

# Specimen Label



## Herbicide

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**For selective postemergence weed control in rice in the states of Arkansas, Florida, Louisiana, Mississippi, Missouri, Tennessee and Texas**

### Active Ingredient:

penoxsulam: 2-(2,2-difluoroethoxy)-N-(5,8-dimethoxy[1,2,4] triazolo[1,5c]pyrimidin-2-yl)-6-(trifluoromethyl)benzenesulfonamide .....	2.77%
triclopyr: 3,5,6,-trichloro-2-pyridinyloxyacetic acid, triethylamine salt.....	23.06%
Other Ingredients.....	74.17%
Total .....	100.00%

Contains 0.25 lb of active ingredient penoxsulam and 2.06 lb active ingredient triclopyr triethylamine salt (1.5 lb acid equivalent) per gallon

### Keep Out of Reach of Children

## WARNING AVISO

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

### Agricultural Use Requirements

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

Refer to inside of label booklet for additional precautionary information including Directions for Use.

**Notice:** Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 62719-610

## Precautionary Statements

### Hazards to Humans and Domestic Animals

## WARNING

**Causes Substantial But Temporary Eye Injury • Harmful If Swallowed • Prolonged Or Frequently Repeated Skin Contact May Cause Allergic Reactions In Some Individuals**

**Do not get in eyes or on clothing. Avoid contact with skin or clothing.**

### Personal Protective Equipment (PPE)

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves
- Protective eyewear (goggles, face shield, or safety glasses)

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables are given, use detergent and hot water. Keep and wash PPE separately from other laundry.

### Engineering Controls

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### User Safety Recommendations

#### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### First Aid

**If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**If swallowed:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may contact 1-800-992-5994 for emergency medical treatment information.

### Environmental Hazards

Except when treating rice fields as specified in this product label, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

## Directions for Use

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

Read all Directions for Use carefully before applying.

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 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks
- Protective eyewear

### Storage and Disposal

Do not contaminate water, food or feed by storage and disposal.

**Pesticide Storage:** Store in cool dry place in original container.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

#### Nonrefillable containers 5 gallons or less:

**Container Handling:** Nonrefillable container. Do not reuse or refill this container.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** 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. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

#### Refillable containers 5 gallons or larger:

**Container Handling:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal,

### Storage and Disposal (Cont.)

empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

#### Nonrefillable containers 5 gallons or larger:

**Container Handling:** Nonrefillable container. Do not reuse or refill this container.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** 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 a 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. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

## General Information

Grasp® *Xtra* herbicide is a postemergence herbicide for selective control of susceptible grass, broadleaf, and annual sedge weeds in rice. Susceptible weeds emerged at the time of application will be controlled. A spray volume of 10 gallons or more per acre (gpa) and uniform coverage are required for optimum performance. Thorough coverage of target weeds is important. Grasp *Xtra* is rainfast within 1 hour after application and has soil residual herbicidal activity dependent upon weed species, soil type, soil moisture (rainfall or irrigation after application) and the rate of application. Do not apply Grasp *Xtra* later than 3 months prior to crawfish production.

Rice crops grown under adverse environmental conditions, such as extreme cold or heat, may express temporary crop injury, including slight height reduction or root stunting, when Grasp *Xtra* is applied. Any crop stress or environmental factors which decrease plant metabolism and growth may reduce weed control efficacy and crop tolerance. Such effects are transient and do not affect yield. Grasp *Xtra* may be used on all rice varieties.

## General Use Precautions and Restrictions

- **Preharvest Interval:** Do not apply within 60 days before rice harvest. Do not apply to any other crop or site.
- 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.
- Do not rotate treated land to crops other than rice for 3 months following application.
- Use of an agriculturally approved crop oil concentrate or methylated seed oil adjuvant at a minimum of 1 quart per acre is necessary with Grasp *Xtra*.
- Do not use organosilicone surfactants in spray mixtures of this product.

- Do not apply this product prior to the 2- to 3-leaf stage or after the 1/2" internode elongation stage of rice development (see special water seeded rice timing of application instructions in Application Instructions, Water Seeded Rice). Do not apply in the booting or subsequent stages of rice development.
- Direct application to ditches used to transport irrigation water is prohibited.
- Do not apply more than 22 fl oz of Grasp Xtra per acre in a single application.
- Do not make more than 1 application or apply more than 22 fl oz of Grasp Xtra per acre during the growing season in both the first and ratoon crops combined.
- A sequential application of Grandstand® R herbicide can be made at no more than 1 pint per acre at least 20 days before or after applying Grasp Xtra. Follow all restrictions on the label for Grandstand R.
- Do not apply Grasp Xtra less than 20 days prior to draining the field unless the water is contained within a tailwater recovery system or other system appropriate for preventing discharge from rice. Discharge is permitted 20 days following the last application of Grasp Xtra within the system.
- Poor weed control may result from application of Grasp Xtra made to plants under stress from abnormally hot or cold weather; environmental conditions such as drought, hail damage, hydrogen sulfide, or high pH soils; or prior herbicide applications.
- Do not apply where runoff or irrigation water may flow directly onto agricultural land other than rice fields.
- Do not tank mix Grasp Xtra with malathion or methyl parathion. Do not make an application of malathion or methyl parathion within 7 days of an application of Grasp Xtra.
- Do not apply Grasp Xtra directly to, or otherwise permit Grasp Xtra to come into contact with, cotton, soybeans, grapes, tobacco, vegetable crops, flowers, ornamental shrubs or trees, or other desirable broadleaf plants, as serious injury may occur. Do not permit spray mists containing Grasp Xtra to drift onto desirable broadleaf plants.
- Application of Grasp Xtra to fields which have been leveled (except water leveling) within 12 months prior to application may result in serious rice injury in areas that have been cut or filled.
- Application of Grasp Xtra to rice grown in soils with pH >7.8 or high salt content may result in serious rice injury.
- Except for crawfish, do not fish or commercially grow fish, shellfish or crustaceans on treated acres during the year of treatment. For crawfish production, do not apply Grasp Xtra later than 3 months prior to crawfish harvest.
- Do not allow tank mixes of Grasp Xtra to sit overnight.
- Do not overlap or double spray ends of fields.
- Do not apply Grasp Xtra with 32% liquid nitrogen fertilizer or zinc fertilizer.
- **Chemigation:** Do not apply this product through any type of irrigation system.
- Do not use Grasp Xtra on wild rice.

### Spray Drift Management

**Avoiding spray drift is the responsibility of the applicator.** The interaction of many equipment and weather related factors determine the potential for spray drift. Make applications only when there is little or no hazard from spray drift. The applicator, crop consultant, and grower are responsible for considering all of these factors when making the decision to apply this product.

**Avoid all direct or indirect contact with non-target plants.** Do not apply near desirable vegetation. Allow adequate distance between target area and desirable plants to minimize exposure.

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

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications:

- The distance between the outer most nozzles on the boom must not exceed 70% of the wingspan of fixed-wing aircraft or 80% of the helicopter rotor width.
- Nozzle set up must use a coarse spray quality category per ASABE S-572 Standard.

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

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory. The best drift management strategy is to apply the largest droplets that minimize drift and provide sufficient coverage of weeds.

### Endangered Species

If endangered plant species occur in the proximity of the application site, the following mitigation measure is required to avoid adverse effects:

- Leave untreated buffer zones of 25 feet for ground applications or 200 feet for aerial applications.

To determine whether your county has an endangered terrestrial plant species, consult <http://www.epa.gov/espp/usa-map.htm>. Endangered Species Bulletins may also be obtained from extension offices or state pesticide agencies. If the bulletin is not available for your specific area, check with the appropriate local state agency to determine if known populations of terrestrial endangered plants occur in the area to be treated.

### Aerial Drift Reduction Advisory

**Information on Droplet Size:** For ASABE S-572 Standard compliance, see nozzle manufacturer catalogs, NAAA booklet, or USDA literature or website <http://apmru.usda.gov/> for nozzle and application conditions. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Larger droplets reduce 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.
- **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 air stream produces larger droplets than other orientations and is the recommended practice.
- **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:** Reducing the effective boom length to 70% of the wingspan of fixed-wing aircraft or 80% of the helicopter rotor width 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, the applicator must

compensate for this displacement by adjusting the path of the aircraft or boom on-off. Swath adjustment distance should increase, with increasing drift potential (higher wind, height, smaller drops, 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 due to variable wind direction and high inversion potential. Application is not allowed when wind speeds exceed 10 mph due to risk of direct drift to sensitive crops. **Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift. **Note:** State and local regulations with regard to minimum and maximum wind speeds during aerial application may be more restrictive. Aerial applicators should be familiar with these regulations.

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

**Temperature Inversions:** Applications should not occur during a local, low level temperature inversion because drift potential is high. Small droplets can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of the 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.

## Mixing Instructions

### Use of Adjuvants

Use of an agriculturally approved crop oil concentrate or methylated seed oil adjuvant at a minimum of 1 quart per acre is necessary with Grasp *Xtra*. When an adjuvant is to be used with this product, Dow AgroSciences recommends the use of a Chemical Producers and Distributors Association certified adjuvant. Read and follow all use directions and precautions on crop oil concentrate labels.

### Grasp *Xtra* - Alone

Fill spray tank to one-half full with water. Start agitation. Add correct quantity of Grasp *Xtra* and recommended adjuvant. Continue agitation while filling spray tank to required volume and during application.

### Grasp *Xtra* - Tank Mixes

Continuous agitation is required for tank mixes. Sparger pipe agitators generally provide the best agitation in spray tanks.

Grasp *Xtra* may be applied in tank mix combination with labeled rates of Command (clomazone-containing products), pendimethalin, propanil-containing products, Clincher® SF herbicide, Facet (quinclorac-containing products), Londax (bensulfuron-containing products), Newpath and Permit (halosulfuron-containing products). Tank mixing or sequential applications to stressed weeds of Grasp *Xtra* with propanil-containing products may result in reduced control of some weeds (i.e., alligatorweed). Tank mixing Grasp *Xtra* with Facet (quinclorac-containing products) may result in reduced control of annual smartweed. Tank mixing or using Grasp *Xtra* with any other product not specifically and expressly authorized by the label shall be the exclusive risk of the user, applicator and/or application advisor. When tank mixing, follow label directions, including application rates, use precautions and limitations on each respective label. Applications to rice less than 3 leaves may cause unacceptable injury.

**Tank Mix Compatibility Testing:** When tank mixing Grasp *Xtra* with other materials, a compatibility test (jar test) using relative proportions of the tank mix ingredients should be conducted prior to mixing ingredients in the spray tank. Use a clear glass quart jar with lid and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately one-half (1/2) hour. If the mixture balls-up, forms flakes, sludges, jels, oily films or layers, or other precipitates, it is not compatible and the tank mix combination should not be used.

**Mixing Order:** Fill the tank one-third (1/3) full with water. Start the agitation. Different formulation types should be added in the following order: dry flowables (DF), wettable powders (WP), aqueous suspensions (AS), flowables (F), or liquids (L). Allow each product type to completely disperse before adding another. Continue agitation and fill tank to three-fourths (3/4) full, add the correct quantity of Grasp *Xtra* and mix thoroughly. Finally, add any solution (S) formulations or surfactant, agitate and finish filling. Maintain agitation during filling and during application. If spraying and agitation must be stopped before the tank is empty, suspended materials may settle to the bottom. It is important to resuspend all of the settled material before continuing application. A sparger agitator is particularly useful for this purpose. Do not allow tank mixes to set overnight.

Carefully follow all mixing instructions for each material added to the tank. Initial dispersion of dry or flowable formulations can be improved by mixing with a small amount of water (slurrying) and pouring the slurry through a 20 to 35 mesh wetting screen in the top of the spray tank. Line screens in the tank should be no finer than 50 mesh (100 mesh is finer than 50 mesh).

## Application Instructions

### Environmental Conditions and Herbicidal Activity of Grasp *Xtra*

Factors for effective weed control with Grasp *Xtra* include proper application rate, weed size, daytime and nighttime temperatures, soil moisture prior to and following application, and use of adjuvants. Best weed control results are obtained when Grasp *Xtra* is applied to small, actively growing weeds, when daytime and nighttime temperatures are warm (60°F or more), and soil moisture is adequate to support active weed growth prior to and following application. If weeds are under drought stress, consider delaying application until more favorable conditions resume. Application when weeds are moisture stressed or larger than the recommended size for control may result in only partial control.

- Grasp *Xtra* is rainfast in 1 hour.
- Applications made immediately prior to, during, or immediately following periods of large day/night temperature fluctuations or where daytime and nighttime temperatures do not exceed 60°F may decrease weed control.
- Poor weed control may result from application of Grasp *Xtra* made to plants under stress from abnormally hot or cold weather; environmental conditions such as drought, hail damage, hydrogen sulfide, or high pH soils; or prior herbicide applications.

### Aerial Application

Apply in a spray volume of 10 gpa or more when applying by air. Apply with coarse droplet category per S-572 ASABE standard; see NAAA, USDA or nozzle manufacturer guidelines. Follow guidelines in the Aerial Drift Reduction Advisory to minimize potential drift to off-target vegetation. Aircraft should be patterned per Operation Safe/PAASS program for calibration and uniformity to provide sufficient coverage and control.

### Ground Application

Apply in a spray volume of 10 gpa or more when applying by ground. Use coarse or coarser nozzle spray quality per S-572 ASABE standard; see USDA literature or nozzle manufacturer guidelines. Follow nozzle manufacturer's recommendations for nozzle pressure, spacing and boom height to provide a uniform spray pattern. Follow appropriate Spray Drift Management information where drift potential is a concern.



## Application Timing

### Drill Seeded Rice

Grasp *Xtra* may be applied to drill seeded rice from the 2 to 3 leaf to 1/2" internode elongation stage of growth. Within this application window, application timing is dependent upon cultural practices and optimum timing for weed species present. (See Application Rates and Weeds Controlled table.) Do not apply if crop or weeds are under drought stress.

A shallow flood may be applied no sooner than 72 hours following application of Grasp *Xtra*. If the weeds are drought stressed, flush the field (with irrigation or adequate rainfall) before applying Grasp *Xtra* so that weeds are actively growing at time of treatment.

**Preflood Application:** Adequate soil moisture for actively growing weeds is essential for preflood applications. Flushing of rice fields may be necessary prior to application if rice or weeds are moisture stressed. Residual water remaining in the field does not adversely affect weed control as long as weeds are at least 70% exposed. Flushing fields or rainfall after application may improve weed control. After application, follow standard cultural practices for flooding fields. Following the application, wait at least 3 days before establishing the permanent flood, then establish permanent flood as soon as rice can tolerate flooding. Reinfestation of some weeds may occur if a permanent flood is not established in a timely manner. One sequential application of Grandstand R at up to 1 pint per acre can be applied before or after applying Grasp *Xtra*. Allow at least 20 days between applications. Follow all rice stage growth restrictions for applications of Grandstand R in rice.

**Postflood Application:** Prior to application, the flood water must be lowered to expose at least 70% of the weed foliage. A shallow flood depth in the field (1 to 2 inches deep) will not adversely affect weed control. Rice crowns need to be completely covered by water. Do not raise water level until at least 48 hours after application.

If Grasp *Xtra* is applied as a post flood salvage treatment (e.g., heavy weed infestations, headed weeds, failure of previous herbicide applications, and/or previously untreated areas), it should be considered an emergency salvage treatment. Good control of labeled weeds should not be expected. Regrowth of treated weeds may occur.

### Water Seeded Rice

Grasp *Xtra* may be applied to water seeded rice from the 3 to 4 leaf to 1/2" internode elongation stage of growth. Rice crowns need to be completely covered by water. Within this application window, application timing is dependent upon cultural practices and optimum timing for weed species present. (See Application Rates and Weeds Controlled table.) Do not apply if crop or weeds are under drought stress.

Fields must be partially drained to expose weeds prior to application. Treatments should be made when weeds are well emerged above the water surface. Residual water remaining in the field does not adversely affect weed control so long as weeds are at least 70% exposed. Weeds submerged at the time of application will not be controlled. If water level is dropped to expose weeds prior to application, do not raise water level for at least 48 hours after application. The growing points of rice plants at the soil surface (crown) should be covered with water at the time of application.

For delayed flood application, do not allow excessive drying of the soil which may cause the weeds to become drought stressed resulting in unacceptable weed control. For best results, soils should be moist at application and maintain good soil moisture after application by flushing or rainfall until establishment of permanent flood. After an application of Grasp *Xtra* to a partially drained field with standing water present over the entire field, wait at least 3 hours before beginning the establishment of the permanent flood. If the field is completely drained with no standing water at application, wait at least 3 days before beginning the establishment of the permanent flood.

One sequential application of Grandstand R at up to 1 pint per acre can be applied before or after applying Grasp *Xtra*; allow at least 20 days between applications. Follow all rice stage growth restrictions for applications of Grandstand R in rice.

**Note:** Rice is most tolerant to postemergence applications of Grasp *Xtra* from the 2- to 3-leaf stage to the 1/2" internode elongation stage of rice development. Postemergence applications of Grasp *Xtra* may result in temporary rice injury that appears as leaf chlorosis or stunting. Rice will normally recover from these symptoms in two to four weeks. Treatments applied after the 1/2" internode elongation stage may result in increased rice injury. Do not apply in the booting or subsequent stages.

## Resistance Management

Grasp *Xtra* contains two different mode of action products. The modes of action of Grasp *Xtra* are the inhibition of the acetolactate synthase (ALS) enzyme and auxin inhibition. Weed populations may develop biotypes that are resistant to different herbicides with the same mode of action. If herbicides with the same mode of action are used repeatedly in the same field, resistant biotypes may eventually dominate the weed population and may not be controlled by these products. Other resistance mechanisms, such as enhanced metabolism, may also exist and may cause reduced weed control.

This product should be used as part of an Integrated Pest Management (IPM) program that may include biological, cultural, and chemical practices aimed at preventing economic pest damage. Application of this product should be based upon appropriate IPM and resistance management strategies and practices that delay or reduce the development of resistant weed biotypes. Such practices include, but are not limited to, field scouting, use of weed free crop seed, proper water management, correct weed pest identification, following rotational practices outlined on pesticide labels, and treating when target weed populations are at the correct stage and economic thresholds for control. Make only 1 application per year of Grasp *Xtra*. Allow at least 20 days between applications. Follow all rice stage growth restrictions for applications of Grandstand R in rice.

To delay development of herbicide resistance, the following practices are recommended:

- The use of herbicides with the same mode of action should not be used in sequential applications.
- Grasp *Xtra* can be tank mixed or used sequentially with other approved ALS mode of action products to broaden the spectrum of weed control and control weeds that Grasp *Xtra* does not control.
- Herbicides should be used based upon an IPM program.
- Monitor treated areas and control escaped weeds.
- Contact local extension or crop advisor for IPM and resistance management information.

## Application Rates and Weeds Controlled

Weeds Controlled Preflood		Application Rates and Stage of Weed Development
Common Name	Scientific Name	16 to 18 fl oz/acre
arrowhead cocklebur dayflower ducksalad eclipta hemp sesbania Indian/northern jointvetch morningglory spp. rice flatsedge smartweed spp., annual	<i>Sagittaria</i> spp. <i>Xanthium strumarium</i> <i>Commelina communis</i> <i>Heteranthera limosa</i> <i>Eclipta alba</i> <i>Sesbania exaltata</i> <i>Aeschynomene</i> spp. <i>Ipomoea</i> spp. <i>Cyperus iria</i> <i>Polygonum</i> spp.	up to 7 leaf
barnyardgrass <sup>1</sup> ground cherry junglerice pigweed redstem water hysopp	<i>Echinochloa crus-galli</i> <i>Physalis</i> spp. <i>Echinochloa colona</i> <i>Amaranthus</i> spp. <i>Ammannia</i> spp.	up to 4 leaf
Texas/Mexicanweed	<i>Caperonia</i> spp.	up to 3 leaf
alligatorweed	<i>Alternanthera philoxeroides</i>	<24" runners
Weeds Suppressed Preflood		
Common Name	Scientific Name	18 to 22 fl oz/acre
perennial barnyardgrass	<i>E. polystacha</i>	<18"
Weeds Controlled Postflood		
Common Name	Scientific Name	18 to 22 fl oz/acre
barnyardgrass <sup>1</sup>	<i>Echinochloa crus-galli</i>	prior to heading
ducksalad eclipta morningglory spp. redstem	<i>Heteranthera limosa</i> <i>Eclipta alba</i> <i>Ipomoea</i> spp. <i>Ammania</i> spp.	<6"
arrowhead hemp sesbania Indian/northern jointvetch	<i>Sagittaria</i> spp. <i>Sesbania exaltata</i> <i>Aeschynomene</i> spp.	<15"
ricefield bulrush rice flatsedge smartweed spp., annual	<i>Scirpus mucronatus</i> <i>Cyperus iria</i> <i>Polygonum</i> spp.	<12"
alligatorweed	<i>Alternanthera philoxeroides</i>	<24" runners
Weeds Suppressed Postflood		
Common Name	Scientific Name	18 to 22 fl oz/acre
perennial barnyardgrass	<i>E. polystacha</i>	<18"
Texas/Mexicanweed	<i>Caperonia</i> spp.	<12"

<sup>1</sup>Including propanil and Facet resistant barnyardgrass.

**Note:** Do not make more than 1 application or apply more than 22 fl oz of Grasp Xtra per acre during the growing season in both the first and ratoon crops combined. One sequential application of Grandstand R at up to 1 pint per acre can be applied before or after applying Grasp Xtra. Allow at least 20 days between applications. Follow all rice stage growth restrictions for applications of Grandstand R in rice.

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## Terms and Conditions of Use

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If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies.

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## Warranty Disclaimer

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Dow AgroSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

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## Inherent Risks of Use

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It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Dow AgroSciences or the seller. To the extent permitted by law, all such risks shall be assumed by buyer.

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## Limitation of Remedies

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To the extent permitted by law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Dow AgroSciences' election, one of the following:

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used.

To the extent permitted by law, Dow AgroSciences shall not be liable for losses or damages resulting from handling or use of this product unless Dow AgroSciences is promptly notified of such loss or damage in writing. In no case shall Dow AgroSciences be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Dow AgroSciences or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

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