

### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

July 5, 2019

Laura Phelps Agent for Sharda USA LLC. Wagner Regulatory Associates, Inc. P.O. Box 640 7217 Lancaster Pike, Suite A Hockessin, Delaware 19707

Subject: Registration Review Label Mitigation for Cloransulam

Product Name: Sharda Cloransulam 84% WDG

EPA Registration Number: 83529-98

Application Date: 10/17/2018 Decision Number: 551680

Dear Ms. Phelps:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all of the information submitted with your application to support the Registration Review of the above referenced product in connection with the Cloransulam Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions about this letter, please contact Jaclyn Pyne by phone at 703-347-0445, or via email at <a href="mailto:pyne.jaclyn@epa.gov">pyne.jaclyn@epa.gov</a>.

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Sincerely,

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Linda Arrington, Branch Chief Risk Management and Implementation Branch 4 Pesticide Re-Evaluation Division Office of Pesticide Programs

Enclosure

[MASTER LABEL Containing Sub-label A for bottled material, pages 1 – 13; and Sub-label B for Water Soluble Packaging material, pages 14 – 27] [Sub-Label A: Bottled Material]

**CLORANSULAM-METHYL** 

GROUP

2

HERBICIDE

# Sharda Cloransulam 84% WDG ABN: Ankur

For Broadleaf Weed Control in Soybeans.

### KEEP OUT OF REACH OF CHILDREN CAUTION

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.)

FIRST AID					
IF IN EYES:	Hold eyes 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 ON SKIN OR • Take off contaminated clothing.					
<b>CLOTHING:</b> • Rinse skin immediately with plenty of water for 15-20 minutes.					
Call a poison control center or doctor for treatment advice.					
HOTLINE NUMBER					
Have the product container or label with you when calling a poison control center or doctor or going for treatment					

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, call your poison control center at **1-800-222-1222**.

[Optional referral statements when booklets and container labels are used:

See Panel for First Aid Instructions and booklet for complete Precautionary Statements and Directions For Use.

See label booklet for complete Precautionary Statements, Directions For Use, and Storage and Disposal.

See label booklet for additional Precautionary Statements, Directions For Use, and Storage and Disposal.

See label booklet for complete Directions For Use.]

EPA Reg. No.: 83529-98	}
EPA Est. No.:	
Net Contents:	[Lbs./Kgs.]



7217 Lancaster Pike, Suite A Hockessin, Delaware 19707 ACCEPTED

Jul 05, 2019

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 20220000

83529-98

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wear goggles, face shield, or safety glasses and chemical-resistant gloves. Harmful if absorbed through the skin. Wash thoroughly with soap and water after handling and before eating, chewing gum, using tobacco, or using the toilet. Wear long-sleeved shirt, long pants, socks and shoes. Remove and wash contaminated clothing before reuse.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate or Viton >14 mils
- Protective evewear
- Shoes plus socks

#### **Engineering Controls Statements:**

When handlers use enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protections 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. Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240(d)(6)].

#### **User Safety Requirements:**

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.

#### USER SAFETY RECOMMENDATIONS

#### **Users should:**

- 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.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Read all Directions For Use carefully before applying.

#### **ENVIRONMENTAL HAZARDS**

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 washwaters or rinsate.

**Groundwater Advisory:** Cloransulam-methyl is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

**Surface Water Advisory:** This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching aquatic sediment via runoff for several weeks after application. A level well-maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential loading of cloransulam-methyl from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. This chemical can contaminate surface water through spray drift.

**Non-Target Organism Advisory:** This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

#### 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 exemptions 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.

**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, including plants, soil, or water, is:

- Coveralls
- · Chemical-resistant gloves
- Shoes plus socks

#### PRODUCT INFORMATION

**Sharda Cloransulam 84% WDG** controls many economically important broadleaf weeds in soybeans. Applications of **Sharda Cloransulam 84% WDG** may be made pre-plant incorporated, pre-plant surface, pre-emergence, or post-emergence.

- Read and carefully follow all applicable directions, precautions and restrictions on labeling for other products used in combination with Sharda Cloransulam 84% WDG.
- Use nozzle types and arrangements that will provide optimum spray distribution and maximum coverage. To minimize spray
  drift, apply Sharda Cloransulam 84% WDG in a spray volume of 3 or more gallons per acre. Increase spray volume to 5 or more
  gallons per acre when there is a heavy weed pressure or dense crop foliage.

**Iron Chlorosis:** There are isolated geographic areas where soil-induced iron chlorosis routinely occurs. In these areas, the severity of iron chlorosis symptoms or other nutrient induced crop injury may increase when **Sharda Cloransulam 84% WDG** is applied.

#### **CROP ROTATION INTERVALS**

When tank mixing with other herbicides, follow crop rotation guidelines on the label of each product used. The following rotational crops may be planted at the indicated interval following application of **Sharda Cloransulam 84% WDG**. Unusual climatic or environmental conditions that may increase the likelihood of rotational crop sensitivity (i.e., corn, sugar beets, sunflowers) include lower than normal rainfall and/or soil temperatures in the Fall and Spring; and/or soil pH extremes.

Стор	Rotation Interval* (Months)
Soybeans	0
Wheat	4
Alfalfa, Beans (Dry, Lima, Snap), Corn (Field, Popcorn, Seed <sup>1</sup> ), Cotton, Oats, Peas, Peanuts, Rice, and Sorghum,	9
Barley	12
Potatoes and Sweet Corn	18
Tobacco <sup>2</sup> and Other Crops Not Listed	18
Sugar Beets <sup>3</sup> and Sunflowers <sup>3</sup>	30

<sup>\*</sup>Minimum number of months that must pass before planting other crops after application of **Sharda Cloransulam 84% WDG** at up to 0.75 oz. per acre soil applied and/or 0.3 oz. per acre post-emergence.

#### FIELD BIOASSAY INSTRUCTIONS

Using typical tillage, seeding practices, and timings for the particular crop, plant several strips of the desired crop variety across the field previously treated with **Sharda Cloransulam 84% WDG**. Plant the strips perpendicular to the direction in which **Sharda Cloransulam 84% WDG** was applied. Locate the strips so that different field conditions are encountered, including differences in soil texture, pH, and drainage. If the crop does not show visible symptoms of injury, stand reduction, or yield reduction, the field can be seeded with the test crop. If visible injury or stand reduction occurs, do not seed the test crop and repeat the bioassay the next growing season.

#### **USE RESTRICTIONS**

This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rainwater that may fall on the pad.

Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely

<sup>&</sup>lt;sup>1</sup>Hybrid seed production: Corn inbred lines grown for hybrid seed production may be injured the growing season following an application of Sharda Cloransulam 84% WDG. Inbred lines must be thoroughly tested for crop tolerance before rotating to large acreage. While growers are not prohibited from rotating to seed corn in the growing season following an application of Sharda Cloransulam 84% WDG, Sharda USA LLC will not accept responsibility for any crop injury on field corn grown for seed following an application of Sharda Cloransulam 84% WDG.

<sup>&</sup>lt;sup>2</sup>Transplanted tobacco may be planted 10 months after application of 0.3 oz. per acre of **Sharda Cloransulam 84% WDG**.

<sup>&</sup>lt;sup>3</sup>Rotation to sugar beets and sunflowers require a 30-month rotation interval and a successful field bioassay.

exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

- Do not make more than one soil application during a single year.
- Do not exceed 0.039 lb. active ingredient cloransulam-methyl (0.75 oz. of **Sharda Cloransulam 84% WDG**) per acre as a soil application (pre-plant or pre-emergence).
- Do not apply more than 0.03 lb. active ingredient cloransulam-methyl (0.6 oz. of **Sharda Cloransulam 84% WDG**) per acre as a post-emergence application during a single year (either as a single application or as a total of sequential post-emergence applications).
- The maximum cumulative application rate from pre-plant, pre-emergence, and/or post-emergence use of cloransulam-methyl must not exceed 0.055 lb. active ingredient (1.05 oz. of **Sharda Cloransulam 84% WDG**) per acre per year.
- **Pre-Harvest Interval: Forage or Hay:** Do not make application within 25 days before harvest. **Soybeans:** Do not make application within 70 days before harvest.
- Chemigation: Do not apply this product through any type of irrigation system.
- Do not use flood irrigation to make application or incorporate this product.
- Product must be used in a manner that will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray
  mixtures or rinsates.
- Aerial applicators must be in enclosed cockpits.

**Aerial Application: Sharda Cloransulam 84% WDG** may be aerially applied for pre-emergence or post-emergence control of broadleaf weeds in soybeans. **Aerial application of this product is prohibited in New York State.** 

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

Do not apply under conditions that favor runoff or wind erosion of soil containing Sharda Cloransulam 84% WDG to non-target areas. To prevent off-site movement due to runoff or wind erosion:

- Avoid treating powdery dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, allow
  the surface soil to first be settled by rainfall or irrigation.
- Do not make application to impervious substrates including paved or highly compacted surfaces or frozen or snow covered ground.
- Do not make application to soils when saturated with water.
- Do not use tailwater from the first flood or furrow irrigation of treated fields to treat non-target crops unless at least ½ inch of rainfall has occurred between application and the first irrigation.

#### MANDATORY SPRAY DRIFT

#### **Aerial Applications:**

- Do not release spray at a height greater than 10 ft. above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Select nozzle and pressure that deliver medium to coarse droplets as indicated in nozzle manufacturer's catalogues and in accordance with ASABE Standard 572.1.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

#### **Ground Boom Applications:**

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground, target vegetation, or crop canopy.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Select nozzle and pressure that deliver medium to coarse droplets as indicated in nozzle manufacturer's catalogues and in accordance with ASABE Standard 572.1.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

#### SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

#### Importance of Droplet Size

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

#### Controlling Droplet Size - Ground Boom

- **Volume** Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

#### Controlling Droplet Size - Aircraft

Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

#### **Boom Height - Ground Boom**

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### Release Height - Aircraft

Higher release heights increase the potential for spray drift. When applying aerially to crops, do not release spray at a height greater than 10 ft. above the crop canopy, unless a greater application height is necessary for pilot safety.

#### **Shielded Sprayers**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

#### Temperature and Humidity

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

#### **Temperature Inversions**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or 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. Avoid applications during temperature inversions.

#### Wind

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

#### WEED RESISTANCE MANAGEMENT GUIDELINES

Sharda Cloransulam 84% WDG contains Cloransulam-methyl and is classified Group 2 herbicide (ALS-Inhibitor). Herbicide resistance is defined as the inherited ability of a plant to survive and reproduce following exposure to a dose of herbicide normally lethal to the wild type. In a plant, resistance may be naturally occurring or induced by such techniques as genetic engineering or selection of variants produced by tissue culture or mutagenesis. Any weed population may contain or develop plants that are naturally resistant to Sharda Cloransulam 84% WDG and other Group 2 herbicides. Weed species with acquired resistance to Group 2 herbicides may eventually dominate the weed population if Group 2 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by Sharda Cloransulam 84% WDG or other Group 2 herbicides.

To delay herbicide resistance, consider the below best practices for resistance management:

- Plant into weed-free fields and keep fields as weed-free as possible.
- To the extent possible, use a diversified approach toward weed management. Whenever possible, incorporate multiple weed-control practices such as mechanical cultivation, biological management practices, and crop rotation.
- Fields with difficult to control weeds should be rotated to crops that allow the use of herbicides with alternative mechanisms of action or different management practices.
- To the extent possible, do not allow weed escapes to produce seeds, roots or tubers. Manage weed seeds at harvest and postharvest to prevent a buildup of the weed seed-bank.
- Prevent field-to-field and within-field movement of weed seed or vegetative propagules. Thoroughly clean plant residues from equipment before leaving fields.
- Prevent an influx of weeds into the field by managing field borders.
- Identify weeds present in the field through scouting and field history and understand their biology. The weed-control program should consider all of the weeds present.
- Difficult to control weeds may require sequential applications of herbicides with differing mechanisms of action.
- Apply this herbicide at the correct timing and rate needed to control the most difficult weed in the field.

- Use a broad-spectrum soil-applied herbicide with a mechanism of action that differs from this product as a foundation in a weed-control program. Do not use more than two applications of this or any other herbicide with the same mechanism of action within a single growing season unless mixed with an herbicide with another mechanism of action with an overlapping spectrum for the difficult-to-control weeds.
- If resistance is suspected, treat weed escapes with an herbicide with a different MOA or use non-chemical methods to remove escapes.
- Monitor treated weed populations for loss of field efficacy.
- Scout field(s) before and after application.
- Report lack of performance to registrant or their representative.

Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species.

Contact your local sales representative, extension agent, or certified crop advisors 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 mechanisms of action for each target weed.

#### **Best Management Practices**

Proactively implement diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides. 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 full labeled rates and following directions for use is important to delay the selection for resistance.

Scouting after an herbicide application is important because it can facilitate the early identification of weed shifts and/or weed resistance and thus provide direction on future weed management practices. One of the best ways to contain resistant populations is to implement measures to avoid allowing weeds to reproduce by seed or to proliferate vegetatively. Cleaning equipment between sites and avoiding movement of plant material between sites will greatly aid in retarding the spread of resistant weed seed.

#### Principles of Herbicide Resistance Management

- 1. Apply integrated weed management practices. Use multiple herbicide modes-of-action with overlapping weed spectrums in rotation, sequences, or mixtures.
- 2. Use the full labeled herbicide rate and proper application timing for the hardest to control weed species present in the field.
- 3. Scout fields after herbicide application to ensure control has been achieved. Avoid allowing weeds to reproduce by seed or to proliferate vegetatively.
- 4. Monitor site and clean equipment between sites.

#### For Annual Cropping Situations, Also Consider the Following:

- Start with a clean field and control weeds early by using a burndown treatment or tillage in combination with a pre-emergence residual herbicide as appropriate.
- Use cultural practices including cultivation and crop rotation, where appropriate.
- Use good agronomic principles that enhance crop competitiveness.
- Use new commercial seed that is as free of weed seed as possible.

#### MIXING DIRECTIONS

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.

#### Mixing Sharda Cloransulam 84% WDG Alone:

- 1. Fill the tank with ½ of the total amount of water or liquid fertilizer required for the load.
- 2. Start agitation.
- 3. Add the required amount of **Sharda Cloransulam 84% WDG** for the acreage being treated by opening the bottle(s), measuring the required amount, and pouring the measured amount directly into the spray tank while agitating the mixture and allowing time for the herbicide to disperse.
- 4. Continue agitation while filling the spray tank to the required volume.
- 5. To ensure a uniform spray mixture, continuous agitation is required during application. If product is allowed to settle, thoroughly agitate to resuspend the mixture before spraying. Apply within 24 hours of mixing. Weed control with **Sharda Cloransulam 84% WDG**, which has been mixed and allowed to stand for more than 24 hours, may be reduced.

#### Sharda Cloransulam 84% WDG Applied Alone with Liquid Fertilizer

In order to add **Sharda Cloransulam 84% WDG** to a liquid fertilizer carrier, **Sharda Cloransulam 84% WDG** must be premixed in a slurry of product and clean water. Use a minimum of 1 gallon of water for each container of **Sharda Cloransulam 84% WDG**. Stir until completely dissolved. With agitator operating, add slurry to the spray tank through a 20- to 35-mesh screen. Rinse container used for premixing and add rinsate to the spray tank. Complete the filling of the spray tank with fertilizer. Maintain agitation during filling, mixing and application. Use the spray mixture of **Sharda Cloransulam 84% WDG** immediately after mixing. Do not store mixture.

**Pre-Mixing (Other Products):** If pre-mixing is required for other dry or flowable products applied in tank mix combination with **Sharda Cloransulam 84% WDG**, follow directions for pre-mixing of such products provided in their respective product labels.

#### Sharda Cloransulam 84% WDG - Tank Mix

If a broader spectrum of weed control is needed, **Sharda Cloransulam 84% WDG** may be tank mixed with labeled rates of other herbicides provided (1) the tank mix product is labeled for the timing and method of application for the use site to be treated; and (2) tank mixing is not prohibited by the label of the tank mix product. 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 Mixing Precautions:**

- Read carefully and follow all applicable use directions, precautions, and limitations on the respective product labels.
- Do not exceed specified application rates for respective products or maximum allowable application rates for any active ingredient in the tank mix.
- Do not tank mix with products containing boron or mix in equipment previously used to make application of a product mixture
  containing boron unless the tank and spray equipment have been adequately cleaned (see Equipment Clean-Out Procedures).
- Always perform a (jar) test to ensure the compatibility of products to be used in tank mixture.

Tank Mix Compatibility Testing: Preform a jar test before tank mixing to ensure compatibility of Sharda Cloransulam 84% WDG and other pesticides. 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 ½ hour. If the mixture balls-up, forms flakes, sludges, gels, oily films or layers, or other precipitates, it is not a compatible tank mix combination.

Vigorous, continuous agitation during mixing, filling and throughout application is required for all tank mixes. Sparger pipe agitators provide the most effective agitation in spray tanks. To prevent foaming in the spray tank, avoid stirring or splashing air into the spray mixture.

#### Mixing Order for Tank Mixes:

- 1. Fill the spray tank ¼ to ⅓ of the total spray volume required with water or liquid fertilizer.
- 2. Start agitation.
- 3. Add the required amount of **Sharda Cloransulam 84% WDG** for the acreage being treated directly to the spray tank while agitating and allow time to disperse. If liquid fertilizer is being used as the spray carrier rather than water, pre-mix **Sharda Cloransulam 84% WDG** as described above before adding to the spray tank.
- 4. After adding **Sharda Cloransulam 84% WDG**, add different formulation types in the following order: (1) other formulation(s) packaged in water soluble packets; (2) any compatibility agent, if required; (3) dry flowables; (4) wettable powders; (5) aqueous suspensions, flowables and liquids. Maintain agitation and fill spray tank to ¾ of total spray volume and add: (6) emulsifiable concentrates; (7) solutions; and (8) adjuvants. Allow time for complete mixing and dispersion after each addition.
- 5. Finish filling the spray tank. Maintain continuous agitation during mixing and throughout application.

If application or agitation must be stopped before the spray tank is empty, the materials may settle to the bottom. Settled materials must be resuspended before spraying is resumed. A sparger agitator is particularly useful for this purpose. Settled material may be more difficult to resuspend than when originally mixed.

#### **Clean-Out Procedures for Spray Equipment**

- 1. Drain any remaining spray mixture from the application equipment.
- 2. Hose down the interior surfaces of the tank while filling the tank ½ full of water.
- 3. Add household ammonia at a rate of 1 gal. per 100 gals. of water. Recirculate for 5 minutes and spray out part of this mixture for 5 minutes through the boom. Drain tank.
- 4. Remove all spray nozzles and screens and clean separately.
- 5. If spray equipment will be used for pesticide application to crops sensitive to **Sharda Cloransulam 84% WDG**, repeat steps 1 through 3. Thoroughly clean exterior surfaces of spray equipment.

Note: Rinsate must be disposed of on-site according to label use directions or at an approved waste disposal facility.

#### **Application in Liquid Fertilizer for Tank Mixes**

Always pre-mix or slurry **Sharda Cloransulam 84% WDG** with water before adding to liquid fertilizer in spray tanks. To slurry or pre-mix **Sharda Cloransulam 84% WDG**, use a minimum of 1 gallon of water for each container of **Sharda Cloransulam 84% WDG**. Stir until completely dissolved. Make sure **Sharda Cloransulam 84% WDG** is completely and uniformly dispersed in water and then add to the spray tank or induction system through a 20- to 35-mesh screen. Add any rinsate to the spray mixture.

When necessary, use a compatibility agent to ensure that **Sharda Cloransulam 84% WDG** mixes properly. The use of an appropriate compatibility agent is especially important when tank mixing **Sharda Cloransulam 84% WDG** and other dry flowables, wettable powders, flowables, liquids, aqueous suspensions, or solutions with emulsifiable concentrates in liquid fertilizer. If the emulsifiable concentrate formulation rises to the surface of the fertilizer as an oil ("oils out"), the oil may combine with the wettable powder, flowable, or suspension to form oily curds (viscous phase) which are difficult to disperse. A jar test, utilizing relative proportions of the tank mix ingredients, is directed before to mixing with a large quantity of liquid fertilizer.

Note: Refer to Clean-Out Procedures for Spray Equipment for directions on cleaning equipment before use in crops other than sovbeans.

#### **Application with Dry Bulk Fertilizer**

Dry bulk fertilizer may be impregnated or coated with **Sharda Cloransulam 84% WDG**. Application of dry bulk fertilizer impregnated with **Sharda Cloransulam 84% WDG** provides weed control equal to the same rates of **Sharda Cloransulam 84% WDG** applied in liquid carriers. Follow label directions for **Sharda Cloransulam 84% WDG** regarding rates per acre, crops, special instructions, cautions and special precautions. Apply 200 to 700 lbs. of the fertilizer/herbicide mixture per acre. Apply the mixture uniformly to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential to prevent possible crop injury. Non-uniform application may also result in unsatisfactory weed control. In areas where conventional tillage is practiced, a shallow incorporation of the mixture into the soil may improve weed control.

Most dry fertilizers can be used for impregnation with **Sharda Cloransulam 84% WDG**. When coated ammonium nitrate and/or limestone are used alone, do not impregnate with **Sharda Cloransulam 84% WDG**. These materials will not absorb the herbicide. Blends containing a mixture of ammonium nitrate and/or limestone as part of the fertilizer mixture can be impregnated.

Compliance with all Federal and State regulations relating to blending pesticide mixtures with dry bulk fertilizer, registration, labeling and application are the responsibility of the individual and/or company offering the fertilizer and chemical mixture for sale.

Impregnation: Sharda Cloransulam 84% WDG must be pre-mixed with water to form a slurry before impregnation of dry bulk fertilizer. For best results, use a minimum of 1 gallon of water for each container of Sharda Cloransulam 84% WDG. Make sure Sharda Cloransulam 84% WDG is completely and uniformly dispersed in water. Then add sufficient water to adjust the total volume of the mixture to deliver a spray volume of at least 6 pints per ton of fertilizer. Place nozzles used to spray Sharda Cloransulam 84% WDG onto the fertilizer to provide uniform spray coverage. Use any closed drum, belt, ribbon or other commonly used dry bulk fertilizer blender.

Calculate amounts of Sharda Cloransulam 84% WDG by the following formula:

**Note:** Thoroughly clean dry fertilizer blending and application equipment before use with other herbicides. It is important to clean the blender, herbicide spray tank, and spraying apparatus thoroughly. Rinse the sides of the blender and the herbicide tank with water. Clean spraying apparatus before preparing fertilizer/herbicide mixtures for crops other than soybeans (see **Clean-Out Procedures for Spray Equipment**). Then, impregnate the rinsate onto a load of dry fertilizer intended for an approved crop. Use a maximum rate of 1 gallon of rinsate per ton of fertilizer. Follow with one to two loads of unimpregnated fertilizer in the blender before switching herbicides. The fertilizer application equipment must be empty, clean, and dry before applying any material to crops other than soybeans.

#### **SOYBEANS**

Make application with ground equipment using a standard low pressure (20 - 40 PSI) herbicide sprayer equipped with nozzles that provide uniform coverage. For best results, apply in a spray volume of 10 gals. or more per acre for either soil or post-emergence applications. Use sufficient spray volume to provide uniform coverage. Maintain sufficient agitation during mixing and spraying to ensure a uniform spray mixture. Screens in spray lines and nozzles must be no finer than 50-mesh (100-mesh is finer than 50-mesh).

#### **Broadleaf Weeds Controlled by Soil Applications**

The following weeds are controlled by **Sharda Cloransulam 84% WDG** when applied to the soil surface at specified rates either as a pre-plant incorporated, pre-plant surface, or pre-emergence application (**Sharda Cloransulam 84% WDG** does not control known ALS-resistant biotypes of these weeds):

Amaranth, Palmer*	Mallow, Venice	Smartweed, Pennsylvania	
Cocklebur, Common	Morningglory (Annual spp.)	Sunflower, Common	
Horseweed, Marestail	Pigweed (Annual spp.)	Velvetleaf	
Jimsonweed	Ragweed, Common	Waterhemp spp.*	
Lambsquarters, Common	Ragweed, Giant	Smartweed, Pennsylvania	

\*Sharda Cloransulam 84% WDG provides partial control of Palmer amaranth and waterhemp. To improve control of these weeds, apply Sharda Cloransulam 84% WDG in tank mix combination with the appropriate labeled rate of a soil applied Group 15 herbicide including Dual II Magnum<sup>®</sup>, Warrant<sup>®</sup>, or Zidua<sup>®</sup> or Group 15 herbicide product, including Treflan<sup>®</sup> or Prowl H20<sup>®</sup>.

Application Rates and Methods for Soil Applications (Pre-Plant Incorporated, Pre-Plant Surface Applied, Burndown, and Pre-Emergence)

Area of Use	Soil Organic Matter	Sharda Cloransulam 84% WDG (Oz./Acre)	
DE, CT, IA, KS, MD, ME, MI, MN, MO (excluding the		0.6	
Bootheel), ND, NE, NH, OH, OK, SD, VT, WI, PA, NY, and areas north of Interstate 64 in the states of IL, IN KY, WV, VA.		0.75	
All areas to the south of the above mentioned geographic area.	All organic matter levels	0.75	

\*Soil applications of **Sharda Cloransulam 84% WDG** at 0.75 oz. per acre on soils with greater than 5% organic matter may result in reduced weed control. Under these conditions, post-emergence applications of **Sharda Cloransulam 84% WDG** or other herbicides may be required to control specific weeds.

#### **Special Situations:**

Situations	Soil Organic Matter	Sharda Cloransulam 84% WDG (Oz./Acre)
Moderate to heavy giant ragweed or morningglory infestations	3% or less	0.6 - 0.75
Applications made 15 to 30 days prior to planting	Greater than 3%*	0.75

<sup>\*</sup>Soil applications of **Sharda Cloransulam 84% WDG** at 0.75 oz. per acre on soils with greater than 5% organic matter may result in reduced weed control. Under these conditions, post-emergence applications of **Sharda Cloransulam 84% WDG** or other herbicides may be required to control specific weeds.

#### **Pre-Plant Incorporated Application**

Make application of **Sharda Cloransulam 84% WDG** alone or in tank mix combination with other herbicides registered for pre-plant incorporated application to soybeans. For best results, the seedbed should be relatively free of clods. Incorporate the herbicide(s) into the top 1 - 3 inches of the final seedbed using equipment that provides thorough soil mixing. Do not apply **Sharda Cloransulam 84% WDG** earlier than 4 weeks before planting. For best results, apply **Sharda Cloransulam 84% WDG** within 14 days of planting. When **Sharda Cloransulam 84% WDG** is applied in tank mix combination with other herbicide(s), follow the incorporation directions for the tank mix partner(s). Follow applicable use instructions, including application rates, precautions and restrictions of each product used in the tank mixture.

#### **Pre-Plant Surface Application**

Make application of **Sharda Cloransulam 84% WDG** alone or in tank mix combination with other herbicides registered for pre-plant soil surface application to soybeans. For best results, the seedbed should be relatively free of clods. For best results, apply **Sharda Cloransulam 84% WDG** within 14 days of planting. Soil surface applications are not effective until rainfall of at least 0.5 inch has moved **Sharda Cloransulam 84% WDG** into surface soil where weed germination occurs. If rainfall is not anticipated, for best results, shallow incorporate (i.e., 2 inches deep) before planting to place **Sharda Cloransulam 84% WDG** in contact with germinating weeds. **Sharda Cloransulam 84% WDG** may provide suppression of annual grasses at rates greater than 0.3 oz. per acre if there is sufficient rainfall to move the herbicide into the soil before weed germination. Timely subsequent rainfall is required for optimal herbicidal activity. If applied in tank mix combination, follow use instructions, including application rates, precautions and restrictions of each product used in the tank mixture. **Note:** Reduced weed control in the planted row may occur if untreated soil is exposed during planting operations.

#### **Burndown Application**

When used as a burndown treatment, **Sharda Cloransulam 84% WDG** alone will provide foliar activity on those broadleaf weeds listed in the **Post-Emergence Application** section of this label. In addition, **Sharda Cloransulam 84% WDG** will provide residual control of broadleaf weeds listed under the **Application Rates and Methods for Soil Applications** section. **Sharda Cloransulam 84% WDG** may provide suppression of annual grasses at rates greater than 0.3 oz. per acre if there is sufficient rainfall to move the herbicide into the soil before weed germination. Timely subsequent rainfall is required for optimal herbicidal activity. **Sharda Cloransulam 84% WDG does not control or suppress emerged annual grasses.** Include adjuvants for foliar burndown applications plus a liquid nitrogen fertilizer (see **Adjuvant Systems for Post-Emergence Application** section). To broaden the spectrum of weeds controlled, **Sharda Cloransulam 84% WDG** may be tank mixed with other herbicides including glyphosate, glufosinate, paraquat, 2,4-D, etc.

Foundation Soil Herbicide in Glyphosate-Tolerant Soybeans: Sharda Cloransulam 84% WDG can be used as a foundation soil herbicide in a planned sequential program with products including Durango® DMA herbicide (glyphosate DMA salt) (or any glyphosate product labeled for use in glyphosate-tolerant soybeans). Used as a foundation soil herbicide, Sharda Cloransulam 84% WDG will control or suppress key broadleaf weeds listed in the soil applied section of this label, allowing for optimal timing of a glyphosate incrop application.

#### **Pre-Emergence Application**

Make application after planting but before crop or weed emergence. For optimum results, make application of **Sharda Cloransulam 84% WDG** within 2 days after planting. **Sharda Cloransulam 84% WDG** may be applied alone or in tank mix combination with other herbicides registered for pre-emergence application to soybeans. When applied in tank mix combination, follow applicable use instructions, including application rates, precautions and restrictions of each product used in the tank mixture.

#### **Post-Emergence Application**

**Sharda Cloransulam 84% WDG** may be applied any time before the R2 (full flower) growth stage of soybeans. Application before full emergence of the first soybean trifoliate leaf may cause temporary yellowing or chlorosis of soybeans. Tank mix partners may cause other effects regardless of the application timing. Follow application timing restrictions of tank mix partners. For **Sharda Cloransulam 84% WDG**, optimum application timing for control of labeled weeds is provided in the table below.

Post-emergence applications of **Sharda Cloransulam 84% WDG** may provide residual soil activity on broadleaf weeds, excluding sicklepod (see soil and post-emergence weed lists). Length and effectiveness of residual activity from post-emergence applications will vary and is dependent upon weed species, application rate, rainfall following application (minimum of 0.5 inch of rainfall within 7 days of application), density of the weed and crop canopy at application, and length of subsequent weed germination events.

Environmental Conditions and Herbicidal Activity of Sharda Cloransulam 84% WDG: Factors in effective weed control with Sharda Cloransulam 84% WDG include application rate, weed size, temperature, and soil moisture before and following application, and use

of adjuvants. Best weed control results are obtained when **Sharda Cloransulam 84% WDG** is applied to small, actively growing weeds, when daytime temperatures are warm (70°F or more), and optimal soil moisture to support active weed growth before and following application. If weeds are under drought stress, consider delaying application until more favorable conditions resume. Application when weeds are under temperature or moisture stress, or larger than the specified size, may result in reduced control.

- Sharda Cloransulam 84% WDG is rainfast in 2 hours.
- Applications made immediately before, during, or immediately following periods of heat and/or drought stress, large day/night temperature fluctuations or where daytime temperatures do not exceed 60°F may decrease weed control.
- Poor weed control may result from applications made to plants under stress from: abnormally hot or cold weather; environmental conditions including drought, water-saturated soils, hail damage, or frost; or prior herbicide applications.

Application Rate for Post-Emergence Applications: Apply as a broadcast spray at a rate of 0.3 oz. per acre before the maximum leaf stage and weed height for listed weeds using one of the directed adjuvant systems. A second application of up to 0.3 oz. of Sharda Cloransulam 84% WDG per acre may be applied to later germinating weeds. For especially heavy weed infestations or added residual control, Sharda Cloransulam 84% WDG may be used as a single application at a rate of up to 0.6 oz. per acre. Do not apply more than a total of 0.6 oz. per acre per year as a post-emergence application. Sharda Cloransulam 84% WDG may be applied alone or in tank mix combination with other labeled herbicides registered for post-emergence application to soybeans. Refer to labels for additional instructions pertaining to tank mixes.

5	Sharda Cloransulam 84% WDG (Oz./Acre)		
	0.3		
	0.6		

**Broadleaf Weeds Controlled and Optimum Stage of Growth:** The following weeds are controlled by **Sharda Cloransulam 84% WDG** when applied post-emergence at the indicated weed stage of growth. **Sharda Cloransulam 84% WDG** does not control known ALS-resistant biotypes of these weeds. To improve coverage and product performance in heavy weed infestations, use a minimum of 15 gals. per acre spray volume.

Target Weeds	Leaf Number at Application (Optimum to Maximum)	Maximum Height (Inches)
	CONTROLLED	
Cocklebur, Common	4 - 8	10
Dayflower, Asiatic	2 - 6	N/A
Dayflower, Marsh	2 - 6	N/A
Dayflower, Spreading	2 - 6	N/A
Horseweed (Marestail)	-	6
Jimsonweed	2 - 4	4
Mallow, Venice	2 - 4	<3
Marshelder	4 - 6	10
Morningglory (Annual spp.) <sup>1</sup>	2 - 4	4
Mustard, Wild <sup>2</sup>	2 - 4	2
Ragweed, Common	4 - 6	8
Ragweed, Giant	4 - 6	10
Sicklepod <sup>3</sup>	cotyledon - 1	<2
Smartweed, Pennsylvania	2 - 4	6
Sunflower, Common	4 - 8	12
Velvetleaf <sup>4</sup>	2 - 4	6
	SUPPRESSED	
Burcucumber	2 - 4	6
Copperleaf, Hophornbeam	1 - 2	4
Nutsedge, Yellow	-	8
Thistle, Canada	=	10
N/A = Not Available	·	·

N/A = Not Available

Adjuvant Systems for Post-Emergence Application: Use in combination with one of the following adjuvant systems approved for application to growing crops:

- Non-ionic surfactant at 1 2 pts. per 100 gals. of spray mixture (0.125 0.25% v/v) plus urea ammonium nitrate at 2.5 gals. per 100 gals. (2.5% v/v)\*. Non-ionic surfactant may be used alone at 2 pts. per 100 gals. of spray mixture 0.25% v/v when required in certain tank mixes.
- Crop oil concentrate or methylated seed oil at 1.2 gals. per 100 gals. of spray mixture (1.2% v/v).
- Crop oil concentrate or methylated seed oil at 1.2 gals. per 100 gals. of spray mixture (1.2% v/v) plus urea ammonium nitrate solution at 2.5 gals. per 100 gals. (2.5% v/v).

<sup>&</sup>lt;sup>1</sup>Morningglory: Spray before morningglory plants begin to send out runners.

<sup>&</sup>lt;sup>2</sup>Wild Mustard: For optimum control, apply before wild mustard plants exceed 4" in diameter.

<sup>&</sup>lt;sup>3</sup>Sicklepod: Applications made to sicklepod plants later than the 1-leaf stage of growth will likely result in reduced control. A repeat application of Sharda Cloransulam 84% WDG may be necessary 7 - 10 days after the first (do not apply more than a total of 0.6 oz. per acre per year as a post-emergence application). Application of other post-emergence herbicides may be necessary to control later germinating sicklepod plants.

<sup>&</sup>lt;sup>4</sup>Velvetleaf: When velvetleaf is a primary target weed, always include urea ammonium nitrate (UAN) or ammonium sulfate (AMS) with non-ionic surfactant, crop oil concentrate or methylated seed oil as the adjuvant system.

\*Dry ammonium sulfate may be used at a rate of 2 lbs. per acre (8.5 - 17 lbs. per 100 gals. of spray mixture) as a substitute for urea ammonium nitrate.

**Note:** Use of crop oil concentrate or methylated seed oil plus urea ammonium nitrate is preferred when weeds are under drought stress, but may increase crop injury.

Refer to soil and post-application instructions section for mixing instructions and mixing order for tank mix products and adjuvants.

Tank Mix Options: For weeds not listed for post-emergence control with Sharda Cloransulam 84% WDG, the herbicides listed below may be used per label instructions. When applied in tank mix combination with other herbicides, follow all use instructions for all products, including application rates, precautions and restrictions for each product used in the tank mixture, including use of adjuvants.

Broadleaf Herbicides	Grass Herbicides
Basagran	Assure II <sup>3</sup>
Cadet	Durango DMA, glyphosate <sup>1</sup>
Classic	Fusion <sup>2</sup>
Cobra	Poast Plus
Durango DMA glyphosate <sup>1</sup>	Roundup Original MAX <sup>1</sup>
Flexstar	Roundup WeatherMAX <sup>1</sup>
Glufosinate <sup>2</sup>	Select Max <sup>3</sup>
Harmony GT	
Phoenix	
Pursuit	
Raptor	
Reflex	
Resource	
Synchrony STS	
Ultra Blazer	

<sup>&</sup>lt;sup>1</sup>Tank mixtures of **Sharda Cloransulam 84% WDG** plus glyphosate products may only be used post-emergence in-crop over glyphosate-tolerant soybeans (refer to paragraph below for specific use instructions for tank mixing **Sharda Cloransulam 84% WDG** with these products).

Other Post-Emergence Herbicide Applications: Apply other post-emergence herbicides at least 7 days before or 7 days after an application of Sharda Cloransulam 84% WDG.

Precautions for Post-Emergence Applications of Sharda Cloransulam 84% WDG with Foliar Insecticides: Sharda Cloransulam 84% WDG may be tank mixed with the foliar applied Lorsban<sup>®</sup> 4E insecticide or synthetic pyrethroid products. The addition of other herbicides with Sharda Cloransulam 84% WDG in combination with an insecticide may increase the risk for crop injury in the form of stunting or leaf burn.

Sharda Cloransulam 84% WDG + Glyphosate and Sharda Cloransulam 84% WDG + Glufosinate Tank Mix in Glyphosate and Glufosinate-Tolerant Soybeans: Sharda Cloransulam 84% WDG at 0.3 - 0.6 oz. per acre may be tank mixed with Durango DMA (glyphosate DMA salt), or other glyphosate herbicides labeled for use in glyphosate-tolerant soybeans and glufosinate for use in glufosinate-tolerant soybeans to enhance control of key broadleaf weeds including giant ragweed, marestail, morningglory, velvetleaf, and others listed under the Post-Emergence Application section of this label. Residual control from Sharda Cloransulam 84% WDG may also reduce the potential need for subsequent post-emergence applications.

For best results when tank mixing **Sharda Cloransulam 84% WDG** with glyphosate and glufosinate herbicides, add ammonium sulfate (AMS) at 8.5 - 17 lbs. per 100 gals. of spray mixture. The order of mixing is: (1) water; (2) **Sharda Cloransulam 84% WDG**; (3) AMS; and (4) glyphosate product. **No additional** non-ionic surfactant is required when tank mixing with surfactant-loaded glyphosate herbicide including Durango DMA (glyphosate DMA salt).

**Note:** If a non-surfactant-loaded glyphosate herbicide is tank mixed with **Sharda Cloransulam 84% WDG**, a non-ionic surfactant is required. Add no less than 1 - 2 pts. per 100 gals. of spray mixture (0.125 - 0.25% v/v). Add the non-ionic surfactant before completing the filling process.

<sup>&</sup>lt;sup>2</sup>Tank mixtures of **Sharda Cloransulam 84% WDG** plus glufosinate may only be used post-emergence in-crop over glufosinate-tolerant soybeans (refer to paragraph on tolerant soybeans for specific use instructions for tank mixing **Sharda Cloransulam 84% WDG** with these products).

<sup>&</sup>lt;sup>3</sup>Under certain conditions, tank mixing **Sharda Cloransulam 84% WDG** with these post-emergence grass herbicides may reduce their activity on some grass species. However, broadleaf weed control with **Sharda Cloransulam 84% WDG** will not be affected. This grass antagonism may be overcome by using full labeled rates of these grass herbicides in tank mixtures with **Sharda Cloransulam 84% WDG**. Making separate applications of **Sharda Cloransulam 84% WDG** and Assure II or Fusion is the most effective method for reducing the potential for antagonism. Do not tank mix Assure II with **Sharda Cloransulam 84% WDG** when the target weed is woolly cupgrass or fall panicum, as reduced control may occur.

#### STORAGE AND DISPOSAL

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

**STORAGE:** Store product in original container only, away from other pesticides, fertilizer, food or feed. Store in a cool dry place and avoid excess heat.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

#### CONTAINER HANDLING:

Non-Refillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds): Non-refillable container. Do not reuse or refill this container. Triple 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 ¼ 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. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

Non-Refillable Plastic and Metal Containers (Capacity Greater Than 50 Pounds): Non-refillable container. Do not reuse or refill this container. Triple 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 ¼ 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. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

Non-Refillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Non-refillable container. Do not reuse or refill this container. Clean container promptly after emptying the contents from this container into application equipment or mix tank and before final disposal using the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

Non-Refillable Paper or Plastic Bags, Fiber Sacks including Flexible Intermediate Bulk Containers (FIBC) or Fiber Drums With Liners: Non-refillable container. Do not reuse or refill this container. Completely empty paper or plastic bag, fiber sack or drum liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Offer for recycling, if available, or dispose of empty paper or plastic bag, fiber sack or fiber drum and liner in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities.

Refillable Fiber Drums With Liners: Refillable container (fiber drum only). Refilling Fiber Drum: Refill this fiber drum with this herbicide only. Do not reuse this fiber drum for any other purpose. Cleaning before refilling is the responsibility of the refiller. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Disposing of Fiber Drum and/or Liner: Do not reuse this fiber drum for any other purpose other than refilling (see preceding). Cleaning the container (liner and/or fiber drum) before final disposal is the responsibility of the person disposing of the container. Offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by State and local ordinances. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner. To clean the fiber drum before final disposal, completely empty the fiber drum by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer the fiber drum for recycling if available or dispose of in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities.

All Other Refillable Containers: Refillable container. Refilling Container: Refill this container with this herbicide only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage including cracks, punctures, abrasions, worn out threads and closure devices. Check for leaks after refilling and before transporting. Disposing of Container: Do not reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!

#### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Sharda USA LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Sharda USA LLC and Seller harmless for any claims relating to such factors.

Sharda USA LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or Sharda USA LLC and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, SHARDA USA LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither Sharda USA LLC nor Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SHARDA USA LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SHARDA USA LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

Sharda USA LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of Sharda USA LLC.

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[Sub-Label B: Water Soluble Packets]

**CLORANSULAM-METHYL** 

GROUP 2 HERBICIDE

### **Sharda Cloransulam 84% WDG ABN: Ankur**

For Broadleaf Weed Control in Sovbeans.

**ACTIVE INGREDIENT: WT. BY %** Cloransulam-methyl: N-(2-carbomethoxy-6-chlorophenyl)-5-ethoxy-7-fluoro(1,2,4)triazolo-TOTAL: \_\_\_\_\_\_\_100.0% Contains 0.84 lb. of active ingredient per pound of product.

#### **KEEP OUT OF REACH OF CHILDREN** CAUTION

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.)

FIRST AID				
IF IN EYES:	Hold eyes open and rinse slowly and gently with water for 15-20 minutes.			
<ul> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> </ul>				
Call a poison control center or doctor for treatment advice.				
IF ON SKIN OR	Take off contaminated clothing.			
<b>CLOTHING:</b> • Rinse skin immediately with plenty of water for 15-20 minutes.				
<ul> <li>Call a poison control center or doctor for 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.				

For emergency information concerning this product, call your poison control center at 1-800-222-1222. Optional referral statements when booklets and container labels are used:

See Panel for First Aid Instructions and booklet for complete Precautionary Statements and Directions For Use.

See label booklet for complete Precautionary Statements, Directions For Use, and Storage and Disposal.

See label booklet for additional Precautionary Statements, Directions For Use, and Storage and Disposal.

See label booklet for complete Directions For Use.]

EPA Reg. No.: 83529-98 EPA Est. No.: Net Contents: [Lbs./ Kgs.]



7217 Lancaster Pike, Suite A Hockessin, Delaware 19707

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wear goggles, face shield, or safety glasses and chemical-resistant gloves. Harmful if absorbed through the skin. Wash thoroughly with soap and water after handling and before eating, chewing gum, using tobacco, or using the toilet. Wear long-sleeved shirt, long pants, socks and shoes. Remove and wash contaminated clothing before reuse.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate or Viton >14 mils
- Protective evewear
- Shoes plus socks

#### **Engineering Controls Statements:**

When handlers use enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protections 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. Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240(d)(6)].

#### **User Safety Requirements:**

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.

#### **USER SAFETY RECOMMENDATIONS**

#### **Users should:**

- 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.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Read all Directions For Use carefully before applying.

#### **ENVIRONMENTAL HAZARDS**

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 washwaters or rinsate.

**Groundwater Advisory:** Cloransulam-methyl is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

**Surface Water Advisory:** This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching aquatic sediment via runoff for several weeks after application. A level well-maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential loading of cloransulam-methyl from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. This chemical can contaminate surface water through spray drift.

**Non-Target Organism Advisory:** This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

#### **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 exemptions 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.

**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, including plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves
- Shoes plus socks

#### PRODUCT INFORMATION

**Sharda Cloransulam 84% WDG** controls many economically important broadleaf weeds in soybeans. Applications of **Sharda Cloransulam 84% WDG** may be made pre-plant incorporated, pre-plant surface, pre-emergence, or post-emergence.

- Read and carefully follow all applicable directions, precautions and restrictions on labeling for other products used in combination with Sharda Cloransulam 84% WDG.
- Use nozzle types and arrangements that will provide optimum spray distribution and maximum coverage. To minimize spray drift, apply **Sharda Cloransulam 84% WDG** in a spray volume of 3 or more gallons per acre. Increase spray volume to 5 or more gallons per acre when there is a heavy weed pressure or dense crop foliage.

**Iron Chlorosis:** There are isolated geographic areas where soil-induced iron chlorosis routinely occurs. In these areas, the severity of iron chlorosis symptoms or other nutrient induced crop injury may increase when **Sharda Cloransulam 84% WDG** is applied.

#### **CROP ROTATION INTERVALS**

When tank mixing with other herbicides, follow crop rotation guidelines on the label of each product used. The following rotational crops may be planted at the indicated interval following application of **Sharda Cloransulam 84% WDG**. Unusual climatic or environmental conditions that may increase the likelihood of rotational crop sensitivity (i.e., corn, sugar beets, sunflowers) include lower than normal rainfall and/or soil temperatures in the Fall and Spring; and/or soil pH extremes.

Crop	Rotation Interval* (Months)
Soybeans	0
Wheat	4
Alfalfa, Beans (Dry, Lima, Snap), Corn (Field, Popcorn, Seed <sup>1</sup> ), Cotton, Oats, Peas, Peanuts, Rice, and Sorghum,	9
Barley	12
Potatoes and Sweet Corn	18
Tobacco <sup>2</sup> and Other Crops Not Listed	18
Sugar Beets <sup>3</sup> and Sunflowers <sup>3</sup>	30

<sup>\*</sup>Minimum number of months that must pass before planting other crops after application of **Sharda Cloransulam 84% WDG** at up to 0.75 oz. per acre soil applied and/or 0.3 oz. per acre post-emergence.

#### FIELD BIOASSAY INSTRUCTIONS

Using typical tillage, seeding practices, and timings for the particular crop, plant several strips of the desired crop variety across the field previously treated with **Sharda Cloransulam 84% WDG**. Plant the strips perpendicular to the direction in which **Sharda Cloransulam 84% WDG** was applied. Locate the strips so that different field conditions are encountered, including differences in soil texture, pH, and drainage. If the crop does not show visible symptoms of injury, stand reduction, or yield reduction, the field can be seeded with the test crop. If visible injury or stand reduction occurs, do not seed the test crop and repeat the bioassay the next growing season.

#### **USE RESTRICTIONS**

This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rainwater that may fall on the pad.

Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely

<sup>&</sup>lt;sup>1</sup>Hybrid seed production: Corn inbred lines grown for hybrid seed production may be injured the growing season following an application of Sharda Cloransulam 84% WDG. Inbred lines must be thoroughly tested for crop tolerance before rotating to large acreage. While growers are not prohibited from rotating to seed corn in the growing season following an application of Sharda Cloransulam 84% WDG, Sharda USA LLC will not accept responsibility for any crop injury on field corn grown for seed following an application of Sharda Cloransulam 84% WDG.

<sup>&</sup>lt;sup>2</sup>Transplanted tobacco may be planted 10 months after application of 0.3 oz. per acre of **Sharda Cloransulam 84% WDG**.

<sup>&</sup>lt;sup>3</sup>Rotation to sugar beets and sunflowers require a 30-month rotation interval and a successful field bioassay.

exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

- Do not make more than one soil application during a single year.
- Do not exceed 0.039 lb. active ingredient cloransulam-methyl (0.75 oz. of **Sharda Cloransulam 84% WDG**) per acre as a soil application (pre-plant or pre-emergence).
- Do not apply more than 0.03 lb. active ingredient cloransulam-methyl (0.6 oz. of Sharda Cloransulam 84% WDG) per acre as a
  post-emergence application during a single year (either as a single application or as a total of sequential post-emergence
  applications).
- The maximum cumulative application rate from pre-plant, pre-emergence, and/or post-emergence use of cloransulam-methyl must not exceed 0.055 lb. active ingredient (1.05 oz. of **Sharda Cloransulam 84% WDG**) per acre per year.
- **Pre-Harvest Interval: Forage or Hay:** Do not make application within 25 days before harvest. **Soybeans:** Do not make application within 70 days before harvest.
- Chemigation: Do not apply this product through any type of irrigation system.
- Do not use flood irrigation to make application or incorporate this product.
- Product must be used in a manner that will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray
  mixtures or rinsates.
- Aerial applicators must be in enclosed cockpits.

#### **Handling Precautions for Water Soluble Packets**

Follow these steps when handling pesticide products in WSPs:

- 1. Mix in spray tank or induction tank only.
- 2. Handle WSP(s) in a manner that protects package from breakage and/or unintended release of contents. If package is broken, put on PPE required for clean-up and then continue with mixing instructions.
- 3. Keep the WSP(s) in outer packaging until just before use.
- 4. Keep the WSP dry before adding to the spray tank.
- 5. Handle with dry gloves and according to the label instructions for PPE.
- 6. Keep WSP intact. Do not cut or puncture WSP.
- 7. Reseal the WSP outer packaging to protect any unused WSP(s).

**Aerial Application: Sharda Cloransulam 84% WDG** may be aerially applied for pre-emergence or post-emergence control of broadleaf weeds in soybeans. **Aerial application of this product is prohibited in New York State.** 

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

Do not apply under conditions that favor runoff or wind erosion of soil containing Sharda Cloransulam 84% WDG to non-target areas. To prevent off-site movement due to runoff or wind erosion:

- Avoid treating powdery dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, allow
  the surface soil to first be settled by rainfall or irrigation.
- Do not make application to impervious substrates including paved or highly compacted surfaces or frozen or snow covered ground.
- Do not make application to soils when saturated with water.
- Do not use tailwater from the first flood or furrow irrigation of treated fields to treat non-target crops unless at least ½ inch of rainfall has occurred between application and the first irrigation.

#### MANDATORY SPRAY DRIFT

#### **Aerial Applications:**

- Do not release spray at a height greater than 10 ft. above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Select nozzle and pressure that deliver medium to coarse droplets as indicated in nozzle manufacturer's catalogues and in accordance with ASABE Standard 572.1.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

#### **Ground Boom Applications:**

 Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground, target vegetation, or crop canopy.

- For applications prior to the emergence of crops and target weeds, applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Select nozzle and pressure that deliver medium to coarse droplets as indicated in nozzle manufacturer's catalogues and in accordance with ASABE Standard 572.1.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

#### **SPRAY DRIFT ADVISORIES**

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

#### Importance of Droplet Size

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

#### Controlling Droplet Size - Ground Boom

- **Volume** Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

#### Controlling Droplet Size - Aircraft

Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

#### **Boom Height - Ground Boom**

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### Release Height - Aircraft

Higher release heights increase the potential for spray drift. When applying aerially to crops, do not release spray at a height greater than 10 ft. above the crop canopy, unless a greater application height is necessary for pilot safety.

#### **Shielded Sprayers**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

#### **Temperature and Humidity**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

#### **Temperature Inversions**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or 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. Avoid applications during temperature inversions.

#### Wind

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

#### WEED RESISTANCE MANAGEMENT GUIDELINES

Sharda Cloransulam 84% WDG contains Cloransulam-methyl and is classified Group 2 herbicide (ALS-Inhibitor). Herbicide resistance is defined as the inherited ability of a plant to survive and reproduce following exposure to a dose of herbicide normally lethal to the wild type. In a plant, resistance may be naturally occurring or induced by such techniques as genetic engineering or selection of variants produced by tissue culture or mutagenesis. Any weed population may contain or develop plants that are naturally resistant to Sharda Cloransulam 84% WDG and other Group 2 herbicides. Weed species with acquired resistance to Group 2 herbicides may eventually dominate the weed population if Group 2 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by Sharda Cloransulam 84% WDG or other Group 2 herbicides.

To delay herbicide resistance, consider the below best practices for resistance management:

- Plant into weed-free fields and keep fields as weed-free as possible.
- To the extent possible, use a diversified approach toward weed management. Whenever possible, incorporate multiple weed-

- control practices such as mechanical cultivation, biological management practices, and crop rotation.
- Fields with difficult to control weeds should be rotated to crops that allow the use of herbicides with alternative mechanisms of action or different management practices.
- To the extent possible, do not allow weed escapes to produce seeds, roots or tubers. Manage weed seeds at harvest and post-harvest to prevent a buildup of the weed seed-bank.
- Prevent field-to-field and within-field movement of weed seed or vegetative propagules. Thoroughly clean plant residues from equipment before leaving fields.
- Prevent an influx of weeds into the field by managing field borders.
- Identify weeds present in the field through scouting and field history and understand their biology. The weed-control program should consider all of the weeds present.
- Difficult to control weeds may require sequential applications of herbicides with differing mechanisms of action.
- Apply this herbicide at the correct timing and rate needed to control the most difficult weed in the field.
- Use a broad-spectrum soil-applied herbicide with a mechanism of action that differs from this product as a foundation in a weed-control program. Do not use more than two applications of this or any other herbicide with the same mechanism of action within a single growing season unless mixed with an herbicide with another mechanism of action with an overlapping spectrum for the difficult-to-control weeds.
- If resistance is suspected, treat weed escapes with an herbicide with a different MOA or use non-chemical methods to remove escapes.
- Monitor treated weed populations for loss of field efficacy.
- Scout field(s) before and after application.
- Report lack of performance to registrant or their representative.

Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species.

Contact your local sales representative, extension agent, or certified crop advisors 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 mechanisms of action for each target weed.

#### **Best Management Practices**

Proactively implement diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides. 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 full labeled rates and following directions for use is important to delay the selection for resistance. Scouting

after an herbicide application is important because it can facilitate the early identification of weed shifts and/or weed resistance and thus provide direction on future weed management practices. One of the best ways to contain resistant populations is to implement measures to avoid allowing weeds to reproduce by seed or to proliferate vegetatively. Cleaning equipment between sites and avoiding movement of plant material between sites will greatly aid in retarding the spread of resistant weed seed.

#### **Principles of Herbicide Resistance Management**

- 1. Apply integrated weed management practices. Use multiple herbicide modes-of-action with overlapping weed spectrums in rotation, sequences, or mixtures.
- 2. Use the full labeled herbicide rate and proper application timing for the hardest to control weed species present in the field.
- 3. Scout fields after herbicide application to ensure control has been achieved. Avoid allowing weeds to reproduce by seed or to proliferate vegetatively.
- 4. Monitor site and clean equipment between sites.

#### For Annual Cropping Situations, Also Consider the Following:

- Start with a clean field and control weeds early by using a burndown treatment or tillage in combination with a pre-emergence residual herbicide as appropriate.
- Use cultural practices including cultivation and crop rotation, where appropriate.
- Use good agronomic principles that enhance crop competitiveness.
- Use new commercial seed that is as free of weed seed as possible.

#### MIXING DIRECTIONS

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.

#### To calculate the total number of water soluble packets required for your spray mix:

- 1. Determine the number of acres to be treated.
- 2. Divide the number of acres to be treated by the acres/packet value that corresponds to the desired rate. See rate tables for broadcast application rates and corresponding acres per packet.

**Note:** If the calculated number of packets does not equal a whole number, round to the nearest whole number that does not exceed the maximum allowable use rates per application and per year. Round up only if the maximum allowable use rates are not exceeded.

#### Sharda Cloransulam 84% WDG - Alone

Water dispersible granules of **Sharda Cloransulam 84% WDG** are packaged in water soluble packets. Thorough mixing before and during application is required. **Note:** The film used in water soluble packets is not soluble in liquid fertilizer. If applied in liquid fertilizer, **Sharda Cloransulam 84% WDG must** be pre-mixed with water to form a slurry and then added to the liquid fertilizer solution. Pre-mixing may also be used if making an application in water. See pre-mixing instructions below.

#### Mixing Sharda Cloransulam 84% WDG Alone:

Follow the steps below when mixing this product:

- 1. If a basket or strainer is present in the tank hatch, remove before adding the WSP to the tank.
- 2. Fill tank with water to approximately one-half of the desired final volume of spray.
- 3. Stop adding water and stop any agitation.
- 4. Place intact/unopened WSP(s) into the tank.
- 5. Do not spray water from a hose or fill pipe to break or dissolve the WSP(s).
- 6. Start mechanical and recirculation agitation from the bottom of tank without using any overhead recirculation, if possible. If overhead recirculation cannot be turned off, close the hatch before starting agitation.
- 7. Dissolving the WSP(s) may take up to 5 minutes or longer, depending on water temperature, water hardness and intensity of agitation.
- 8. Stop agitation before tank lid is opened.
- 9. Open the lid to the tank, exercising caution to avoid contact with dusts or spray mix, to verify that the WSPs have fully dissolved and the contents have been thoroughly mixed into the solution.
- Do not add other allowed products or complete filling the tank until the bags have fully dissolved and pesticide is thoroughly mixed.
- 11. Once the WSP have fully dissolved, add non-ionic surfactants or other adjuvant and resume filling the tank with water to the desired level, close the tank lid, and resume agitation.
- 12. Use the spray solution when mixing is complete.
- 13. Maintain agitation of the diluted pesticide mix during transport and application. If product is allowed to settle, thoroughly agitate to resuspend the mixture before spraying. Apply within 24 hours of mixing. Weed control with **Sharda Cloransulam 84% WDG**, which has been mixed and allowed to stand for more than 24 hours, may be reduced.
- 14. It is unlawful to use any registered pesticide, including WSPs, in a manner inconsistent with its label.

**Pre-Mixing (Slurry) of Water Soluble Packets:** The film used in water soluble packaging for **Sharda Cloransulam 84% WDG** is not soluble in liquid fertilizer solutions. **In order to add Sharda Cloransulam 84% WDG to liquid fertilizer carrier, the product must be pre-mixed with water to form a slurry.** Pre-mixing can also be used as an alternative mixing method for application in water. Use a minimum of 1 quart of water for up to 5 water soluble packets of **Sharda Cloransulam 84% WDG**. The packets can be stirred immediately on addition to water or allowed to dissolve. Stir (or shake if pre-mixed in a closed container) until the packets are completely dissolved and granules are dispersed and then add to the spray tank through a 20- to 35-mesh screen. Rinse container used for pre-mixing and add rinsate to spray tank.

**Pre-Mixing (Other Products):** If pre-mixing is required for other dry or flowable products applied in tank mix combination with **Sharda Cloransulam 84% WDG**, follow directions for pre-mixing of such products provided in their respective product labels.

#### Sharda Cloransulam 84% WDG - Tank Mix

If a broader spectrum of weed control is needed, **Sharda Cloransulam 84% WDG** may be tank mixed with labeled rates of other herbicides provided (1) the tank mix product is labeled for the timing and method of application for the use site to be treated; and (2) tank mixing is not prohibited by the label of the tank mix product. 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 Mixing Precautions:**

- Read carefully and follow all applicable use directions, precautions, and limitations on the respective product labels.
- Do not exceed specified application rates for respective products or maximum allowable application rates for any active ingredient in the tank mix.
- Do not tank mix with products containing boron or mix in equipment previously used to make application of a product mixture
  containing boron unless the tank and spray equipment have been adequately cleaned (see Equipment Clean-Out Procedures).
- Always perform a (jar) test to ensure the compatibility of products to be used in tank mixture.

Tank Mix Compatibility Testing: Perform a jar test before tank mixing to ensure compatibility of Sharda Cloransulam 84% WDG and other pesticides. 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 ½ hour. If the mixture balls-up, forms flakes, sludges, gels, oily films or layers, or other precipitates, it is not a compatible tank mix combination.

Vigorous, continuous agitation during mixing, filling and throughout application is required for all tank mixes. Sparger pipe agitators provide the most effective agitation in spray tanks. To prevent foaming in the spray tank, avoid stirring or splashing air into the spray mixture.

#### **Mixing Order for Tank Mixes:**

The mixing directions 1 through 9 below take precedence over the mixing direction of the other tank mix products. WSPs may, in

#### some cases, be mixed with other pesticide products so long as the direction for use of all mixed products do not conflict.

- 1. If a basket or strainer is present in the tank hatch, remove before adding the WSP to the tank.
- 2. Fill tank with water to approximately one-quarter to one-third of the desired final volume of spray.
- 3. Stop adding water and stop any agitation.
- 4. Place intact/unopened WSP(s) into the tank.
- 5. Do not spray water from a hose or fill pipe to break or dissolve the WSP(s).
- 6. Start mechanical and recirculation agitation from the bottom of tank without using any overhead recirculation, if possible. If overhead recirculation cannot be turned off, close the hatch before starting agitation.
- 7. Dissolving the WSP(s) may take up to 5 minutes or longer, depending on water temperature, water hardness and intensity of agitation.
- 8. Stop agitation before tank lid is opened.
- 9. Open the lid to the tank, exercising caution to avoid contact with dusts or spray mix, to verify that the WSPs have fully dissolved and the contents have been thoroughly mixed into the solution.
- Do not add other allowed products or complete filling the tank until the bags have fully dissolved and pesticide is thoroughly mixed.
- 11. Once the WSP have fully dissolved, add different formulation types in the following order: (1) other formulation(s) packaged in water soluble packets; (2) any compatibility agent, if required; (3) dry flowables; (4) wettable powders; (5) aqueous suspensions, flowables and liquids. Maintain agitation and fill spray tank to ¾ of total spray volume and add: (6) emulsifiable concentrates; (7) solutions; and (8) adjuvants. Allow time for complete mixing and dispersion after each addition.
- 12. Resume filling the tank with water to the desired level, close the tank lid, and resume agitation.
- 13. Use the spray solution when mixing is complete.
- 14. Maintain agitation of the diluted pesticide mix during transport and application. If application or agitation must be stopped before the spray tank is empty, the materials may settle to the bottom. Settled materials must be resuspended before spraying is resumed. A sparger agitator is particularly useful for this purpose. Settled material may be more difficult to resuspend than when originally mixed.
- 15. It is unlawful to use any registered pesticide, including WSPs, in a manner inconsistent with its label.

If application or agitation must be stopped before the spray tank is empty, the materials may settle to the bottom. Settled materials must be resuspended before spraying is resumed. A sparger agitator is particularly useful for this purpose. Settled material may be more difficult to resuspend than when originally mixed.

#### **Clean-Out Procedures for Spray Equipment**

- 1. Drain any remaining spray mixture from the application equipment.
- 2. Hose down the interior surfaces of the tank while filling the tank ½ full of water.
- 3. Add household ammonia at a rate of 1 gal. per 100 gals. of water. Recirculate for 5 minutes and spray out part of this mixture for 5 minutes through the boom. Drain tank.
- 4. Remove all spray nozzles and screens and clean separately.
- 5. If spray equipment will be used for pesticide application to crops sensitive to **Sharda Cloransulam 84% WDG**, repeat steps 1 through 3. Thoroughly clean exterior surfaces of spray equipment.

Note: Rinsate must be disposed of on-site according to label use directions or at an approved waste disposal facility.

#### **Application in Liquid Fertilizer**

Always pre-mix or slurry **Sharda Cloransulam 84% WDG** with water before adding to liquid fertilizer in spray tanks. Do not attempt to dissolve water soluble packets in liquid fertilizer. The film used in water soluble packaging is not soluble in liquid fertilizer solutions. To slurry or pre-mix **Sharda Cloransulam 84% WDG**, use a minimum of ½ pint of water for each packet of product. Make sure **Sharda Cloransulam 84% WDG** is completely and uniformly dispersed in water and then add to the spray tank or induction system through a 20- to 35-mesh screen. Add any rinsate to the spray mixture.

When necessary, use a compatibility agent to ensure that **Sharda Cloransulam 84% WDG** mixes properly. The use of an appropriate compatibility agent is especially important when tank mixing **Sharda Cloransulam 84% WDG** and other dry flowables, wettable powders, flowables, liquids, aqueous suspensions, or solutions with emulsifiable concentrates in liquid fertilizer. If the emulsifiable concentrate formulation rises to the surface of the fertilizer as an oil ("oils out"), the oil may combine with the wettable powder, flowable, or suspension to form oily curds (viscous phase) which are difficult to disperse. A jar test, utilizing relative proportions of the tank mix ingredients, is directed before mixing with a large quantity of liquid fertilizer.

**Note:** Refer to **Clean-Out Procedures for Spray Equipment** for directions on cleaning equipment before use in crops other than soybeans.

#### **Application with Dry Bulk Fertilizer**

Dry bulk fertilizer may be impregnated or coated with **Sharda Cloransulam 84% WDG**. Application of dry bulk fertilizer impregnated with **Sharda Cloransulam 84% WDG** provides weed control equal to the same rates of **Sharda Cloransulam 84% WDG** applied in liquid carriers. Follow label directions for **Sharda Cloransulam 84% WDG** regarding rates per acre, crops, special instructions, cautions and special precautions. Apply 200 to 700 lbs. of the fertilizer/herbicide mixture per acre. Apply the mixture uniformly to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential to prevent possible crop injury. Non-uniform application may also result in unsatisfactory weed control. In areas where conventional tillage is practiced, a shallow incorporation of the mixture into the soil may improve weed control.

Most dry fertilizers can be used for impregnation with **Sharda Cloransulam 84% WDG**. When coated ammonium nitrate and/or limestone are used alone, do not impregnate with **Sharda Cloransulam 84% WDG**. These materials will not absorb the herbicide. Blends containing a mixture of ammonium nitrate and/or limestone as part of the fertilizer mixture can be impregnated.

Compliance with all Federal and State regulations relating to blending pesticide mixtures with dry bulk fertilizer, registration, labeling and application are the responsibility of the individual and/or company offering the fertilizer and chemical mixture for sale.

Impregnation: Sharda Cloransulam 84% WDG must be pre-mixed with water to form a slurry before impregnation of dry bulk fertilizer. For best results, use a minimum of ½ pint of water for each packet of Sharda Cloransulam 84% WDG. Make sure Sharda Cloransulam 84% WDG is completely and uniformly dispersed in water. Then add sufficient water to adjust the total volume of the mixture to deliver a spray volume of at least 6 pints per ton of fertilizer. Place nozzles used to spray Sharda Cloransulam 84% WDG onto the fertilizer to provide uniform spray coverage. Use any closed drum, belt, ribbon or other commonly used dry bulk fertilizer blender.

Calculate amounts of **Sharda Cloransulam 84% WDG** by the following formula:

2,000	v	Lb./Acre of Sharda Cloransulam 84% WDG	=	Pounds of Product per Ton of
Lb./Acre of Fertilizer	^		-	Fertilizer

**Note:** Thoroughly clean dry fertilizer blending and application equipment before use with other herbicides. It is important to clean the blender, herbicide spray tank, and spraying apparatus thoroughly. Rinse the sides of the blender and the herbicide tank with water. Clean spraying apparatus before preparing fertilizer/herbicide mixtures for crops other than soybeans (see **Clean-Out Procedures for Spray Equipment**). Then, impregnate the rinsate onto a load of dry fertilizer intended for an approved crop. Use a maximum rate of 1 gallon of rinsate per ton of fertilizer. Follow with one to two loads of unimpregnated fertilizer in the blender before switching herbicides. The fertilizer application equipment must be empty, clean, and dry before applying any material to crops other than soybeans.

#### **SOYBEANS**

Make application with ground equipment using a standard low pressure (20 - 40 PSI) herbicide sprayer equipped with nozzles that provide uniform coverage. For best results, apply in a spray volume of 10 gals. or more per acre for either soil or post-emergence applications. Use sufficient spray volume to provide uniform coverage. Maintain sufficient agitation during mixing and spraying to ensure a uniform spray mixture. Screens in spray lines and nozzles must be no finer than 50-mesh (100-mesh is finer than 50-mesh).

#### **Broadleaf Weeds Controlled by Soil Applications**

The following weeds are controlled by **Sharda Cloransulam 84% WDG** when applied to the soil surface at specified rates either as a pre-plant incorporated, pre-plant surface, or pre-emergence application (**Sharda Cloransulam 84% WDG** does not control known ALS-resistant biotypes of these weeds):

Amaranth, Palmer*	Mallow, Venice	Smartweed, Pennsylvania
Cocklebur, Common	Morningglory (Annual spp.)	Sunflower, Common
Horseweed, Marestail	Pigweed (Annual spp.)	Velvetleaf
Jimsonweed	Ragweed, Common	Waterhemp spp.*
Lambsquarters, Common	Ragweed, Giant	Smartweed, Pennsylvania

<sup>\*</sup>Sharda Cloransulam 84% WDG provides partial control of Palmer amaranth and waterhemp. To improve control of these weeds, apply Sharda Cloransulam 84% WDG in tank mix combination with the appropriate labeled rate of a soil applied Group 15 herbicide including Dual II Magnum®, Warrant®, or Zidua® or Group 15 herbicide product, including Treflan® or Prowl H20®.

Application Rates and Methods for Soil Applications (Pre-Plant Incorporated, Pre-Plant Surface Applied, Burndown, and Pre-Emergence)

Area of Use	Soil Organic Matter	Sharda Cloransulam 84% WDG (Oz./Acre)	Acres per 0.6 Oz. Packet <sup>1</sup>
DE, CT, IA, KS, MD, ME, MI, MN, MO (excluding the		0.6	1
Bootheel), ND, NE, NH, OH, OK, SD, VT, WI, PA, NY, and areas north of Interstate 64 in the states of IL, IN KY, WV, VA.		0.75	0.8
All areas to the south of the above mentioned geographic area.	All organic matter levels	0.75	0.8

<sup>\*</sup>Soil applications of **Sharda Cloransulam 84% WDG** at 0.75 oz. per acre on soils with greater than 5% organic matter may result in reduced weed control. Under these conditions, post-emergence applications of **Sharda Cloransulam 84% WDG** or other herbicides may be required to control specific weeds.

#### **Special Situations:**

Situations	Soil Organic Matter	Sharda Cloransulam 84% WDG (Oz./Acre)	Acres per 0.6 Oz. Packet <sup>1</sup>
Moderate to heavy giant ragweed or morningglory infestations	3% or less	0.6 - 0.75	1 - 0.8
Applications made 15 to 30 days prior to planting	Greater than 3%*	0.75	0.8
*C : 1			

Soil applications of Sharda Cloransulam 84% WDG at 0.75 oz. per acre on soils with greater than 5% organic matter may result in reduced weed control. Under these conditions, post-emergence applications of Sharda Cloransulam 84% WDG or other herbicides may be required to control

 $<sup>^{1}</sup>$ See instructions for calculating the total number of water soluble packets required in the **MIXING DIRECTIONS** section.

specific weeds.

<sup>1</sup>See instructions for calculating the total number of water soluble packets required in the MIXING DIRECTIONS section.

#### **Pre-Plant Incorporated Application**

Make application of **Sharda Cloransulam 84% WDG** alone or in tank mix combination with other herbicides registered for pre-plant incorporated application to soybeans. For best results, the seedbed should be relatively free of clods. Incorporate the herbicide(s) into the top 1 - 3 inches of the final seedbed using equipment that provides thorough soil mixing. Do not apply **Sharda Cloransulam 84% WDG** earlier than 4 weeks before planting. For best results, apply **Sharda Cloransulam 84% WDG** within 14 days of planting. When **Sharda Cloransulam 84% WDG** is applied in tank mix combination with other herbicide(s), follow the incorporation directions for the tank mix partner(s). Follow applicable use instructions, including application rates, precautions and restrictions of each product used in the tank mixture.

#### **Pre-Plant Surface Application**

Make application of **Sharda Cloransulam 84% WDG** alone or in tank mix combination with other herbicides registered for pre-plant soil surface application to soybeans. For best results, the seedbed should be relatively free of clods. For best results, apply **Sharda Cloransulam 84% WDG** within 14 days of planting. Soil surface applications are not effective until rainfall of at least 0.5 inch has moved **Sharda Cloransulam 84% WDG** into surface soil where weed germination occurs. If rainfall is not anticipated, for best results, shallow incorporate (i.e., 2 inches deep) before planting to place **Sharda Cloransulam 84% WDG** in contact with germinating weeds. **Sharda Cloransulam 84% WDG** may provide suppression of annual grasses at rates greater than 0.3 oz. per acre if there is sufficient rainfall to move the herbicide into the soil before weed germination. Timely subsequent rainfall is required for optimal herbicidal activity. If applied in tank mix combination, follow use instructions, including application rates, precautions and restrictions of each product used in the tank mixture. **Note:** Reduced weed control in the planted row may occur if untreated soil is exposed during planting operations.

#### **Burndown Application**

When used as a burndown treatment, **Sharda Cloransulam 84% WDG** alone will provide foliar activity on those broadleaf weeds listed in the **Post-Emergence Application** section of this label. In addition, **Sharda Cloransulam 84% WDG** will provide residual control of broadleaf weeds listed under the **Application Rates and Methods for Soil Applications** section. **Sharda Cloransulam 84% WDG** may provide suppression of annual grasses at rates greater than 0.3 oz. per acre if there is sufficient rainfall to move the herbicide into the soil before weed germination. Timely subsequent rainfall is required for optimal herbicidal activity. **Sharda Cloransulam 84% WDG does not control or suppress emerged annual grasses.** Include adjuvants for foliar burndown applications plus a liquid nitrogen fertilizer (see **Adjuvant Systems for Post-Emergence Application** section). To broaden the spectrum of weeds controlled, **Sharda Cloransulam 84% WDG** may be tank mixed with other herbicides including glyphosate, glufosinate, paraquat, 2,4-D, etc.

Foundation Soil Herbicide in Glyphosate-Tolerant Soybeans: Sharda Cloransulam 84% WDG can be used as a foundation soil herbicide in a planned sequential program with products including Durango® DMA herbicide (glyphosate DMA salt) (or any glyphosate product labeled for use in glyphosate-tolerant soybeans). Used as a foundation soil herbicide, Sharda Cloransulam 84% WDG will control or suppress key broadleaf weeds listed in the soil applied section of this label, allowing for optimal timing of a glyphosate incrop application.

#### **Pre-Emergence Application**

Make application after planting but before crop or weed emergence. For optimum results, make application of **Sharda Cloransulam 84% WDG** within 2 days after planting. **Sharda Cloransulam 84% WDG** may be applied alone or in tank mix combination with other herbicides registered for pre-emergence application to soybeans. When applied in tank mix combination, follow applicable use instructions, including application rates, precautions and restrictions of each product used in the tank mixture.

#### **Post-Emergence Application**

**Sharda Cloransulam 84% WDG** may be applied any time before the R2 (full flower) growth stage of soybeans. Application before full emergence of the first soybean trifoliate leaf may cause temporary yellowing or chlorosis of soybeans. Tank mix partners may cause other effects regardless of the application timing. Follow application timing restrictions of tank mix partners. For **Sharda Cloransulam 84% WDG**, optimum application timing for control of labeled weeds is provided in the table below.

Post-emergence applications of **Sharda Cloransulam 84% WDG** may provide residual soil activity on broadleaf weeds, excluding sicklepod (see soil and post-emergence weed lists). Length and effectiveness of residual activity from post-emergence applications will vary and is dependent upon weed species, application rate, rainfall following application (minimum of 0.5 inch of rainfall within 7 days of application), density of the weed and crop canopy at application, and length of subsequent weed germination events.

Environmental Conditions and Herbicidal Activity of Sharda Cloransulam 84% WDG: Factors in effective weed control with Sharda Cloransulam 84% WDG include application rate, weed size, temperature, and soil moisture before and following application, and use of adjuvants. Best weed control results are obtained when Sharda Cloransulam 84% WDG is applied to small, actively growing weeds, when daytime temperatures are warm (70°F or more), and optimal soil moisture to support active weed growth before and following application. If weeds are under drought stress, consider delaying application until more favorable conditions resume. Application when weeds are under temperature or moisture stress, or larger than the specified size, may result in reduced control.

- Sharda Cloransulam 84% WDG is rainfast in 2 hours.
- Applications made immediately before, during, or immediately following periods of heat and/or drought stress, large day/night temperature fluctuations or where daytime temperatures do not exceed 60°F may decrease weed control.
- Poor weed control may result from applications made to plants under stress from: abnormally hot or cold weather; environmental conditions including drought, water-saturated soils, hail damage, or frost; or prior herbicide applications.

Application Rate for Post-Emergence Applications: Apply as a broadcast spray at a rate of 0.3 oz. per acre before the maximum leaf stage and weed height for listed weeds using one of the directed adjuvant systems. A second application of up to 0.3 oz. of Sharda Cloransulam 84% WDG per acre may be applied to later germinating weeds. For especially heavy weed infestations or added residual control, Sharda Cloransulam 84% WDG may be used as a single application at a rate of up to 0.6 oz. per acre. Do not apply more than a total of 0.6 oz. per acre per year as a post-emergence application. Sharda Cloransulam 84% WDG may be applied alone or in tank mix combination with other labeled herbicides registered for post-emergence application to soybeans. Refer to labels for additional instructions pertaining to tank mixes.

Sharda Cloransulam 84% WDG (Oz./Acre)	Acres per 0.6 Oz. Packet*	
0.3	2	
0.6	1	
*See instructions for calculating the total number of water soluble packets required in the MIXING DIRECTIONS section.		

**Broadleaf Weeds Controlled and Optimum Stage of Growth:** The following weeds are controlled by **Sharda Cloransulam 84% WDG** when applied post-emergence at the indicated weed stage of growth. **Sharda Cloransulam 84% WDG** does not control known ALS-resistant biotypes of these weeds. To improve coverage and product performance in heavy weed infestations, use a minimum of 15 gals. per acre spray volume.

Target Weeds	Leaf Number at Application (Optimum to Maximum)	Maximum Height (Inches)	
CONTROLLED			
cklebur, Common	4 - 8	10	
yflower, Asiatic	2 - 6	N/A	
yflower, Marsh	2 - 6	N/A	
yflower, Spreading	2 - 6	N/A	
rseweed (Marestail)	-	6	
nsonweed	2 - 4	4	
allow, Venice	2 - 4	<3	
arshelder	4 - 6	10	
orningglory (Annual spp.)1	2 - 4	4	
ustard, Wild <sup>2</sup>	2 - 4	2	
gweed, Common	4 - 6	8	
gweed, Giant	4 - 6	10	
cklepod <sup>3</sup>	cotyledon - 1	<2	
nartweed, Pennsylvania	2 - 4	6	
nflower, Common	4 - 8	12	
lvetleaf <sup>4</sup>	2 - 4	6	
	SUPPRESSED		
rcucumber	2 - 4	6	
pperleaf, Hophornbeam	1 - 2	4	
itsedge, Yellow	-	8	
istle, Canada	-	10	
istle, Canada	-		

N/A = Not Available

Adjuvant Systems for Post-Emergence Application: Use in combination with one of the following adjuvant systems approved for application to growing crops:

- Non-ionic surfactant at 1 2 pts. per 100 gals. of spray mixture (0.125 0.25% v/v) plus urea ammonium nitrate at 2.5 gals. per 100 gals. (2.5% v/v)\*. Non-ionic surfactant may be used alone at 2 pts. per 100 gals. of spray mixture 0.25% v/v when required in certain tank mixes.
- Crop oil concentrate or methylated seed oil at 1.2 gals. per 100 gals. of spray mixture (1.2% v/v).
- Crop oil concentrate or methylated seed oil at 1.2 gals. per 100 gals. of spray mixture (1.2% v/v) plus urea ammonium nitrate solution at 2.5 gals. per 100 gals. (2.5% v/v).
  - \*Dry ammonium sulfate may be used at a rate of 2 lbs. per acre (8.5 17 lbs. per 100 gals. of spray mixture) as a substitute for urea ammonium nitrate.

**Note:** Use of crop oil concentrate or methylated seed oil plus urea ammonium nitrate is preferred when weeds are under drought stress, but may increase crop injury.

Refer to soil and post-application instructions section for mixing instructions and mixing order for tank mix products and adjuvants.

<sup>&</sup>lt;sup>1</sup>Morningglory: Spray before morningglory plants begin to send out runners.

<sup>&</sup>lt;sup>2</sup>Wild Mustard: For optimum control, apply before wild mustard plants exceed 4" in diameter.

<sup>&</sup>lt;sup>3</sup>Sicklepod: Applications made to sicklepod plants later than the 1-leaf stage of growth will likely result in reduced control. A repeat application of Sharda Cloransulam 84% WDG may be necessary 7 - 10 days after the first (do not apply more than a total of 0.6 oz. per acre per year as a post-emergence application). Application of other post-emergence herbicides may be necessary to control later germinating sicklepod plants.

<sup>&</sup>lt;sup>4</sup>Velvetleaf: When velvetleaf is a primary target weed, always include urea ammonium nitrate (UAN) or ammonium sulfate (AMS) with non-ionic surfactant, crop oil concentrate or methylated seed oil as the adjuvant system.

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Tank Mix Options: For weeds not listed for post-emergence control with Sharda Cloransulam 84% WDG, the herbicides listed below may be used per label instructions. When applied in tank mix combination with other herbicides, follow all use instructions for all products, including application rates, precautions and restrictions for each product used in the tank mixture, including use of adjuvants.

Broadleaf Herbicides	Grass Herbicides
Basagran	Assure II <sup>3</sup>
Cadet	Durango DMA, glyphosate <sup>1</sup>
Classic	Fusion <sup>2</sup>
Cobra	Poast Plus
Durango DMA glyphosate <sup>1</sup>	Roundup Original MAX <sup>1</sup>
Flexstar	Roundup WeatherMAX <sup>1</sup>
Glufosinate <sup>2</sup>	Select Max <sup>3</sup>
Harmony GT	
Phoenix	
Pursuit	
Raptor	
Reflex	
Resource	
Synchrony STS	
Ultra Blazer	

<sup>&</sup>lt;sup>1</sup>Tank mixtures of **Sharda Cloransulam 84% WDG** plus glyphosate products may only be used post-emergence in-crop over glyphosate-tolerant soybeans (refer to paragraph below for specific use instructions for tank mixing Sharda Cloransulam 84% WDG with these products).

Other Post-Emergence Herbicide Applications: Apply other post-emergence herbicides at least 7 days before or 7 days after an application of Sharda Cloransulam 84% WDG.

Precautions for Post-Emergence Applications of Sharda Cloransulam 84% WDG with Foliar Insecticides: Sharda Cloransulam 84% WDG may be tank mixed with the foliar applied Lorsban® 4E insecticide or synthetic pyrethroid products. The addition of other herbicides with Sharda Cloransulam 84% WDG in combination with an insecticide may increase the risk for crop injury in the form of stunting or leaf burn.

Sharda Cloransulam 84% WDG + Glyphosate and Sharda Cloransulam 84% WDG + Glufosinate Tank Mix in Glyphosate and Glufosinate-Tolerant Soybeans: Sharda Cloransulam 84% WDG at 0.3 - 0.6 oz. per acre may be tank mixed with Durango DMA (glyphosate DMA salt), or other glyphosate herbicides labeled for use in glyphosate-tolerant soybeans and glufosinate for use in glufosinate-tolerant soybeans to enhance control of key broadleaf weeds including giant ragweed, marestail, morningglory, velvetleaf, and others listed under the Post-Emergence Application section of this label. Residual control from Sharda Cloransulam 84% WDG may also reduce the potential need for subsequent post-emergence applications.

For best results when tank mixing Sharda Cloransulam 84% WDG with glyphosate and glufosinate herbicides, add ammonium sulfate (AMS) at 8.5 - 17 lbs. per 100 gals. of spray mixture. The order of mixing is: (1) water; (2) Sharda Cloransulam 84% WDG; (3) AMS; and (4) glyphosate product. No additional non-ionic surfactant is required when tank mixing with surfactant-loaded glyphosate herbicide including Durango DMA (glyphosate DMA salt).

Note: If a non-surfactant-loaded glyphosate herbicide is tank mixed with Sharda Cloransulam 84% WDG, a non-ionic surfactant is required. Add no less than 1 - 2 pts. per 100 gals. of spray mixture (0.125 - 0.25% v/v). Add the non-ionic surfactant before completing the filling process.

<sup>&</sup>lt;sup>2</sup>Tank mixtures of **Sharda Cloransulam 84% WDG** plus glufosinate may only be used post-emergence in-crop over glufosinate-tolerant soybeans (refer to paragraph on tolerant soybeans for specific use instructions for tank mixing Sharda Cloransulam 84% WDG with these products).

<sup>&</sup>lt;sup>3</sup>Under certain conditions, tank mixing **Sharda Cloransulam 84% WDG** with these post-emergence grass herbicides may reduce their activity on some grass species. However, broadleaf weed control with Sharda Cloransulam 84% WDG will not be affected. This grass antagonism may be overcome by using full labeled rates of these grass herbicides in tank mixtures with Sharda Cloransulam 84% WDG. Making separate applications of Sharda Cloransulam 84% WDG and Assure II or Fusion is the most effective method for reducing the potential for antagonism. Do not tank mix Assure II with Sharda Cloransulam 84% WDG when the target weed is woolly cupgrass or fall panicum, as reduced control may occur.

#### STORAGE AND DISPOSAL

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

**STORAGE:** Store product in original container only, away from other pesticides, fertilizer, food or feed. Store in a cool dry place and avoid excess heat. **Water Soluble Packaging:** Packets may become brittle when stored below 32°F. Handle carefully when frozen to avoid breakage or allow package to warm above 32°F before handling.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

#### **CONTAINER HANDLING:**

Non-Refillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds): Non-refillable container. Do not reuse or refill this container. Triple 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 ¼ 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. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

Non-Refillable Plastic and Metal Containers (Capacity Greater Than 50 Pounds): Non-refillable container. Do not reuse or refill this container. Triple 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 ¼ 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. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

Non-Refillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Non-refillable container. Do not reuse or refill this container. Clean container promptly after emptying the contents from this container into application equipment or mix tank and before final disposal using the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

Non-Refillable Paper or Plastic Bags, Fiber Sacks including Flexible Intermediate Bulk Containers (FIBC) or Fiber Drums With Liners: Non-refillable container. Do not reuse or refill this container. Completely empty paper or plastic bag, fiber sack or drum liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Offer for recycling, if available, or dispose of empty paper or plastic bag, fiber sack or fiber drum and liner in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities.

Refillable Fiber Drums With Liners: Refillable container (fiber drum only). Refilling Fiber Drum: Refill this fiber drum with this herbicide only. Do not reuse this fiber drum for any other purpose. Cleaning before refilling is the responsibility of the refiller. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Disposing of Fiber Drum and/or Liner: Do not reuse this fiber drum for any other purpose other than refilling (see preceding). Cleaning the container (liner and/or fiber drum) before final disposal is the responsibility of the person disposing of the container. Offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by State and local ordinances. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner. To clean the fiber drum before final disposal, completely empty the fiber drum by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer the fiber drum for recycling if available or dispose of in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities.

All Other Refillable Containers: Refillable container. Refilling Container: Refill this container with this herbicide only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage including cracks, punctures, abrasions, worn out threads and closure devices. Check for leaks after refilling and before transporting. Disposing of Container: Do not reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

Outer Foil Pouches of Water Soluble Packets (WSP): Non-refillable container. Do not reuse or refill this container. Offer for recycling if available or, dispose of the empty outer foil pouch in the trash as long as WSP is unbroken. If the outer pouch contacts the

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formulated product in any way, the pouch must be triple rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer pouch as described previously.

CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!

#### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

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