05/21/2009



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

> OFFICE OF PREVENTION. PESTICIDES AND TOXIC SUBSTANCES

Jeffrey H. Birk, Ph.D. Product Registration BASF Corporation, Agricultural Products 26 Davis Drive Research Triangle Park, NC 27709

MAY 2 1 2009

SUBJECT: Application for Pesticide Notification (PRN 98-10) Request Directions for Use and General Label Change EPA Reg. No.241-379 Application Dated April 22, 2009

Dear Registrant:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated 04/22/09 for the above product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action(s) requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please call me directly at 703-305-6249 or Owen F. Beeder of my staff at 703-308-8899.

Sincerely,

1

Linda Arrington Notifications & Minor Formulations Team Leader Registration Division (7505P) Office of Pesticide Programs

Please read instructions on reverse	before completing form.		Approved. OMB No	. 2070-0060	Approval expires 2-28-95
	United States <b>ironmental Protectio</b> Washington, DC 204	• •	Regist Ameno ✓ Other		OPP Identifier Number
	Applicatio	n for Pesticide - Se	ection I		
1. Company/Product Number 241-379		2. EPA Product N James Tompk	•	3. Pro	posed Classification
4. Company/Product (Name) Raptor herbicide		<b>РМ#</b> 25			
5. Name and Address of Applicant BASF 26 Davis Drive Research Triangle Park, N Check if this is a n	IC 27709	(b)(i), my produ to:	ct is similar or ide		
		Section - II			
Notification - Explain below Explanation: Use additional pag Notification of minor label changes 40 CFR 152.46, and no other chang of 18 U.S.C. Sec. 1001 to willfully m 98-10 and 40 CFR 152.46, this proc FIFRA. This notification is not subject to a func- <b>1. Material This Product Will Be Par</b> Child-Resistant Packaging	o Agency letter dated e(s) if necessary. (For section for Raptor herbicide (241-379). ges have been made to the label hake any false statement to EPA duct may be in violation of FIFRA ee under PRIA. Contact Jeff Birl hakaged In: Packaging	Agency "Me Too "Me Too Other - I of I and Section II.) This notification is consistent of ing or the confidential statement. I further understand that if the Agency	ent of formula of this p is notification is not o reement action and p 19-547-2850 (fax) or l	PR Notice 98 product. I und consistent with enalties unde by Email at jet	lerstand that it is a violation n the terms of PR Notice r sections 12 and 14 of
* Certification must Unit be submitted	Yes No es" No. per Packaging wgt. container	Yes No If "Yes" No. p Peckage wgt conta		Metal Plastic Glass Paper Other (Sj	pecify)
3. Location of Net Contents Inform		ail Container	5. Location of L	abel Direction	กร
6. Manner in Which Label is Affixe	d to Product Lithog Paper Stenci	raph O glued led	iher		
		Section - IV			
1. Contact Point (Complete items	directly below for identification	n of individual to be contact	ed, if necessary, to	process this	application.)
Name Jeffrey H. Birk		Title Regulatory Manager		<b>Telephone</b> 919-547-2	No. (Include Area Code) 622
l acknowledge that any know both under applicable law.	Certifica I have made on this form and wlinglly false or misleading sta	all attachments thereto are tement may be punishable b 			6. Data Application Received (Stamped)
	Bar	Regulatory Manager			<i></i>
4. Typed Name Jeffrey H. Birk		5. Date April 22, 2	009		έι, 

2/40





April 22, 2009

U.S. Environmental Protection Agency Office of Pesticide Programs (7505P) Document Processing Desk 7504P (**NOTIF**) Room S-4900 One Potomac Yard 2777 S. Crystal Drive Arlington, VA 22202 Attention: Mr. James Tompkins, (PM 25)

# RE: Notification- Incorporation of approved Clearfield Rice supplemental label Raptor<sup>®</sup> herbicide; EPA Reg. No. 241-379

Dear Mr. Tompkins:

BASF is hereby submitting notification of minor label changes for Raptor herbicide (EPA Reg. No. 241-379). Changes include the incorporation of the Clearfield Rice use directions from the approved supplemental label as well as numerous typographical and format changes.

Enclosed please find:

- Application form 8570-1
- CD containing electronic copy of the Raptor herbicide label
- Certification with Respect to Label Integrity for Raptor herbicide
- Raptor herbicide label
- Current approved Raptor herbicide label
- Approved Raptor Clearfield Rice supplemental label

No PRIA fee is required for this notification.

Thank you for your assistance with this matter. If you should have any questions, please feel free to call me at (919) 547-2622.

Regards,

A BI

Jeffrey H. Birk, Ph.D. Regulatory Manager Phone 919-547-2622 Mobile : 919-225-9220 Fax: 919-547-2850 Email: jeffrey.birk@basf.com



<sup>®</sup> Registered Trademark of BASF







#### For use on alfalfa, beans (dry), chicory, CLEARFIELD® canola, CLEARFIELD lentil, CLEARFIELD rice, CLEARFIELD sunflower, CLEARFIELD wheat, clover grown for seed, lima beans (succulent), peas (dry), peas (English), snap beans, and soybeans

#### Apply only on CLEARFIELD canola, lentil, rice, sunflower, and wheat varieties.

#### **Active Ingredient:**

ammonium salt of imazamox: 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-
5-oxo-1 <i>H</i> -imidazol-2-yl]-5-(methoxymethyl)-3-pyridinecarboxylic acid* 12.1%
<b>Other Ingredients:</b>
<b>Total:</b>
*Equivalent to 11.4% 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1 <i>H</i> -imidazol-2-yl]-5-(methoxymethyl)-3-pyridinecarboxylic acid.
1 gallon contains 1.0 pound of active ingredient as the free acid.

U.S. Patent No. 5,334,576 EPA Reg. No. 241-379

EPA Est. No.

# KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCIÓN

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detaile. (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:**

# NOTIFICATION

MAY 2 1 2009

	FIRST AID
If 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 in eyes	<ul> <li>Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>Remove contact lenses, if present, after first 5 minutes; then continue rinsing eyes.</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 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 BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).

# **Precautionary Statements**

### Hazards to Humans and Domestic Animals

**CAUTION.** Harmful if absorbed through skin or inhaled. Avoid breathing spray mist. Avoid contact with skin, eyes or clothing.

## **Personal Protective Equipment (PPE)**

Some materials that are chemically resistant to this product are listed below. For more options, refer to **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, or neoprene rubber
- $\geq$  14 mils, or nitrile rubber  $\geq$  14 mils
- Shoes plus socks

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.

### 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.

## **Environmental Hazards**

This pesticide may be hazardous to plants outside the treated area. **DO NOT** apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark except as directed in this label. Off-site movement from spray drift, volatilization, and runoff may be hazardous to neighboring crops and vegetative habitat utilized for food and cover by wildlife and aquatic organisms. **DO NOT** contaminate water when disposing of equipment washwaters.

5/40

### In Case of Emergency

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

- CHEMTREC 1-800-424-9300
- BASF Corporation 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- · Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation 1-800-832-HELP (4357)

# Steps to be taken in case material is released or spilled:

- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing, and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

# **Directions For Use**

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

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

# AGRICULTURAL USE REQUIREMENTS

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

**DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **4 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, such as butyl rubber ≥ 14 mils, or natural rubber ≥ 14 mils, or neoprene rubber ≥ 14 mils, or nitrile rubber ≥ 14 mils
- Shoes plus socks

Ensure spray drift to nontarget species does not occur.

**DO NOT** apply **Raptor® herbicide** in any manner not specifically described in this label.

**DO NOT** apply this product through any type of irrigation system.

When applied by either ground or air, **Raptor** spray drift or other indirect contact may injure sensitive crops, including non-imidazolinone-tolerant canola, lentil, rice, sunflower, or wheat; leafy vegetables; and sugar beets.

Spray equipment used for **Raptor** application must be drained and thoroughly cleaned with water before being used to apply other products.

Observe all cautions and limitations on this label and on the labels of products used in combination with **Raptor**. **DO NOT** use **Raptor** other than in accordance with the instructions set forth on this label. Keep containers closed to avoid spills and contamination.

### STORAGE AND DISPOSAL

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

### **Pesticide Storage**

- KEEP FROM FREEZING.
- DO NOT store below 32° F.

### **Pesticide Disposal**

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

### **Container Disposal**

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  $\leq$  5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. 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.

# Triple rinse containers too large to shake

(capacity > 5 gallons) 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 and continue to drain for 10 seconds after the flow begins to drip. 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.

### **General Information**

The mode of weed-killing activity involves uptake of **Raptor** by foliage and/or weed roots and rapid translocation to the growing points. After **Raptor** application, susceptible weeds may show yellowing, and weed growth will stop. Susceptible weeds stop growing and either die or are not competitive with the crop. Adequate soil moisture is important for optimum **Raptor** activity. When adequate soil moisture is present, **Raptor**<sup>®</sup> **herbicide** will provide residual activity of susceptible germinating weeds. Activity on established weeds will depend on the weed species and the location of its root system in the soil. A timely cultivation after a **Raptor** application may improve general weed control.

When organophosphate (such as **Lorsban® insecticide**) or carbamate insecticides (such as **Furadan® insecticide**) are tank mixed with **Raptor**, temporary injury may result to the treated crop. Separate organophosphate and **Raptor** application by at least 7 days to reduce potential for injury.

**DO NOT** tank mix organophosphate or carbamate insecticides with **Raptor** on **CLEARFIELD**<sup>®</sup> crops unless otherwise specified in writing by BASF.

Use of **Raptor** is expected to result in normal growth of rotational crops in most situations; however, various environmental and agronomic factors make it impossible to eliminate all risks associated with the use of this product and, therefore, rotational crop injury is always possible.

Occasionally, internode shortening and/or temporary yellowing of crop plants may occur following **Raptor** applications. These effects can be more pronounced if crops are growing under stressful environmental or hot and humid conditions. These effects occur infrequently and are temporary. Normal growth and appearance should resume within 1 to 2 weeks.

**Replanting:** If replanting is necessary in a field previously treated with **Raptor**, the field may be replanted to beans (dry), **CLEARFIELD** canola, **CLEARFIELD** corn, **CLEARFIELD** lentil, **CLEARFIELD** sunflowers, **CLEARFIELD** wheat, peas (English), peas (dry), lima beans (succulent), snap beans, or soybeans. Rework the soil no deeper than 2 inches. **DO NOT** apply a second treatment of **Raptor**. **DO NOT** apply **Pursuit® herbicide**, **Raptor**, or **Pursuit® Plus EC herbicide** if soybeans are replanted.

Naturally occurring biotypes' of some of the weeds listed on this label may not be effectively controlled by this and/or other products with either the ALS/AHAS enzyme-inhibiting mode of action. Other herbicides with the ALS/AHAS enzyme-inhibiting mode of action include the sulfonylureas (e.g. **Finesse® herbicide**, etc.), imidazolinones (e.g. **Pursuit** or **Scepter® herbicide**), the sulfonamides (e.g. **Hornet® herbicide**, etc.) and the pyrimidyl benzoates (e.g. **Staple® herbicide**, etc.). If naturally occurring ALS/AHAS-resistant biotypes are present in a field, **Raptor** and/or any other ALS/AHAS enzyme-inhibiting mode of action herbicide should be tank mixed or applied sequentially with an appropriate registered herbicide having a different mode of action to ensure control.

<sup>1</sup>A weed biotype is a naturally occurring plant within a given species that has a slightly different, but distinct, genetic makeup from other plants.

**Raptor** is very active against many broadleaf and grass weed species. For long-term weed management, use 2 herbicides with different modes of action to reduce the

potential for weed resistance. Crop (and herbicide) rotation is also effective in managing weed resistance where herbicides of different modes of action are used. Tillage, where practical (such as in fallow production or prior to planting), is also effective in controlling weeds to minimize resistance development. Additionally, a burndown herbicide during fallow or prior to planting is also effective in reducing weed resistance development.

Raptor has no preharvest interval (PHI) for any crop.

#### **Mixing Instructions**

POSTEMERGENCE APPLICATIONS OF **Raptor** REQUIRE THE ADDITION OF AN ADJUVANT **AND** A NITROGEN FERTILIZER SOLUTION UNLESS OTHERWISE DIRECTED IN THIS LABEL.

#### ADJUVANTS

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.

#### Crop Oil Concentrate (COC), Methylated Seed Oil (MSO), or High Surfactant Oil Concentrate (HSOC). A petroleum or vegetable seed-based crop oil concentrate may be used. A methylated seed oil is recommended when

weeds are under moisture or temperature stress. Use methylated seed oils or crop oil concentrate at 1 to 2 gallons/100 gallons of spray solution.

Use HSOC at 0.5 gallon/100 gallons of spray solution.

#### OR

**Surfactants.** Use a nonionic surfactant (NIS) containing at least 80% active ingredient. Apply the surfactant at 1 quart/100 gallons of spray solution (0.25% volume/volume [v/v]). An organosilicone surfactant may be used in place of a nonionic surfactant.

#### AND

**Nitrogen Fertilizer.** Recommended nitrogen-based fertilizers include liquid fertilizers [such as liquid ammonium sulfate (AMS), 28% N, 32% N or 10-34-0] at 2.5 gallons/100 gallons of spray solution. Instead of a liquid fertilizer, spray-grade ammonium sulfate may be used at 12 to 15 pounds/100 gallons of spray solution.

# For CLEARFIELD spring wheat and CLEARFIELD winter wheat, AMS/nitrogen substitutes are not recommended in place of ammonium sulfate, 28% N, 32% N, or 10-34-0 unless recommended by BASF.

When targeting feral rye or weeds under moisture or temperature stress, using higher nitrogen fertilizer rates [Urea Ammonium Nitrate (UAN) at 5% v/v or 20 lbs AMS/100 gallons] may improve weed control. Additional crop response may be observed when higher fertilizer rates are used.

#### Crop oil concentrate or methylated seed oil is not recommended for use with Raptor on CLEARFIELD lentil and CLEARFIELD sunflower.

#### DO NOT use crop oil concentrate or methylated seed oil with Raptor<sup>®</sup> herbicide on CLEARFIELD<sup>®</sup> wheat varieties that DO NOT possess 2-gene tolerance.

Fill the spray tank 1/2 to 3/4 full with clean water. Use a calibrated measuring device to measure the required amount of **Raptor**. Add **Raptor** to the spray tank while agitating. Add adjuvants and fill the remainder of the tank with water.

**NOTE:** Nitrogen fertilizer is not required when applied in use areas south of Interstate Highway 40, except in the states of Arizona, California, New Mexico, Oklahoma, and Texas.

**NOTE: DO NOT** apply **Raptor** in liquid fertilizer as the carrier except to **CLEARFIELD** spring wheat and **CLEARFIELD** winter wheat.

#### LIQUID FERTILIZER AS A CARRIER

**DO NOT** apply **Raptor** with liquid fertilizer as a carrier unless specifically allowed for a given crop. Refer to specific crop **DIRECTIONS FOR USE** sections for crop-specific adjuvant recommendations and/or restrictions.

#### NOTE: ADDITIONAL MIXING INSTRUCTIONS FOR DRY BEANS AND DRY PEAS [other than English Peas, Lima Beans (Succulent) and Snap Beans].

Raptor applications may be made to dry beans and dry peas either with or without the addition of a fertilizer. The addition of nitrogen-based fertilizer, such as ammonium sulfate or liquid fertilizers (such as 28-0-0), may improve weed control but also increases the likelihood of dry beans and dry peas response. When nitrogen is added to the mixture, add Basagran® herbicide (at 6 fl ozs to 16 fl ozs/A) or Rezult<sup>®</sup> herbicide (at 12 fl ozs to 24 fl ozs/A) to minimize crop response. For applications to dry peas, ALWAYS add Basagran or Rezult to the spray mixture. For enhanced grass activity, add a crop oil or methylated seed oil instead of surfactant. ALWAYS add Basagran or Rezult at the rates indicated above when crop oils and/or fertilizers are used in the spray mixture. Basagran applications at rates higher than 16 fl ozs/A may reduce grass control.

See application information within **English Peas**; **Lima Beans (Succulent)**; and **Snap Beans** directions for use for additional mixing instructions.

# TANK MIX COMBINATIONS WITH OTHER HERBICIDES

If other herbicides or other spray tank components are tank mixed with **Raptor**, while agitating, add components in the following order and thoroughly mix after adding each component.

- 1. Fill spray tank 1/2 to 3/4 full with clean water.
- 2. Add soluble-packet products and thoroughly mix.
- Add WP (wettable powder), DG (dispersible granule), DF (dry flowable) or liquid flowable formulations not in soluble packets.
- 4. Add **Raptor** and thoroughly mix.
- 5. Add other aqueous solution products.
- 6. Add EC (emulsifiable concentrate) products.

- 7. Add surfactant or crop oil to the spray tank.
- 8. Add nitrogen fertilizer solution.
- 9. While agitating, fill the remainder of the tank with water.

To avoid injury to sensitive crops, spray equipment used for **Raptor** applications must be drained and thoroughly cleaned with water before being used to apply other products.

When **Raptor** is used in combination with another herbicide, refer to the respective label for rates, methods of application, proper timing, weeds controlled, restrictions and precautions. Always use in accordance with the more restrictive label restrictions and precautions. No label dosages may be exceeded. **Raptor** cannot be mixed with any product containing a label prohibiting such mixtures.

### **Spraying Instructions**

**DO NOT** apply when wind conditions may result in drift, when temperature inversion conditions exist, or when spray may be carried to sensitive crops. Sensitive crops include, but are not limited to, leafy vegetables and sugar beets.

### **Ground Application**

Uniformly apply with properly calibrated ground equipment in 10 or more gallons of water per acre. A spray pressure of 20 to 40 psi is recommended.

To ensure thorough coverage, use a minimum of 20 gallons of water per acre when applying **Raptor** to minimum or no-till crops. Use higher gallonage for fields with dense vegetation or heavy crop residues.

Adjust the boom height to ensure proper coverage of weed foliage (according to the manufacturer's instructions). Use flat-fan nozzle tips or similar appropriate nozzle tips to ensure adequate coverage. Avoid overlaps when spraying.

# Ground Application with a Low-volume Sprayer

**Raptor** may be applied with a low-volume sprayer. When applying **Raptor** with a low-volume sprayer, spray the weeds before they reach the maximum size listed in this label. Adequate control of weeds is dependent upon good spray coverage of the weeds. The sprayer must be calibrated to deliver the recommended spray volume and pressure to ensure adequate spray coverage of the weeds.

When applying **Raptor** with a low-volume sprayer, apply a minimum of 10 gallons per acre of spray solution with a nozzle pressure between 40 to 60 psi for optimum coverage.

### **Aerial Application**

**Raptor** may be applied by air to all crops listed on this label.

Uniformly apply with properly calibrated equipment in 5 or more gallons of water per acre. The addition of an adjuvant AND fertilizer solution are required for optimum weed control. Nonuniform applications of **Raptor**<sup>®</sup> **herbicide** through aerial equipment may increase **CLEARFIELD**<sup>®</sup> crop response, especially when applied to large slopes and hills. All risks associated with nonuniform applications shall be assumed by the user.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipmentrelated 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 the airstream and never be pointed downward more than 45 degrees.

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

The applicator must be familiar with and take into account the information covered in the **aerial drift reduction advisory information** that follows.

### 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 should 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 should be avoided below 2 mph because of 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 because of 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 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, or nontarget crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

Applicator is responsible for any loss or damage which results from spraying **Raptor**<sup>®</sup> **herbicide** in a manner other than specified in this label. In addition, applicator must follow all applicable state and local regulations and ordinances in regard to spraying.

### **Application Information**

#### Apply Raptor as a postemergence treatment when weeds are actively growing and before they exceed the maximum specified size (see Weeds Controlled tables following each crop).

Delay application until the majority of the weeds are at the specified growth stage. In general, **Raptor** should be applied when weeds are small and actively growing; however, delay application in seedling alfalfa and dry beans until minimum growth stages have occurred. Refer to the cropspecific sections, **Alfalfa** (see **Seedling Alfalfa**) and **Dry Beans and Dry Peas**.

An adjuvant (either a surfactant **OR** a crop oil concentrate) **AND** a nitrogen fertilizer **MUST** be added to the spray solution for optimum weed control activity. See the **ADJU-VANTS** section under **Mixing Instructions** for specific instructions.

When **Raptor** is applied postemergence, absorption will occur through both the roots and foliage. Susceptible weeds stop growing and either die or are not competitive with the crop. **Raptor** not only controls many existing broadleaf and grass weeds when applied postemergence, it also provides activity on susceptible weeds that may emerge shortly after application.

Weeds are most easily controlled when actively growing. Under cold temperature conditions (less than 40° F maximum daytime temperature), weed control may be less than optimal.

For maximum weed control, cultivate (where possible) 7 to 10 days following a postemergence **Raptor** application. This timely cultivation will enhance residual weed activity, especially under dry conditions.

Apply **Raptor** a minimum of 1 hour before rainfall or overhead irrigation.

### **Crop-specific Information**

10/40

This section provides directions for **Raptor** in specific crops.

Alfalfa

#### DIRECTIONS FOR USE

Apply Raptor as an early postemergence treatment when weeds are actively growing and before they exceed a height of 3 inches, unless otherwise indicated.

Delay application until the majority of the weeds are at the specified growth stage. Apply **Raptor** to crop and weeds that are actively growing.

#### **Use Rate**

Apply **Raptor** postemergence only at a broadcast rate of 0.031 to 0.047 lb imazamox ae/acre (4 to 6 fl ozs **Raptor**/acre) to seedling or established alfalfa grown for forage, hay or seed. At the specified application rate, 1 gallon of **Raptor** will treat 21 to 32 acres.

#### Seedling Alfalfa

Apply **Raptor** when the seedling alfalfa is in the second trifoliate stage or larger and when the majority of the weeds are 1 to 3 inches tall. When applied to alfalfa grown for seed, apply **Raptor** before bud formation. For prostrate growing weeds (such as mustards and filaree), apply **Raptor** before the rosette exceeds 3 inches. When **Raptor** is applied to seedling alfalfa, there may be a temporary reduction in growth. Alfalfa soon outgrows any effects of the herbicide.

#### **Established Alfalfa**

**Raptor** can be applied to established alfalfa in the fall, winter, or in the spring to dormant or semidormant alfalfa, or between cuttings. Any application should be made before significant alfalfa growth or regrowth (3 inches) to allow **Raptor** to reach the target weeds.

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

- A maximum of 0.047 lb imazamox ae/acre (6 fl ozs/acre **Raptor**) per season may be applied to alfalfa.
- DO NOT make sequential applications of Pursuit<sup>®</sup> herbicide followed by Raptor (or Raptor followed by Pursuit) within a 60-day time frame because of increased potential alfalfa crop response.

# Weeds Controlled (Alfalfa)

**Raptor® herbicide** will control or suppress listed weeds when applied postemergence at the specified rates listed as follows.

#### Broadleaf Weeds Controlled by Raptor® herbicide in Alfalfa

	Ар	Application Rate (fl ozs/A)	
-	4	5	6
-	Maxir	num Weec (inches)	l Size
Bedstraw		3	3
Beet, wild	3	3	3
Buckwheat, wild		3	3
Buttercup		3	3
Canola, volunteer			
(non-CLEARFIELD)	3	3	3.
Cocklebur, common	3	3	3
Filaree,			
redstem			3
whitestem			3
Flixweed	3	3	3
Henbit			2
Jimsonweed	3	3	3
Knotweed, prostrate		3	3
Kochiaª		3	3
Lambsquarters, common	3⁰	3	3
Lettuce, miner's		3	3
Mallow,			
common	3	3	3
Venice		1	1
Morningglory,			
entireleaf		3	З
ivyleaf		3	3
smallflower		3	3
tall		3	3
Mustard,			
black (Brassica nigra)	3	3	4
tumble (Sisymbrium altissimum)	3	3	3
wild (Brassica kaber)	3	3	4
Nettle, burning	_	2	2
Nettleleaf goosefoot	3	3	3
Nightshade,			
black	3	5	5
Eastern black	3	5	5
hairy	3	4	5
Pennycress, field	3	3	3
Pigweed,			
redroot	3	4	5
smooth	3	4	4
spiny	3	3	3
Purslane, common		<u> </u>	3
Radish, wild	3	3	3
		<u> </u>	

Broadleaf Weeds Controlled by Raptor<sup>®</sup> herbicide in Alfalfa (continued)

11/40

	Application Rate (fl ozs/A)		
	4	5	6
	Maxir	num Weed (inches)	d Size
Rocket,	10 100		
London		3	3
yellow		4	4
Shepherd's-purse			3
Smartweed,			
ladysthumb	3	3	3
Pennsylvania	3	3	3
swamp		3	3
Spurge, prostrate		3	3
Sunflower, common		3	3
Swinecress		3	3
Tansymustard, green	3	3	4
Thistle, Russian		3	3
Velvetleaf	3	4	5
Willoweed panicle		3	3

\*Raptor controls non-ALS-resistant kochia only.

\*Raptor controls common lambsquarters at 4 fl ozs/A east of the Rocky Mountains.

# Broadleaf Weeds Suppressed by Raptor® herbicide in Alfalfa

	Application Rate (fl ozs/A)		
	4	5	6
	Maxin	num Weed (inches)	d Size
Chickweed, common	3	3	3
Dandelion			3
Dock, curly		3	3
Dodder <sup>1</sup>			3
Fiddleneck			3
Ragweed,			
common		3	3
giant		3	3
Thistle, Canada			3
Shepherd's-purse	3	3	
Sowthistle		3	3

<sup>1</sup>For suppression of dodder, apply **Raptor** after the dodder has emerged until soon after dodder attaches to the alfalfa.

#### Grass Weeds Controlled by Raptor® herbicide in Alfalfa

Grass weeds controlled by ha		Application Rate (fl ozs/A)	
	4	(11 025/A) 5	6
		num Weed	
		(inches)	
Barnyardgrass		3	3
Blackgrass	3	3	З
Brome,			
California	3	3	3
cheat	3	3	3
downy	З	3	3
Japanese	3	3	3
Canarygrass, littleseed	3	3	3
Cereals, volunteer			
barley	3	3	3
oat	З	3	3
wheat (non-CLEARFIELD)	3	3	3
Corn, volunteer	4	5	8
Crabgrass, large		3	3
Darnel, Persian	3	3	3
Foxtail,			
giant	3	4	5
green	3	3	4
yellow	3	3	4
Johnsongrass, seedling		3	3
Jointed goatgrass	3	3	3
Lovegrass	3	3	3
Millet, wild proso		3	3
Oats, wild	3	3	3
Rye, feral or cereal		3	3
Ryegrass, Italian	3	3	3
Shattercane	3	4	5

Grass Weeds and Sedges Suppressed by Raptor<sup>®</sup> herbicide in Alfalfa

	Application Rate (fl ozs/A)		
	4	5	6
	Maxir	num Wee (inches)	d Size
Grasses			
Bluegrass, annual			3
Johnsongrass, rhizome			3
Sedges			
Nutsedge,			
purple			3
yellow			3
Quackgrass			3

#### **Tank Mix Combinations with Other Herbicides**

To control weeds not listed on the **Raptor** label, other herbicides may be tank mixed with **Raptor**. When **Raptor** is used in combination with another herbicide, refer to the respective label for rates, methods of application, proper timing, weeds controlled, restrictions and precautions. Always use in accordance with the more restrictive label restrictions and precautions. No label dosages may be exceeded.

# Chicory

#### **DIRECTIONS FOR USE**

Apply **Raptor** as an early postemergence treatment when weeds are actively growing and before they exceed a height of 3 inches, unless otherwise indicated. Apply **Raptor** as an early postemergence treatment when chicory has at least 2, and no more than 4, fully expanded true leaves present. **DO NOT** apply to chicory subjected to stress conditions, such as hail damage, flooding, drought, injury from other herbicides, or widely fluctuating temperatures, or crop injury may result.

#### THIS PRODUCT WHEN USED IN CHICORY MAY LEAD TO CROP INJURY, LOSS, OR DAMAGE. BASF RECOMMENDS THAT THE USER AND/OR GROWER TEST THIS PRODUCT TO DETERMINE ITS SUITABIL-ITY FOR SUCH INTENDED USE.

#### **Use Rate**

Apply **Raptor** postemergence only at 0.031 lb imazamox ae/acre (4 fl ozs **Raptor**/acre). At this rate, 1 gallon of **Raptor** will treat 32 acres of chicory. It is recommended that a registered soil-applied grass herbicide be used prior to use of **Raptor**.

APPLICATIONS OF Raptor REQUIRE THE ADDITION OF A SURFACTANT. Refer to the Mixing Instructions section for specific surfactant types and rates.

ADDITION OF NITROGEN FERTILIZER, SUCH AS 28-0-0 OR 32-0-0 LIQUID FERTILIZER, MAY IMPROVE WEED CONTROL BUT ALSO INCREASES THE LIKELIHOOD OF INJURY TO CHICORY. Add liquid fertilizer at 2.5% v/v.

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

**DO NOT** apply more than 0.031 lb imazamox ae/acre (4 fl ozs/acre **Raptor**) during the growing season. **For use in Colorado, Idaho, Montana, Nebraska, Oregon, and Wyoming.** 

#### Weeds Controlled (Chicory)

Broadleaf Weeds Controlled by Raptor® herbicide in Chicory

	Raptor at 4 fl ozs/A + surfactant	
	Maximum Weed Size (inches)	
Beet, wild	3	
Flixweed	3	
Jimsonweed	3	
Lambsquarters, common	3	

# Broadleaf Weeds Controlled by Raptor® herbicide in Chicory (continued)

	Raptor at 4 fl ozs/A + surfactant	
	Maximum Weed Size (inches)	
Mustard,		
black	3	
tumble	3	
wild	3	
Nightshade,		
black	3	
Eastern black	3	
hairy	3	
Pennycress, field	3	
Pigweed,		
redroot	3	
smooth	3	
spiny	3	
Radish, wild	3	
Shepherd's-purse	3	
Tansymustard, green	3	

#### Grass Weeds Controlled by Raptor® herbicide in Chicory

	Raptor at 4 fl ozs/A + surfactant	
	Maximum Weed Size (inches)	
Brome,		
cheat	3	
downy	3	
Japanese	3	
Cereals, volunteer		
barley	3	
oat	3	
wheat (non-CLEARFIELD)	3	
Darnel, Persian	3	
Foxtail,		
giant	3	
green	3	
yellow	3	
Jointed goatgrass	3	
Oats, wild	3	
Shattercane	3	

# Grass Weeds and Sedges Suppressed by Raptor<sup>®</sup> herbicide in Chicory

	Raptor at 4 fl ozs/A + surfactant
	Maximum Weed Size (inches)
Grasses	
Crabgrass,	
large	3
smooth	3

Grass Weeds and Sedges Suppressed by Raptor® herbicide in Chicory (continued)

	Raptor at 4 fl ozs/A + surfactant Maximum Weed Size (inches)	
Sedges		
Nutsedge,		
purple	3	
yellow	3	
Quackgrass	3	

# CLEARFIELD<sup>®</sup> Canola

#### **DIRECTIONS FOR USE**

**Raptor** is effective in controlling weeds in conservation tillage and conventional production systems. **Raptor** can be applied early postemergence in **CLEARFIELD** canola but before the bloom stage. Refer to the specific treatment under the **Spraying Instructions** section of the label.

#### Use Rate

Apply **Raptor** postemergence only at 0.031 lb imazamox ae/acre (4 fl ozs **Raptor**/acre). At this rate, 1 gallon of **Raptor** will treat 32 acres of **CLEARFIELD** canola. It is recommended that a registered soil-applied grass herbicide be used prior to use of **Raptor**.

An adjuvant and a nitrogen fertilizer **MUST** be added to the spray solution for optimum weed control activity. See the **ADJUVANTS** section under **Mixing Instructions** for specific instructions.

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

**DO NOT** apply more than 0.031 lb imazamox ae/acre (4 fl ozs/acre **Raptor**) during the growing season.

# Weeds Controlled (CLEARFIELD Canola)

**Raptor** will control or suppress listed weeds when applied postemergence at the specified rates listed as follows.

# Broadleaf Weeds Controlled by Raptor® herbicide in CLEARFIELD® Canola

	Raptor at 4 fl ozs/A	
	Maximum Weed Size (inches)	
Beet, wild	3	
Canola, volunteer (non-CLEARFIELD	) 3	
Chickweed, common	3	
Cocklebur, common	3	
Flixweed	3	
Jimsonweed	3	
Lambsquarters, common	3ª	
Mustard,		
black	3	
tumble	3	
wild	3	

# Broadleaf Weeds Controlled by Raptor\* herbicide in CLEARFIELD\* Canola (continued)

	Raptor at 4 fl ozs/A	
	Maximum Weed Size (inches)	
Nightshade,		
black	3	
Eastern black	3	
hairy	3	
Pennycress, field	3	
Pigweed,		
redroot	3	
smooth	3	
spiny	3	
Radish, wild	3	
Shepherd's-purse	3	
Smartweed,		
ladysthumb	3	
Pennsylvania	3	
Tansymustard, green	3	
Velvetleaf	3	

\*Raptor controls common lambsquarters at 4 fl ozs/A east of the Rocky Mountains.

# Broadleaf Weeds Suppressed by Raptor<sup>®</sup> herbicide in CLEARFIELD<sup>®</sup> Canola

	Raptor at 4 fl ozs/A	
_	Maximum Weed Size (inches)	
Buckwheat, wild	3	
Flax	2	
Knotweed, prostrate	3	
Lettuce, miner's	3	
Morningglory, entireleaf	3	
ivyleaf	3	
smallflower	3	
tall	3	
Rocket,		
London	3	
yellow	3	
Spurge, prostrate	3	
Thistle, Russian (non-ALS-resistant)	3	

#### Grass Weeds Controlled by Raptor<sup>®</sup> herbicide in CLEARFIELD<sup>®</sup> Canola

	Raptor at 4 fl ozs/A	
	Weed Size	
	[number of leaves (maximum tillers)]	
Blackgrass	1 to 4 (1)	
Brome,		
cheat	1 to 5 (2)	
downy	1 to 5 (2)	
Japanese	1 to 5 (2)	
Canarygrass, littleseed	1 to 5 (2)	

# Grass Weeds Controlled by Raptor<sup>®</sup> herbicide in CLEARFIELD<sup>®</sup> Canola *(continued)*

Raptor at 4 fl ozs/A	
Weed Size	
[number of leaves (maximum tillers)]	
1 to 5 (1)	
1 to 5 (1)	
)1 to 4 (1)	
1 to 5 (2)	
· · ·	
1 to 6 (2)	
1 to 4 (1)	
1 to 4 (1)	
1 to 6 (2)	
1 to 5 (2)	
1 to 4 (1)	
1 to 4 (1)	
1 to 6 (2)	

# Grass Weeds Suppressed by Raptor<sup>®</sup> herbicide in CLEARFIELD<sup>®</sup> Canola

	Raptor at 4 fl ozs/A	
	Weed Size	
	[number of leaves (maximum tillers)]	
Barnyardgrass	1 to 4 (1)	
Corn, volunteer	1 to 4 (1)	
Crabgrass, large	1 to 4 (1)	

#### Specific Weed Problems

**Canada thistle.** For enhanced activity of Canada thistle, add **Stinger® herbicide** to the tank mixture. Apply to Canada thistle in the rosette stage.

# CLEARFIELD® Lentil

#### **DIRECTIONS FOR USE**

**Raptor** is effective in controlling weeds in conservation and conventional tillage production systems. **Raptor** can be applied early postemergence in **CLEARFIELD** lentil (imidazolinone-tolerant lentil) varieties. Apply only on selected lentil varieties labeled as "**CLEARFIELD**" and warranted by the seed supplier to possess tolerance to direct application of **Raptor**. **DO NOT** apply **Raptor** to lentil varieties that lack resistance/tolerance to **Raptor**. Contact your seed supplier, chemical dealer or BASF to obtain information regarding **CLEARFIELD** lentil varieties. Refer to the specific treatment under the **Spraying Instructions** section of the label.

Apply Raptor as an early postemergence treatment when weeds are actively growing and before broadleaf weeds exceed a height of 3 inches and grasses exceed 4 to 5 leaves (unless otherwise indicated, refer to Weeds Controlled (CLEARFIELD Lentil) tables for specific weed sizes). Under cold temperature conditions (less than 50° F maximum daytime

15/40

temperature), weed control may be less than optimal. Make application when the majority of weeds are at the specified growth stage.

When adequate soil moisture is present, **Raptor**<sup>®</sup> **herbicide** will provide residual activity of susceptible germinating weeds; activity on established weeds will depend on the weed species and the location of its root system in the soil.

Occasionally, reduction in plant height or temporary yellowing of crop plants may occur following **Raptor** applications. These effects can be more pronounced if crops are growing under stressful environmental conditions. These effects are temporary. Normal growth and appearance should resume within 1 to 2 weeks.

For best weed control and to provide the highest crop competitive advantage, apply **Raptor** to actively growing **CLEARFIELD**<sup>e</sup> lentil. Plant a locally adapted

**CLEARFIELD** lentil variety at the normal seeding rate for your geography. Apply to lentils at the 2- to 6-leaf stage.

#### **Raptor Application Timing in Lentil**

Apply **Raptor** at the following crop and weed stages of growth:

CLEARFIELD Lentil	2-leaf to 6-leaf Stage
Broadleaf weeds	Refer to Weeds Controlled (CLEARFIELD Lentil) tables
Grass weeds	for specific weed sizes.

#### **Use Rate**

Apply **Raptor** postemergence at 0.031 to 0.047 lb imazamox ae/acre (4 to 6 ozs **Raptor**/acre). At this rate, 1 gallon of **Raptor** will treat 21.3 to 32 acres of **CLEARFIELD** lentils. It is recommended that a registered soil-applied grass herbicide like **Prowl® 3.3 EC herbicide** or **Prowl® H<sub>2</sub>O herbicide** be used prior to use of **Raptor**.

A nonionic surfactant **AND** nitrogen-based fertilizer **MUST** be added to the spray solution for optimum weed control activity. See the **ADJUVANTS** section under **Mixing Instructions** for specific instructions.

# **Crop-specific Restrictions and Limitations**

**DO NOT** apply more than 0.047 lb imazamox ae/acre (6 fl ozs **Raptor**/acre) during the growing season.

# Weeds Controlled (CLEARFIELD Lentil)

**Raptor** will control or suppress listed weeds when applied postemergence at the specified rates listed as follows.

#### Broadleaf Weeds Controlled by Raptor<sup>®</sup> herbicide Alone or in a Sequential<sup>1</sup> Program in CLEARFIELD<sup>®</sup> Lentil

Beet, wild Canola, volunteer (non- <b>CLEARFIELD</b> ) Chickweed, common Cocklebur, common Flixweed	Maximum (inc 3 3 3 3 3 3 3 3 3 3	Postemergence fl ozs/A n Weed Size ches) 3 3 3 to 5 3 3 3 to 6 3 1 to 4
Canola, volunteer (non- <b>CLEARFIELD</b> ) Chickweed, common Cocklebur, common	Maximum (inc 3 3 3 3 3 3 3 3 3 3	<b>Weed Size</b> ches) 3 3 3 to 5 3 3 3 3 to 6 3 3
Canola, volunteer (non- <b>CLEARFIELD</b> ) Chickweed, common Cocklebur, common	(ind 3 3 3 3 3 3 3 3 3 3	3         3         3 to 5         3
Canola, volunteer (non- <b>CLEARFIELD</b> ) Chickweed, common Cocklebur, common	3 3 3 3 3 3 3 3 3	3 3 to 5 3 3 3 3 to 6 3
(non- <b>CLEARFIELD</b> ) Chickweed, common Cocklebur, common	3 3 3 3 3 3	3 to 5 3 3 3 to 6 3
Cocklebur, common	3 3 3 3	3 3 3 to 6 3
·····	3 3 3	3 3 to 6 3
Flixweed	33	3 to 6 3
	3	3
Jimsonweed		
Knotweed, prostrate		4 4
Kochia²		1 to 4
Lambsquarters, common	3	3 to 5
Mallow,		
common	3	3
Venice	1	1
Marshelder	4	4
Mustard spp.	2 to 8	2 to 8
Nightshade,	_	
black	2 to 5	2 to 5
Eastern black	2 to 5	2 to 5
hairy	2 to 5	2 to 5
Pennycress, field	3	3
Pigweed,		
redroot	3	3 to 8
smooth	3	3 to 8
spiny	3	3 to 5
Puncturevine		1 to 3
Purslane, common		1 to 3
Radish, wild	3	3 to 4
Shepherd's-purse	3	3
Smartweed,		
ladysthumb	2 to 5	2 to 5
Pennsylvania	2 to 5	2 to 5
Spurge, prostrate		3 to 4
Sunflower, wild or volunteer (non- <b>CLEARFIELD</b> )	2 to 6	2 to 6
Tansymustard	3	3
Velvetleaf	3	3 to 8

<sup>1</sup>Soil-applied grass herbicide, such as **Prow! 3.3 EC** or **Prow! H<sub>2</sub>O**, is followed by a postemergence application of **Raptor** at a broadcast rate of 4 to 6 fl ozs/acre. <sup>2</sup>Control of light-to-moderate populations of ALS-susceptible biotypes only.

#### Broadleaf Weeds Suppressed by Raptor® herbicide Alone or in a Sequential' Program in CLEARFIELD® Lentil

	Raptor Alone Postemergence	Prowl 3.3 EC or Prowl H <sub>2</sub> O Soil- applied followed by Raptor' Postemergence
	4 to 6	6 fl ozs/A
	Maximum Weed Size (inches)	
Bindweed,	· · · · · · · · · · · · · · · · · · ·	
field (seedling)	2 to 4	2 to 4
hedge (seedling)	2 to 4	2 to 4
Buckwheat, wild	1 to 3	1 to 3
Dandelion	3	3
Flax	2	2
Knotweed, prostrate	3	3
Lettuce, miner's	3	3
Mallow, Venice		1 to 4
Morningglory,		
entireleaf	3	3
ivyleaf	3	3
smallflower	3	3
tall	3	3
Ragweed,		
common	3	3
giant	3	3
Rocket,		
London	3	3
yellow	33	3
Spurge, prostrate	3	
Sowthistle, annual	2 to 4	2 to 4
Thistle,		
Canada	2 to 5	2 to 5
Russian (non-ALS-re	sistant) <sup>2</sup> 3	3

<sup>1</sup>Soil-applied grass herbicide, such as **Prowl 3.3 EC** or **Prowl H<sub>2</sub>O**, is followed by a postemergence application of **Raptor** at a broadcast rate of 4 to 6 fl ozs/acre. <sup>2</sup>Control of light-to-moderate populations of ALS-susceptible biotypes only. Grass Weeds Controlled by Raptor<sup>®</sup> herbicide Alone or in a Sequential<sup>®</sup> Program in CLEARFIELD<sup>®</sup> Lentil

16/40

	Raptor Alone	Prowl 3.3 EC or Prowl H <sub>2</sub> O Soil-
	Postemergence	applied followed by Raptor <sup>a</sup> Postemergence
	4 to 6	fl ozs/A
		ed Size
		es (maximum tillers)]
Barley, wild	2 to 4	2 to 4
Barnyardgrass	3⁵	3 to 5
Blackgrass	1 to 4 (1)	1 to 4 (1)
Brome,	<u>, , , , , , , , , , , , , , , , , , , </u>	
cheat	1 to 5 (2)	1 to 5 (2)
downy	1 to 5 (2)	1 to 5 (2)
Japanese	1 to 5 (2)	1 to 5 (2)
Canarygrass, littleseed	1 to 5 (2)	1 to 5 (2)
Cereals, volunteer (non- <b>CLEARFIELD</b> )	1 to 6 (3)	1 to 6 (3)
Crabgrass,		
large		1 to 4
smooth	·····	1 to 4
Cupgrass, woolly <sup>c</sup>		1 to 4
Darnel, Persian	1 to 5 (2)	1 to 5 (2)
Foxtail,		
giant	1 to 6 (2)	1 to 6 (2)
green	1 to 6 (1)	1 to 6 (1)
yellow	1 to 6 (1)	1 to 6 (1)
Goosegrass		1 to 4 (1)
Goatgrass, jointed	1 to 5 (2)	1 to 5 (2)
Millet, wild proso	2 to 4 <sup>b</sup>	2 to 4
Oats, wild	1 to 5 (2)	1 to 5 (2)
Panicum,		
fall	1 to 5	1 to 5
Texas		1 to 5
Rescuegrass	1 to 4 (1)	
Rye, feral or cereal	1 to 4 (1)	1 to 4 (1)
Ryegrass, Italian	1 to 4 (1)	1 to 4 (1)
Sandbur, field <sup>e</sup>		2 to 5
Shattercane	2 to 8	2 to 8
Signalgrass, broadleaf	2 to 5⁵	2 to 5
Stinkgrass		2 to 4
Witchgrass		2 to 5

\*Soil-applied grass herbicide, such as **Provi 3.3 EC** or **Provi H<sub>2</sub>O**, is followed by a postemergence application of **Raptor** at a broadcast rate of 4 to 6 fl ozs/acre.
\*Control of light-to-moderate populations only. For control of heavier populations, use a **sequential application** with a soil-applied grass herbicide, as described above.

<sup>e</sup>For control, a dinitroaniline (DNA) herbicide, such as **Prowl 3.3 EC** or **Prowl H<sub>2</sub>O**, must be soil-applied at a full labeled rate.

Grass Weeds and Sedges Suppressed by Raptor<sup>®</sup> herbicide Alone or in a Sequential<sup>1</sup> Program in CLEARFIELD<sup>®</sup> Lentil

	Raptor Alone Postemergence	Prowl 3.3 EC or Prowl H <sub>2</sub> O Soil- applied followed by Raptor <sup>1</sup> Postemergence
	4 to 6	fl ozs/A
	Weed Size [number of leaves (maximum tillers	
Grasses		
Corn, volunteer (non- <b>CLEARFIELD</b> )		1 to 4 (1)
Crabgrass,		
large	1 to 4 (1)	
smooth	1 to 4 (1)	
Cupgrass, woolly	1 to 3	
Goosegrass	1 to 3	
Itchgrass		2 to 5
Quackgrass		4 to 8
Stinkgrass	2 to 4	
Sedges		
Nutsedge,		
purple	1 to 3	1 to 3
yellow	1 to 3	1 to 3

<sup>1</sup>Soil-applied grass herbicide, such as **Provil 3.3 EC** or **Provil H<sub>2</sub>O**, is followed by a postemergence application of **Raptor** at a broadcast rate of 4 to 6 fl ozs/acre.

CLEARFIELD® Rice

# For use only on CLEARFIELD rice varieties and hybrids (not less than 75% hybrid seed).

#### **DIRECTIONS FOR USE**

Apply **Raptor** only on selected rice varieties or hybrids (not less than 75% hybrid seed) labeled as "**CLEARFIELD**" and warranted by the seed company to possess tolerance to direct application of certain imidazolinone herbicides. **DO NOT** apply **Raptor** to rice varieties or hybrids (less than 75% hybrid seed) that lack tolerance to imidazolinone herbicides because **Raptor** will kill all non imidazolinone-tolerant varieties or hybrids.

non-imidazolinone-tolerant varieties or hybrids.

Contact your seed supplier, chemical dealer or BASF to obtain information regarding imidazolinone-tolerant rice varieties.

Adhere to **Part 201.11a Hybrid** of the Federal Seed Act Regulations, labeling agricultural seeds: If any one kind or kind and variety of seed present in excess of 5 percent is "hybrid" seed, it shall be designated "hybrid" on the label. The percentage that is hybrid shall be at least 95 percent of the percentage of pure seed shown unless the percentage of pure seed which is hybrid seed is shown separately. If two or more kinds or varieties are present in excess of 5 percent and are named on the label, each that is hybrid shall be designated as hybrid on the label. Any one kind or kind and variety that has pure seed which is less than 95 percent but more than 75 percent hybrid seed as a result of incompletely controlled pollination in a cross shall be labeled to show (a) the percentage of pure seed that is hybrid seed or (b) a statement such as "Contains from 75 percent to 95 percent hybrid seed." No one kind or variety of seed shall be labeled as hybrid if the pure seed contains less than 75 percent hybrid seed.

Licensed for use on ATCC 75295, ATCC 97523, PTA-902, PTA-903, PTA-904, PTA-905, PTA-906, PTA-907, or PTA-908 rice and derivatives and progeny. The purchase of this herbicide includes a sublicense under United States Patent Nos. 5,773,704; 5,952,553; 6,222,100; 6,274,796; 6,943,280; 7,019,196; 7,345,221 to practice the processes claimed thereunder by applying this herbicide to fields planted with rice seed purchased in a container bearing the legend "Licensed for use on ATCC 75295, ATCC 97523, PTA-902, PTA-903, PTA-904, PTA-905, PTA-906, PTA-907, or PTA-908 rice and derivatives and progeny" in full accordance with the directions printed on this label. Additional patent applications are pending.

**Raptor** may be used only on **CLEARFIELD** rice in the United States (not for use in California) and Puerto Rico.

**Raptor** is effective in controlling weeds in water-seeded and dry/drill-seeded rice. **Raptor** can be applied postemergence to **CLEARFIELD** rice.

**Raptor** can only be applied following at least one application of **Newpath<sup>®</sup> herbicide** or **Clearpath<sup>®</sup> herbicide**.

[Alternate text] **Raptor** can only be applied following at least two applications using **Newpath** or one application of **Newpath** and one application of **Clearpath**.

[*Alternate text*] **Raptor** can only be applied postemergence to rice and targeted weeds.

Apply Raptor as a postemergence treatment when weeds are actively growing and before broadleaf weeds exceed a height of 3 inches and grasses exceed 4 to 5 leaves (unless otherwise indicated, refer to Weeds Controlled (CLEARFIELD Rice) tables for specific weed sizes). Applications should be made when the majority of weeds are at the recommended growth stage. When a mixture of grasses and broadleaf weeds are present, time the application to the grass weeds for optimum control.

Unusually cool temperatures (50° F or less) reduce photosynthesis and transpiration and, thus, reduce uptake, translocation, and efficacy of **Raptor** in weeds. Delaying a **Raptor** application for 48 hours from the time the temperature increases to above 50° F, if air temperature has been below 50° F for 10 or more hours, will improve weed control and reduce crop response.

Occasionally, reduction in plant height or temporary yellowing of crop plants may occur following **Raptor** applications. These effects can be more pronounced in spray overlap areas and/or if crops are growing under stressful environmental conditions. These effects are temporary. Normal growth and appearance should resume in 1 to 2 weeks.

#### Raptor® herbicide Application Timing on Rice

Apply **Raptor** at the following crop and weed stages of growth:

CLEARFIELD® rice varieties	4-leaf rice to rice panicle initiation (green ring) plus 14 days	
CLEARFIELD rice hybrids	4-leaf rice up to rice panicle initiation	
Broadleaf weeds	Refer to Weeds Controlled	
Grass weeds	(CLEARFIELD Rice) tables for specific weed sizes.	

**DO NOT** apply **Raptor** to **CLEARFIELD** rice hybrids after panicle initiation.

#### **Use Rate**

**Raptor** can only be applied following at least one application of **Newpath<sup>®</sup> herbicide** or **Clearpath<sup>®</sup> herbicide**. Apply **Raptor** postemergence at 4 to 6 fl ozs per acre (0.031 to 0.047 lb ae imazamox/A). See **Weeds Controlled (CLEARFIELD Rice)** tables for additional details.

[Alternate text] **Raptor** can only be applied following at least two applications using **Newpath** or one application of **Newpath** and one application of **Clearpath**. Apply **Raptor** postemergence at 4 to 6 fl ozs per acre (0.031 to 0.047 lb ae imazamox/A). See **Weeds Controlled** (**CLEARFIELD Rice**) tables for additional details.

[Alternate text] Apply **Raptor** postemergence at 4 to 6 fl ozs per acre (0.031 to 0.047 lb ae imazamox/A). See **Weeds Controlled (CLEARFIELD Rice)** tables for additional details.

A crop oil concentrate must be added to the spray solution for optimum weed control activity. Add 1 gallon of crop oil concentrate per 100 gallons of spray solution (1.0% volume/volume). See the **ADJUVANTS** section under **Mixing Instructions** for specific instructions.

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

- **DO NOT** apply more than 10 fl ozs of **Raptor** (0.078 lb ae imazamox/A) during the growing season, or 6 fl ozs in a single application.
- [Alternate text] **DO NOT** apply more than 15 fl ozs of **Raptor** (0.117 lb ae imazamox/A) during the growing season, or 6 fl ozs in a single application.
- [*Alternate text*] **DO NOT** apply more than 6 fl ozs of **Raptor** (0.047 lb ae imazamox/A) during the growing season, or in a single application.
- [Alternate text] **DO NOT** make more than one application of **Raptor** per year.
- DO NOT make more than two applications of **Raptor** per year.
- [Alternate text] **DO NOT** make more than three applications of **Raptor** per year.

# Weeds Controlled (CLEARFIELD Rice)

**Raptor** will control listed weeds when applied postemergence at the specified rates listed as follows.

# Broadleaf Weeds Controlled by Raptor® herbicide in CLEARFIELD® Rice

	Application Rate (fl ozs/A)	Maximum Weed Size (inches)
Cocklebur, common	4 to 6	3
Morningglory,		
entireleaf	5 to 6	3
ivyleaf	5 to 6	3
smallflower	5 to 6	3
tall	5 to 6	3
Pigweed,		
prostrate	4 to 6	5
redroot	4 to 6	5
smooth	4 to 6	4
spiny	4 to 6	3
Smartweed,		· · · · · · · · · · · · · · · · · · ·
ladysthumb	4 to 6	3
Pennsylvania	4 to 6	3
swamp	5 to 6	3

#### Grass Weeds Controlled by Raptor® herbicide in CLEARFIELD® Rice

	Application Rate (fl ozs/A)	Weed Size [number of leaves (maximum tillers)]
Barnyardgrass	5 to 6	1 to 5 (1)
Crabgrass, large	5 to 6	1 to 4 (1)
Johnsongrass, seedling	5 to 6	1 to 5 (1)
Panicum, fall	5 to 6	1 to 4 (1)
Rice, red	5 to 6	10
Signalgrass, broadleaf	5 to 6	1 to 5 (1)

When applied as directed in the **CLEARFIELD® Rice Use Rate** section of this label, **Raptor** will suppress the following weeds:

Alligatorweed Dayflower, spreading Ducksalad Eclipta Mexicanweed Purple ammannia (Redweed) Texasweed Water plantain (Common arrowhead) Johnsongrass, rhizome Nutsedge, purple and yellow Flatsedge, water

#### **Specific Weed Problems**

**Red Rice.** For red rice control, apply 5 fl ozs/A of **Raptor** at 14 to 21 days after at least one application of **Newpath** at 4 to 6 fl ozs/A or **Clearpath** at 0.5 lb/A. If not flooded at time of application, a permanent flood should be established within 2 days following an application of **Raptor**.

[Alternate text] **Red Rice.** For red rice control, apply 5 fl ozs/A of **Raptor® herbicide** at 14 to 21 days after making at least two applications using 4 to 6 fl ozs/A of **Newpath® herbicide** or one application of **Newpath** at 4 to 6 fl ozs/A and one application with 0.5 lb/A of **Clearpath® herbicide**. If not flooded at time of application, a permanent flood should be established within 2 days following an application of **Raptor**.

[Alternate text] **Red Rice.** For red rice control, apply 5 fl ozs/A of **Raptor** postemergence. If not flooded at time of application, a permanent flood should be established within 2 days following an application of **Raptor**. Two additional postemergence applications of **Raptor** may be made as required for red rice control. **DO NOT** apply more than 6 fl ozs/A of **Raptor** per application and no more than 15 fl ozs/A per year.

#### Spray coverage is critical to achieve red rice control.

If a permanent flood has been established, greater than 1/2 of the red rice plant must be above water at the time of **Raptor** application. If less than 1/2 of the red rice plant is above water, drop the level of the flood sufficiently to expose greater than 1/2 of the red rice plant prior to the **Raptor** application.

Tank Mix Combinations with Other Herbicides

When **Raptor** is used in combination with another herbicide, refer to the respective label for rates, methods, and proper timing of application; weeds controlled; restrictions; and precautions. Always use in accordance with the more restrictive label use directions and precautions.

# CLEARFIELD<sup>®</sup> Sunflower

#### DIRECTIONS FOR USE

**Raptor** is effective in controlling weeds in conservation and conventional tillage production systems. **Raptor** can be applied early postemergence in **CLEARFIELD** sunflower (imidazolinone-tolerant sunflower) varieties. Apply only on selected sunflower varieties labeled as "**CLEARFIELD**" and warranted by the seed supplier to possess tolerance to direct application of **Raptor**. **DO NOT** apply **Raptor** to sunflower varieties that lack resistance/tolerance to imidazolinone herbicides. Contact your seed supplier, chemical dealer or BASF to obtain information regarding **CLEARFIELD** sunflower varieties. Refer to the specific treatment under the **Spraying Instructions** section of the label.

Apply Raptor as an early postemergence treatment when weeds are actively growing and before broadleaf weeds exceed a height of 3 inches and grasses exceed 4 to 5 leaves (unless otherwise indicated, refer to Weeds Controlled (CLEARFIELD Sunflower) tables for specific weed sizes). Under cold temperature conditions (less than 50° F maximum daytime

temperature), weed control may be less than optimal. Make application when the majority of weeds are at the specified growth stage.

When adequate soil moisture is present, **Raptor** will provide residual activity of susceptible germinating weeds.

Activity on established weeds will depend on the weed species and the location of its root system in the soil.

Occasionally, reduction in plant height or temporary yellowing of crop plants may occur following **Raptor** applications. These effects can be more pronounced if crops are growing under stressful environmental conditions. These effects are temporary. Normal growth and appearance should resume within 1 to 2 weeks.

For best weed control and to provide the highest crop competitive advantage, apply **Raptor** to actively growing **CLEARFIELD** sunflowers. Plant a locally adapted **CLEARFIELD** sunflower variety at the normal seeding rate for your geography. Apply to sunflower after the first pair of true leaves has unfolded and up to, and including, when the fourth pair of leaves is unfolded (2- to 8-leaf stage).

#### **Application Timing**

Apply **Raptor** at the following crop and weed stages of growth.

CLEARFIELD Sunflower	2-leaf to 8-leaf Stage
Broadleaf weeds	Refer to Weeds Controlled (CLEARFIELD Sunflower)
	tables for specific weed sizes.

#### Use Rate

Apply **Raptor** postemergence only at 0.031 lb imazamox ae/acre (4 fl ozs **Raptor**/acre). At this rate, 1 gallon of **Raptor** will treat 32 acres of **CLEARFIELD** sunflowers. It is recommended that a registered soil-applied grass herbicide like **Prowl® 3.3 EC herbicide** or **Prowl® H<sub>2</sub>O herbicide** be used prior to use of **Raptor**.

A nonionic surfactant **AND** nitrogen-based fertilizer **MUST** be added to the spray solution for optimum weed control activity. See the **ADJUVANTS** section under **Mixing Instructions** for specific instructions.

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

**DO NOT** apply more than 0.031 lb imazamox ae/acre (4 fl ozs **Raptor**/acre) during the growing season.

#### Weeds Controlled (CLEARFIELD Sunflower)

**Raptor** will control or suppress listed weeds when applied postemergence at the specified rates listed as follows.

Broadleaf Weeds Controlled by Raptor<sup>®</sup> herbicide Alone or in a Sequential<sup>1</sup> Program in CLEARFIELD<sup>®</sup> Sunflower

	Raptor Alone Postemergence	Prowl 3.3 EC or Prowl H <sub>2</sub> O Soil- applied followed by Raptor <sup>1</sup> Postemergence
	4 fl	ozs/A
	Maximum Weed Size (inches)	
Beet, wild	3	3
Chickweed, common	3	3 to 5
Cocklebur, common	3	3

Broadleaf Weeds Controlled by Raptor\* herbicide Alone or in a Sequential' Program in CLEARFIELD\* Sunflower (continued)

	Raptor Alone Postemergence	Prowl 3.3 EC or Prowl H <sub>2</sub> O Soil- applied followed by Raptor' Postemergence
-	4 fl	ozs/A
		Weed Size
Jimsonweed	3	3 to 6
Kochia <sup>2</sup>		1 to 4
Lambsquarters, common	3	3 to 5
Marshelder	4	4
Mustard spp.	2 to 8	2 to 8
Nightshade,		
black	2 to 5	2 to 5
Eastern black	2 to 5	2 to 5
hairy	2 to 5	2 to 5
Pigweed,		
redroot	3	3 to 8
smooth	3	3 to 8
spiny	3	3 to 5
Puncturevine		1 to 3
Purslane, common		1 to 3
Radish, wild	3	3 to 4
Smartweed,		
ladysthumb	2 to 5	2 to 5
Pennsylvania	2 to 5	2 to 5
Spurge, prostrate		3 to 4
Sunflower, wild or voluntee (non- <b>CLEARFIELD</b> )	er 2 to 6	2 to 6
Tansymustard	3	3
Velvetleaf	3	3 to 8

<sup>1</sup> Soil-applied grass herbicide, such as **Prowl 3.3 EC** or **Prowl H<sub>2</sub>O**, is followed by a postemergence application of **Raptor** at a broadcast rate of 4 fl ozs/acre.

<sup>2</sup> Control of light-to-moderate populations of ALS-susceptible biotypes only.

#### Broadleaf Weeds Suppressed by Raptor<sup>®</sup> herbicide Alone or in a Sequential<sup>1</sup> Program in CLEARFIELD<sup>®</sup> Sunflower

	Raptor Alone Postemergence	Prowl 3.3 EC or Prowl H <sub>2</sub> O Soil- applied followed by Raptor <sup>1</sup> Postemergence
	4 fl	ozs/A
	Maximum Weed Size (inches)	
Bindweed,		
field (seedling)	2 to 4	2 to 4
hedge (seedling)	2 to 4	2 to 4
Buckwheat, wild	1 to 3	1 to 3
Flax	2	2
Knotweed, prostrate	3	3
Lettuce, miner's	3	3
Mallow, Venice		1 to 4

Broadleaf Weeds Suppressed by Raptor<sup>®</sup> herbicide Alone or in a Sequential' Program in CLEARFIELD<sup>®</sup> Sunflower (continued) 20/40

(continued)		
	Raptor Alone Postemergence	Prowl 3.3 EC or Prowl H <sub>2</sub> O Soil- applied followed by Raptor <sup>1</sup> Postemergence
		ozs/A
		<b>1 Weed Size</b> ches)
Morningglory,	······································	
entireleaf	3	3
ivyleaf	3	3
smallflower	3	3
tail	3	3
Rocket,		······································
London	3	3
yellow	3	3
Spurge, prostrate	3	
Sowthistle, annual	2 to 4	2 to 4
Thistle,		
Canada	2 to 5	2 to 5
Russian (non-ALS-re	esistant)² 3	3

<sup>1</sup> Soil-applied grass herbicide, such as **Prowl 3.3 EC** or **Prowl H<sub>2</sub>O**, is followed by a posternergence application of **Raptor** at a broadcast rate of 4 fl ozs/acre.
<sup>2</sup> Control of light-to-moderate populations of ALS-susceptible biotypes only.

# Grass Weeds Controlled by Raptor<sup>®</sup> herbicide Alone or in a Sequential<sup>®</sup> Program in CLEARFIELD<sup>®</sup> Sunflower

Sequential <sup>®</sup> Program in CLEARFIELD <sup>®</sup> Sunflower		
Raptor Alone Postemergence	Prowl 3.3 EC or Prowl H <sub>2</sub> O Soil- applied followed by Raptor <sup>a</sup> Postemergence	
4 fl	ozs/A	
	ed Size	
[number of leave	s (maximum tillers)]	
2 to 4	2 to 4	
<u>3</u> °	3 to 5	
1 to 4 (1)	1 to 4 (1)	
1 to 5 (2)	1 to 5 (2)	
1 to 5 (2)	1 to 5 (2)	
1 to 5 (2)	1 to 5 (2)	
1 to 5 (2)	1 to 5 (2)	
1 to 6 (3)	1 to 6 (3)	
<u> </u>	1 to 4	
	1 to 4	
	1 to 4	
1 to 5 (2)	1 to 5 (2)	
1 to 6 (2)	1 to 6 (2)	
1 to 6 (1)	1 to 6 (1)	
1 to <u>6</u> (1)	1 to 6 (1)	
1 to 5 (2)	1 to 5 (2)	
	Raptor Alone           Alone           Postemergence           4 fl           Wee           [number of leave           2 to 4 $3^{tr}$ 1 to 4 (1)           1 to 5 (2)           1 to 6 (3)           1 to 6 (2)           1 to 6 (1)           1 to 6 (1)	

Grass Weeds Controlled by Raptor® herbicide Alone or in a Sequential® Program in CLEARFIELD® Sunflower (continued)

	Raptor Alone Postemergence	Prowl 3.3 EC or Prowl H <sub>2</sub> O Soil- applied followed by Raptor <sup>a</sup> Postemergence
	4 fl	ozs/A
		ed Size es (maximum tillers)]
Goosegrass		1 to 4 (1)
Millet, wild proso	2 to 4 <sup>b</sup>	2 to 4
Oats, wild	1 to 5 (2)	1 to 5 (2)
Panicum,		
fall	1 to 5	1 to 5
Texas		1 to 5
Sandbur, field°		2 to 5
Shattercane	2 to 8	2 to 8
Signalgrass, broadleaf	2 to 5⁵	2 to 5
Stinkgrass		2 to 4
Witchgrass		2 to 5

Soil-applied grass herbicide, such as Prowl 3.3 EC or Prowl H<sub>2</sub>O, is followed by a postemergence application of Raptor at a broadcast rate of 4 fl ozs/acre.
 Control of light-to-moderate populations only. For control of heavier populations,

use a **sequential application** with a soil-applied grass herbicide, as described above.

<sup>c</sup> For control, a dinitroaniline (DNA) herbicide, such as **Prowl 3.3 EC** or **Prowl H<sub>2</sub>O**, must be soil-applied at a full labeled rate.

Grass Weeds and Sedges Suppressed by Raptor<sup>®</sup> herbicide Alone or in a Sequential' Program in CLEARFIELD<sup>®</sup> Sunflower

Sumower		
	Raptor Alone Postemergence	Prowl 3.3 EC or Prowl H <sub>2</sub> O Soil- applied followed by Raptor' Postemergence
	4 fl	ozs/A
	Weed Size [number of leaves (maximum tillers)]	
Grasses		
Crabgrass,		
large	1 to 4 (1)	
smooth	1 to 4 (1)	
Cupgrass, woolly	1 to 3	
Goosegrass	1 to 3	
Itchgrass		2 to 5

## CLEARFIELD<sup>®</sup> Spring Wheat

21/40

#### DIRECTIONS FOR USE

Raptor can be applied postemergence on CLEARFIELD wheat (imidazolinone-tolerant wheat) varieties. Apply only on selected spring wheat varieties labeled "CLEARFIELD" and warranted by the seed supplier to possess tolerance to direct application of certain imidazolinone herbicides. DO NOT apply Raptor to wheat varieties that lack resistance/tolerance to imidazolinone herbicides. Contact your seed supplier, chemical dealer or BASF to obtain information regarding CLEARFIELD wheat varieties.

Apply Raptor as an early postemergence treatment when weeds are actively growing and before broadleaf weeds exceed a height of 3 inches and grasses exceed 4 to 5 leaves (unless otherwise indicated). Under cold temperature conditions (less than 40° F maximum daytime temperature), weed control may be less than optimal. A thin stand of wheat may result in unacceptable weed control. **Raptor** is effective in controlling weeds in conservation tillage and conventional tillage wheat production systems. Delay application until the majority of the weeds are at the specified growth stage. When a mixture of grasses and broadleaf weeds are present, time the application to the grass weeds for optimum control.

When adequate soil moisture is present, **Raptor** will provide residual activity of susceptible germinating weeds. Activity on established weeds will depend on the weed species and the location of its root system in the soil.

Occasionally, reduction in plant height or temporary yellowing of crop plants may occur following **Raptor** applications. These effects can be more pronounced in spray overlap areas and/or if crops are growing under stressful environmental conditions (such as, but not limited to, drought, excessive moisture, improper fertility, improper varietal adaptation, poor planting conditions, etc.). To avoid possible crop injury, **DO NOT** apply **Raptor** to **CLEARFIELD** wheat when extreme cold temperatures (less than 40° F maximum daytime temperature) are expected within 1 week of application. Crop response associated with stress conditions and overlaps shall be the responsibility of the user.

Weed control is optimized when **Raptor** is applied to actively growing wheat. Plant a locally adapted **CLEARFIELD** variety at the normal seeding rate for your geography. Apply to wheat after tiller initiation has begun and prior to the jointing stage of growth (and when the weeds are at the appropriate size). See **Weeds Controlled (CLEARFIELD Spring Wheat)** tables.

#### **Application Timing**

Apply **Raptor** to **CLEARFIELD** spring wheat at 4-leaf to prior-to jointing. See following tables for specific weed growth stages.

<sup>1</sup> Soil-applied grass herbicide, such as **Prowl 3.3 EC** or **Prowl H<sub>2</sub>O**, is followed by a postemergence application of **Raptor** at a broadcast rate of 4 fl ozs/acre.

2 to 4

1 to 3

1 to 3

Quackgrass

Stinkgrass

Nutsedge,

purple

vellow

Sedges

4 to 8

1 to 3

1 to 3

# 22/40

### **Use Rate**

Apply 0.031 to 0.039 lb imazamox ae/acre (4 to 5 fl ozs **Raptor® herbicide**/acre). See **Weeds Controlled (CLEARFIELD Spring Wheat)** section for detailed use rate specifications.

#### ADJUVANTS AND SPRAY CARRIER

A nonionic surfactant **AND** nitrogen-based fertilizer **MUST** be added to the spray solution for optimum weed control. For improved weed control, a crop oil concentrate (COC) or a methylated seed oil (MSO) may be substituted for the nonionic surfactant. The use of COC or MSO in place of the nonionic surfactant in **CLEARFIELD**<sup>®</sup> spring wheat may increase crop response. When **Raptor** is tank mixed with another herbicide, using COC or MSO in **CLEARFIELD** spring wheat is only recommended when the **Raptor** tank mix partner allows the use of COC or MSO. See the **ADJUVANTS** section under **Mixing Instructions** for specific instructions.

**Liquid Fertilizer as a Carrier. Raptor** may be applied to **CLEARFIELD** spring wheat in a water/liquid fertilizer solution with at least 50% water. Add a nonionic surfactant at 1 quart/100 gallons of spray solution (0.25% v/v). Some crop leaf burn from the fertilizer may occur. The use of a COC, HSOC or MSO in place of the nonionic surfactant may increase crop response.

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

- **DO NOT** apply more than 0.039 lb imazamox ae/acre (5 fl ozs **Raptor**/acre) during the growing season.
- There are no restrictions following an application of **Raptor** for feeding or grazing of wheat forage and hay.

# Weeds Controlled (CLEARFIELD Spring Wheat)

**Raptor** will control or suppress listed weeds when applied postemergence at the specified rates listed as follows.

#### Broadleaf Weeds Controlled by Raptor<sup>®</sup> herbicide in CLEARFIELD<sup>®</sup> Spring Wheat

	Raptor at 4 to 5 fl ozs/A	
-	Maximum Weed Size (inches)	
Canola, volunteer (non-CLEARFIEL	. <b>D</b> ) 5	
Chickweed, common	3	
Cocklebur, common	3	
Flixweed	3	
Henbit	3	
Knotweed, prostrate	3	
Lambsquarters, common <sup>1</sup>	1	
Mallow,		
common	3	
Venice	1	
Mustard,		
black	4	
blue	4	
tumble	3	
wild	4	

#### Broadleaf Weeds Controlled by Raptor<sup>®</sup> herbicide in CLEARFIELD<sup>®</sup> Spring Wheat (continued)

	Raptor at 4 to 5 fl ozs/	
-	Maximum Weed Size (inches)	
Nightshade,		
black	5	
Eastern black	5	
hairy	5	
Pennycress, field	3	
Pigweed,		
redroot	5	
smooth	4	
spiny	3	
Purslane, common	3	
Radish, wild	3	
Rocket,		
London	5	
yellow	5	
Shepherd's-purse	5	
Smartweed,		
ladysthumb	3	
Pennsylvania	3	
Spurge, prostrate	3	
Tansymustard, green	4	
Thistle, Russian (non-ALS resistant)	3	
Velvetleaf	3	

**Raptor** provides suppression of common lambsquarters at 4 fl ozs/A west of the Rocky Mountains.

#### Broadleaf Weeds Suppressed by Raptor® herbicide Applications in CLEARFIELD® Spring Wheat

	Raptor at 4 to 5 fl ozs/A
	Maximum Weed Size (inches)
Bedstraw	3
Buckwheat, wild	3
Dandelion	3
Ragweed,	
common	3
giant	3
Thistle, Canada	3

<sup>1</sup> See **Specific Weed Problems** section for more information.

# Grass Weeds Controlled by Raptor® herbicide in CLEARFIELD® Spring Wheat

	Raptor at 4 to 5 fl ozs/A Weed Size	
	[number of leaves (maximum tillers)]	
Barnyardgrass	1 to 5 (1)	
Brome,		
California	1 to 5 (2)	
cheat	1 to 5 (2)	
downy	1 to 5 (2)	
Japanese	1 to 5 (2)	
Canarygrass, littleseed	1 to 5 (2)	

#### Grass Weeds Controlled by Raptor® herbicide in CLEARFIELD® Spring Wheat (continued)

	Raptor at 4 to 5 fl ozs/A Weed Size	
[n	umber of leaves (maximum tillers)]	
Cereals, volunteer		
barley	1 to 6 (1)	
oat	1 to 6 (1)	
wheat (non-CLEARFIELD)	1 to 4 (1)	
Corn, volunteer (non-CLEARFIE	LD) 1 to 4	
Crabgrass, large	1 to 4 (1)	
Darnel, Persian	1 to 5 (2)	
Foxtail,		
giant	1 to 6 (2)	
green	1 to 4 (1)	
yellow	1 to 4 (1)	
Jointed goatgrass	1 to 5 (2)	
Oats, wild'	1 to 5 (2)	
Rescuegrass	1 to 4 (1)	
Rye, feral or cereal <sup>1, 2</sup>	1 to 4 (1)	
Ryegrass, Italian <sup>1, 2</sup>	1 to 4 (1)	
' See Specific Weed Problems section.		

See Specific Weed Problem

<sup>2</sup> Suppression only

Specific Weed Problems in CLEARFIELD Spring Wheat Feral rye (cereal, volunteer rye). Raptor suppresses emerged feral rye only. Apply to feral rye before the first tiller forms. When feral rye develops tillers, suppression is significantly reduced.

**Italian ryegrass. Raptor** suppresses emerged Italian ryegrass only. Under favorable growing conditions, ryegrass may germinate over several weeks.

**Kochia.** Naturally occurring ALS/AHAS-resistant biotypes of kochia are common in wheat fields. In many cases, a tank mixture with **Raptor** will be required for acceptable control. Apply **Raptor** in a tank mixture with a herbicide(s) labeled to control kochia (e.g. **Clarity® herbicide** + 2,4-D). Apply to kochia 2 inches in size or less.

Wild buckwheat. For enhanced control of wild buckwheat, add **Starane® herbicide** or **Clarity** to the tank mixture. Apply to wild buckwheat with no more than 2 true leaves.

Wild oats. Raptor controls emerged wild oats only. Under favorable growing conditions, wild oats may germinate over several weeks. **Raptor** does not provide residual control of wild oats.

#### TANK MIX HERBICIDE COMBINATIONS WITH Raptor Recommended tank mixes for postemergence applications of Raptor on CLEARFIELD wheat varieties are the following herbicides:

Banvel <sup>®</sup>	Curtail <sup>®</sup> M
Bronate®	Starane
(bromoxynil + MCPA)	2,4-D Ester
Buctril®	MCPA
Clarity	

Limit bromoxynil applications (**Bronate** or **Buctril**) to 0.5 lb/acre active ingredient when tank mixed with **Raptor**.

When broadleaf herbicides are tank mixed with **Raptor**, there may be some reduction in weed control, particularly grass weeds.

#### ALS-inhibiting herbicides should not be tank mixed with Raptor. Raptor tank mixes with ALS-inhibiting herbicides may result in unacceptable crop response.

When **Raptor** is used in combination with another herbicide, refer to the respective label for rates, methods and proper timing of application, weeds controlled, restrictions and precautions. Always use in accordance with the more restrictive label use directions and precautions.

# CLEARFIELD® Winter Wheat

#### **DIRECTIONS FOR USE**

Raptor can be applied postemergence on CLEARFIELD wheat (imidazolinone-tolerant wheat) varieties. Apply only on selected winter wheat varieties labeled "CLEARFIELD" and warranted by the seed supplier to possess tolerance to direct application of certain imidazolinone herbicides. DO NOT apply Raptor to wheat varieties that lack resistance/tolerance to imidazolinone herbicides. Contact your seed supplier, chemical dealer or BASF to obtain information regarding CLEARFIELD wheat varieties.

Apply Raptor as an early postemergence treatment when weeds are actively growing and before broadleaf weeds exceed a height of 3 inches and grasses exceed 4 to 5 leaves (unless otherwise indicated). Under cold temperature conditions (less than 40° F maximum daytime temperature), weed control may be less than optimal. A thin stand of wheat may result in unacceptable weed control.

**Raptor** is effective in controlling weeds in conservation tillage and conventional tillage wheat production systems. **Raptor** can be applied in the fall/winter or spring for winter or spring annual weed control, respectively. Delay application until the majority of the weeds are at the specified growth stage. When a mixture of grasses and broadleaf weeds are present, time the application to the grass weeds for optimum control.

When adequate soil moisture is present, **Raptor** will provide residual activity of susceptible germinating weeds. Activity on established weeds will depend on the weed species and the location of its root system in the soil.

Occasionally, reduction in plant height or temporary yellowing of crop plants may occur following **Raptor** applications. These effects can be more pronounced in spray overlap areas and/or if crops are growing under stressful environmental conditions (such as, but not limited to, drought, excessive moisture, improper fertility, improper varietal adaptation, poor planting conditions, etc.). To avoid possible crop injury, **DO NOT** apply **Raptor** to **CLEARFIELD** wheat when extreme cold temperatures (less than 40° F maximum daytime temperature) are expected within 1 week of application. Crop response associated with stress conditions and overlaps shall be the responsibility of the user.

Weed control is optimized when **Raptor® herbicide** is applied to actively growing wheat. Plant a locally adapted **CLEARFIELD®** variety at the normal seeding rate for your geography. Apply to wheat after tiller initiation has begun and prior to the jointing stage of growth (and when the weeds are at the appropriate size). See the **Weeds Controlled (CLEARFIELD Winter Wheat)** tables.

#### **Application Timing in CLEARFIELD Winter Wheat**

Apply **Raptor** to **CLEARFIELD** winter wheat after tiller initiation but prior to jointing. See following tables for specific weed growth stages.

#### **Use Rate**

Apply 0.031 to 0.047 lb imazamox ae/A (4 to 6 fl ozs **Raptor**/acre). See **Weeds Controlled (CLEARFIELD Winter Wheat)** section for detailed use rate specifications.

#### ADJUVANTS AND SPRAY CARRIER

A nonionic surfactant **AND** nitrogen-based fertilizer **MUST** be added to the spray solution for optimum weed control. See the **ADJUVANTS** section under **Mixing Instructions** for specific instructions.

**2-gene Winter Wheat:** For improved weed control, a crop oil concentrate or a methylated seed oil may be substituted for the nonionic surfactant. The use of COC or MSO in place of nonionic surfactant in 2-gene winter wheat may increase crop response. When **Raptor** is tank mixed with another herbicide, using COC or MSO in 2-gene winter wheat is only recommended when a **Raptor** tank mix partner allows the use of a COC or MSO. Apply only on **CLEARFIELD** winter wheat varieties that possess 2-gene tolerance. Contact your winter wheat seed supplier to confirm that the variety you are about to treat contains 2-gene tolerance.

**Liquid Fertilizer as a Carrier. Raptor** may be applied to **CLEARFIELD** winter wheat in a water/liquid fertilizer solution with at least 50% water. Add a nonionic surfactant at 1 quart/100 gallons of spray solution (0.25% v/v). Some crop leaf burn from the fertilizer may occur. The use of COC, HSOC or MSO in place of nonionic surfactant in 2-gene winter wheat may increase crop response.

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

- **DO NOT** apply more than 0.062 lb imazamox ae/acre (8 fl ozs **Raptor**/acre) during the growing season.
- There are no restrictions following an application of **Raptor** for feeding or grazing of wheat forage and hay.
- Application of **Raptor** to weeds that have been grazed may result in reduced weed control. For optimum weed control, allow a period of 7 days between the end of grazing and **Raptor** application for weed regrowth to occur. Under cold conditions, wait until new growth of

weeds is evident before applying **Raptor** in fields that have been grazed.

### Weeds Controlled (CLEARFIELD Winter Wheat)

**Raptor** will control or suppress listed weeds when applied postemergence at the specified rates listed as follows.

#### Broadleaf Weeds Controlled by Raptor<sup>®</sup> herbicide in CLEARFIELD<sup>®</sup> Winter Wheat

	Application Rate	Maximum Weed Size
	(fl ozs/A)	(inches)
Wild beet	4 to 6	3
Canola, volunteer (non- <b>CLEARFIELD</b> )	4 to 6	5
Chickweed, common	4 to 6	3
Cocklebur, common	4 to 6	3
Filaree,		· · · · · · · · · · · · · · · · · · ·
redstem	5 to 6	3
whitestem	5 to 6	3
Flixweed	4 to 6	3
Henbit	5 to 6	3
Knotweed, prostrate	5 to 6	3
Lambsquarters, common	4 to 6ª	1
Lettuce, miner's	5 to 6	3
Jimsonweed	4 to 6	3
Mallow,		··
common	5 to 6	3
Venice	5 to 6	1
Morningglory,		
entireleaf	5 to 6	3
ivyleaf	5 to 6	3
smallflower	5 to 6	3
tall	5 to 6	3
Mustard,		
black	4 to 6	3
blue	4 to 6	4
tumble	4 to 6	4
wild	4 to 6	4
Nightshade,		
black	4 to 6	5
Eastern black	4 to 6	5
hairy	4 to 6	5
Pennycress, field	4 to 6	3
Pigweed,		
redroot	4 to 6	5
smooth	4 to 6	4
spiny	4 to 6	3
Purslane, common	4 to 6	3
Radish, wild	4 to 6	3
Rocket,		
London	5 to 6	5
yellow	5 to 6	5
Shepherd's-purse	4 to 6	5

#### Broadleaf Weeds Controlled by Raptor<sup>®</sup> herbicide in CLEARFIELD<sup>®</sup> Winter Wheat (continued)

	Application Rate (fl ozs/A)	Maximum Weed Size (inches)
Smartweed,		
ladysthumb	4 to 6	3
Pennsylvania	4 to 6	3
swamp	5 to 6	3
Spurge, prostrate	5 to 6	3
Tansymustard, green	4 to 6	4
Thistle, Russian		
(non-ALS-resistant)	5 to 6	3
Velvetleaf	4 to 6	3

\* Raptor controls common lambsquarters at 4 fl ozs/A east of the Rocky Mountains. Apply 5 to 6 fl ozs/A west of the Rocky Mountains.

#### Broadleaf Weeds Suppressed by Raptor® herbicide in CLEARFIELD® Winter Wheat

	Application Rate (fl ozs/A)	Maximum Weed Size (inches)
Bedstraw	5 to 6	3
Buckwheat, wild'	5 to 6	3
Dandelion	5 to 6	3
Fiddleneck	5 to 6	3
Primrose,		
cutleaf	<u>5 to 6</u>	3
evening	5 to 6	3
Ragweed,		
common	5 to 6	3
giant	5 to 6	3
Thistle, Canada	5 to 6	3
<sup>1</sup> See Specific Weed Proble	ems section for more informat	lion.

#### Grass Weeds Controlled by Raptor® herbicide in CLEARFIELD® Winter Wheat

CLEARFIELD WIIter Wileat			
	Application Rate (fl ozs/A)	Weed Size [number of leaves (maximum tillers)]	
Barnyardgrass	5 to 6	1 to 5 (1)	
Brome,			
California	4 to 6	1 to 5 (2)	
cheat <sup>a</sup>	4 to 6	1 to 5 (2)	
downy⁴	4 to 6	1 to 5 (2)	
Japanese	4 to 6	1 to 5 (2)	
Canarygrass, littleseed	4 to 6	1 to 5 (2)	
Cereals, volunteer			
barley	4 to 6ª	1 to 6 (1)	
oat	4 to 6ª	1 to 6 (1)	
wheat (non-CLEARFIELD	<b>)</b> 4 to 6ª	1 to 4 (1)	
Corn, volunteer (non- <b>CLEARFIELD</b> )	4 to 6	1 to 4	
Crabgrass, large	5 to 6	1 to 4 (1)	
Darnel, Persian	4 to 6	1 to 5 (2)	

# Grass Weeds Controlled by Raptor® herbicide in CLEARFIELD® Winter Wheat (continued)

	Application Rate (fl ozs/A)	Weed Size [number of leaves (maximum tillers)]
Foxtail,		
giant	4 to 6	1 to 6 (2)
green	4 to 6	1 to 4 (1)
yellow	4 to 6	1 to 4 (1)
Johnsongrass, seedling	5 to 6	1 to 5 (1)
Jointed goatgrass	4 to 6	1 to 5 (2)
Oats, wild <sup>®</sup>	4 to 6	1 to 5 (2)
Rescuegrass	4 to 6	1 to 4 (1)
* Soo Specific Weed Problems	section for more inform	ation

See Specific Weed Problems section for more information.

# Grass Weeds and Sedges Suppressed by Raptor® herbicide in CLEARFIELD® Winter Wheat

	Application Rate (fl ozs/A)	Weed Size [number of leaves (maximum tillers)]
Grasses		····
Brome,		
California	4 to 6	6+ (3+)
cheat	4 to 6	6+ (3+)
downy	4 to 6	6+ (3+)
Japanese	4 to 6	6+ (3+)
Fescue, rattail	4 to 6	1 to 3
Johnsongrass, rhizome	6	1 to 5
Jointed goatgrass	4 to 6	6+ (3+)
Rye, feral or cereal'	4 to 6	1 to 4 (1)
Ryegrass, Italian'	4 to 6	1 to 4 (1)
Sedges		
Nutsedge,		
purple	6	1 to 3
yellow	6	1 to 3
Quackgrass	6	1 to 5

See Specific Weed Problems section.

# Specific Weed Problems in CLEARFIELD Winter Wheat

**Raptor** is most effective for grass control when applied in the fall. If summer annual broadleaf weeds germinate in the spring (following a fall application of **Raptor**), a broadleaf herbicide may need to be applied. If the **Raptor** application is made in the spring, the broadleaf herbicide may be tank mixed with **Raptor**. For improved control of grasses, such as feral rye (suppression), Italian ryegrass (suppression), cheat and downy brome, use higher rates of nitrogen fertilizer (up to 50% of the spray solution). Higher rates of nitrogen can improve weed control with **Raptor**, especially under drought stress conditions, but additional crop response may be observed. AMS/nitrogen substitutes are not recommended when targeting hard-to-control weeds.

**Cheat and Downy brome.** Sequential applications of **Raptor** may be needed to control subsequent germination flushes.

Feral rye (cereal, volunteer rye). Raptor suppresses emerged feral rye only. Apply to feral rye before the first tiller forms. When feral rye develops tillers, suppression is significantly reduced. If feral rye germinates in the fall, an application of Raptor® herbicide in the fall will provide the best suppression. If feral rye germinates following an application of Raptor in the fall, a spring application may be necessary for suppression of subsequent germination flushes. Two applications of **Raptor** will provide the best suppression of feral rye.

Italian ryegrass. Raptor suppresses emerged Italian rvegrass only. Under favorable growing conditions, rvegrass may germinate over several weeks (especially in the southern U.S.). Raptor DOES NOT provide residual control of Italian ryegrass. Because of the potential for multiple germination flushes, Italian ryegrass suppression in New Mexico, Oklahoma, and Texas may not be satisfactory. Optimum application timing is to ryegrass with 3 to 4 leaves and before the first tiller. Suppression is reduced when tillers develop. In the Pacific Northwest, a spring application of 6 fl ozs/A of Raptor is specified to achieve the most consistent suppression. If Italian ryegrass germinates following a fall application, a spring application may be necessary. Apply the higher specified rate when Italian ryegrass is at the maximum specified size, or to heavy grass populations.

Kochia. Naturally occurring ALS/AHAS-resistant biotypes of kochia are common in wheat fields. In many cases, a tank mixture with Raptor will be required for acceptable control. If Raptor is applied in the spring, apply Raptor in a tank mixture with a herbicide(s) labeled to control kochia (i.e. Clarity® herbicide + 2,4-D). Apply to kochia 2 inches tall or less.

Wild buckwheat. For enhanced control of wild buckwheat, add Starane® herbicide or Clarity to the tank mixture. Apply to wild buckwheat with no more than 2 true leaves.

Wild oats. Raptor controls emerged wild oats only. Under favorable growing conditions, wild oats may germinate over several weeks (especially in the southern U.S.). Raptor does not provide residual control of wild oats. Because of the potential for multiple germination flushes, wild oat control in New Mexico, Oklahoma, and Texas may not be satisfactory.

#### TANK MIX HERBICIDE COMBINATIONS WITH Raptor Recommended tank mixes for postemergence applications of Raptor on CLEARFIELD wheat varieties are the following herbicides:

Banvel<sup>®</sup> **Bronate**<sup>®</sup> (bromoxynil + MCPA) 2,4-D ester **Buctril**<sup>®</sup> Clarity

Curtail<sup>®</sup> M Starane **MCPA** 

Limit bromoxynil applications (Bronate or Buctril) to 0.5 lb/acre active ingredient when tank mixed with Raptor.

When broadleaf herbicides are tank mixed with Raptor, there may be some reduction in weed control, particularly arass weeds.

Sulfonylurea herbicides should not be tank mixed with Raptor. Raptor tank mixes with sulfonylurea

#### herbicides may result in unacceptable crop response.

When Raptor is used in combination with another herbicide, refer to the respective label for rates, methods and proper timing of application, weeds controlled, restrictions and precautions. Always use in accordance with the more restrictive label use directions and precautions.



#### DIRECTIONS FOR USE

#### For use only in Oregon and Washington.

#### **Application Timing**

Apply **Raptor** as an early postemergence treatment in a tank mix, as described below, when the crimson, red, and white clover have a minimum of 2 trifoliate leaves and when the majority of the weeds are 1 to 3 inches. Raptor applications must be made prior to clover bloom.

#### Use Rate

Apply **Raptor** at a broadcast rate of 0.04 lb imazamox ae/acre (5 fl ozs Raptor/acre) postemergence only.

Applications of Raptor in clover grown for seed require the addition of an adjuvant, nitrogen fertilizer and Basagran® herbicide.

#### **1. ADJUVANTS**

 Nonionic surfactant - Use a nonionic surfactant containing at least 80% active ingredient. Apply the surfactant at 0.25% v/v (1 quart/100 gallons of spray solution)

#### OR

• Crop Oil Concentrate - Use a crop oil concentrate at 1 pint/acre (0.5 gallon/100 gallons of spray solution).

#### OR

• High Surfactant Oil Concentrate (HSOC) - Use an HSOC at 0.5% v/v (0.5 gallon/100 gallons of spray solution).

#### 2. NITROGEN FERTILIZER

Recommended nitrogen-based fertilizers include liquid fertilizers (such as 28% N, 32% N or 10-34-0) at 2.5 gallons/100 gallons of spray solution. Instead of a liquid fertilizer, spray-grade ammonium sulfate may be used at 12 to 15 pounds/100 gallons of spray solution.

#### 3. Basagran

Add **Basagran** at 8 to 16 fl ozs/acre to minimize crop response. Basagran applications at rates higher than 16 fl ozs/acre may reduce grass control. Basagran may only be applied to clover grown for seed.

Apply Raptor plus Basagran tank mix a minimum of 4 hours before rainfall or overhead irrigation.

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

• DO NOT make more than 1 Raptor application (0.04 lb ae/acre imazamox) per growing season.

- If arid conditions occur during the year of application, rotational crop injury may occur.
- DO NOT apply to clover 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 apply to weeds under stress, such as lack of moisture, previous herbicide injury, mechanical injury or cold temperatures, or unsatisfactory control could result.
- **DO NOT** apply more than a total of 4 pints of **Basagran**<sup>®</sup> **herbicide**/acre per calendar year or 2.0 pounds of bentazon active ingredient (ai) from all sources per acre per calendar year.

# Weeds Controlled (Crimson, Red, and White Clover Grown For Seed)

**Raptor® herbicide** will control or suppress listed weeds when applied postemergence to 1-inch to 3-inch weeds (unless otherwise indicated) at the specified rates listed as follows.

Broadleaf Weeds Controlled by Raptor® herbicide in
Crimson, Red, and White Clover Grown for Seed

	Raptor at 5 fl ozs/A + surfactant, COC, or HSO + nitrogen-based fertilizer + Basagran	
	Maximum Weed Size	
Bedstraw	(inches) 3	
Beet, wild	3	
Buttercup	3	
Chickweed, common	3	
Cocklebur, common	3	
Flixweed	3	
	3	
Jimsonweed	3	
Mustard, black	3	
tumble	3	
wild	3	
Nightshade, black	3	
Eastern black	3	
	3	
hairy	3	
Pennycress, field	3	
Pigweed, redroot	3	
	3	
smooth	3	
spiny		
Puncturevine	3	
Radish, wild	3	
Shepherd's-purse	3	
Tansymustard, green	3	
Velvetleaf	3	

Broadleaf Weeds Suppressed by Raptor® herbicide in Crimson, Red, and White Clover Grown for Seed

27/40

	Raptor at 5 fl ozs/A surfactant, COC, or HSOC + nitrogen-based fertilizer + Basagran
-	Maximum Weed Size (inches)
Buckwheat, wild	3
Chickweed, common	3
Knotweed, prostrate	3
Kochia <sup>1</sup>	3
Lambsquarters, common	3
Lettuce, miner's	3
Morningglory,	
entireleaf	3
ivyleaf	3
smallflower	3
tall	3
Purslane, common	3
Rocket,	
London	3
yellow	3
Smartweed,	
ladysthumb	3
Pennsylvania	3
Spurge, prostrate	3

' Raptor controls non-ALS-resistant kochia only.

# Grass Weeds Controlled by Raptor® herbicide in Crimson, Red, and White Clover Grown for Seed

	Raptor at 5 fl ozs/A + surfactant, COC, or HSO + nitrogen-based fertilize + Basagran	
	Maximum Weed Size (inches)	
Blackgrass	3	
Brome,		
cheat	3	
downy	3	
Japanese	3	
Canarygrass, littleseed	3	
Cereals, volunteer		
barley	3	
oat	3	
wheat (non-CLEARFIELD)	3	
Corn, volunteer <sup>1</sup>	2 to 8	
Darnel, Persian	3	
Foxtail,		
giant	3	
green	3	
yellow	3	
Jointed goatgrass	3	
Oats, wild	3	
Ryegrass, Italian	3	
Shattercane	3	
<sup>1</sup> Except imidazolinone-tolerant corn		

1 Except imidazolinone-tolerant corn.

Grass Weeds and Sedges Suppressed by Raptor® herbicide in Crimson, Red, and White Clover Grown for Seed

	Raptor at 5 fl ozs/A + surfactant, COC, or HSO + nitrogen-based fertilizer + Basagran	
	Maximum Weed Size (inches)	
Grasses		
Barnyardgrass	3	
Johnsongrass, rhizome	3	
Crabgrass,		
large	3	
smooth	3	
Sedges		
Nutsedge,		
purple	3	
yellow	3	
Quackgrass	. 3	

Dry Beans and Dry Peas [other than English Peas, Lima Beans (Succulent), Snap Beans, and CLEARFIELD® Lentils]

#### **DIRECTIONS FOR USE**

#### DO NOT APPLY Raptor TO DRY BEANS AND DRY PEAS IN CALIFORNIA.

Raptor may be applied to the following dry beans and dry peas:

Dry Beans		Dry Peas
Adzuki Anasazi Black Black turtle Cranberry Great Northern Lima (dry)	Navy Pink Pinto Red kidney Small red Small white	Dry edible peas (field peas) Southern peas (cow peas)

# DO NOT apply Raptor to succulent peas, snap beans or fresh limas (except as specifically directed below).

#### DO NOT apply Raptor to chickpeas (garbanzo beans) or lentils other than CLEARFIELD lentils.

Reduced crop growth, quality and yield, temporary yellowing and/or delayed maturity may result from a **Raptor** application to dry bean and dry pea crops listed on this label. Because crop maturity may be delayed, timing of harvest may need to be adjusted accordingly. **DO NOT** apply **Raptor** if planting is delayed and chance of frost prior to maturity is likely. Some varieties of dry beans and dry peas are more sensitive to **Raptor** than other varieties. Growers should check with the seed company regarding the safety of **Raptor** to their variety.

**USE Raptor ONLY** if proper agronomic practices have been used, including good soil fertility, proper crop rotation,

disease and insect management and tillage practices that eliminate compaction and hardpans.

**Raptor** is effective in controlling weeds in conservation tillage and conventional production systems. Apply **Raptor** postemergence prior to bloom stage but after dry beans have at least 1 fully expanded trifoliate leaf and dry peas have at least 3 pairs of leaves. Delay application until the majority of the weeds are at the specified growth stage. Application timing should be based on weed size and crop growth stage. Apply **Raptor** to crop and weeds that are actively growing.

#### THIS PRODUCT WHEN USED ON DRY BEANS AND DRY PEAS MAY LEAD TO CROP INJURY, LOSS, OR DAMAGE. BASF RECOMMENDS THAT THE USER AND/OR GROWER TEST THIS PRODUCT TO DETER-MINE ITS SUITABILITY FOR SUCH INTENDED USE.

#### **Use Rate**

Apply 0.031 lb imazamox ae/acre (4 fl ozs **Raptor**/acre). At this application rate, 1 gallon will treat 32 acres of dry beans and dry peas.

# NOTE: ADDITIONAL MIXING INSTRUCTIONS FOR DRY BEANS AND DRY PEAS

**Raptor** applications may be made to dry beans and dry peas either with or without the addition of a fertilizer. The addition of nitrogen-based fertilizer, such as ammonium sulfate or liquid fertilizers (such as 28-0-0), may improve weed control but also increases the likelihood of dry bean response. When nitrogen and/or crop oils are added to the mixture, add **Basagran<sup>®</sup> herbicide** (at 6 fl ozs to 16 fl ozs/A) or **Rezult<sup>®</sup> herbicide** (at 12 fl ozs to 24 fl ozs/A) as tank mix partner to minimize crop response.

For applications to dry peas, **ALWAYS** add **Basagran** or **Rezult** to the spray mixture, regardless of additives used. For enhanced grass activity, add a crop oil concentrate instead of surfactant. **Basagran** at 16 fl ozs/A and **Rezult** at 24 fl ozs/A will enhance control of common lambsquarters and kochia. **Basagran** applications at rates higher than 16 fl ozs/A may reduce grass control.

# **Crop-specific Restrictions and Limitations**

- Only 1 application of **Raptor** may be made during the season.
- A maximum of 0.031 lb imazamox ae/acre (4 fl ozs **Raptor**/acre) per season may be applied to dry beans.
- Raptor applications must be made before dry beans and dry peas bloom.

# Weeds Controlled (Dry Beans and Dry Peas [other than English Peas, Lima Beans (Succulent), Snap Beans, and CLEARFIELD Lentils]

**Raptor** will control or suppress the listed weeds when applied postemergence to 1-inch to 3-inch weeds (unless otherwise indicated) at the specified rates listed as follows. Broadleaf Weeds Controlled by Raptor® herbicide in Dry Beans and Dry Peas [other than English Peas, Lima Beans (Succulent), Snap Beans, and CLEARFIELD® Lentils]

	Raptor at 4 fl ozs/A + NIS	Raptor at 4 fl ozs/A + NIS or COC + nitrogen-based fertilizer + Basagran or Rezult
	Ma	ximum Weed Size (inches)
Bedstraw		3
Beet, wild	3	3
Buttercup		3
Chickweed, common		3
Cocklebur, common		3
Flixweed	3	3
Jimsonweed	3	3
Lambsquarters, commor	ı <sup>1</sup> 3	3
Mustard,		
black	3	3
tumble	3	3
wild	3	3
Nightshade,		
black	3	3
Eastern black	3	3
hairy	3	3
Pennycress, field	3	3
Pigweed,		
redroot	3	3
smooth	3	3
spiny	3	3
Puncturevine		3
Radish, wild	3	3
Shepherd's-purse	3	3
Tansymustard, green	3	3
Velvetleaf		3

<sup>1</sup> Raptor controls common lambsquarters at 4 fl ozs/A east of the Rocky Mountains.

#### Broadleaf Weeds Suppressed by Raptor® herbicide in Dry Beans and Dry Peas [other than English Peas, Lima Beans (Succulent), Snap Beans, and CLEARFIELD® Lentils]

	Raptor at 4 fl ozs/A + NIS	Raptor at 4 fl ozs/A + NIS or COC + nitrogen-based fertilizer + Basagran or Rezult
	Ma	aximum Weed Size (inches)
Buckwheat, wild		3
Chickweed, common	3	
Knotweed, prostrate		3
Kochia <sup>1</sup>		3
Lettuce, miner's		3

Broadleaf Weeds Suppressed by Raptor® herbicide in Dry Beans and Dry Peas [other than English Peas, Lima Beans (Succulent), Snap Beans, and CLEARFIELD® Lentils] (continued)

29/40

	Raptor at 4 fl ozs/A + NIS	Raptor at 4 fl ozs/A + NIS or COC + nitrogen-based fertilizer + Basagran or Rezult	
	Maximum Weed Size (inches)		
Morningglory,		<u></u>	
entireleaf		3	
ivyleaf		3	
smallflower		3	
tall		3	
Purslane, common	3		
Rocket,			
London		3	
yellow		3	
Smartweed,			
ladysthumb		3	
Pennsylvania		3	
Spurge, prostrate		3	

<sup>1</sup> Raptor controls non-ALS-resistant kochia only.

#### Grass Weeds Controlled by Raptor® herbicide in Dry Beans and Dry Peas (other than English Peas, Lima Beans (Succulent), Snap Beans, and CLEARFIELD® Lentils]

Ma	ximum Weed Size
	(inches)
	3
3	3
3	33
3	3
	3
3	3
3	3
3	3
	2 to 8
3	3
3	3
3	3
3	3
3	3
3	3
	3
3	3
	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

' Except imidazolinone-tolerant corn.

Grass Weeds and Sedges Suppressed by Raptor<sup>®</sup> herbicide in Dry Beans and Dry Peas [other than English Peas, Lima Beans (Succulent), Snap Beans, and CLEARFIELD<sup>®</sup> Lentils]

_	Raptor at 4 fl ozs/A + NIS	Raptor at 4 fl ozs/A + NIS or COC + nitrogen-based fertilizer + Basagran or Rezult
	Ma	x <b>imum Weed Size</b> (inches)
Grasses		
Barnyardgrass		3
Johnsongrass, rhizome		3
Crabgrass,		
large	3	3
smooth	3	3
Sedges		
Nutsedge,		
purple	3	3
yeliow	3	3
Quackgrass	3	3

# English Peas

#### DIRECTIONS FOR USE

For postemergence use on English Peas in Delaware, Illinois, Indiana, Iowa, Maryland, Minnesota, New York and Wisconsin only.

Use Raptor ONLY if proper agronomic practices have been used, including good soil fertility, proper crop rotation, disease and insect management and tillage practices that eliminate compaction and hardpans.

Reduced crop growth, quality and yield, temporary yellowing and/or delayed maturity may result from a Raptor application to English peas. Because crop maturity may be delayed, timing of harvest may need to be adjusted accordingly. DO NOT apply Raptor if planting is delayed and a chance of frost prior to maturity is likely. Growers should check with the seed company regarding the safety of Raptor to their variety.

#### THIS PRODUCT WHEN USED ON ENGLISH PEAS MAY LEAD TO CROP INJURY, LOSS, OR DAMAGE. BASF RECOMMENDS THAT THE USER AND/OR GROWER TEST THIS PRODUCT TO DETERMINE ITS SUITABILITY FOR SUCH INTENDED USE.

#### Use Rate

Early Postemergence Applications. Apply Raptor at the broadcast rate of 0.023 lb imazamox ae/acre (3 fl ozs Raptor/acre). Application timing should be based on weed size and crop growth stage. Apply **Raptor** to crop and weeds that are actively growing.

Apply **Raptor** postemergence to English peas at least 3 inches in height but prior to 5 nodes before flowering. The use of trifluralin prior to a **Raptor** application may increase the likelihood and severity of crop injury.

A nonionic surfactant **MUST** be added to the spray solution. The nonionic surfactant **MUST** contain at least 80% active ingredient and should be used at 1 quart/100 gallons of spray solution. 30/40

The addition of a nitrogen-based fertilizer, such as ammonium sulfate, or liquid fertilizers (such as 28-0-0) may improve weed control but also increases the likelihood of English pea response.

When nitrogen-based fertilizer is added to the mixture, add **Basagran<sup>®</sup> herbicide** as a tank mix partner at 6 fl ozs to 16 fl ozs/acre to minimize crop response. Recommended nitrogen-based fertilizers include liquid fertilizers (such as 28% N, 32% N or 10-34-0) at 2.5 gallons/100 gallons of spray solution.

Instead of a liquid fertilizer, spray-grade ammonium sulfate may be used at 12 to 15 pounds/100 gallons of spray solution.

For enhanced grass activity, add a crop oil concentrate at 1 gallon/100 gallons/acre instead of a nonionic surfactant. **ALWAYS** add **Basagran** at the rates indicated above when crop oil concentrate and/or a nitrogen-based fertilizer are used in the spray mixture. **Basagran** applications at rates higher than 16 fl ozs/acre may reduce grass control.

Apply **Raptor** a minimum of 1 hour before rainfall or overhead irrigation.

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

- Make only 1 application of Raptor during the season.
- A maximum of 0.023 lb imazamox ae/acre (3 fl ozs **Raptor**/acre) per season may be applied to English peas.

#### Weeds Controlled (English Peas)

**Raptor** will control listed weeds when applied postemergence at the specified rates listed as follows.

#### Weeds Controlled by Raptor® herbicide in English Peas

	Raptor at 3 fl ozs/A	Raptor at 3 fl ozs/A + Basagran at 6 to 16 fl ozs/A
	Maxi	(inches)
Nightshade,		
black	3	3
Eastern black	3	3
hairy	3	3
Mustard		
black	3	3
tumble	3	3
wild	3	3
Pennycress, field	3	3
Pigweed,		<u> </u>
redroot	3	3
smooth	3	3
spiny	3	3
Shepherd's-purse	3	. 3

# Lima Beans (Succulent)

### DIRECTIONS FOR USE

For postemergence use in lima beans (succulent) in Arkansas, Delaware, Illinois, Indiana, Iowa, Kentucky, Maryland, Minnesota, Missouri (bootheel), Tennessee, Virginia and Wisconsin only.

Apply **Raptor® herbicide ONLY** if proper agronomic practices have been used, including good soil fertility, proper crop rotation, disease and insect management and tillage practices that eliminate compaction and hardpans.

Occasionally, internode shortening and/or temporary yellowing of crop plants may occur following **Raptor** applications in lima beans. These effects can be more pronounced if crops are growing under stressful environmental or hot and humid conditions. These effects occur infrequently and are temporary. Normal growth and appearance should resume within days.

#### THIS PRODUCT WHEN USED ON LIMA BEANS (SUC-CULENT) MAY LEAD TO CROP INJURY, LOSS, OR DAMAGE. BASF RECOMMENDS THAT THE USER AND/OR GROWER TEST THIS PRODUCT TO DETER-MINE ITS SUITABILITY FOR SUCH INTENDED USE.

#### Use Rate

Early Postemergence Applications. Apply Raptor at the broadcast rate of 0.031 lb imazamox ae/acre (4 fl ozs Raptor/acre) tank mixed with Basagran<sup>®</sup> herbicide at 6 fl ozs to 16 fl ozs/acre. When used in lima beans, Raptor must be applied with Basagran to minimize crop response. Basagran applications at rates higher than 16 fl ozs/acre may reduce grass control.

Application timing should be based on weed size and crop growth stage. Apply to crop and weeds that are actively growing. Apply **Raptor + Basagran** postemergence to lima beans in the first to second trifoliate leaf stage and to weeds that are less than 3 inches tall. Applications before the first trifoliate leaf stage may result in increased crop response. **DO NOT** apply **Raptor + Basagran** to lima beans during flowering.

A nonionic surfactant **MUST** be added to the spray solution. The nonionic surfactant **MUST** contain at least 80% active ingredient and should be used at 1 quart/100 gallons of spray solution.

**Raptor** tank mixes with any pesticide other than **Basagran** are not recommended. Certain insecticide and herbicide tank mixes with **Raptor** in lima beans have shown unacceptable crop response.

Apply **Raptor** a minimum of 1 hour before rainfall or overhead irrigation.

# **Crop-specific Restrictions and Limitations**

- Make only 1 application of Raptor during the season.
- A maximum of 0.031 lb imazamox ae/acre (4 fl ozs **Raptor**/acre) per season may be applied to lima beans (succulent) in Arkansas, Delaware, Illinois, Indiana, Iowa,

Kentucky, Maryland, Minnesota, Missouri (bootheel), Tennessee, Virginia and Wisconsin only.

# Weeds Controlled [Lima Beans (Succulent)]

**Raptor** will control or suppress listed weeds when applied postemergence at the specified rates listed as follows.

# Broadleaf Weeds Controlled by Raptor® herbicide in Lima Beans (Succulent)

	Raptor at 4 fl ozs/A + Basagran at 6 to 16 fl ozs/A
	Maximum Weed Size (inches)
Bedstraw	3
Beet, wild	3
Buttercup	3
Chickweed, common	3
Jimsonweed	3
Mustard,	
black	3
tumble	3
wild	3
Nightshade,	
black	3
Eastern black	3
hairy	3
Pennycress, field	3
Pigweed,	
redroot	3
smooth	3
spiny	3
Puncturevine	3
Radish, wild	3
Shepherd's-purse	3
Tansymustard, green	3

Broadleaf Weeds Suppressed by Raptor<sup>®</sup> herbicide in Lima Beans (Succulent)

	Raptor at 4 fl ozs/A + Basagran at 6 to 16 fl ozs/A	
	Maximum Weed Size (inches)	
Buckwheat, wild	3	
Chickweed, common	3	
Cocklebur, common	3	
Knotweed, prostrate	3	
Kochia <sup>1</sup>	3	
Lambsquarters, common	3	
Lettuce, miner's	3	
Morningglory, entireleaf	3	
ivyleaf	3	
smallflower	3	
tall	3	
Purslane, common	3	
Rocket, London	3	

# Broadleaf Weeds Suppressed by Raptor® herbicide in Lima Beans (Succulent) (continued)

	Raptor at 4 fl ozs/A + Basagran at 6 to 16 fl ozs/A	
	Maximum Weed Size (inches)	
Smartweed,		
ladysthumb	3	
Pennsylvania	3	
Spurge, prostrate	3	

1 Raptor controls non-ALS-resistant kochia only.

# Grass Weeds Controlled by Raptor® herbicide in Lima Beans (Succulent)

	Raptor at 4 fi ozs/A + Basagran at 6 to 16 fl ozs//	
	Maximum Weed Size (inches)	
Barnyardgrass	3	
Blackgrass	3	
Brome,		
cheat	3	
downy	3	
Japanese	3	
Canarygrass, littleseed	3	
Cereals, volunteer		
barley	3	
oat	3	
wheat (non-CLEARFIELD)	3	
Corn, volunteer <sup>1</sup>	2 to 8	
Darnel, Persian	3	
Foxtail,		
giant	3	
green	3	
yellow	3	
Jointed goatgrass	3	
Oats, wild	3	
Ryegrass, Italian	3	
Shattercane	3	
<sup>1</sup> Except imidazolinone-tolerant corn	· · · · · · · · · · · · · · · · · · ·	

1 Except imidazolinone-tolerant corn.

Grass Weeds and Sedges Suppressed by Raptor<sup>®</sup> herbicide in Lima Beans (Succulent)

	Raptor at 4 fl ozs/A + Basagran at 6 to 16 fl ozs/A	
	Maximum Weed Size (inches)	
Grasses		
Johnsongrass, rhizome	3	
Crabgrass,		
large	3	
smooth	3	
Sedges		
Nutsedge,		
purple	3	
yellow	3	
Quackgrass	3	

# Snap Beans

#### **DIRECTIONS FOR USE**

Raptor may be applied to snap beans in the states of Delaware, Idaho, Illinois, Indiana, Iowa, Maryland, Michigan, Minnesota, New York, Oregon, Pennsylvania, Virginia, Washington and Wisconsin only.

Occasionally, internode shortening and/or temporary yellowing of snap beans may occur following **Raptor** application. These effects can be more pronounced if snap beans are growing under stressful environmental or hot and humid conditions. These effects occur infrequently and are temporary. Normal growth and appearance should resume within days.

Apply **Raptor ONLY** if proper agronomic practices have been used, including good soil fertility, proper crop rotation, disease and insect management and tillage practices that eliminate compaction and hardpans. **DO NOT** apply to snap beans that have been injured from applications of soil-applied herbicides.

Apply **Raptor** postemergence to snap beans with at least 1 fully expanded trifoliate leaf and before the bloom stage. **For use in Idaho, Oregon and Washington**, apply **Raptor** to snap beans at first or second trifoliate leaf stage. Delay application until the majority of the weeds are at the specified growth stage. Application timing should be based on weed size and crop growth stage. Apply **Raptor** to crop and weeds that are actively growing.

# DO NOT apply Raptor to snap beans during flowering.

#### THIS PRODUCT WHEN USED ON SNAP BEANS MAY LEAD TO CROP INJURY, LOSS, OR DAMAGE. BASF RECOMMENDS THAT THE USER AND/OR GROWER TEST THIS PRODUCT TO DETERMINE ITS SUITABIL-ITY FOR SUCH INTENDED USE.

#### **Use Rate**

Apply **Raptor** at the broadcast rate of 0.031 lb imazamox ae/acre (4 fl ozs **Raptor**/acre) tank mixed with **Basagran® herbicide** at 6 fl ozs to 16 fl ozs/acre. When used in snap beans, **Raptor must be applied with Basagran to minimize crop response. Basagran** applications at rates higher than 16 fl ozs/acre may reduce grass control.

# NOTE: ADDITIONAL MIXING INSTRUCTIONS FOR SNAP BEANS

For use in Delaware, Illinois, Indiana, Iowa, Maryland, Michigan, Minnesota, New York, Pennsylvania, Virginia, and Wisconsin, a nonionic surfactant MUST be added to the spray solution. The nonionic surfactant MUST contain at least 80% active ingredient and should be used at 1 quart/100 gallons of spray solution. DO NOT use COC, MSO or HSOC.

For use in Idaho, Oregon and Washington, a nonionic surfactant and nitrogen fertilizer MUST be added to the spray solution. The nonionic surfactant MUST contain at

least 80% active ingredient and should be used at 1 guart/100 gallons of spray solution. Alternatively, crop oil concentrate (COC), methylated seed oil (MSO) or HSOC can be used. Use COC at 1 gallon/100 gallons of spray solution. Use MSO at 1 to 2 gallons/100 gallons of spray solution. Use HSOC at 0.5 gallon/100 gallons of spray solution.

Recommended nitrogen-based fertilizers include liquid fertilizers, such as 28-0-0, 32-0-0, or 10-34-0, at 2.5 gallons per 100 gallons of spray solution. Instead of a liquid fertilizer, spray-grade ammonium sulfate may be used at 12 to 15 pounds per 100 gallons of spray solution.

Raptor® herbicide tank mixes with any pesticide other than **Basagran<sup>®</sup> herbicide** are not recommended. Certain insecticide and herbicide tank mixes with **Raptor** in snap beans have shown unacceptable crop response.

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

- Make only 1 application of **Raptor** during the season.
- A maximum of 0.031 lb imazamox ae/acre (4 fl ozs Raptor/acre) per season may be applied to snap beans.
- Raptor applications must be made before snap beans bloom.

### Weeds Controlled (Snap Beans)

Raptor will control or suppress listed weeds when applied postemergence to 1-inch to 3-inch weeds (unless otherwise indicated) at the specified rates listed as follows.

#### Broadleaf Weeds Controlled by Raptor® herbicide in Snap Beans

	Raptor at 4 fl ozs/A + Basagran at 6 to 16 fl ozs/A	
	Maximum Weed Size	
	(inches)	
Bedstraw	3	
Beet, wild	3	
Buttercup	3	
Chickweed, common	3	
Jimsonweed	3	
Mustard,		
black	3_	
tumble	3	
wild	3	
Nightshade,		
black	33	
Eastern black	3_	
hairy	3	
Pennycress, field	3	
Pigweed,		
redroot	3	
smooth	3	
spiny	3	
Puncturevine	3	
Radish, wild	3	
Shepherd's-purse	3	
Tansymustard, green	3	

#### Broadleaf Weeds Suppressed by Raptor® herbicide in Snap Beans

33/40

<u> </u>	Raptor at 4 fl ozs/A + Basagran at 6 to 16 fl ozs/A	
	Maximum Weed Size (inches)	
Buckwheat, wild	3	
Chickweed, common	3	
Cocklebur, common	3	
Knotweed, prostrate	3	
Kochia <sup>1</sup>	3	
Lambsquarters, common	3	
Lettuce, miner's	3	
Morningglory,		
entireleaf	3	
ivyleaf	3	
smaliflower	3	
tall	3	
Purslane, common	3	
Rocket, London	3	
Smartweed,		
ladysthumb	3	
Pennsylvania	3	
Spurge, prostrate	3	

<sup>1</sup> Raptor controls non-ALS-resistant kochia only.

#### Grass Weeds Controlled by Raptor® herbicide in Snap Beans

	Raptor at 4 fl ozs/A + Basagran at 6 to 16 fl ozs//	
	Maximum Weed Size	
····	(inches)	
Barnyardgrass	3	
Blackgrass	3	
Brome,		
cheat	3	
downy	3	
Japanese	3	
Canarygrass, littleseed	3	
Cereals, volunteer		
barley	3	
oat	3	
wheat (non-CLEARFIELD)	3	
Corn, volunteer <sup>1</sup>	2 to 8	
Darnel, Persian	3	
Foxtail,		
giant	3	
green	3	
yellow	3	
Jointed goatgrass	3	
Oats, wild	3	
Ryegrass, Italian	3	
Shattercane	3	
<sup>1</sup> Except imidazolinone-tolerant corn.		

34/40

Grass Weeds and Sedges Suppressed by Raptor<sup>®</sup> herbicide in Snap Beans

	Raptor at 4 fl ozs/A + Basagran at 6 to 16 fl ozs//	
	Maximum Weed Size (inches)	
Grasses		
Johnsongrass, rhizome	3	
Crabgrass,		
large	3	
smooth	3	
Sedges		
Nutsedge,		
purple	3	
yellow	3	
Quackgrass	3	
S	oybeans	

#### **DIRECTIONS FOR USE**

**Raptor** is effective in controlling weeds in conservation tillage and conventional production systems. **Raptor** can be applied early postemergence in soybeans but before the bloom stage. Refer to the specific treatment under the **Application Information** section of the label.

Unusually cool temperatures (50° F or less) reduce photosynthesis and transpiration and, thus, reduce uptake, translocation, and efficacy of **Raptor** in weeds. Delaying a **Raptor** application for 48 hours from the time the temperature increases to above 50° F, if air temperature has been below 50° F for 10 or more hours, will improve weed control and reduce crop response.

# NO-TILL/MINIMUM TILLAGE AND DOUBLE-CROP SOYBEANS

**Raptor** controls existing weeds and provides residual activity on some weeds when applied early postemergence to soybeans in no-till or minimum tillage and double-crop soybean production systems. The application must be applied after emergence of the crop. Refer to the **Weeds Controlled (Soybeans)** tables for weeds controlled and specified weed size.

To ensure thorough coverage, use a minimum of 20 gallons of water/acre in no-till or minimum tillage systems. Use higher gallonage for fields with dense vegetation or heavy crop residues.

Prior to planting or emergence of soybeans, any glyphosate-containing product registered for that use may be applied to control emerged weeds. See specific product label for rates, use directions, precautions and restrictions.

#### Use Rates

APPLY 0.031 LB IMAZAMOX AE/ACRE (4 FL OZS OF Raptor/ACRE) WHEN PRECEDED BY A FULL RATE OF A REGISTERED SOIL-APPLIED GRASS HERBICIDE LIKE Prowl\* 3.3 EC herbicide OR Prowl\*  $H_2O$  herbicide.

#### OR

#### APPLY 0.040 LB IMAZAMOX AE/ACRE (5 FL OZS OF Raptor/ACRE) IN A TOTAL POSTEMERGENCE HER-BICIDE PROGRAM.

**Raptor** may be applied postemergence at a broadcast rate of 4 fl ozs/acre when it is preceded with a full labeled rate of a soil-applied grass herbicide such as **Prowl 3.3 EC** or **Prowl H**<sub>2</sub>**O**. At this rate 1 gallon of **Raptor** will treat 32 acres of soybeans. **Raptor** may be applied postemergence at a broadcast rate of 5 fl ozs/acre (including minimum and no-till). At this broadcast rate, 1 gallon of **Raptor** will treat 25.6 acres of soybeans.

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

- **Raptor** applications must be made before soybean bloom.
- Only 1 application of **Raptor** may be made during the season. **DO NOT** apply more than 0.04 lb ae imazamox (5 fl ozs **Raptor**) per acre per season.
- If soybeans are furrow irrigated, till the soil prior to planting winter wheat or barley. Break up the beds and mix the soil with tillage equipment set to cut 4 to 6 inches deep.

### Weeds Controlled (Soybeans)

When applied as directed, **Raptor** will control or suppress listed weeds as follows. Refer to the **Application Information** section for use directions when weeds are at the maximum specified growth stage or are under stress.

#### Broadleaf Weeds Controlled by Raptor® herbicide Alone or in a Sequential<sup>1</sup> Program in Soybeans

	Raptor Alone Postemergence	Prowl 3.3 EC or Prowl H <sub>2</sub> O Soil- applied followed by Raptor <sup>1</sup> Postemergence
	5 fl ozs/A	4 fl ozs/A
	Wee	ed Size
	(ind	ches)
Artichoke, Jerusalem	3 to 8	3 to 8
Carpetweed		2 to 4
Chickweed, common	2 to 5	2 to 5
Cocklebur, common	2 to 8	2 to 8
Jimsonweed	2 to 6	2 to 6
Kochia²	1 to 4	1 to 4
Lambsquarters, commor	2 to 5	2 to 5
Mallow, Venice	1 to 4	
Marshelder	2 to 4	2 to 4

#### Broadleaf Weeds Controlled by Raptor® herbicide Alone or in a Sequential<sup>1</sup> Program in Sovbeans (continued)

	Raptor Alone Postemergence	Prowl 3.3 EC or Prowl H <sub>2</sub> O Soil- applied followed by Raptor' Postemergence
	5 fl ozs/A	4 fl ozs/A
		ed Size ches)
Morningglory,		
entireleaf	2 to 4	
ivyleaf	2 to 4	
smallflower	2 to 4	
tall	2 to 4	
Mustard spp.	2 to 8	2 to 8
Nightshade,		
black	2 to 5	2 to 5
Eastern black	2 to 5	2 to 5
hairy	2 to 5	2 to 5
Pigweed,		
Palmer amaranth <sup>3</sup>	2 to 4	2 to 4
prostrate	2 to 5	2 to 5
redroot	2 to 8	2 to 8
smooth	2 to 8	2 to 8
spiny	2 to 5	2 to 5
Puncturevine	1 to 3	
Purslane, common	1 to 3	1 to 3
Pusley, Florida		2 to 4
Radish, wild	2 to 4	2 to 4
Ragweed,		
common <sup>3</sup>	2 to 5	
giant³	2 to 5	2 to 5
Smartweed,		
ladysthumb	2 to 5	2 to 5
Pennsylvania	2 to 5	2 to 5
Spurge, annual		<u>2 to 4</u>
Sunflower	2 to 8	2 to 8
Velvetleaf	2 to 8	2 to 8

<sup>1</sup> Soil-applied grass herbicide, such as Prowl 3.3 EC or Prowl H<sub>2</sub>O, is followed by a

 <sup>2</sup> Control of light-to-moderate populations only. For control of heavier populations, use a sequential application with a soil-applied grass herbicide, as described above.

<sup>a</sup> Control of light-to-moderate populations of ALS-susceptible biotypes only. For con-trol of heavier populations of ALS-tolerant biotypes, see the **HERBICIDE COMBI-NATIONS** section.

#### Broadleaf Weeds Suppressed by Raptor® herbicide Alone or in a Sequential' Program in Sovbeans

35/40

	Raptor Alone Postemergence	Prowl 3.3 EC or Prowl H <sub>2</sub> O Soil- applied followed by Raptor <sup>1</sup> Postemergence
	5 fl ozs/A	4 fl ozs/A
	Weed Size (inches)	
Bindweed,		
field (seedling)	2 to 4	2 to 4
hedge (seedling)	2 to 4	2 to 4
Buckwheat, wild	1 to 3	1 to 3
Mallow, Venice <sup>2</sup>		1 to 4
Morningglory, entireleaf <sup>2</sup>		2 to 4
ivyleaf <sup>2</sup>		2 to 4
pitted	2 to 4	2 to 4
smallflower <sup>2</sup>		2 to 4
tall <sup>2</sup>		2 to 4
Ragweed, common <sup>2</sup>		2 to 5
Sida, prickly	2 to 4	2 to 4
Sowthistle, annual	2 to 4	2 to 4
Thistle, Canada	2 to 5	2 to 5

<sup>1</sup> Soil-applied grass herbicide, such as Prowl 3.3 EC or Prowl H<sub>2</sub>O, is followed by a postemergence application of Raptor at a broadcast rate of 4 fl ozs per acre. <sup>2</sup> For control, see the 5 fl ozs rate and HERBICIDE COMBINATIONS section.

#### Grass Weeds Controlled by Raptor® herbicide Alone or in a Sequential<sup>®</sup> Program in Soybeans

	Raptor Alone Postemergence	Prowl 3.3 EC or Prowl H <sub>2</sub> O Soil- applied followed by Raptor <sup>a</sup> Postemergence
	5 fl ozs/A	4 fl ozs/A
		e <b>d Size</b> ches)
Barley, wild	2 to 4	2 to 4
Barnyardgrass	2 to 5⁵	2 to 5
Corn, volunteer⁴	2 to 8	2 to 8
Crabgrass,		
large		2 to 4
smooth		2 to 4
Crowfoot grass		2 to 5
Cupgrass, woolly		2 to 4
Foxtail,		
giant	2 to 6	2 to 6
green	2 to 6	2 to 6
yellow	2 to 6	2 to 6
Goosegrass		2 to 5
Johnsongrass, seedling	4 to 8	4 to 8
Millet, wild proso	2 to 4 <sup>b</sup>	2 to 4
Oats, wild	2 to 6	2 to 6

#### Grass Weeds Controlled by Raptor® herbicide Alone or in a Sequential® Program in Soybeans (continued)

	Raptor Alone Postemergence	Prowl 3.3 EC or Prowl H <sub>2</sub> O Soil- applied followed by Raptor <sup>a</sup> Postemergence	
	5 fl ozs/A	4 fl ozs/A	
	Weed Size (inches)		
Panicum,			
fall	2 to 6	2 to 6	
Texas		2 to 6	
Sandbur, field <sup>c</sup>		2 to 5	
Shattercane	2 to 8	2 to 8	
Signalgrass, broadleaf	2 to 5⁵	2 to 5	
Wheat, volunteer (non- <b>CLEARFIELD</b> )	2 to 4°	2 to 4	
Witchgrass		2 to 5	

\* Soil-applied grass herbicide, such as Prowl 3.3 EC or Prowl H<sub>2</sub>O, is followed by a postemergence application of Raptor at a broadcast rate of 4 fl ozs per acre.

<sup>b</sup> Control of light-to-moderate populations only. For control of heavier populations, use a sequential application with a soil-applied grass herbicide, as described above.

 For control, a dinitroaniline (DNA) herbicide, such as Prowl 3.3 EC or Prowl H<sub>2</sub>O, must be soil-applied at a full labeled rate.

" Except imidazolinone-tolerant corn.

#### Grass Weeds and Sedges Suppressed by Raptor® herbicide Alone or in a Sequential' Program in Soybeans

	Raptor Alone Postemergence	Prowl 3.3 EC or Prowl H <sub>2</sub> O Soil- applied followed by Raptor <sup>1</sup> Postemergence	
	5 fl ozs/A	4 fl ozs/A	
	Weed Size (inches)		
Grasses			
Crabgrass,			
large	2 to 4		
smooth	2 to 4		
Cupgrass, woolly	2 to 4		
Goosegrass	2 to 4		
Itchgrass		2 to 5	
Johnsongrass, rhizome	6 to 12	6 to 12	
Quackgrass		4 to 8	
Red rice		2 to 5	
Stinkgrass.	2 to 4		
Sedges			
Nutsedge,			
purple	1 to 3	1 to 3	
yellow	1 to 3	1 to 3	

Soil-applied grass herbicide, such as ProvI 3.3 EC or ProvI H<sub>2</sub>O, is followed by a postemergence application of Raptor at a broadcast rate of 4 fl ozs/acre.

#### HERBICIDE COMBINATIONS

#### **Grass Weeds**

Use a soil-applied grass herbicide (such as **Prowl® 3.3 EC herbicide** or **Prowl® H<sub>2</sub>O herbicide**) if heavy infestations of some grass weeds exist or if **Raptor** does not control the species present. Refer to the **Prowl 3.3 EC**, **Prowl H\_2O** or other grass herbicide label for specific use directions, rates and precautions.

36/40

Glyphosate may be tank mixed with **Raptor** to aid in control of certain grasses only in **Roundup Ready**<sup>®</sup> soybeans. **DO NOT** tank mix **Raptor** with **Extreme**<sup>®</sup> **herbicide**. If a selective postemergence grass herbicide, such as **Poast Plus**<sup>®</sup> **herbicide**, is mixed with **Raptor** to control species that are not controlled with **Raptor** alone, include MSO or COC (1 to 2 gallons/100 gallons) or an HSOC at 0.5 gallon/100 gallons **AND** liquid fertilizer (2.5 gallons/100 gallons) should be added to the tank mixture.

In some cases, the activity of the grass herbicide may be reduced when mixed with **Raptor**. The reduction in activity may be overcome by delaying the application of the postemergence grass herbicide 7 days following the application of **Raptor**. If the postemergence grass herbicide is applied first, wait 3 days before applying **Raptor**. Refer to the respective grass herbicide label for specific application rate, weed size and restrictions.

#### **Broadleaf Weeds**

Glyphosate may be tank mixed with **Raptor** to aid in control of certain broadleaf weeds only in **Roundup Ready** soybeans.

Tank mixing **Raptor** and certain broadleaf herbicides (e.g. diphenylethers and **Basagran® herbicide**) can reduce grass control; therefore, a sequential program including a soil-applied grass herbicide, such as **Prowl 3.3 EC** or **Prowl H<sub>2</sub>O**, is recommended for optimal control.

# Enhanced Control of Ragweed Species, Palmer Amaranth, Waterhemp, and Kochia

Use a soil application of **Prowl 3.3 EC** or **Prowl H<sub>2</sub>O** followed by a postemergence application of **Raptor** at a broadcast rate of 4 fl ozs to 5 fl ozs/acre plus a diphenylether, such as **Ultra Blazer® herbicide** (acifluorfen), or glyphosate for enhanced control of ragweed, Palmer amaranth, waterhemp, and kochia. Refer to the **Prowl 3.3 EC**, **Prowl H<sub>2</sub>O**, or **Ultra Blazer** labels for specific use directions, rates, restrictions and precautions.

When tank mixing **Raptor** and **Ultra Blazer**, apply **Raptor** at a broadcast rate of 5 fl ozs/acre or 4 fl ozs/acre when preceded by a full rate of a registered soil-applied grass herbicide. Apply **Ultra Blazer** at the following rates depending on weed height.

#### Ultra Blazer Rate (fl ozs/Acre)<sup>1</sup>

	8 to 10	12 to 14	16 to 20
Weed		Weed Size (inches)	
Kochia	2 to 4	4 to 6	6 to 8
Palmer amaranth	2 to 4	4 to 6	6 to 8
Ragweed spp.	2 to 4	4 to 6	6 to 8
Waterhemp spp.	2 to 4	4 to 6	6 to 8

<sup>1</sup> Use the higher rate if common ragweed is present or the weed population is high.

Enhanced Control of Ragweed and Giant Ragweed FirstRate<sup>®</sup> herbicide may be tank mixed with Raptor<sup>®</sup> herbicide to aid in the control of common ragweed and giant ragweed. When tank mixing FirstRate with Raptor, apply 0.15 to 0.3 fl oz/acre of FirstRate. Use the higher rate when weeds approach maximum labeled size. See the FirstRate label for specific rates and precautions. 37/40

### **Rotational Crop Restrictions**

Rotational crops may be planted after applying the specified rate of **Raptor** in the regions, as indicated on the map.



**Region 1** consists of states and parts of states WEST of US Highway 83 (Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming, and western parts of Kansas, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas).

**Region 2** consists of states and parts of states EAST of US Highway 83 (includes the eastern parts of Kansas, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas, and the states east of these states).

#### Rotational Interval (months) following Raptor® herbicide Application

Plant-back Interval (months)	Region 1		Region 2	
Anytime	CLEARFIELD <sup>®</sup> canola CLEARFIELD lentil CLEARFIELD rice CLEARFIELD sunflower CLEARFIELD wheat Dry beans and dry peas English peas Lima beans (succulent) Snap beans Soybeans		CLEARFIELD canola CLEARFIELD lentil CLEARFIELD rice CLEARFIELD sunflower CLEARFIELD wheat Dry beans and dry peas English peas Lima beans (succulent) Snap beans Soybeans	
3	Alfalfa Wheat <sup>se</sup> (non– <b>CLEARFIELD</b> )		Alfalfa Wheat⁵ (non- <b>CLEARFIELD</b> )	
4	Rye		Rye	
8-1/2	Corn (field, pop, seed, sweet, CLEARFIELD and non-CLEARFIELD)		Corn (field, pop, seed, sweet, CLEARFIELD and non-CLEARFIELD)	
9	Barley <sup>1</sup> Cantaloupe Cotton Grain sorghum Lettuce Millet Oat Onion	Peanut Pumpkin Rice Squash Sunflower Tobacco Watermelon	Barley <sup>1</sup> Broccoli Cabbage Cantaloupe Carrot Cotton Cucumber Grain sorghum Lettuce Millet Oat Onion	Peanut Pepper Potato <sup>2</sup> Pumpkin Rice Squash Sunflower Tobacco Tomato Turnip Watermelon
18	Barley <sup>;</sup> Broccoli Cabbage Carrot Cucumber <b>All other crops not</b>	Pepper Potato Tomato Turnip <b>listed in the</b>	Barley' Canola (non- <b>CLEARFIELD</b> ) Condiment mustard	
	Rotational Crop Restrictions		Rotational Crop Restrictions	
26	Canola (non- <b>CLEARFIELD</b> ) Condiment mustard	Sugar beet⁴ Table beet	Sugar beet <sup>3</sup> Table beet <sup>3</sup>	

<sup>1</sup> In Region 1 and Region 2, refer to the following table for rotational intervals for planting barley following applications of Raptor.

<sup>2</sup> In Region 2, refer to the following table for rotational intervals for planting potato following applications of Raptor.

<sup>3</sup> In **Region 2**, sugar beets and table beets can be planted 18 months following an application of **Raptor** if the soil pH is uniformly 6.2 or greater. If the soil pH is less than 6.2, the rotational interval is 26 months. Sugar beet yields can be reduced when grown in soil conditions with a pH less than 6.2. If the soil is limed to adjust the soil pH, apply the lime at least 18 months prior to planting sugar beet or other rotational crops under the 18-month rotational interval.

<sup>4</sup> For sugar beets grown in parts of Nebraska west of Highway 83, and Platte, Goshen and Laramie counties in Wyoming, follow the sugar beet rotational crop restrictions for **Region 2** for sprinkler-irrigated fields only. If fields are dryland, flood or furrow irrigated, follow restrictions for **Region 1**. A minimum of 10 inches of overhead irrigation must be applied each season to qualify for **Region 2** guidelines.

<sup>5</sup> Planting non-CLEARFIELD spring or winter wheat in areas receiving less than 10 inches of precipitation from the time of Raptor application up until wheat planting may result in wheat injury. The possibility of injury increases if less than normal precipitation occurs from the time of application to planting and/or within the first 2 months after Raptor application.

<sup>e</sup> In Region 1, refer to the following table for rotational intervals for planting non-CLEARFIELD wheat following applications of Raptor.

based on pH, Moisture and Ti (Region 1 and Region 2)	Barley Rotational Interval		Moldboard Plowing	
	liage –	NO	YES	
pH and Rainfall requirements	>18 inches R+I AND pH >6.2	9 months	9 months	
	<18 inches R+I OR pH <6.2	18 months	9 months	
(Region 2)	>18 inches R+I AND pH >6.2	9 mo		

1			
	>10 inches R+I AND pH >6.2	3 months	3 months
pH and Rainfall requirements	<10 inches R+I OR pH <6.2	15 months	3 months

Non-CLEARFIELD Wheat Rotational Interval based on pH, Moisture and Tillage (WA and selected counties in ID* and OR**)		Moldboard Plowing	
		NO	YES
pH and Rainfall requirements	>16 inches R+I AND pH >6.2	3 months	3 months
	<16 inches R+I OR pH <6.2	15 months	15 months

\*Selected counties in Idaho: Benewah, Bonner, Boundary, Clearwater, Idaho, Kootenai, Latah, Lewis, Nez Perce and Shoshone. \*\*Selected counties in Oregon: All but Malheur.

When taking soil samples to determine soil pH, use a grid sampling technique, sampling to a depth of 3 to 4 inches.

**R+I** = Rainfall and overhead irrigation from the time of **Raptor® herbicide** application up until time of barley, non-**CLEARFIELD** wheat, or potato planting. **Does not include furrow or flood irrigation.** 

If the rainfall or pH requirements are not fully met, and barley or non-**CLEARFIELD** wheat is planted prior to the specified rotation interval, injury may be reduced by tillage, such as deep disking (greater than 6 inches deep) after crop harvest but prior to November 1.

The possibility of injury to barley or non-**CLEARFIELD** wheat planted the next season increases **if less than normal precipitation occurs from the time of application to planting and/or within the first two months after Raptor application**.

# **Furrow-Irrigated and Flood-Irrigated Crops**

Following harvest of furrow-irrigated or flood-irrigated crops, the soil should be thoroughly mixed by plowing or deep disking to minimize the potential for herbicide carryover to the following crop.

Use of **Raptor** in accordance with label directions is expected to result in normal growth of rotational crops in most situations; however, various environmental and agronomic factors, such as arid conditions, make it impossible to eliminate all risks associated with the use of this product and, therefore, rotational crop injury is always possible.

### **GENERAL PRECAUTIONS**

In the event of a crop loss due to weather, dry beans, dry peas, **CLEARFIELD** canola, **CLEARFIELD** corn, **CLEARFIELD** lentil, **CLEARFIELD** sunflowers, **CLEARFIELD** wheat, peas (English), lima beans (succulent), snap beans, or soybeans can be replanted. **DO NOT** make an additional application of **Raptor**.

Application of products containing chlorimuron ethyl (herbicides such as **Canopy**<sup>®</sup> **herbicide**, etc.), metsulfuron-methyl (**Harmony**<sup>®</sup> **Extra herbicide**), imazaquin (**Scepter**<sup>®</sup> **70 DG herbicide**) or imazethapyr (**Pursuit**<sup>®</sup> **herbicide**, **Pursuit**<sup>®</sup> **Plus EC herbicide**) the same year as **Raptor** may increase the risk of injury to sensitive rotational crops. Consult all pertinent labels for use of these products in combinations.

If arid conditions occur during the year of application, rotational crop injury may occur.

40/40

### **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. 1108

#### USES WITH OTHER PRODUCTS (TANK MIXES)

If this product is used in combination with any other product except as specifically instructed in writing by BASF, then to the extent consistent with applicable law, BASF shall have no liability for any loss, damage or injury arising out of its use in any such combination not so specifically specified. If used in combination as instructed by BASF, to the extent consistent with applicable law, the liability of BASF shall in no manner extend to any damage, loss or injury not directly caused by the inclusion of the BASF product in such combination use, and in any event, to the extent consistent with applicable law, shall be limited to return of the amount of the purchase price of the BASF product. Banvel, Basagran, Clarity, CLEARFIELD, Clearpath, Extreme, Newpath, Poast Plus, Prowl, Pursuit, Raptor, Rezult, and Scepter are registered trademarks of BASF.

**Bronate** and **Buctril** are registered trademarks of Bayer CropScience USA, Inc.

*Curtail, FirstRate, Hornet, Lorsban, Starane, and Stinger* are registered trademarks of Dow AgroSciences *LLC.* 

Furadan is a registered trademark of FMC Corporation.

*Canopy, Finesse, Harmony, and Staple are registered trademarks of E.I. duPont de Nemours and Co., Inc.* 

Roundup Ready is a registered trademark of Monsanto.

**Blazer** is a registered trademark of United Phosphorus, Inc.

© 2009 BASF Corporation All rights reserved.

000241-00379.20090413.**NVA 2009-04-133-0067** Supersedes: NVA 2008-04-133-0066 Based on: NVA 2007-04-133-0188 Supplemental: NVA 2007-04-133-0140

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



The Chemical Company