



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

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

Laura Sears
BASF Corporation
26 Davis Drive
Research Triangle Park, NC 27709

APR 29 2011

Dear Ms. Sears:

Subject:

Label Amendment

Paramount Herbicide

EPA Registration No. 7969-113 Submission Date: January 6, 2011

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable. A stamped copy is enclosed for your records. Please submit one (1) final printed copy for the above mentioned label before releasing the product for shipment. If you have any questions regarding this label, please contact me at (703) 306-0415 or <a href="mailto:davis.kable@epa.gov">davis.kable@epa.gov</a>.

Sincerely yours,

Kable Bo Davis

Product Manager 25 Herbicide Branch

Registration Division (7505P)

Enclosed- Stamped Label



The Chemical Company

ACCEPTED

APR 29 2011

Under the Federal Insecticida, Fungicide, and Rodenticide Act, as amended, for the posticide registered under EPA Reg. No. 7969-112

# Paramount®

herbicide

For weed control in pasture (including pasture grown for hay), rangeland, Conservation Reserve Program Land (CRP), switchgrass establishment and maintenance, fallow systems, grass grown for seed, preplant wheat (see use directions for geographic limitations), preplant and in-crop sorghum and noncrop areas

#### **Active Ingredient:**

 quinclorac: 3,7-dichloro-8-quinolinecarboxylic acid
 75.0%

 Other Ingredients:
 25.0%

 Total:
 100.0%

EPA Reg. No. 7969-113

EPA Est. No.

# KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en détalle. (If you do not understand this label, find someone to explain it to you in detail.)

See inside for complete First Aid, Precautionary Statements, Directions For Use, Conditions of Sale and Warranty, and state-specific crop and/or use site restrictions.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

#### **Net Contents:**

BASF Corporation 26 Davis Drive, Research Triangle Park, NC 27709

FIRST AID		
If swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>DO NOT induce vomiting unless told to do so by a poison control center or doctor.</li> <li>DO NOT give anything by mouth to an unconscious person.</li> </ul>	
lf-in-eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>Remove-contact-lens, if-present, after-first-5 minutes; then continue-rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
lf on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
If inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth to mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>	
-	HOTLINE NUMBER	

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASE Corporation for emergency medical treatment information: 1-800-832-HELP (4357).

# **Precautionary Statements**

#### **Hazards to Humans and Domestic Animals**

CAUTION. Harmful if swallowed, inhaled, or absorbed through the skin. Avoid contact with skin, eyes, or clothing. Avoid breathing dust or spray mist. Causes moderate eye injury. May cause allergic skin response.

#### Personal Protective Equipment (PPE)

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

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as butyl rubber ≥14 mils, or natural rubber ≥14 mils, neoprene rubber ≥14 mils, or nitrile rubber ≥14 mils
- Shoes plus socks

Wash thoroughly with soap and water after handling. Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, 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/PPE 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**

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

**DO NOT** apply directly to water, areas where surface water is present, or to intertidal areas below the mean high water mark. **DO NOT** contaminate water by cleaning of equipment or disposal of rinsate.

#### **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.

All applicable directions, restrictions and precautions are to be followed. This labeling must be in the user's possession during application.

## **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.

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, such as butyl rubber ≥14 mils, or natural rubber ≥14 mils, neoprene rubber ≥14 mils, or nitrile rubber ≥14 mils
- · Shoes plus socks

#### STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

#### Pesticide Storage

Store in a secure, dry, well-ventilated area.

#### Pesticide Disposal

Wastes resulting from use of this product may be disposed of on-site or at an approved waste disposal facility.

#### Container Handling

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Triple rinse containers small enough to shake (capacity ≤ 50 pounds) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

(continued)

#### STORAGE AND DISPOSAL (continued)

#### Container Handling (continued)

Triple rinse containers too large to shake (capacity > 50 pounds) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring-at-least-one-complete-revolution,-for-30-seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow, begins to drip.

#### In Case of Spill

In case of large-scale spillage regarding this product, call:

CHEMTREC

1-800-424-9300

• BASF Corporation 1-800-832-HELP (4357)

#### Use Information

Paramount® herbicide is for use in pasture (including pasture grown for hav), rangeland. Conservation Reserve Program Land (CRP), switchgrass establishment and maintenance, fallow systems, grass grown for seed, preplant wheat, preplant and in-crop sorghum and noncrop areas. Paramount is formulated as a dry flowable designed for dilution with water and spraying in common agricultural spray equipment. When used as directed, Paramount will provide suppression or control of weed species listed in Table 1.

14

Table 1. Target Weeds			
Weeds	Controlled		
Annual Grasses' (0 to 2 inches)			
Barnyardgrass Crabgrass, large Foxtail, giant Eoxtail, green Foxtail, yellow	Junglerice Signalgrass, broadleaf		
Annual Broadleaves (0 to 2 inches)			
Bedstraw, catchweed Clovers Eclipta Flax, volunteer	Jointvetches Lettuce, prickly Morningglory spp. Sesbania, hemp		
Perennial Broadleaves			
Bindweed <sup>2</sup> , field Bindweed <sup>2</sup> , hedge			
: Weeds S	Suppressed*		
Appual Proodlesses (0 to	2 inches)		

#### Annual Broadleaves (0 to 2 inches)

Alligatorweed
Kochia
Lambsquarters, common
Ragweed, common
Ragweed, giant

Sunflower, wild Thistle<sup>4</sup>, Russian Velvetleaf

#### Perennial Broadleaves

Dandelion	Spurge <sup>3</sup> , leafy
Sowthistle <sup>4</sup> , perennial	Thistle⁴, Canada

\*DO NOT exceed a total of 16.0 ounces of Paramount\* herbicide per acre per calendar year. Apply Paramount at yellow bract (prebloom) or in the fall prior to the first killing frost. For best performance on this species, tank mix 8.0 ounces per acre of Paramount with 4 to 6 ounces per acre of Distinct\* herbicide.

For improved control, add a tank mix partner that is active on listed species.

- <sup>1</sup>For best control of annual grasses, target application prior to tillering.
- <sup>2</sup>Refer to **Field and Hedge Bindweed Control Instructions** for use directions.
- <sup>3</sup>Use 8.0 to 16.0 ounces of **Paramount** per acre in noncrop areas for suppression and annual growth control. **DO NOT** exceed a total of 16.0 ounces of **Paramount** per acre per calendar year. Apply **Paramount** at yellow bract (prebloom) or in the fall prior to the first killing frost. For best performance on this species, tank mix 8.0 ounces per acre of **Paramount** with 4 to 6 ounces per acre of **Distinct**.
- <sup>4</sup>Use 8.0 ounces of **Paramount** per acre for suppression and annual growth control. **DO NOT** exceed a total of 16.0 ounces of **Paramount** per acre per calendar year. Apply **Paramount** at rosette stage or bud stage. Avoid application when seed stalk is bolting. For best performance on this species, tank mix 8.0 ounces per acre of **Paramount** with 4 to 6 ounces per acre of **Distinct**.

# Field and Hedge Bindweed Control Instructions

For most effective bindweed control, apply **Paramount** in the fall just prior to the first killing frost. Bindweed plants should be actively growing and at least 4 inches long. If tillage is a part of local postharvest practices, allow a minimum of 30 days for bindweed plants to regrow after tillage prior to application. For best long-term bindweed control, make yearly applications of **Paramount** at 5.3 to 8.0 ounces per acre in the fall. Use the higher specified rate for dense populations or large plants.

#### **Mode of Action**

**Paramount** is a systemic herbicide with plant uptake occurring through both the foliage and roots. Resultant herbicide symptoms on susceptible plants include twisting, stunting, reddening and chlorosis. For annual plants, symptoms may take up to two weeks after application to develop with death occurring in about three weeks. For perennial weeds, symptoms may not be evident for several weeks after application; full effect may not be evident for 3 to 6 months.

#### **Resistance Management**

**Paramount** has a low probability of selecting for resistant weed biotypes. However, repeated applications of a single mode of action in a weed management plan increase the probability of selecting for naturally occurring biotypes with less susceptibility to herbicides using that mode of action. Therefore, weed management programs should include rotations using herbicides with different modes of action.

#### Coverage

When making postemergence applications, weeds must be thoroughly covered with spray because foliar uptake of **Paramount** by the target weed is important for optimum control. Large leaf canopies shelter smaller weeds and can prevent adequate spray coverage.

#### **Cleaning Spray Equipment**

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

#### **Application Instructions**

Based on the uses described in this label, **Paramount** should be applied by ground application equipment when possible. **Paramount** may also be applied using aerial application equipment in certain states (see **Table 2A** and **Table 2B**). In all aerial applications, read and adhere to all drift management guidelines in this labeling. Due to the possible presence of endangered plant species, **DO NOT** apply **Paramount** by air in any state not listed in **Table 2A**.

**Paramount** may be applied as either a broadcast or spot spray application. Applications must be made to actively growing weeds.

For most broadleaf weeds, the most effective control will result from applying **Paramount® herbicide** early when weeds are small. Delaying application permits weeds to exceed the maximum size and may prevent adequate control.

In irrigated areas, it may be necessary to irrigate before treatment to ensure active weed growth.

#### Ground Application (Broadcast)

#### **Water Volume**

Use 5 to 30 gallons of water per broadcast acre. When weed foliage is dense, higher spray volumes may be required.

#### **Spray Pressure**

Use a maximum of 30 psi (measured at the boom, not at the pump or in the line).

#### **Application Equipment**

Use only nozzles that will produce uniform spray patterns and thorough coverage, spaced up to 20 inches apart. Select nozzles designed to produce minimal amounts of fine spray particles. **DO NOT** use controlled droplet applicator (CDA) nozzles because erratic coverage can cause inconsistent weed control. **DO NOT** use selective application equipment such as recirculating sprayers or wiper applicators. Use drift reduction nozzles such as Delavan Raindrop Drift Reduction Flat Spray Tips, RF Tips, **XR Tee Jet™** Extended-range Flat Spray Tips, or other brands of comparable capabilities.

Table 2A. States where Paramount Aerial Application is Permissible

J			
Arkansas*	Nevada		
Colorado*	New Mexico*		
ldaho*	North Dakota*		
Illinois	Oklahoma*		
lowa	Oregon*		
Kansas*	South Dakota*		
Minnesota	Texas*		
Missouri	Utah*		
Montana*	Washington*		
Nebraska*	Wyoming		
*See Table 2B for specific county restrictions.			

**Table 2B. Specific County Restrictions** 

State	County
Arkansas	See State-specific Restrictions
Ćolorádo	Boulder, Delta, Garfield, Jefferson, La Plata, Mesa, Montezuma, Montrose, Morgan, Rio Blanco, San Miguel, Weld
Idaho	Idaho, Kootenai, Latah
Kansas	Allen, Anderson, Atchison, Bourbon, Coffey, Crawford, Douglas, Franklin, Jackson, Jefferson, Johnson, Leavenworth, Linn, Lyon, Miami, Neosho, Osage, Pottawatomie, Riley, Shawnee
Montana	Lake, Missoula
Nebraska	Box Butte, Cherry, Garden, Hall, Lancaster, Morrill, Seward, Sheridan
New Mexico	Chaves, Dona Ana, Eddy, San Miguel
North Dakota	Ransom, Richland
Okiahoma	Choctaw, Craig, Rogers
Oregon	Benton, Clackamas, Coos, Douglas, Harney, Klamath, Lane, Linn, Marion, Polk, Wallowa, Washington, Yamhill
South Dakota	Bennett, Brookings, Brown, Clay, Coddington, Day, Deuel, Grant, Lincoln, Minnehaha, Moody, Roberts, Todd, Turner, Union, Yankton
Texas	Bandera, Brazos, Burleson, Coke, El Paso, Fort Bend, Freestone, Harris, Hays, Hudspeth, Jim Wells, Kerr, Kimble, Kleberg, Leon, Live Oak, Madison, Mitchell, Nueces, Pecos, Refugio, Robertson, Runnels, San Patricio, Starr, Uvalde, Washington
Utah	Cache, Carbon, Duchesne, Emery, Garfield, Kane, Salt Lake, San Juan, Sanpete, Sevier, Tooele, Uintah, Utah, Washington, Wayne, Weber
Washington	Chelan, Clark, Cowlitz, Island, Spokane
	<u> </u>

**Paramount** may only be aerially applied in the states listed in **Table 2A**. For specific county restrictions in those states, see **Table 2B**.

#### **Aerial Application**

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-related and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift 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 outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
- 2.-Nozzles-must-always-point-backward-parallel-with-theairstream and never be pointed downward more than 45 degrees.

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

The applicator should be familiar with and take into account the information covered in the aerial drift reduction advisory information presented below.

#### 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 recommended practice. Significant deflection from the 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 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

#### **Application Height**

Applications must not be made at a height greater than 10 feet above the top of the largest 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 upwind 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 droplets, etc.).

#### Wind

Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application must 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 must 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 fog is not present, inversions can also be identified by the movement of smoke from a ground source or an 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 must 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, or nontarget crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

#### **Spray Additives**

To achieve consistent weed control, the use of spray additive(s) with **Paramount®** herbicide is required. The recommended spray additive with **Paramount** is methylated seed oil (MSO). The use of crop oil concentrate (COC) with **Paramount** is also permitted. A nitrogen fertilizer source (ammonium sulfate [AMS] or urea ammonium nitrate [UAN]) can be added to enhance efficacy, but

cannot be used in place of methylated seed oil or crop oil concentrate. Refer to **Table 3. Spray Additive Rate per Acre** for spray additive rates.

Table 3. Spray Additive Rate per Acre

Spray Additive	<b>Ground Application</b>
MSO	1.0 to 2.0 pints <sup>2</sup>
COC	2.0 pints
AMS¹	2.5 pounds
UAN solution¹	0.5 to 1.0 gallon

Optional

When an adjuvant (or a specific adjuvant product, such as a drift control agent) is to be used with this product, the use of a Chemical Producers and Distributors Association (CPDA) certified adjuvant is recommended.

#### Methylated Seed Oil or Crop Oil Concentrate

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

- Non-phytotoxic
- · Contain only EPA-exempt ingredients
- Provide good mixing quality in the jar test
- 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. For additional information, see **Compatibility Test for Mix Components**.

For bindweed control in New Mexico, Oklahoma and the designated counties of Texas, the use of methylated seed oil plus AMS is mandatory with Paramount® herbicide when it is applied alone.

#### Nitrogen Fertilizer Source

- Urea ammonium nitrate (28%, 30%, or 32% nitrogen solution) - DO NOT use brass or aluminum nozzles when spraying UAN.
- Ammonium sulfate AMS may be substituted for UAN. Use high-quality AMS (spray grade) to avoid plugging spray nozzles. Other sources of nitrogen are not as effective as those mentioned. DO NOT apply AMS if applied 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. Because most nitrogen solutions are mildly corrosive to galvanized steel, mild steel, and brass spray equipment, rinse the entire spray system with water soon after use. The AMS must be readily soluble in water and contain no insoluble materials. Local sources of high-quality, fine feed-grade AMS may be better than fertilizer grade. Low-quality AMS may contain material

that will not readily dissolve, which could result in nozzle tip plugging. To determine AMS quality, perform a jar test. Add 1/3 cup of ammonium sulfate to 1 gallon of water and agitate for 1 minute. If any undissolved sediment is observed, pre-dissolve the AMS in water and filter before adding it to the spray tank. If the AMS is added directly to the spray tank, add slowly while agitating. Adding the mix too quickly may clog outlet lines.

#### **Nonionic Surfactant**

Alternatively, an 80% active nonionic spray surfactant may only be used when **Paramount** is tank mixed with other products that restrict the use of oil additives. However, the use of nonionic surfactant may result in reduced weed control with **Paramount**. The standard label instruction for nonionic surfactant is 1 quart per 100 gallons of water (0.25% volume/volume). Applications with nonionic surfactant require the addition of a nitrogen fertilizer source.

## Tank Mixing 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.

#### **Tank Mix Partners/Components**

Use the following tank mixes to achieve control of the weeds listed as suppressed in **Table 1**. The following herbicides may be tank mixed with **Paramount** according to the specific tank mixing instructions in this label and respective product labels. For all listed tank mixes, use **Paramount** at 5.3 to 8.0 ounces per acre.

BASF does not recommend using tank mixes other than those listed on BASF labeling. Physical incompatibility, reduced weed control, or crop injury may result from mixing **Paramount** with other pesticides, additives, or fertilizers. Local agricultural authorities may be a source of information when using other than BASF-recommended tank mixes.

- Buctril® herbicide (bromoxynil)
- Buctril + atrazine (bromoxynil + atrazine)
- Clarity\* herbicide (dicamba)
- Distinct<sup>®</sup> herbicide (diflufenzopyr + dicamba)
- Fallow Master® herbicide (glyphosate + dicamba)
- Gramoxone Inteon® herbicide (paraquat)
- Guardsman Max<sup>®</sup> herbicide (dimethenamid-P + atrazine)
- Landmaster® herbicide (glyphosate + 2,4-D)
- Outlook® herbicide (dimethenamid-P)
- Peak® herbicide (prosulfuron)
- Weedmaster® herbicide (dicamba + 2,4-D)
- 2.4-D
- atrazine
- glyphosate (e.g. Roundup® herbicide)

<sup>&</sup>lt;sup>2</sup> For best grass control, use at least 1.5 pints/acre of methylated seed oil.

#### **Compatibility Test for Mix Components**

Add components in the following sequence using 2 teaspoons for each pound or 1 teaspoon for each pint of specified label rate per acre.

- Water For 20 gallons per acre spray volume, use 3-1/3 cups (800 ml) of water. For other spray volumes, adjust rates accordingly. Use only water from the intended source at the source temperature.
- Products in PVA bags Cut an opening in the watersoluble PVA bag just large enough to use a teaspoon for measuring purposes. Use the opened water-soluble PVA bag first when preparing spray solution. Cap the jar and invert 10 cycles.
- 3. Water-dispersible products (including Paramount® herbicide, such as dry flowables, wettable powders, suspension concentrates, or suspo-emulsions) For the 5.3-ounce rate, use 1 teaspoon. For the 8.0-ounce rate, use 1.5 teaspoons. Cap the jar and invert 10 cycles.
- 4. Water-soluble products Cap the jar and invert 10 cycles.
- Emulsifiable concentrates (methylated seed oil or crop oil concentrate when applicable) - Cap the jar and invert 10 cycles.
- 6. Water-soluble additives (AMS or UAN when applicable) Cap the jar and invert 10 cycles.

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. **DO NOT** use any spray solution that could clog spray nozzles.

#### Mixing Order

- 1. **Water** Begin by agitating a thoroughly clean sprayer tank 3/4 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.
- Water-dispersible products (including Paramount, dry flowables, wettable powders, suspension concentrates, or suspo-emulsions)
- 6. 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.

#### **Restrictions and Limitations**

- Maximum seasonal use rate DO NOT apply more than a total of 16 ounces of Paramount per acre, per calendar year.
- Restricted-entry interval (REI) 12 hours
- Crop rotation restrictions In case of crop failure, only spring or winter wheat or grain sorghum may be immediately replanted. DO NOT plant any other crop other than spring or winter wheat or grain sorghum for 309 days (10 months) following application. For alfalfa, clover, dry beans, flax, peas, lentils, safflower, Solanaceous crops listed in Drift section, and sugar beets, DO NOT replant for 24 months and conduct a bioassay prior to planting any of these crops.
- DO NOT apply to weeds or grasses under stress because of lack of moisture, herbicide injury, mechanical injury or cold temperatures, or unsatisfactory control may result.
- DO NOT apply to crops subjected to stress conditions such as hail damage, flooding, drought, injury from other herbicides, or widely fluctuating temperatures, or crop injury may result.
- DO NOT use selective application equipment such as recirculating sprayers, wiper applicators, or shielded applicators.
- Rainfast period Paramount is rainfast 6 hours after application.
- Wind speed for ground applications DO NOT apply
   Paramount when wind is blowing more than 10 mph.
- DO NOT aerially apply Paramount in any state not listed in Table 2A.
- DO NOT apply through any type of irrigation equipment.

#### Drift

- DO NOT allow Paramount to drift onto other desirable plants, especially sensitive crops belonging to the following plant families:
  - 1. Solanaceae tomato, potato, tobacco, eggplant, peppers (Capsicum), among others
  - 2. Umbelliferae celery, parsley, carrots, among others
  - 3. Leguminosae alfalfa, green bean, among others
  - 4. Convolvulaceae sweet potato, among others
  - 5. Chenopodicaceae spinach, sugar beet, among others
  - 6. Malvaceae okra, among others
  - 7. *Cucurbitaceae* watermelon, cantaloupe, squash, pumpkin, among others
  - 8. Compositae lettuce, sunflowers, among others
  - 9. Linaceae flax
- DO NOT allow spray containing Paramount to drift onto areas where tomatoes are to be planted, have been planted, or onto emerged tomatoes, or severe injury will occur.
- DO NOT use Paramount in tank mixes not specified on this label.

 DO NOT premix Paramount® herbicide with fungicides, herbicides, insecticides, additives, or fertilizers or contamination of mixing equipment and movement of Paramount to off-site mixing areas can occur.

# State-specific Restrictions

Because there are additional state restrictions in Arkansas, contact the Arkansas Plant Board or a representative for specific instructions about applying **Paramount** in Arkansas.

In Arkansas, **Paramount** (quinclorac) must not be applied in an area from one-mile west of Highway No. 1 to one-mile east of Highway No. 163 from the Craighead/Poinsett county line to the Cross/Poinsett county line.

Furthermore, **NO AERIAL APPLICATION** is allowed in the area of Poinsett County one-mile west of Highway No. 1 to two-miles west of Highway No. 1 and one-mile east of Highway No. 163 to Ditch No. 10 from the Craighead/Poinsett county line to the Cross/Poinsett county line or any other county in Arkansas.

Paramount may be used in the following Texas counties: Archer, Armstrong, Bailey, Baylor, Borden, Briscoe, Brown, Callahan, Carson, Castro, Childress, Clay, Cochran, Coke, Coleman, Collin, Collingsworth, Concho, Cooke, Cottle, Crosby, Dallam, Dawson, Deaf Smith, Denton, Dickens, Donley, Fisher, Floyd, Foard, Garza, Glasscock, Gray, Grayson, Hale, Hall, Hansford, Hardeman, Hartley, Haskell, Hemphill, Hockley, Hutchinson, Jack, Jones, Kent, King, Know, Lamb, Lipscomb, Lubbock, Lynn, McCulloch, Montague, Moore, Motley, Nolan, Ochiltree, Oldham, Parmer, Potter, Randall, Roberts, Runnels, Schackelford, Scurry, Sherman, Sterling, Stonewall, Swisher, Taylor, Terry, Throckmorton, Wheeler, Wichita, Wilbarger, Wise, Yoakum, and Young.

Be sure to obtain and follow all Texas state requirements for Paramount uses.

#### **Crop-specific Information**

# Grass Grown for Seed

For use in the following grasses grown for seed:

3	Cool-season Grass
I	Bromegrass, meadow Bromegrass, smooth Bromegrass, smooth x meadow cross
-	European dunegrass
	Fescue, fine Fescue, tall
	Junegrass
ŀ	Kentucky bluegrass
1	Needlegrass, green
(	Orchardgrass
(	Quackgrass
ŀ	Ryegrass, annual Ryegrass, Indian Ryegrass, perennial
111111111	Wheatgrass, bluebunch Wheatgrass, bluebunch x quack cross Wheatgrass, crested Wheatgrass, fairway Wheatgrass, fairway x crested cross Wheatgrass, intermediate Wheatgrass, pubescent Wheatgrass, Siberian Wheatgrass, slender Wheatgrass, tall Wheatgrass, thickspike Wheatgrass, Western
1	Wildrye, Altai Wildrye, basin Wildrye, beardless Wildrye, Dahurian Wildrye, mammoth Wildrye, Russian

Warm-season Grass
Bermudagrass
Bluestem, big Bluestem, little Bluestem, sand
Grama, blue Grama, side-oats
Sandreed, prairie
Switchgrass

11

Apply Paramount® herbicide at 5.3 to 8.0 ounces per acre for control of annual grasses and broadleaf weeds (see Table 1). Apply Paramount for bindweed control after grass seed harvest and hay removal but before the first killing frost. Refer to Field and Hedge Bindweed Control Instructions for use directions.

#### **Tank Mixing Information**

Other registered products may be tank mixed with **Paramount**. 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.

# Fallow Systems, Preplant Wheat, or Preplant Sorghum

DO NOT use preplant wheat in the following states: ID, MT, NV, OR, UT, WA or WY.

Paramount can be applied in fallow areas or preplant wheat (DO NOT apply in ID, MT, NV, OR, UT, WA, or WY) or preplant grain sorghum at 5.3 ounces per acre for control of annual grasses and broadleaf weeds (see Table 1). For bindweed control with Paramount, refer to Field and Hedge Bindweed Control Instructions for use directions.

When **Paramount** is applied as a preplant treatment in wheat, plant wheat at least 1-inch deep. Shallow planting (less than 1-inch deep) may result in possible crop injury when wheat is subjected to drought or other stress conditions.

#### **Fallow Tank Mixes**

Other registered products may be tank mixed with **Paramount**. 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.

- Clarity® herbicide (dicamba)
- Distinct® herbicide (diflufenzopyr + dicamba)
- Fallow Master® herbicide (glyphosate + dicamba)
- Landmaster® herbicide (glyphosate + 2,4-D)
- 2,4-D
- glyphosate (e.g. Roundup® herbicide)

#### In-crop Sorghum

Apply **Paramount** to grain sorghum at 5.3 to 8.0 ounces per acre from preemergence to postemergence (to 12-inch tall sorghum) for control of annual grasses and broadleaf weeds. For best annual grass control, apply **Paramount** at 5.3 to 8.0 ounces per acre in a tank mix with atrazine at 0.5 to 1.0 pound ai per acre when weeds are less than 2-inches tall.

**DO NOT** use liquid fertilizer as a carrier for postemergence applications of **Paramount** to grain sorghum.

In New Mexico, Oklahoma, and in the designated counties in Texas, APPLY ONLY 8.0 ounces of **Paramount** per acre to in-crop sorghum.

Table 4. Tank Mix Use Rate per Acre with Paramount

Herbicide Tank Mix Partner	Fallow and Preplant Wheat	Preplant Sorghum	Post- emergence Sorghum
2,4-D	0.375 to 1.0 lb ai	0.375 to 1.0 lb ai	0.125 to 0.5 lb ai
atrazine	<del></del> .	0.5 to 1.0 lb ai	0.5 to 1.0 lb ai
Clarity	4 to 16 fl ozs	4 to 16 fl ozs	8 fl ozs
Fallow Master	22 to 44 ozs	22 to 44 ozs	_
Landmaster	32 to 54 fl ozs	32 to 54 fl ozs	
Peak*	_	-	0.25 oz
glyphosate	12 to 32 ozs .	12 to 32 ozs	_
Buctril®	_	_	16 fl ozs
Buctril + atrazine	_	_	32 fl ozs
Guardsman Max®	_		40 to 64 fl ozs

# Noncrop Areas (Roadsides, Fencelines and Rights-of-way)

Paramount may be applied to noncrop areas (fence lines, roadsides, highway medians, utilities, and railroad and pipeline rights-of-way). Paramount may be applied to noncropland areas for the control of certain weeds in the Noxious Weed Control Programs, Districts or Areas including broadcast or spot treatments. Use 5.3 to 8.0 ounces of Paramount per acre for control of annual weeds, or 8.0 to 16.0 ounces per acre for other perennial weeds (see Table 1). DO NOT exceed a total of 16.0 ounces of Paramount per acre per calendar year. For bindweed control with Paramount, refer to Field and Hedge Bindweed Control Instructions for use directions.

#### **Noncrop Tank Mixes**

Other registered products may be tank mixed with **Paramount**. 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.

- Clarity (dicamba)
- Distinct (diflufenzopyr + dicamba)
- 2.4-D
- glyphosate (e.g. Roundup)

# Pasture (including pasture grown for hay), Rangeland, Conservation Reserve Program Land (CRP), and Switchgrass Establishment and Maintenance

Paramount® herbicide may be used in established pasture, rangeland, Conservation Reserve Program land (CRP), and-switchgrass-establishment-and-maintenance as a postemergence product with residual control.

Paramount may be applied at 3 to 16 ozs/acre to control grasses and broadleaf weeds, including field bindweed and leafy spurge (see Table 1. Target Weeds and Table 5. Application Rates).

**Table 5. Application Rates** 

Target Weeds	Rate per Acre (ozs product)
Grass and broadleaf control	5.3 to 8.0
Bindweed control	5.3
Bindweed maintenance	3.0
Leafy spurge control	8.0* to 16.0
*14/91	t la a taral a mais sa al contida

<sup>\*</sup>Will provide only suppression; must be tank mixed with Overdrive® herbicide at 4 to 6 ozs/acre for effective control.

#### Pasture and Rangeland Tank Mixes

**Paramount** may be tank mixed with other herbicides labeled for use in pasture and rangeland unless prohibited on the respective product label. The most restrictive labeling applies to tank mixes.

Table 6. Paramount may be used in the following pasture and rangeland grasses

pasture and rangeland grasses	
Cool-season Grass	
Bromegrass, meadow Bromegrass, smooth Bromegrass, smooth x meadow cross	
European dunegrass	
Fescue, fine¹————————————————————————————————————	
Junegrass	
Kentucky bluegrass	
Needle-and-thread	
Needlegrass, green	
Orchardgrass	
Ryegrass, annual Ryegrass, Indian Ryegrass, perennial	
Wheatgrass, bluebunch Wheatgrass, crested Wheatgrass, fairway Wheatgrass, fairway x crested cross Wheatgrass, intermediate Wheatgrass, pubescent Wheatgrass, Siberian Wheatgrass, slender Wheatgrass, tall Wheatgrass, thickspike Wheatgrass, Western	
Wildrye, Altai Wildrye, basin Wildrye, beardless Wildrye, Dahurian Wildrye, mammoth	

Warm-season Grass
Bermudagrass*
Bluestem, big Bluestem, little Bluestem, sand
Buffalograss
Eastern gamagrass
Grama, blue Grama, side-oats
Indiangrass
Lovegrass
Sandreed, prairie
Switchgrass
*Applications of <b>Paramount</b> to Bermudagrass may result in temporary yellowing (chlorosis) under certain conditions.

<sup>1</sup>Apply **Paramount** to fine fescue only when it is part of a blend.

Wildrye, Russian

14

# Switchgrass Establishment and Maintenance for Biofuel, Forage, Wildlife Habitat, and Conservation Plantings

Paramount® herbicide may be used for the establishment and maintenance of switchgrass. Apply 5.3 to 8.0 ozs/acre Paramount as an early postemergence treatment for weed control in newly planted switchgrass.

Paramount may be applied with other labeled herbicides to improve the spectrum of weeds controlled during the establishment and maintenance of switchgrass.

#### **Crop-specific Restrictions and Limitations**

- DO NOT cut treated area for hay within 7 days after treatment; however, there are no waiting period restrictions on grazing forage following the application of Paramount at labeled rates.
- DO NOT apply to water or to areas where surface water is present.
- **DO NOT** apply to irrigation ditches or areas that act as a channel for water entering cropland.

#### **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 must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the 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 use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF 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.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

BASF 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 BASF.

Clarity, Distinct, Guardsman Max, Outlook, Overdrive, and Paramount are registered trademarks of BASF.

Buctril is a registered trademark of Bayer.

Fallow Master, Landmaster, and Roundup are registered trademarks of Monsanto Technology LLC.

**Gramoxone Inteon** and **Peak** are registered trademarks of a Syngenta Group Company.

Tee Jet is a trademark of Spraying Systems Company.

**Weedmaster** is a registered trademark of Nufarm Australia Limited.

© 2010 BASF Corporation All rights reserved.

007969-00113.20101221.**NVA 2010-04-082-0193** 

Supersedes: NVA 2010-04-082-0034

BASF Corporation 26 Davis Drive Research Triangle Park, NC 27709



The Chemical Company