: coveralls, chemical resistant gloves, chemical resistant footwear, chemical resistant headgear if overhead exposure, and a dust mist respirator if using an enclosed cab that provides inhalation protection.

-take off any PPE that was worn in the treated area before reentering the cab, and

-store all such PPE in a chemical resistant container, such as a plastic bag, to prevent contamination of the inside of the cab."

3. The Environmental Hazards section must read as follows:

"Atrazine can travel (seep or leach) through the 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.

Product must not be mixed or 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 ft. 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 form 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 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 to the mixing/loading sites.

Additional state imposed requirements regarding well-head setbacks and operational area containment must be observed.

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

One of the following restrictions must be used in applying atrazine to tile-terraced fields containing standpipes:

- Do not apply within 66 feet of standpipes in tile-outletted terraced fields.

- Apply this product to the entire tile-outletted terraced field and immediately incorporate it to a depth of

2-3 inches in the entire field.

- Apply this product to the entire tile-outletted terraced field under a no-till practice only when a high crop residue crop management practice is practiced. High crop residue management is described as a practice where little or no crop residue is removed from the field during and after crop harvest.

This pesticide is toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash water."

4. Remove the following paragraphs from the Environmental Hazards section:

• "Keep out of lakes, streams or ponds... Apply this label only as directed on the label."

• "This product may not be mixed...other suitable crop."

"Dicambazine contains...non-triazine herbicide."

• Also remove the "Ground and Surface Water Advisory" heading.

5. The "Pesticide Disposal" instructions should read as follows: "Pesticide wastes are acutely toxic. Improper disposal of excess 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 for guidance."

6. Add the following to Directions for Use:

- "When tank-mixing or sequentially applying atrazine or products containing atrazine to corn of sorghum, the total pounds of atrazine applied (lbs ai/A) must not exceed the specific seasonal rate limits from preemergence, or postemergence, or preemergence + postemergence applications as noted in the use limitation table in the use directions."
- 7. In the Corn and Sorghum Use Instructions:, specify a 60 day PHI for field corn forage uses, a 60 day PHI for preemergent sorghum uses and a 45 day PHI for postemergent sorghum forage uses.
- 8. In the Grain Sorghum Use Instructions, specify the maximum amount of atrazine that can be applied per calendar year to be 2.5 pounds a.i./acre.

9. In the Fallow Use Instructions, specify the following information for atrazine use:

• For soils in ND and SD with a pH of 7.5 or greater: the maximum application rate is 1.5 pounds a.i./acre. Only one application is allowed per season.

• For soils in ND and SD with a pH less than 7.5: the maximum application rate is 2 pounds a.i./acre.

Only one application is allowed per season.

- For all other application sites: the maximum application rate is 3 pounds a.i./acre. Only one application is allowed per season.
- 10. Under Conditions of Sale, specify what manner of use or application, weather, crop condition, presence of other materials or other influencing factors in use of this product will cause crop injury, ineffectiveness, or other unintended consequences. Currently this Conditions of Sale statement is inappropriate for this product, particularly in the first paragraph.

Submit three (3) copies of final printed labeling incorporating the above changes before you release the product for shipment. Amended labeling will supercede all previously accepted labels. A stamped copy of labeling is enclosed for your records.

Sincerely,

Jim Tompkins

Product Manager, Team 25 Herbicide Branch

Registration Division (7505C)

Enclosure

# 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.

ACCEPTED with COMMENTS in EPA Letter Dated

# ALBAUGH, INC.

SEF 2 5 2003

# **DICAMBAZINETM**

Under the Federal Insecticide, Fungicide, and Rodenticide Act as Amended, for the pesticide

### Dicamba + Atrazine

POR WEED CONEROL IN CORN, GRAIN SORGHUM, AND DICAMBAFALLOW SYSTEMS

ACTIVE INGREDIENTS:

Potassium salt of dicamba*	3.42%
Atrazine**	2.23%
OTHER INGREDIENTS: <u>6</u>	4.35%
FOTAL:10	0.00%
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<sup>\*</sup>This product contains 11.45% 3,6-dichloro-o-anisic acid (dicamba) which equals 1.1 pounds per gallon (132 g/L) or 0.14 pounds per pint.

EPA Reg. No. 42750-41

EPA Est. No.

# KEEP OUT OF REACH OF CHILDREN CAUTION

# STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Call a physician or Poison Control Center. Drink one or two glasses of water and induce vomiting by touching back of throat with finger. If person is unconscious, do not give anything by mouth and do not induce vomiting.

IF IN EYES: Flush eyes with plenty of water. Call a physician if irritation persists.

FIRST AID			
If swallowed:	Call a poison control center or doctor immediately for treatment advice.		
	• Have person sip a glass of water if able to swallow.		
• Do not induce vomiting unless told to do so by the poison control center or doctor.			
<ul> <li>Do not give anything by mouth to an unconscious person.</li> </ul>			
If in eves:  • Hold eye open and rinse slowly and gently with water for 15-20 minutes.			
	• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing		
eye.			
<ul> <li>Call a poison control center or doctor for treatment advice.</li> </ul>			
HOT LINE NUMBER			
Have the produ	ct container or label with you when calling a poison control center or doctor, or going for		
	may also contact 1-800-424-9300 for emergency medical treatment information.		

<sup>\*\*</sup>This product contains 22.23% 2-chloro-4-ethylamino-6-isopropyl/amino-s-triazine (atrazine) which equals 2.1 pounds per gallon (252 g/L) or 0.26 pounds per pint.

#### See inside booklet for additional Precautionary Statements

Manufactured By:
Albaugh, Inc.
Ankeny, IA 50021

NET CONTENTS
Gals
Liters

# FOR CHEMICAL SPILL, LEAK, FIRE, OR EXPOSURE, CALL CHEMTREC (800) 424-9300

# PRECAUTIONARY STATEMENTS CAUTION HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

<u>Harmful if swallowed.</u> Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling or use.

### PERSONAL PROTECTIVE EQUIPMENT (PPE):

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category A on an EPA chemical-resistance category selection chart.

Applicators and other handlers (other than mixers and loaders) must wear: long-sleeved shirt and long pants, chemical-resistant gloves Category A, such as barrier laminate  $\geq$  14 mils, or butyl rubber  $\geq$  14 mils, or neoprene rubber  $\geq$  14 mils, or polyvinyl chloride (PVC)  $\geq$  14 mils, or viton  $\geq$  14 mils, and chemical-resistant footwear plus socks.

Mixers and loaders must wear: long-sleeved shirt and long pants, chemical-resistant gloves <u>Category A</u>, such as barrier laminate  $\geq 14$  mils, or butyl rubber  $\geq 14$  mils, or neoprene rubber  $\geq 14$  mils, or polyvinyl chloride (PVC)  $\geq 14$  mils, or viton  $\geq 14$  mils, and chemical-resistant footwear plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **ENGINEERING CONTROLS STATEMENTS**

When handlers use closed systems, 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.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

Keep out of lakes, streams or ponds. This product is toxic to aquatic invertebrates. For terrestrial uses, dDo not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters. Apply this product only as directed on the label.

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

This product may not be mixed, loaded, or used within 50 feet of all wells including abandoned wells, drainage wells, and sinkholes. 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 set-back from runoff points must be planted to crop or seeded with grass or other suitable crop.

#### GROUND AND SURFACE WATER ADVISORY

DICAMBAZINE<sup>TM</sup> contains the active ingredient atrazine. Atrazine can leach through soil and has been found to result in contamination of water supplies by way of groundwater. Therefore, growers are advised to avoid use of DICAMBAZINE<sup>TM</sup> in well-drained loamy sand to sand soils, particularly in areas having high groundwater tables. Consult with your state or county extension agent for alternative recommendations such as Dicamba DMA Salt herbicide alone or in combination with a non-triazine herbicide.

Check valves or anti-siphoning devices must be on all mixing equipment to prevent back-siphoning into wells or bulk storage tanks. See the Storage and Disposal section of this label regarding proper disposal of excess pesticide, spray mixtures and rinsate.

Do not apply this product through any type of irrigation system. Do not contaminate irrigation ditches or water used for domestic purposes.

### TILE-TERRACED FIELDS CONTAINING STANDPIPES

To ensure protection of surface water from runoff through standpipes with tile-outlets in terraced fields, one of the following options may be used:

- 1. Do not apply this product within 66 ft. of standpipes in tile-outletted terraced fields.
- 2. Apply this product to the entire tile-outletted terraced field and immediately incorporate it to a depth of 2-3 inches in the entire tile-outletted terraced field.
- 3. Apply this product to the entire tile-outletted terraced field under a no-till practice only when high crop residue management practices are used. High crop residue management practice is described as a crop management practice where little or no crop residue is removed from the field during or after crop harvest.

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. This labeling must be in the possession of the user at the time of the pesticide application.

Unless otherwise directed by registered supplemental labeling, follow the Directions for Use in each crop group section.

Refer to the Directions for Use booklet attached to this container for proper use directions and additional precautionary statements.

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 regulations.

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

# 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, torests, 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 48 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 Category A, such as barrier laminate  $\geq 14$  mils, or butyl rubber  $\geq 14$  mils, or neoprene rubber  $\geq 14$  mils, or polyvinyl chloride (PVC)  $\geq 14$  mils, or viton  $\geq 14$  mils, and chemical-resistant footwear plus socks.

Before applying DICAMBAZINE<sup>TM</sup>. Herbicide, read all directions and precautions. \_appearing on the container label and in this booklet. —Failure to follow all directions and precautions may result in unsatisfactory weed control, crop injury, or illegal residues.

Where there are state/local requirements regarding atrazine use (including lower maximum rates and/or higher set-backs) which are different from the label, the more restrictive/protective requirements apply.

#### STORAGE AND DISPOSAL

**PROHIBITIONS:** Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. This product may not be mixed, loaded, or used within 50 feet of all wells including abandoned wells, drainage wells, and sinkholes.

#### PESTICIDE STORAGE

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

#### PESTICIDE DISPOSAL

Pesticide spray mixture or rinsate that cannot be used according to label instructions must be disposed of according to Federal and local procedures under Subtitle C of the Resource Conservation and Recovery Act.

#### CONTAINER DISPOSAL

METAL CONTAINERS: Triple rinse (or equivalent), adding rinsate to spray tank. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

PLASTIC CONTAINERS: Triple rinse (or equivalent), adding rinsate to spray tank. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**REFILLABLE CONTAINERS:** If this container has been designated by the supplier as refillable, return empty container to the place of purchase.

#### GENERAL INFORMATION

DICAMBAZINE™ is intended for control and suppression of annual broadleaf and perennial broadleaf weeds. DICAMBAZINE™ may be applied preplant through early postemergence on field corn, seed corn, popcorn and silage corn, early postemergence on grain sorghum, and as a Post-Harvest treatment in fallow (wheat/fallow/wheat) and Eco-Fallow (wheat/corn or sorghum/fallow) rotations.

#### **MODE OF ACTION**

DICAMBAZINE<sup>TM</sup> contains dicamba and atrazine as the active ingredients. Dicamba is readily absorbed by plants through shoot and root uptake, translocates throughout the plant's system, and accumulates in areas of active growth. Dicamba interferes with the plant's growth hormones (auxins) resulting in death to many broadleaf weeds. Atrazine is absorbed by root and shoots and controls weeds by inhibiting photosynthesis.

#### **CLEANING SPRAY EQUIPMENT**

Clean application equipment thoroughly by using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions and then triple rinse the equipment before and after applying this product.

#### MIXING AND APPLICATION APPLICATION INSTRUCTIONS

#### SHAKE BEFORE USING

DICAMBAZINE<sup>TM</sup> is a water-dispersible formulation that can be applied <u>pre-emergence or</u> postemergence to actively growing weeds as aerial, broadcast, band, or spot spray applications using water or sprayable fertilizer as a carrier. Do not use sprayable fluid fertilizer as a carrier after crop emergence. For crop specific application timing and other details, refer to the CROP-SPECIFIC INFORMATION section. in water on corn, sorghum, or fallow. Sprayable fluid fertilizer may be used for preemergence application on corn. Fluid fertilizer may damage corn if applied after corn emergence. If a fluid fertilizer will be used, a compatibility test (see COMPATIBILITY TEST) should be made prior to tank mixing.

Ground or aerial application equipment which will give good spray coverage of weed foliage should be used.

Rainfall or irrigation occurring within 4 hours after postemergence applications may reduce the effectiveness of DICAMBAZINE<sup>TM</sup>.

Do not apply to weeds under stress due to lack of moisture, hail damage, flooding, herbicide injury, mechanical injury, or widely fluctuating temperatures, as unsatisfactory control may result. Do not apply to crops that show injury (leaf phytotoxicity or plant stunting) produced by any other prior herbicide applications, because this injury may be enhanced or prolonged.

Apply 10 to 50 gallons of diluted spray per treated acre when using ground application equipment, or 2 to 10 gallons of diluted spray per treated acre when using aerial application equipment. Use the higher spray volumes when treating dense or tall vegetation.

DICAMBAZINE™ should not be applied during periods of gusty wind or when wind is in excess of 15 mph as uneven spray coverage may occur.

#### SENSITIVE CROP PRECAUTIONS

DICAMBAZINE<sup>TM</sup> may cause injury to desirable broadleaf plants or trees <u>particularly beans</u>, cotton. flowers, fruit trees, grapes, ornamentals, peas, potatoes, soybeans, sunflowers, tobacco and tornatoes when contacting their roots, stems or foliage. <u>These plants are most sensitive to DICAMBAZINE<sup>TM</sup> during their development or growing stage</u>. To avoid potential off-target herbicide movement:

- Do not apply DICAMBAZINETM in the general vicinity of tobacco, tomatoes, or other highly sensitive plants.
- Do not use aerial applications if broadleaf crops are growing in the vicinity of the area to be treated.
- Do not make applications when winds are moving toward sensitive crops, inversions are present, or higher temperatures (above 85°F) are expected on the day of application.
- Use nozzles designed to produce large spray droplets such as Delavan Raindrops, Spraying Systems XR flat fans or large capacity flood nozzles such as Delavan D-10, Spraying Systems TK-10-or greater capacity. Use spray pressure of 30 psi or less and 10 gpa or more; unless otherwise required by the manufacturer of drift reducing nozzles.
- An agriculturally approved drift control agent may be added to further reduce the potential of physical drift at the time of application.

Consult your local and state authorities for possible other application restrictions and advice.

#### AERIAL APPLICATION

Water Volume: Use 2-10 gallons of water per acre. Use the higher spray volume when treating dense or tall vegetation.

Application Equipment: The applicator must follow the most restrictive use cautions to avoid drift hazards, including those found in this labeling as well as applicable state and local regulations and ordinances. Select nozzles designed to produce minimal amounts of fine spray particles. Make applications at the lowest safe height to reduce the exposure of spray droplets to evaporation and wind.

Do not use aerial equipment if spray particles can be carried by the wind into areas where sensitive crops or plants are growing or when temperature inversions exist.

#### **AERIAL SPRAY DRIFT MANAGEMENT**

#### Spray Drift Management

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

- 1. The distance of the outer most nozzles on the boom must not exceed \( \frac{3}{4} \) the length of the wingspan or rotor.
- 2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory.

#### Aerial Drift Reduction Advisory

[This section is advisory in nature and does not supersede the mandatory label requirements.]

#### Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (See Wind, Temperature and Humidity, and Temperature Inversions).

#### Controlling Droplet Size

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types
  lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate
  nozzles instead of increasing pressure.
- Number of nozzles Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

#### **Boom Length**

For some use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

#### **Application Height**

Applications should not be made at a height greater than 10 feet above the top of the target plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

#### Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.)

#### Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

#### Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

#### **Temperature Inversions**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are

common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if hog is not present, inversions can also be identified by the movement of smoke from a ground source or ar aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### Sensitive Areas

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

#### TANK MIXING

To ensure a uniform mixture when DICAMBAZINETM is tank mixed with one or more other products, follow this procedure. Fill the spray tank approximately one third full with water and with the agitator operating, add the recommended amount of ingredients using the following order: dry formulations (e.g., wettable powders, dry flowables) first, and liquid suspensions (e.g. flowables) next. Mix thoroughly and fill the tank to one half-full with continuous agitation. Add emulsifiable concentrate formulations last while maintaining agitation and then complete filling the spray tank with water. If a surfactant is to be used, add it last. If a drift control agent is to be used, follow the directions for mixing on the specific product label.

#### **GROUND APPLICATION - BAND TREATMENTS**

DICAMBAZINE™ may be applied as a band treatment. Use the formulas below to determine the appropriate rate and volume per treated acre.

Bandwidth in inches Row width in inches	x	Broadcast rate potreated acre	er =	Banding herbicide rate per treated acre
Bandwidth in inches Row width in inches	x	Broadcast volume po	er =	Banding water volume per treated acre

#### **GROUND APPLICATION - BROADCAST**

Water Volume: Use 10-50 gallons of spray solution per broadcast acre for optimal performance. Use the higher spray volume when treating dense or tall vegetation.

Application Equipment: Select nozzles designed to produce minimal amounts of fine spray particles. Spray with nozzles as close to the weeds as is practical for good weed coverage.

#### **ADDITIVES**

Agriculturally approved surfactants, sprayable fertilizers (urea, ammonium nitrate, or ammonium sulfate) or crop oil concentrate, may be added to improve postemergence weed control, particularly in dry growing conditions.

#### Nitrogen Source

<u>Urea ammonium nitrate (UAN): Use 2-4 quarts of UAN (commonly referred to as 28%, 30%, or 32% nitrogen solution) per acre. Do not use brass or aluminum nozzles when spraying UAN.</u>

Ammonium sulfate (AMS): AMS at 2.5 pounds per acre may be substituted for UAN. Use high-quality AMS (spray grade) to avoid plugging nozzles. Other sources of nitrogen are not as effective as those mentioned. Do not apply AMS in less than 10 gallons per acre because of potential problems with

precipitation in reduced volumes. Use AMS only if it has been demonstrated to be successful in local experience.

#### Nonionic Surfactant

The standard label recommendation is 1 pint of an 80% active nonionic spray surfactant per 100 gallons of water. For certain weeds, a higher spray surfactant rate is recommended.

#### Oil Concentrate

A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all of the following criteria:

- be nonphytotoxic
- contain only EPA-exempt ingredients
- provide good mixing quality in the jar test
- be successful in local experience

The exact composition of suitable products will vary however, vegetable and petroleum oil concentrates should contain emulsifiers to provide good mixing quality. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the COMPATIBILITY TEST section of this label for additional information.

Adjuvants containing crop oil concentrate may be used in preplant, pre-emergence, and all fallow system applications. Do not use crop oil concentrate for postemergence in-crop applications unless specifically allowed in the CROP-SPECIFIC INFORMATION section of this label.

#### Additive Rate Per Acre

<u>Additive</u>	Rate Per Acre
Nonionic Surfactant	1-2 pints per 100 gallons
AMS	2.5 pounds
UAN Solution	2-4 quarts
Crop Oil Concentrate	1 quart*

<sup>\*</sup>See manufacturer's label for specific rate recommendation.

#### COMPATIBILITY TEST

Before mixing in the spray tank, it is advisable to always perform a test-compatibility jar test. -by mixing all components in a small container in proportionate quantities (see following table).

# Amount of Component to Add to One Pint of Spray Carrier (Assuming Volume is 25 Gallons Per Acre)

COMPONENT FORMULATIONS	RATE PER ACRE	LEVEL TEASPOONS
Dry	<del>1 lb.</del>	1-1/2
<u>Liquid</u>	<del>1 pt.</del>	1/2

If components do not ball up or form flakes, sludge, gels, oily films or layers, or other precipitates, then the tested spray mix is compatible. Usually, incompatibility in any of the above described forms will occur within 5 minutes after mixing.

If components are incompatible, the use of an agriculturally approved compatibility agent is recommended. Rerun the above COMPATIBILITY TEST with a suitable compatibility agent (1/4 teaspoon per pint is equivalent to 2 pints per 100 gallons of fluid fertilizer).

For 20 gallons per acre spray volume, use 3.3 cups (800 ml) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.

Add components in the sequence indicated in the MIXING ORDER section of this label using 2 teaspoons for each pound or 1 teaspoon for each pint of recommended label rate per acre.

Always cap the jar and invert 10 cycles between component additions.

When the components have all been added to the jar, let the solution stand for 15 minutes. Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface, nor fine particles that precipitate to the bottom, nor thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, do not mix the ingredients in the same tank.

#### MIXING ORDER

- 1. Water Begin by agitating a thoroughly clean sprayer tank three-quarters full of clean water.
- 2. Agitation Maintain constant agitation throughout mixing and application.
- 3. Inductor If an inductor is used, rinse it thoroughly after each component has been added.
- 4. Products in PVA bags Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
- 5. Water-dispersible products (such as DICAMBAZINETM, dry flowables, wettable powders, suspension concentrates, or suspo-emulsions).
- Water-soluble products
- 7. Emulsifiable concentrates (such as oil concentrate when applicable).
- 8. Water-soluble additives (such as AMS or UAN when applicable).
- 9. Remaining quantity of water.

Maintain constant agitation during application.

### **GENERAL TANK MIXING INFORMATION**

DICAMBAZINETM may be tank mixed or applied sequentially with one or more of the following herbicide products according to the specific tank mixing instructions in this label and respective product labels.

Accent® (nicosulfuron)

Acquire (glyphosate)

Ally (metsulfuron methyl)

Atrazine

Axiom® (flufenacet + metribuzin)

Albaugh Dicamba DMA Salt or Banvel® (dicamba)

Basagran® (bentazon)

Beacon (primisulfuron-methyl)

Bicep II Magnum (metolachlor + atrazine)

Bladex (evanazine)

BROXTM 2EC Herbicide or Buctril® (bromoxynil)

Bullet® (alachlor + atrazine)

Clarity® (dicamba)

Command\* (clomazone)

Curtail<sup>TM</sup> (clopyralid + 2,4-D)

Cyclone® (paraquat)

DoublePlay (acetochlor + EPTC)

Degree™ (acetochlor)

Degree Xtra<sup>TM</sup> (acetochlor + atrazine)

Gramoxone® Extra (paraquat)

Guardsman® (dimethenamid + atrazine)

Harness<sup>®</sup> (acetochlor)
Harness<sup>®</sup> Xtra (acetochlor)

Hornet™ (flumetsalam + clopyralid)

Laddok® S-12 (bentazon + atrazine)

Landmaster® BW (glyphosate + dicamba)

Lasso® (alachlor)

Liberty® (glufosinate)

Lightning (imazethapyr + imazapyr)

Outlook (dimethenamid-P)

Paramount® (quinclorac)

Peak (prosulfuron)

Permit (halosulfuron)

Princep® (simazine)

Prowl® (pendimethalin)

Python<sup>TM</sup> (flumetsulam)

Ramrod® (propachlor)

Gly Star™ Plus or Roundup Ultra®

(glyphosate)

Dual Magnum® (s-metolachlor) Dual II Magnum® (s-metolachlor)

Eradicane® (EPTC)

Exceed (primisulfuron + prosulfuron)

Express (thifensulfuron + tribenuron-methyl)

Extrazine II (oyanazine + atrazine)

Fallow Star™ or Fallow Master® (glyphosate + dicamba)

Field Master<sup>TM</sup> (acetochlor + atrazine + glyphosate)

Frontier® (dimethenamid)

FulTime<sup>TM</sup> (acetochlor + atrazine)

Glean (chlorsulfuron)

Roundup Ultra RT (glyphosate) Spirit<sup>TM</sup> (primisulfuron + prosulfuron)

Stinger<sup>TM</sup> (clopyralid)

Surpass<sup>TM</sup> (acetochlor) Sutan® + (butylate)

TopNotch<sup>TM</sup> (acetochlor)

Touchdown® (sulfosate)

Tough (pyridate)

2,4-D

See the CROP-SPECIFIC INFORMATION section of this label for additional information. Read and follow the applicable Restrictions and Limitations and Directions for Use on all products involved in tank mixing. The most restrictive labeling applies to tank mixes.

DICAMBAZINE<sup>TM</sup> may also be used in tank mixtures with foliar applied insecticides including synthetic pyrethroids such as Ambush, Asana, Pounce and Warrior or with the carbamates insecticide Furadan. Do not apply DICAMBAZINETM in tank mixtures with Lorsban. insecticide.

Reduced weed control, crop injury or physical incompatibility may result from mixing DICAMBAZINE™ with other pesticides (fungicides, herbicides, insecticides, or miticides) additives, or fertilizers. Albaugh, Inc. does not recommend using tank mixes other than those listed on this labeling. Local agricultural authorities may be a source of information when using tank mixes other than those listed on this label.

#### PROCEDURE FOR CLEANING SPRAY EQUIPMENT

Before preparing spray mixture, be sure all equipment is clean to prevent uneven applications, clogged nozzles or crop injury. Thoroughly clean equipment following application of DICAMBAZINETM. Avoid allowing dry sediment formation within spray tank.

The steps listed below are suggested for thorough cleaning of spray equipment following applications of DICAMBAZINETM or tank mixes of DICAMBAZINETM.

- 1. Hose down thoroughly the inside as well as outside surfaces of equipment while filling the spray tank half full of water. Preferably, inside surfaces should be rinsed using a multi directional nozzle such as Spray Systems Tank Rinsing Nozzle 27500E TEF®. Flush by operating sprayer until the system is purged of all rinse water.
- 2.Fill tank with water while adding a commercially available tank cleaning agent such as Nutra Sol®; Incide out TM or Loveland Tank and Equipment Cleaner M. Carefully read and follow tank eleaning agent label directions. Operate the pump to circulate the cleaning solution through the sprayer system for 15 to 20 minutes and discharge a small amount through the boom and nozzles. Let the solution stand for several hours, preferably overnight.
- 3. Completely flush the cleaning solution out of the spray tank.
- 4.Remove nozzles and screens. Fill tank with clean water and circulate through the sprayer system for 15 to 20 minutes. Discharge a small amount through boom lines.
- 5. Completely flush rinse water out of the spray tank.

#### GENERAL WEED LIST

This is a general list of weed species including ALS- and triazine-resistant biotypes, which may be treated with DICAMBAZINE™ as recommended under the RATES AND TIMING sections of specific crop

uses listed in this label. DICAMBAZINE™, when applied at recommended rates, will control many annual broadleaf weeds and give growth suppression of many perennial broadleaf weeds including.

#### **ANNUALS**

Amaranth, Palmer, Powell Mustard, Wild, Tansy, Yellowtops

Buckwheat, Wild Nightshade, Black, Cutleaf

Burcucumber Pigweed, Prostrate, Redroot (Carelessweed), Smooth, Spiney,

Tumble<del>Rough</del>

Chickweed, Common Puncturevine

Clovers (Annual) Pigweed (Triazine Resistant)

Purslane, Common

Cocklebur, Common Ragweed, Common, Giant, Lance-

Leaved

Copperleaf, Hophornbeam Sicklepod

Cucumber, Wild Sida, Prickly (Teaweed)

Jimsonweed Smartweed, Green, Pennsylvania

Kochia Spanish Needles Kochia (Triazine Resistant) Spurge, Prostrate

Ladysthumb

Kochia (Sulfonylurea Resistant) Sunflower, Common (Wild),

Lambsquarter, Common Volunteer
Mallow, Common, Venice Thistle, Russian
Marestail (Horseweed) Velvetleaf

Lambsquarter (Triazine Resistant) Waterhemp, Common, Tall

Morningglory, Ivyleaf, Tall

#### **PERENNIALS**

Alfalfa Lespedeza

Artichoke, Jerusalem Milkweed, Common
Bindweed, Field, Hedge Ragweed, Western
Clover, Hop Smartweed, Swamp
Dandelion, Common Sowthistle, Perennial

Dock, Broadleaf, Curly Thistle, Canada,

(Bitterdeck) Scotch

Dogbane, Hemp Trumpetcreeper

Horsenettle, Carolina (Buckvine)
Vetch

#### ROTATIONAL CROPS ROTATION RESTRICTIONS

- In cases of treated crop failure, the area may be replanted to either corn or sorghum during the same cropping season. If corn is replanted, do not apply DICAMBAZINETM, Clarity, Dicamba DMA Salt or Banvel, until after emergence. Consult label of each product for application directions and do not exceed the maximum yearly rate for DICAMBAZINETM, Clarity, or Dicamba DMA Salt or Banvel, can be used as a postemergence application follow each label's directions; do not exceed the maximum yearly use rate.
- 2. If applied after June 10, rotation with crops other than corn or sorghum the following spring, may result in crop injury.

- In the High Plains and inter-mountain 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 when a crop of untreated corn or sorghum is to precede other rotational crops.
- 4.• For soils containing a calcareous surface layer, such as those found in eastern parts of the Dakotas, KS, western MN, and NE, injury may occur to soybeans or small grains planted the year following application. On soils containing a calcareous surface layer, small grain injury could occur.
- 5.• Small grains may be planted 10 months following treatment. Do not plant sugarbeets, tobacco, vegetables (including dry beans), or spring seeded small grains, or small-seeded legumes and grasses in the spring of the year following application, or injury may occur.

#### **CROP-SPECIFIC INFORMATION**

#### FIELD, SEED\*, POPCORN\* AND SILAGE CORN

Observe all previously noted PRECAUTIONS, MIXING AND APPLICATION instructions as well as the following:

\*Do not apply DICAMBAZINE<sup>TM</sup> to seed corn or popcorn without first verifying with your local seed corn company (supplier) the selectivity of DICAMBAZINE<sup>TM</sup> on your inbred line or variety of popcorn. This precaution will help avoid potential injury of sensitive varieties.

DICAMBAZINE™ is not registered for use on sweet corn.

Direct contact of DICAMBAZINE<sup>TM</sup> with corn seed must be avoided in preplant or preemergence applications. If corn seeds are less than 1 ½ inches below the soil surface, delay application until corn has emerged.

Corn growing under stress conditions such as low temperatures, drought, poor fertility, excessive moisture, or foliar damage due to hail, wind or insects, can exhibit various injury symptoms that may be more pronounced if herbicides are applied.

An agriculturally approved surfactant, crop oil or sprayable fluid fertilizer (such as ½ to 1 gallon per acre of 28%, 30%, or 32% urea ammonium nitrate), or ammonium sulfate (2 to 2 ½ lbs. per acre) may be added to spray mix to improve postemergence weed control, particularly on drought stressed weeds.

The use of adjuvants containing penetrants such as petroleum based oils after corn emergence may cause erop injury. Avoid using crop oil concentrates after crop emergence as crop injury may result. Use crop oil concentrates only in dry conditions when corn is less than 5" tall and when applying DICAMBAZINETM alone or tank mixed with atrazine.

Corn may be harvested or grazed for feed once the crop has reached the ensilage (milk stage) or later in maturity.

A maximum of two applications of DICAMBAZINE<sup>TM</sup> may be made per season. through the 5 leaf stage or 8 inches tall, whichever occurs first. Application must be separated by two weeks or more. Do not exceed 5 ½ pints per acre per year (a total of 0.75 pounds dicamba and 1.37 pounds atrazine).

DICAMBAZINE<sup>TM</sup> may be applied before or after Dicamba DMA Salt. Applications must be separated by two weeks or more. Maximum rate for sequential applications is DICAMBAZINE<sup>TM</sup> at 3 ½ pints per acre followed by Dicamba DMA Salt at 1 pint per acre followed by DICAMBAZINE<sup>TM</sup> at 1 ¾ pints per acre.

To reduce the amount of atrazine used per acre, DICAMBAZINETM at 2 pints per acre may be tank mixed with ½ pint per acre of Dicamba DMA Salt. Do not apply this tank mix on coarse textured soils or any soils with less than 2% organic matter prior to corn emergence.

#### WEEDS CONTROLLED

DICAMBAZINETM will control many annual broadleaf weeds or give growth suppression of many perennial broadleaf weeds commonly found in corn (Refer to the General Weed List section of this label).

#### **RATES AND TIMINGS**

# FOR ALL SOIL APPLICATIONS PRIOR TO CROP EMERGENCE ON HIGHLY ERODIBLE SOILS (as defined by the SCS)

If conservation tillage is practiced, leaving at least 30% of the soil covered with plant residues at planting, the maximum rate is 2 pounds of atrazine a.i./A.

If the soil coverage with plant residue is less than 30% at planting, a maximum of 1.6 pounds of atrazine a.i./A can be applied.

#### ON SOILS NOT HIGHLY ERODIBLE

The maximum rate which can be applied is 2 pounds of atrazine a.i./A.

#### FOR POSTEMERGENCE APPLICATION

If no atrazine was applied prior to corn emergence, the maximum rate is 2 pounds of atrazine a.i./A. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 pounds of atrazine a.i./A per calendar year.

Read and follow the label of each of the above products for precautionary statements, directions for use and other restrictions.

#### PREPLANT AND PREEMERGENCE IN NO TILLAGE CORN

Applications of DICAMBAZINE<sup>TM</sup> may be made before, during, or after planting for control of emerged and actively growing broadleaf weeds. Apply DICAMBAZINE<sup>TM</sup> at the use rate of 3 ½ pints per acre on medium or fine textured soils containing 2.5% or greater organic matter. Use 2 pints per acre on coarse soils (sand, loamy sand, and sandy loam) or medium and fine textured soils with less than 2.5% organic matter. Avoid using DICAMBAZINE<sup>TM</sup> in well-drained loamy sand to sand soils, particularly in areas having high groundwater tables.

When planting into a legume sod (e.g., alfalfa or clover), apply DICAMBAZINE™ after 4 to 6 inches of regrowth has occurred. For added control of dandelion or plantain, 2,4 D at ¼ to ½ lb. a.i. per acre may be tank mixed with DICAMBAZINE™.

#### PREEMERGENCE IN CONVENTIONAL OR REDUCED TILLAGE CORN

DICAMBAZINE<sup>TM</sup> may be applied after planting and prior to corn emergence. Application of 3 ½ pints per treated acre may be made to medium or fine textured soils which contain 2.5% or greater organic matter. Do not apply to coarse textured soils (sand, loamy sand, or sandy loam) or any soil with less than 2.5% organic matter until after corn emergence (see Early Postemergence uses below).

Preemergence application of DICAMBAZINETM does not require mechanical incorporation to become active. A shallow mechanical incorporation is recommended if application is not followed by adequate rainfall or sprinkler irrigation. Avoid tillage equipment (e.g., drags, harrows) which concentrate treated soil over seed furrow, as seed damage could result.

#### EARLY POSTEMERGENCE (ALL TILLAGE SYSTEMS)

DICAMBAZINE<sup>TM</sup> at 3 ½ pints per treated acre may be applied during the period from corn emergence through the 5 leaf stage or 8 inches tall, whichever occurs first. Reduce the rate to 2 pints per treated acre for corn grown on coarse textured soils (sand, loamy sand, or sandy loam).

#### POSTEMERGENCE APPLICATION (ALL TILLAGE SYSTEMS)

Apply 2 pints of DICAMBAZINETM per acre on all soils when corn is 8-12" tall. For best per 60 mance, apply DICAMBAZINETM when weeds are less than 3" tall. Apply DiCAMBAZINETM with directed spray when corn leaves prevent proper spray coverage of the target weeds.

#### **OVERLAY (SEQUENTIAL) TREATMENTS**

DICAMBAZINETM may be applied to ground previously treated with one or more of, but not limited to, the following herbicides registered for use in corn:

Herbielde	Maximum Rate Per Treated Aere (lb. a.i.)
acetechlor (Surpass , Harness Plus)	3.0
alachlor (Lasso®)	4.0
atrazine*	<u> </u>
butylate (Sutan+®)	6.0
elopyralid	0.188
cyanazine (Bladex*)	4.0
dimethenemid (Frontier®)	1 1/2
EPTC (Eradicane®)	6.0
flumetsulam (BroadstrikeTM)	0.068
glyphosate (Roundup®)	5.0
halosulfuron (Battalion®)	0.094
metolachlor (Dual®)	3.0
paraquat (Gramoxone®)	1.0
pendimethalin (Prowl®)	2.0
propachlor (Ramrod®)	6.0

<sup>\*</sup>Maximum pounds a.i. per treated acre for atrazine.

#### **CORN TANK MIX TREATMENTS OR SEQUENTIAL USES**

DICAMBAZINETM may be applied prior to, during, or after planting, but before the corn exceeds 8 inches tall. DICAMBAZINETM may be tank mixed with one or more of the following herbicides for control of grasses or additional broadleaf weeds. When tank mixing DICAMBAZINETM with other products, read the label of each tank mix partner for precautionary statements, directions for use and other restrictions. Also, read the GENERAL INFORMATION TANK MIXING section given earlier in this label. When using tank mix or sequential applications with DICAMBAZINETM, always follow the companion product label to determine specific use rates by soil types, weed species, and weed or crop growth stage. In addition, follow precautions and restrictions including state and local use restrictions that may apply to specific products.

Apply DICAMBAZINETM prior to, in tank mix with, or after one or more of the following herbicides:

Accent <sup>®1</sup>	Harness® Xtra
Atrazine	Hornet <sup>TM 1</sup>
Axiom <sup>®</sup>	Laddok® S-12
Albaugh Dicamba DMA Salt or Banvel®	Lasso®
Beacon <sup>®1</sup>	Liberty (8)3
Bicep II Magnum®	Lightning <sup>®6</sup>
Bullet®	Dicambazine <sup>TM1</sup>
Clarity <sup>®1</sup>	Outlook®
<u>Degree™</u>	Permit bi
Degree Xtra <sup>™</sup>	Princep®
DoublePlay*2	Prowl <sup>®</sup>

Dual Magnum®
Dual II Magnum®

Eradicane®2
Exceed®1

Field Master<sup>TM</sup>

Frontier®
FulTime™

Gramoxone® Extra

Guardsman® Harness®

Python<sup>TM</sup>

Gly Star<sup>TM</sup> Plus or Roundup Ultra 1814

Roundup Ultra® RT

Spirit<sup>TM1</sup> Stinger<sup>TM1</sup>

SurpassTM

Sutan® +2
TopNotch™

Touchdown \*

Tough<sup>®</sup> 2.4-D<sup>5</sup>

See SPECIFIC GUIDELINES FOR TANK MIXES OR SEQUENTIAL USE PROGRAMS section of this label for additional information that apply to tank mix or sequential use programs with these products.

<sup>2</sup>Sequential use only.

<sup>3</sup>Use only on Liberty Link® (glufosinate tolerant) corn hybrids.

### SPECIFIC GUIDELINES FOR TANK MIXES OR SEQUENTIAL USE PROGRAMS

# DICAMBAZINETM plus Accent® or Beacon®

When tank mixing, applications immediately following extreme day or night temperature fluctuations or applications when daytime temperatures do not exceed 50° F may result in decreased weed control or crop injury. Delay application until the temperatures warm and both weeds and crop resume normal growth Application may be made after grass weed emergence but before corn is greater than 8 inches tall. Use 2/3 to 1 1/3 ounces of Accent 75 DF per treated acre. Use a non-ionic surfactant at 0.25% v/v and sprayable fluid fertilizer (such as 28%, 30%, or 32% urea ammonium nitrate) at 4% v/v with this tank mixture.

# DICAMBAZINETM, -Clarity®, Albaugh Dicamba DMA Salt or Banvel®

When tank mixing with these products, do not exceed a total combined rate of 0.50 pounds of dicamba acid equivalent per acre (0.25 pound on coarse-textured soils or on any soil when corn is greater than 8" tall). Sequential applications of these products must be separated by a minimum of 2 weeks (unless the combined rate is less than 0.5 pounds of dicamba acid equivalent and corn is 8" tall or less) and must not exceed a combined total of 0.75 pounds dicamba acid equivalent per acre for in-crop use. Application may be made before earn exceeds 8 inches in height. Consult the maximum poundage of atrazine allowed for maximum rates. For improved suppression of newly emerged annual grasses, crop oil concentrate may be added to this mixture if corn does not exceed 5 inches in height. Do not apply preemergence to peat, muck, and high organic clay soils.

# DICAMBAZINETM plus Bladex® (cyanazine)

Application may be made before grasses are 1 ½ inches tall and the corn is not beyond the four leaf stage. Use 1 ¼ to 4 lbs. a.i. Bladex per treated acre for preemergence and 1 ¼ to 2 lbs. a.i. for postemergence treatments. After corn emergence, use only the Bladex 90DF formulations.

# DICAMBAZINETM plus Dual (metolachlor) Exceed, Spirit M, Stinger M, Hornet M, or Permit

For improved control of velvetleaf, tank mix 0.25-0.5 ounce of Exceed, 0.5 ounce of Spirit, or 0.17-0.33 ounce Permit per acre with DICAMBAZINET. For improved control of Canada thistle, Stinger at 1.5-3 fluid ounces per acre or Hornet at 0.6-1.2 ounces per acre may be tank mixed with

<sup>&</sup>lt;sup>4</sup>Includes postemergence use on Roundup Ready (glyphosate tolerant) corn hybrids.

<sup>&</sup>lt;sup>5</sup>When using as a tank mixture, application must be made prior to corn emergence.

<sup>&</sup>lt;sup>6</sup>Use only Clearfield (imidazolinone tolerant) corn hybrids.

DICAMBAZINETM. Use the higher rate in the range for heavier infestations of these weeds. Application may be made until grasses reach the two leaf stage and before corn is greater then 3 incress tall. Application prior to crop emergence may only be made on medium to find textured so ils containing 2 ½% or greater organic matter. Use 1 ½ to 2 ½ lbs. a.i. Dual® per treated acre.

# DICAMBAZINETM plus Frontier® (dimethenamid)

Apply Frontier at 13 to 25 fluid ounces per agre for preemergence grass control. Applications can be made during or after planting before corn exceeds 8 inches in height. This treatment must be combined with a herbicide that provides postemergence control of grass weeds if they are greater than 1 inch tall at the time of application.

# DICAMBAZINETM plus Gramoxone® (paraquat)

Application may be made to emerged weeds, but before corn emerges. Use 1/4 to 1 lb. a.i. Gramoxone per treated acre.

# DICAMBAZINETM plus SurpassTM or Harness® Plus (acetochlor)

Apply Harness Plus or Surpass at 1 1/2 to 3 pounds a.i. per acre. Applications may be made during or after planting and before corn emergence. Applications may only be made on medium or fine textured soils containing 2 1/2% organic matter or greater.

# DICAMBAZINETM plus Lasso® (alachlor)

Application may be made until grasses reach the two leaf stage and before corn is greater than 3 inches tall. Applications prior to crop emergence may only be made to fine textured soils containing 2 ½% or greater organic matter. Apply 2 ½ to 3 lbs. a.i. Lasso® per treated acre.

# DICAMBAZINETM plus Prowl® (pendimethalin)

Application may be made after planting and before corn exceeds the two leaf stage, and grass weeds are no more than one inch tall. Application prior to crop emergence should only be made on medium to fine textured soils containing 2 ½% or more organic matter. Use ¾ to 1 ½ lbs. a.i. Prowi<sup>®</sup> per treated acre.

# DICAMBAZINETM plus Roundup® (glyphosate)

Application may be made to emerged weeds, but before corn emerges. Use 1 to 3 lbs. a.i. Roundup treated acre.

#### DICAMBAZINETM plus StingerTM (clopyralid)

For annual broadleaf and Canada thistle weed control, applications may be made anytime after corn emergence through 5 leaf or 8 inch tall corn. Apply when the majority of the thistle plants have emerged and are at least 4 inches in height, but before bud stage. Use DICAMBAZINE<sup>TM</sup> plus 1-½ to 3 fl. oz./A Stinger<sup>TM</sup> through 8 inch or 5 leaf corn. Use higher rates listed for stand reduction of larger thistle plants or heavier infestations. Lower rates listed may provide seasonal thistle suppression only.

#### **GRAIN SORGHUM**

Observe all previously noted PRECAUTIONS, MIXING AND APPLICATION instructions as well as the following. DICAMBAZINE<sup>TM</sup> may be applied preplant or postemergence in sorghum to control many annual broadleaf weeds and to reduce competition from established perennial broadleaf weeds as well as control their seedlings.

Do not apply to furrow planted sorghum until level (plowed in).

Make no more than one application of DICAMBAZINE™ per growing season.

Postemergence application must be made before sorghum reaches 8 inches in height. Delay harvest until 30 days after treatment.

Do not apply DICAMBAZINE™ to sorghum grown for seed production

Sorghum may be harvested or grazed for feed once the crop has reached the mature grain stage. Do not graze or feed forage from treated areas for 21 days or more following application.

Do not graze livestock in treated areas for 21 days or more following application.

Do not harvest for ensilage or hay for 37 or more days following application.

Do not add crop oil <u>if application is made after sorghum emergence</u>. Do not add surfactant unless possible crop injury is acceptable.

#### WEEDS CONTROLLED

DICAMBAZINE<sup>TM</sup>, when applied at the recommended rates and timings for grain sorghum, will control many annual broadleaf weeds (e.g., pigweed) and will reduce the competition from established perennial broadleaf weeds as well as control their seedlings. Consult the GENERAL WEED LIST for a complete list of weeds controlled.

#### RATES AND TIMINGS

# 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, the maximum rate is 2 pounds a.i./A.

If the soil coverage with plant residues is less than 30% at planting, a maximum of 1.6 pounds a.i./A can be applied.

#### ON SOILS NOT HIGHLY ERODIBLE

The maximum rate which can be applied is 2 pounds a.i./A.

#### PREPLANT APPLICATION

Up to 2 pints of DICAMBAZINE™ may be used and must be applied at least 15 days before sorghum planting.

#### POSTEMERGENCE APPLICATION

DICAMBAZINE<sup>TM</sup> application in grain sorghum (milo) should be made between the 2 to 5 leaf stage (about 2 to 8 inches tall) of the sorghum. For best performance, apply when sorghum is in the 2-3 leaf stage. Applications of DICAMBAZINE<sup>TM</sup> to sorghum during periods of rapid growth may result in temporary leaning of plants or rolling of leaves. These effects are usually outgrown within 10 to 14 days. On coarse soils, injury to sorghum may occur if heavy rain immediately follows application.

Use 1 ½ pints DICAMBAZINE™ for control of redroot pigweed that are less than 3 inches tall and are actively growing. Use 2 pints of DICAMBAZINE™ for control of all other listed broadleaf weeds.

#### **SPLIT APPLICATIONS**

DICAMBAZINE<sup>TM</sup> may be applied in split applications: preplant followed by postemergence applications. Do not exceed a total of 3.5 pints of DICAMBAZINE<sup>TM</sup> per acre per season.

For best performance, make application when weeds are small (less than 3 inches tall) and actively growing.

# BROADCAST RATE PER TREATED ACRE: (1 1/2 to 2 pints)

# SORGHUM TANK MIXES OR OVERLAY (SEQUENTIAL) TREATMENTS USES

When using tank mix or sequential applications with DICAMBAZINE<sup>FM</sup>, always follow the companion product label to determine specific use rates by soil types, weed species, and weed or crop growth stage. In addition, follow precautions and restrictions including state and local use restrictions that may apply to specific products, may be applied to ground previously treated with the following herbicides:

Apply DICAMBAZINE™ prior to, in tank mix with, or after one or more of the following herbicides:

<u>Atrazine</u>	<u>Guardsman®</u>
Basagran®	Laddok' <sup>®</sup> S-12
Bicep II Magnum®	Landmaster® BW
BROX™ 2EC Herbicide or Buctril®	Lasso®
Cyclone®	Outlook'®
Dual Magnum®	$\underline{Paramount}^{\oplus}$
Dual II Magnum®	Peak®
Fallow Star <sup>TM</sup> or Fallow Master®	Permit®
Frontier®	Ramrod <sup>®</sup>
Gramoxone® Extra	Gly Star™ Plus or Roundup Ultra®

Herbicide	Maximum Rate of Listed Compound Per Treated Aere (lbs. a.i.)
alachler (Lasse (Screen treated seed)	4.0
atrazine*	<u>*</u>
metolachlor (Dual®) (Concep®-treated seed)	21/2
propachlor (Ramrod®)	5.0

<sup>\*</sup>Maximum pounds a.i. per treated acre for atrazine.

#### FOR POSTEMERGENCE APPLICATION

If no atrazine was applied prior to sorghum emergence, the maximum rate is 2 pounds a.i./A. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 pounds a.i./A per calendar year.

#### TANK MIX - DICAMBAZINETM + ATRAZINE

DICAMBAZINETM may be tank mixed with atrazine for added residual or for grass control in sorghum. Read and follow the label of each product used for precautionary statements, directions for use, rates and timings, and other restrictions.

Use tank mix on medium or fine soils only. Add ½ lb. a.i. atrazine per treated acre for added residual broadleaf weed control. Add 1 ½ lbs. a.i. atrazine per treated acre for control of emerged grasses less than 1 ½ inches tall. Do not add crop oil or surfactant to this combination or crop injury may result. Atrazine carryover may injure small grains and broadleaf crops if the total rate of atrazine exceeds the rate recommended for that specific geographic area or crop rotation.

# POST HARVEST ON FALLOW GROUND FALLOW SYSTEMS

DICAMBAZINE<sup>TM</sup> may be applied from summer to fall after wheat harvest to fallow ground in wheat/fallow/wheat or wheat/corn or sorghum/fallow (Eco-Fallow) rotations. Observe all previously noted PRECAUTIONS, MIXING AND APPLICATION instructions, as well as the following.

Do not graze or feed forage from treated areas to livestock.

Do not plant any crop other than those listed on this label within 18 months following treatment.

Agriculturally approved spray adjuvants such as surfactants, crop oil concentrates or fluid fertilizers are recommended for use with DICAMBAZINETM when applied to emerged weeds.

For Eco-Fallow system, plant corn or sorghum in spring after treatment with minimum soil disturbance. Use a surface planter or a planter leaving a shallow furrow. If weeds are present at planting, remove them with a sweep plow or other suitable implement before planting.

#### WEEDS CONTROLLED

DICAMBAZINE™, when applied at recommended rates and timings for fallow applications, will control many annual broadleaf weeds and will give growth suppression of many perennial broadleaf weeds as well as control their seedlings. Refer to the GENERAL WEED LIST in the GENERAL INFORMATION section of this label for a complete list of weeds controlled.

#### ROTATIONAL CROP PRECAUTIONS

The application rates and timings in this label pertain only to a cropping system of wheat/fallow/wheat (Post-Harvest Fallow) or wheat/corn or sorghum/fallow (Eco-Fallow). If any other crop is to be substituted for wheat, corn, sorghum or the fallow period, refer to the CROP ROTATION RESTRICTIONS in the GENERAL INFORMATION-section of this label.

To avoid injury to crops planted after application(s) of DICAMBAZINE™, specific restrictions for Post-Harvest Fallow or Eco-Fallow application(s) are:

- 1. Use only on silt loam or finer-textured soils.
- 2. Do not treat erodible hillsides, calliche, and rocky outcroppings, or exposed calcareous subsoil.
- 3. Do not treat soils of the Rosebud and Canyon series in Western NE and adjoining counties in CO and WY.
- 4. Do not treat soils with calcareous surface layers.
- 5. Avoid overlapping spray swaths during treatment application.

#### WHEAT/FALLOW/WHEAT

DICAMBAZINE™ may be used for wheat/fallow/wheat systems in: CO, KS, NE, OK, SD, TX, and WY.

#### RATES AND TIMINGS

For preemergence or postemergence control or suppression of the weed species listed in this label, apply DICAMBAZINE<sup>TM</sup> at 2 to 3 ½ pints per treated acre as a broadcast treatment. For best performance, make application soon after wheat harvest, prior to or soon after weed emergence. A split application of DICAMBAZINE<sup>TM</sup> may be used, but only in the summer to fall after wheat harvest and may not exceed the maximum labeled rate of 3 ½ pints per treated acre.

#### WHEAT/CORN OR SORGHUM/FALLOW (ECO-FALLOW)

DICAMBAZINE™ may be used for wheat/corn or sorghum/fallow (Eco-Fallow) systems in: CO, KS, NE, OK, and TX.

#### **RATES AND TIMINGS**

#### PREEMERGENCE AND POSTEMERGENCE

For control of annual broadleaf or grass weeds following wheat and into the following corn or sorghum crop (when grown under minimum tillage), apply 2 to 11 pints/A of DICAMBAZINE<sup>TM</sup> after wheat harvest. For best performance, make application within 10 days following wheat harvest. Use the higher rates in the rate range for added grass control and longer residual weed control. A split application of

DICAMBAZINE<sup>TM</sup> may be used only in summer to fall after wheat harvest and may not exceed the maximum labeled rate of 11 pints/A (2.8 pounds atrazine/A).

# FALLOW SYSTEMS TANK MIXES OR SEQUENTIAL USES TREATMENTS: FOST-HARVEST FALLOW AND ECO-FALLOW

When using tank mix or sequential applications with DICAMBAZINE<sup>TM</sup>, always follow the companion product label to determine specific use rates by soil types, weed species, and weed or crop growth stage. In addition, follow precautions and restrictions including state and local use restrictions that may apply to specific products.

Apply DICAMBAZINE™ prior to, in tank mix with, or after one or more of the following herbicides:

Ally<sup>®</sup>

Atrazine

Albaugh Dicamba DMA Salt or Banvel®

BROX™ 2EC Herbicide or Buctril®

<u>Clarity®</u>

Command® Curtail®

Cyclone®

Express<sup>®</sup>

Fallow Star<sup>TM</sup> or Fallow Master®

Glean®

Gramoxone Extra®
Landmaster® BW

Paramount®

Gly StarTM Plus or Roundup Ultra®

Roundup Ultra® RT

2,4-D

DICAMBAZINE<sup>TM</sup> may be tank mixed with one or more of the following herbicides for control of grasses or additional broadleaf weeds. When tank mixing DICAMBAZINE<sup>TM</sup> with other products, read the label of each tank mix partner for precautionary statements, directions for use and other restrictions.

#### DICAMBAZINETM plus Dicamba DMA Salt

Dicamba DMA Salt at 1-pint per treated acre may be tank mixed with DICAMBAZINETM for additional suppression of broadleaf perennial species that are actively growing at the time of application.

#### DICAMBAZINETM plus 2,4-D

2,4 D amine or ester at 1/8 to 1 lb. a.i. per treated acre may be tank mixed with DICAMBAZINE™ for improved postemergence burndown of annual or perennial broadleaf weeds. Burndown activity will particularly be enhanced on weeds growing under drought conditions or weeds that have been "topped" during the harvest operations.

# DICAMBAZINETM plus Roundup® or Roundup® RT

Roundup<sup>®</sup> at 1 pint per treated acre may be tank mixed with DICAMBAZINE<sup>TM</sup> for added postemergence control of grass or broadleaf weeds.

#### DICAMBAZINETM

In areas such as Oklahoma and Texas where a higher ratio of atrazine to dicamba is desired, atrazine can be tank mixed with DICAMBAZINETM. Consult the table showing the maximum amount of atrazine that can be applied.

# DICAMBAZINETM plus Landmaster® BW or Landmaster® II

Landmaster® at 27 to 54 ounces product per treated acre may be tank mixed with DICAMBAZINE™ for added posternergence control of grass and broadleaf weeds.

#### DICAMBAZINETM plus Fallow MasterTM

Fallow Master<sup>TM</sup> at 32 to 44 ounces product per treated acre may be tank mixed with DICAMBAZINE<sup>TM</sup> for added postemergence control of grass and broadleaf weeds.

# DICAMBAZINETM plus Gramoxone® or Cyclone®

Gramoxone or Cyclone may be tank mixed with DICAMBAZINETM for additional postemergence control of grass and broadleaf weeds. Refer to the Gramoxone or Cyclone labels for recommended use rates.

# DICAMBAZINETM plus sulfonylureas (Glean<sup>®</sup>, Ally<sup>®</sup> or others)

Apply as a tank mix with DICAMBAZINETM for additional preemergence or postemergence control of broadleaf weeds. Refer to sulfonylurea (Glean<sup>®</sup>, Ally<sup>®</sup> or others) label for recommended use rates.

# DICAMBAZINETM plus Command®

Command at 16 to 32 ounces product per acre may be tank mixed with DICAMBAZINETM for additional preemergence control of grass and broadleaf weeds.

#### CONDITION OF SALE, WARRANTY, LIMITATION OF LIABILITY

This product conforms to the chemical description on the label thereof and is reasonably fit for the purposes stated on such label only when used in accordance with directions under normal use conditions. Follow directions carefully. Timing and method of application, weather and crop conditions, mixture with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the seller. Buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given herewith. In no case shall the seller be liable for consequential, special or indirect damages such as loss of profits or values resulting from the use or handling of 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 ALBAUGH, INC., its Supplemental Distributors, or the Seller. All such risks shall be assumed by the Buyer.

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