Specimen Label

CORTEVA™ agriscience

Grasp® SC

HERBICIDE

For selective pre-emergence and post-emergence weed control in rice in the states of Arkansas, Florida, Louisiana, Mississippi, Missouri and Texas

PENOXSULAM	Group	2	HERBICIDE

Active Ingredient:
penoxsulam: 2-(2,2-difluoroethoxy)-N-(5,8-dimethoxy[1,2,4] triazolo[1,5c]pyrimidin-2-yl)-6-(trifluoromethyl)benzenesulfonamide..... 21.7%
Other Ingredients..... 78.3%
Total 100.0%

Contains 2 lb of active ingredient per gallon

First Aid

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further 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.

Precautionary Statements

Hazards to Humans and Domestic Animals

EPA Reg. No. 62719-500

Keep Out of Reach of Children

CAUTION PRECAUCION

Harmful If Inhaled

Avoid breathing spray mist.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:
- Long-sleeved shirt and long pants
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, 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 PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

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 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:
- Coveralls
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

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 Reuse: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.
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.

Refillable containers 5 gallons or larger:
Container Reuse: 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, 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.

Storage and Disposal (Cont.)

Nonrefillable containers 5 gallons or larger:
Container Reuse: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.
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.

Information

Grasp® SC herbicide is a pre-emergence and post-emergence herbicide for selective control of susceptible grass, broadleaf, and annual sedge weeds in rice. Susceptible weeds emerged at the time of application or which germinate soon after application will be controlled. A spray volume of 8 to 10 gallons per acre (gpa) or more and uniform coverage are required for optimum performance. Grasp SC is rainfast within 1 hour after application and has soil residual herbicidal activity dependent on weed species, soil type, soil moisture (rainfall or irrigation after application) and the rate of application. Grasp SC can be applied to rice fields used for crayfish production.

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

Use Precautions

- Apply Grasp SC in a minimum of 5 gallons per acre (GPA) spray solution. Use of low spray volumes (5 to 10 GPA) may provide poor coverage and may not provide adequate weed control. Regrowth and poor control of susceptible weeds may occur with low spray volumes.
- Poor weed control may result from application of Grasp SC 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.
- Application of Grasp SC 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 SC as a preflood treatment to rice grown in soils with pH >7.8 or high salt content may result in serious rice injury. This soil pH restriction does not apply to postflood applications.

Use Restrictions

- **Preharvest Interval:** Do not apply within 60 days of rice harvest.
- Do not rotate treated land to crops other than rice for 3 months following application.
- Do not make more than 2 applications or apply more than 5.6 fl oz of Grasp SC per acre (0.088 lb ai penoxsulam) during the year in both the first and ratoon crops combined. Do not apply more than 2.8 fl oz/ac Grasp SC (0.044 lb penoxsulam per acre) in a single application. Apply 2 fl oz Grasp SC per acre (0.031 lb penoxsulam per acre) in rice as a pre-emergence application provided the total amount of Grasp SC applied during one year does not exceed 5.6 fl oz per acre (0.088 lb penoxsulam per acre) in the first and ratoon crop.
- Sequential applications of Grasp SC must be made at least 14 days apart.
- Use of an agriculturally approved crop oil concentrate or methylated seed oil adjuvant at a minimum of 1 quart per acre is necessary with post-emergence applications of Grasp SC.
- Do not use organosilicone surfactants in spray mixtures of this product.
- Do not apply where runoff or irrigation water may flow directly onto agricultural land other than rice fields.
- Do not tank mix Grasp SC with malathion or methyl parathion. Do not make an application of malathion or methyl parathion within 7 days of an application of Grasp SC.
- Do not apply Grasp SC directly to, or otherwise permit Grasp SC 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 SC to drift onto desirable broadleaf plants.
- Except for crayfish, do not fish or commercially grow fish, shellfish or crustaceans on treated acres during the year of treatment.
- Do not allow tank mixes of Grasp SC to sit overnight.
- Do not overlap or double spray ends of fields.
- **Chemigation:** Do not apply this product through any type of irrigation system.
- Do not use on wild rice (Zizania species).

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 post-emergence applications of Grasp SC. Read and follow all use directions and precautions on crop oil concentrate labels.

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

Grasp SC - Tank Mixes
Continuous agitation is required for tank mixes. Sparger pipe agitators generally provide the best agitation in spray tanks.

Grasp SC may be applied in tank mix combination with products approved for this use, such as: Command, pendimethalin, propanil-containing products, Grandstand® R herbicide, Clincher® SF herbicide, Facet, Londax, Newpath and Permit. Tank mixing or sequential applications to stressed weeds of Grasp SC with propanil-containing products may result in reduced control of some weeds (i.e., alligatorweed). Tank mixing Grasp SC with Facet may result in reduced control of annual smartweed. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Tank Mix Compatibility Testing: When tank mixing Grasp SC 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, gels, oily films or layers, or other precipitates, it is not compatible and the tank mix combination must 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 SC 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 re-suspend 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).

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 must only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, 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:

1. 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.
2. 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 must 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 must not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment: When applications are made with a crosswind, the swath will be displaced downwind. Therefore, 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 must 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 must 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 must 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 must 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.

Application Instructions

Environmental Conditions and Herbicidal Activity of Grasp SC
Factors for effective post-emergence weed control with Grasp SC 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 SC 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 SC 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 SC 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 5 to10 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 Spray Drift Management and 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
Grasp® SC herbicide may be applied to rice as a pre-emergence or post-emergence application (in drill seeded rice) or rice pegging at 1 leaf stage with no exposed roots (in water seeded rice) up to 60 days before harvest. Within this application window, application timing is dependent on 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.

Water Seeded Rice:
Fields must be partially drained to expose weeds prior to application. Residual water remaining in the field does not adversely affect weed control so long as weeds are at least 70% exposed. 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 SC 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.

Drill Seeded Rice:
Preflood: Grasp SC may be used as a pre-emergence or post-emergence application prior to establishment of the permanent flood.

Pre-emergence: Apply 2 oz Grasp SC per acre in rice as a pre-emergence application. The seedbed must be prepared to provide good seed coverage after planting with an even surface and free of soil clods. Poor soil coverage of rice seeds may result in a reduced stand or stunting.

Uniformly apply Grasp SC after rice planting and before rice and weeds emerge. Grasp SC may be used alone or tank mixed with one or more registered products according to the specific tank mixing instructions in this label and respective product labels. One sequential post-emergence application of Grasp SC may be made provided the total amount of Grasp SC applied during one year does not exceed 5.6 oz per acre in the first and ratoon crop. Read and follow all manufacturers' label directions for the companion herbicide. Always follow the most restrictive label use directions.

Post-emergence: Adequate soil moisture for actively growing weeds is essential for post-emergence 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. If a field treated with Grasp SC is going to be flushed, and the permanent flood is not going to be established with this flood, wait at least 3 hours after the application of Grasp SC before starting to flush. If the permanent flood will be established after treatment with Grasp SC, wait at least 3 days before beginning the establishment of the permanent flood. Reinfestation of some weeds may occur if a permanent flood is not established in a timely manner.

Postflood: Grasp SC may be used as a post-emergence application after establishment of the permanent flood. 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. For best results, re-establishment of normal flood depth should begin within 3 hours after application to prevent germination of new weeds.

If Grasp SC is applied as a postflood 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.

Resistance Management

Grasp SC, which contains the active ingredient penoxsulam is a Group 2 herbicide based on the mode of action classification system of the Weed Science Society of America.

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different modes of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistant.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product users should:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- If using post-emergence herbicides or tank mixes, control weeds early when they are relatively small (less than 4 inches).
- Apply full rates of Grasp SC for the most difficult to control weed in the field at the specified time to minimize weed escapes (consult weed control table).
- Scout fields after application to detect weed escapes or shifts in control of weed species.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed to your local company representative, local retailer, or county extension agent.
- Contact your local company representative, crop advisor, or extension agent to find out if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective modes of action for each target weed.
- If resistance is suspected, treat weed escapes with an herbicide having a mode of action other than Group 2 and/or use nonchemical methods to remove escapes, as practical, with the goal of preventing further seed production.
- Suspected herbicide-resistant weeds may be identified by these indicators:
- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

- Use a broad spectrum herbicide with other mode of action as a foundation in a weed control program, if appropriate.
- Utilize sequential applications of herbicides with alternative modes of action.
- Rotate the use of this product with non-Group 2 herbicides.
- Avoid making more than two sequential applications of Grasp SC and any other Group 2 herbicides within a single growing season unless mixed with an herbicide with a different mode of action with an overlapping spectrum for the difficult-to-control weeds.
- Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields to reduce weed seed production.

Pre-emergence Application Rates and Weeds Controlled[1]

Arkansas, Florida, Louisiana, Mississippi, Missouri, and Texas

Weeds Controlled Common name (*scientific name*)	**Application Rate** **2 fl oz/acre**
eclipta *(Eclipta alba)* Indian/northern jointvetch *(Aeschynomene spp.)* Rice flatsedge *(Cyperus iria)* Smartweed spp, annual *(Polygonum spp)*	
Barnyardgrass *(Echinochloa-crus-galli)* junglerice *(Echinochloa-colona)* pigweed *(Amaranthus spp)*	

[1]Grasp SC may not control known ALS resistant weed biotypes

Post-emergence Application Rates and Weeds Controlled[1]

Arkansas, Florida, Louisiana, Mississippi, Missouri, and Texas

Weeds Controlled Common name (*scientific name*)	**Application Rates and Stage of Weed Development** **2 to 2.3 fl oz/acre**
eclipta (*Eclipta alba*) hemp sesbania (*Sesbania exaltata*) Indian/northern jointvetch (*Aeschynomene* spp.) rice flatsedge (*Cyperus iria*) smartweed spp, annual (*Polygonum spp*)	up to 7 leaf

Arkansas, Florida, Louisiana, Mississippi, Missouri, and Texas

Weeds Controlled Common name (*scientific name*)	**Application Rates and Stage of Weed Development**
	2 to 2.3 fl oz/acre
arrowhead (*Sagittaria spp*) barnyardgrass[2] (*Echinochloa-crus-galli*) cocklebur (*Xanthium strumarium*) dayflower (*Commelina communis*) ducksalad (*Heteranthera limosa*) junglerice (*Echinochloa-colona*) pigweed (*Amaranthus spp*)	up to 4 leaf
Texas/Mexicanweed (*Caperonia* spp.)	up to 3 leaf
Weeds Suppressed	**2.3 to 2.8 fl oz/acre**
perennial barnyardgrass (*E. polystacha*)	<18”
alligatorweed (*Alternanthera philoxeroides*)	<24” runners
morningglory spp (*Ipomoea* spp) nutsedge, yellow (*Cyperus esculentus*) redstem (*Ammannia* spp)	Up to 4 leaf

Weeds Controlled Postflood Common name (*scientific name*)	**Application Rates and Stage of Weed Development**
	2.3 to 2.8 fl oz/acre
barnyardgrass[2] (*Echinochloa crus-galli*)	prior to heading
ducksalad (*Heteranthera limosa*)	<6”
hemp sesbania (*Sesbania exaltata*) Indian/northern jointvetch (*Aeschynomene* spp)	<15”
rice flatsedge (*Cyperus iria*)	<12”
Weeds Suppressed Postflood	**2.3 to 2.8 fl oz/acre**
alligatorweed (*Alternanthera philoxeroides*)	<24” runners
perennial barnyardgrass (*E. polystacha*)	<18”
eclipta (*Eclipta alba*) redstem (*Ammania* spp) smartweed spp., annual (*Polygonum* spp.)	<12”

[1]Grasp SC may not control known ALS resistant weed biotypes.
[2]Including propanil and Facet resistant barnyardgrass.

Note: Do not make more than 2 applications or apply more than 5.6 fl oz of Grasp SC per acre (0.088 lb penoxsulam per acre) per year in both the first and ratoon crops combined. Do not apply more than 2.8 fl oz (0.044 lb penoxsulam per acre) of Grasp SC in a single application.
Preharvest Interval (PHI): Do not apply within 60 days of rice harvest.
Retreatment interval: 14 days

Terms and Conditions of Use

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, to the extent permitted by law, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies.

Warranty Disclaimer

Corteva Agriscience 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. To the extent permitted by law, Corteva Agriscience MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use

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 Corteva Agriscience or the seller. To the extent permitted by law, all such risks shall be assumed by buyer.

Limitation of Remedies

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

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

Produced for:
Corteva Agriscience LLC
9330 Zionsville Road
Indianapolis, IN 46268

Label Code: CD02-194-020
Replaced Label: D02-194-004

EPA accepted 02/14/18

Revisions:
1) Trademark statement: Updated to ™®Trademarks of Corteva Agriscience and its affiliated companies
2) Produced For: Updated company name to Corteva Agriscience LLC
3) Throughout label: Updated references from Dow AgroSciences to Corteva Agriscience
4) Removed all references to “dowagro.com”.