



# PROVONIS®

For Broadleaf Weed Control in Soybeans.

**ACTIVE INGREDIENT:**

Cloransulam-methyl: N-(2-carbomethoxy-6-chlorophenyl)-5-ethoxy-7-fluoro

(1,2,4) triazolo-[1,5-c]pyrimidine-2-sulfonamide ..... 21.7%

**OTHER INGREDIENTS:** ..... 78.3%

**TOTAL:** ..... 100.0%

Contains 2.0 lbs. of active ingredient per gallon.

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

**FIRST AID**

**If in eyes:**

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

**If on skin or clothing:**

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

**HOTLINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact **Chemtrec** at **1-800-424-9300** for emergency medical information.

See inside label booklet for additional Precautionary Statements and Directions for Use.

EPA Reg. No. 82534-6-5905

EPA Est. No.: 70815-GA-002

AD 051022HAE

NET CONTENTS: 1 GALLON

MANUFACTURED FOR  
HELENA AGRI-ENTERPRISES, LLC  
225 SCHILLING BOULEVARD, SUITE 300  
COLLIERVILLE, TENNESSEE 38017

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
CAUTION**

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves such as barrier laminate, or polyethylene, or polyvinyl chloride (PVC)  $\geq 14$  mils, or viton  $\geq 14$  mils, or butyl rubber  $\geq 14$  mils, or natural rubber  $\geq 14$  mils, or neoprene rubber  $\geq 14$  mils or nitrile rubber  $\geq 14$  mils
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

**ENGINEERING CONTROL 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)).

- Aerial applicators must be in enclosed cockpits.

**User Safety Recommendations**

Users should:

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

**ENVIRONMENTAL HAZARDS**

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.

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.

This chemical can contaminate surface water through spray drift.

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 groundwater. This product is classified as having a high potential for reaching surface water 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 such as 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 or irrigation is expected to occur within 48 hours.

**NON-TARGET ORGANISM ADVISORY STATEMENT:** 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.

**PHYSICAL AND CHEMICAL HAZARDS**

Do not mix or allow to come into contact with oxidizing agent. Hazardous chemical reaction may occur.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

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

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exemptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted entry level. 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, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves such as barrier laminate, or polyethylene, or polyvinyl chloride (PVC)  $\geq 14$  mils, or viton  $\geq 14$  mils, or butyl rubber  $\geq 14$  mils, or natural rubber  $\geq 14$  mils, or neoprene rubber  $\geq 14$  mils or nitrile rubber  $\geq 14$  mils
- Shoes plus socks

### PRODUCT INFORMATION

**PROVONIS®** is a Group 2 herbicide that can be applied preplant, preemergence, burndown or postemergence for control of listed weed species. For optimal results, follow the instructions on this product label. Items that affect weed control with **PROVONIS®** are weed size, soil moisture, temperature, application rate, adjuvant use. Optimal control is achieved by applying **PROVONIS®** under the following conditions:

- Application to weeds that are small and are growing
- Warm weather (70°F or higher)
- Sufficient soil moisture or rain around the time of herbicide application

Decreased efficacy can result if these conditions are not met.

### 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 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.

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)).

- Aerial applicators must be in enclosed cockpits.

Additional restrictions:

- Make a maximum of only one soil application per year
- For soil applications (preplant or preemergent), apply a maximum of 0.039 lbs of cloransulam-methyl active ingredient per acre (2.5 fl. oz. of **PROVONIS®** per acre)
- For postemergence applications, apply a maximum of 0.031 lbs of cloransulam-methyl active ingredient per acre (2.0 fl. oz. of **PROVONIS®** per acre) per year
- Do not apply more than 0.055 lbs of cloransulam-methyl active ingredient per acre (3.5 fl. oz. of **PROVONIS®** per acre) per year, notwithstanding application timing

- PHI for soybean forage or hay is 25 days
- PHI for soybeans is 70 days
- Do not feed treated soybean forage to livestock
- Do not apply via chemigation (or any other type of irrigation method)
- Do not apply or incorporate **PROVONIS®** via flood irrigation
- Do not handle product in such a way to cause spills or back siphoning in wells
- Do not aerially apply this product in New York State
- Avoid contact with nontarget plants – allow ample space between application site and desirable vegetation to decrease contact

### WEED RESISTANCE MANAGEMENT

For resistance management, **PROVONIS®** is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to **PROVONIS®** and other Group 2 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance take one or more of the following steps:

- Rotate the use of **PROVONIS®** or other Group 2 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures from a different group if such use is permitted; where information on resistance in target weeds species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Fields should be scouted prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective. Fields should be scouted after application to verify that the treatment was effective.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Suspected herbicide-resistant weeds may be identified by these indicators:
  - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
  - A spreading patch of non-controlled plants of a particular weed species; and
  - Surviving plants mixed with controlled individuals of the same species
- If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields and planting clean seed.
- If weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisor for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.

Report any incidence of non-performance of this product against a particular weed species to your Helena Agri-Enterprises, LLC representative. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemical means to remove escapes, as practical, with the goal of preventing further seed production.

### Runoff or Wind Erosion

**PROVONIS®** is not to be applied under any conditions that could facilitate wind erosion of soil or runoff to nontarget areas:

- When environmental conditions support wind erosion, do not treat light sandy or powdery dry soils unless moisture (irrigation or rainfall) has first settled soil surface.
- Do not apply to impermeable surfaces (i.e., frozen, snow covered, paved, compacted), or water-logged surfaces.
- If fields have been treated with **PROVONIS®**, tailwater from flood or furrow irrigation should not be applied to non-target crops until sufficient rainfall (~ ½ inch) has fallen after application of **PROVONIS®**.

### 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.

## 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 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.

## IMPORTANT

- **PROVONIS®** can be applied by ground (ground boom) or aerially. When applying aerially, limit spray drift by applying product in at least 3 gallons of spray volume per acre, or 5 gallons if necessitated by dense weed growth or vegetation. Use aerial application equipment and nozzles that result in effective crop/ground coverage and spray distribution. **PROVONIS®** cannot be aerially applied in New York State.
- **PROVONIS®** is rainfast 2 hours after application.
- If weeds are under stress because of excessive heat, lack of water, waterlogged soils, extreme temperature fluctuations, or insufficient temperature (60° F or less), hail damage or frost, decreased efficacy can result.
- **PROVONIS®** can exacerbate symptoms of iron chlorosis or crop injury if applied in an area where soil-induced iron chlorosis occurs.

## MIXING

- **PROVONIS®** may be applied on its own or in combination with other herbicides to control or suppress a greater range of weeds. Combinations with other products may not have been tested, therefore, carry out a compatibility test before mixing and applying (in a lidded glass jar (~1 quart size), add all mix partners, proportionally. Shake or mix the jar thoroughly to combine the ingredients. Incompatibility is indicated by precipitates (flakes or sludge), gels, balling up or forming oily films or layers. Though signs of incompatibility will typically be seen within 5 minutes of mixing, mixture should be observed for approximately 30 minutes).
- Read and follow the label of each tank mix product used for precautionary statements, directions for use, rates and timings, and other restrictions.

- Spray equipment must be clean and free of product residue prior to mixing an application solution of **PROVONIS®**. Refer to Cleaning Application Equipment directions below and to the cleaning directions of the product(s) previously applied.

Mix **PROVONIS®** using the following procedure:

1. Fill a clean spray tank with 1/2 of water (or liquid fertilizer) required for treatment.
2. Begin mixing
3. Add appropriate amount of **PROVONIS®** to spray tank, while continuing mixing.
4. If adding adjuvants, they should be added to the spray tank after the **PROVONIS®**.
5. Finish filling spray tank to required level, while continuing mixing.
6. Maintain mixing throughout, and continue during application.
  - Apply the mixture within 24 hours of mixing.
  - Maintain agitation throughout mixture and application.
  - If **PROVONIS®** spray mixture settles, mix thoroughly and completely prior to application, using a sparger agitator, or other mixer or agitator, keeping in mind that material that has settled may not mix as easily as when first blended.
  - Applying **PROVONIS®** solution that has been mixed for more than 24 hours could adversely affect efficacy.

For tank mixing, modify the mixing directions accordingly:

1. Fill a clean spray tank with 1/4 to 1/3 of water (or liquid fertilizer) required for treatment
2. Begin mixing
3. Add different components in the order indicated, while continuing mixing, allowing each component to mix completely prior to adding the next component (if any component requires premixing, follow label instructions regarding premixing prior to adding to mix tank):
  - Water soluble packets
  - Compatibility agent (if required)
  - Dry Flowables
  - Wettable Powders
  - Aqueous suspensions, flowables and liquids (including **PROVONIS®**)
4. Add water (or liquid fertilizer) to spray tank to 3/4 volume required for treatment, and continue adding the following components, in the order indicated, while mixing:
  - Emulsifiable concentrates
  - Solutions
  - Adjuvants
5. Finish filling spray tank to required level, while continuing mixing

### Cleaning Application Equipment

Adverse crop reaction may result if residues of this product are left in spray equipment following application. Spray equipment must be cleaned immediately after treatment with **PROVONIS®**, and before applications with other products.

Use the following procedure:

1. Drain the spray application equipment, including tank, hoses, spray boom and nozzles.
2. Fill tank 50% full of water, spraying the interior sides of the tank while filling.
3. Use 1% v/v household ammonia as a cleaning agent, mixing and circulating the solution through the tank for 5 minutes, and cleaning the boom by spraying the mixture through the boom for 5 minutes before draining the tank.
4. Clean screens and nozzles independently.
5. Repeat cleaning procedure if equipment is to be used on plants that exhibit sensitivity to cloransulam-methyl.
6. Clean outer surfaces of equipment.

Dispose rinse solution according to label use directions or at an approved waste disposal location.

### Crop Rotation

Do not plant crops in previously treated areas unless in full compliance with the Rotational Restrictions (below). Refer to the table below for the minimum interval from the time **PROVONIS®** was last applied until treated areas can be replanted with listed crops. When this product is tank mixed with another product(s), read and follow the directions of all tank mix partners. The most restrictive directions must apply, including directions for rotational crops.

Crop	Minimum Rotational Interval <sup>1</sup>	NOTES
Soybeans	0 months	
Alfalfa	9 months	
Barley	12 months	
Beans, dry, lima and snap	9 months	
Corn, field and pop	9 months	
Corn, seed	9 months	Thoroughly test corn inbred seed lines for hybrid seed production if planting following a <b>PROVONIS®</b> application. They can exhibit crop injury and should be tested prior to planting large acreage. While growers are not barred from this use, Helena Agri-Enterprises, LLC cannot be held responsible for crop injury on corn grown for seed in a plot after use of <b>PROVONIS®</b> .
Corn, sweet	18 months	
Cotton	9 months	
Oats	9 months	
Peanuts	9 months	
Peas	9 months	
Potatoes	12 months	
Rice	9 months	
Sorghum	9 months	
Sugar beets	30 months	Prior to planting sugar beets, a 30 month rotation interval must be observed and a successful field bioassay <sup>2</sup> must be completed.
Sunflowers	30 months	Prior to planting sunflowers, a 30 month rotation interval must be observed, and a successful field bioassay <sup>2</sup> must be completed.
Tobacco	18 months	If no more than 1.0 fl. oz. (0.016 lb ai) <b>PROVONIS®</b> has been applied, a 10 month rotation interval can be observed for transplanted tobacco.
Wheat	4 months	
All other crops not listed	18 months	

<sup>1</sup> Rotational crops could exhibit sensitivity even when observing rotational interval if unusual weather or ecological conditions occur (such as soil pH extremes, lower than normal rainfall in fall and spring, lower than normal soil temperature in the fall and spring).

<sup>2</sup> **Field Bioassay** – Plant multiple bands of the chosen crop variety across the field treated earlier with **PROVONIS®**, at right angles to the direction in which **PROVONIS®** was applied, taking care to locate different bands in dissimilar field conditions (soil textures, pH, drainage, etc.). If any injury, stand reduction or yield reduction is noticeable, do not plant, but wait another growing season and repeat field bioassay. If there are no indications of injury, yield or stand reduction, planting can occur.

## SOYBEANS – WEED CONTROL CHART

Weeds indicated in the following chart are susceptible to **PROVONIS®**, when used at labeled rates. ALS-resistant biotypes of these weeds are not controlled by **PROVONIS®**.

Weed	Control: Preplant or Preemergence (soil application)	Control or Suppress <sup>2</sup> : Post-emergence	Weed Stage of Growth for Postemergence Application	
			Leaf Number (Optimum- Maximum)	Maximum Height (inches)
Burcucumber <sup>2</sup>		●	2-4	6
Canada thistle <sup>2</sup>		●	---	10
Cocklebur, common	●	●	4-8	10
Dayflower, Asiatic		●	2-6	NA
Dayflower, marsh		●	2-6	NA
Dayflower, spreading		●	2-6	NA
Hophornbeam copperleaf <sup>2</sup>		●	1-2	4
Horseweed (marestail)	●	●	---	6
Jimsonweed	●	●	2-4	4
Lambsquarters, common	●			
Mallow, venice	●	●	2-4	<3

Marshelder		●	4-6	10
Morningglory (annual) <sup>3</sup>	●	●	2-4	4
Mustard, wild <sup>4</sup>		●	2-4	2
Nutsedge, yellow <sup>2</sup>		●	---	8
Palmer amaranth <sup>1</sup>	●			
Pigweed (annual)	●			
Ragweed, common	●	●	4-6	8
Ragweed, giant	●	●	4-6	10
Sicklepod <sup>5</sup>		●	Cotyledon-1	<2
Smartweed, Pennsylvania	●	●	2-4	6
Sunflower, common	●	●	4-8	12
Velvetleaf <sup>6</sup>	●	●	2-4	6
waterhemp species <sup>1</sup>	●			

<sup>1</sup> Limited preplant or preemergent control of Palmer amaranth and waterhemp will be achieved with **PROVONIS®**. Tank mixing with Group 15 herbicides, such as those containing the active ingredients acetochlor, metolachlor, s-metolachlor, pendimethalin, pyroxasulfone or trifluralin can enhance control.

<sup>2</sup> **PROVONIS®** will suppress Burcucumber, Canada thistle, hophornbeam copperleaf and yellow nutsedge when applied postemergent.

<sup>3</sup> For optimum postemergent control, apply to morningglory prior to runner emergence.

<sup>4</sup> Spray when wild mustard plants are less than 4 inches in diameter for optimum postemergent control.

<sup>5</sup> Decreased control of sicklepod plants will be achieved if application is made beyond the 1-leaf growth stage of the weed. To enhance control, make a second application of **PROVONIS®** 7 to 10 days following first application, making sure not to exceed 2.0 fl. oz./A (0.031 lb ai/A) per year of **PROVONIS®** when used postemergent. For germinating sicklepod plants that continue to threaten soybean crop, apply other postemergence herbicides as required.

<sup>6</sup> Adjuvant systems (methylated seed oil, urea ammonium nitrate (UAN), crop oil concentrate, ammonium sulfate (AMS) with nonionic surfactant) should be included when applying **PROVONIS®** to velvetleaf.

## SOYBEANS

**PROVONIS®** can be applied to soybeans preplant, preemergence, burndown and postemergence.

Use areas are defined as:

**Use Area A:** DE, CT, IA, KS, MD, ME, MI, MN, MO (excluding bootheel), ND, NE, NH, OH, OK, SD, VT, WI, PA, NY; areas NORTH of Interstate 64 in IL, IN, KY, WV and VA

**Use Area B:** All areas south of Use Area A

### SOYBEAN – PREPLANT INCORPORATED

To control susceptible weeds, **PROVONIS®** can be applied to soybeans preplant incorporated. See **Weed Species** chart for specific weeds controlled or suppressed.

#### Application Rates

- Use Area A (3% OM or less): 2.0 fl. oz./A (0.031 lb ai/A)
- Use Area A (>3% OM): 2.5 fl. oz./A (0.039 lb ai/A)
- Use Area B (all OM): 2.5 fl. oz./A (0.039 lb ai/A)
- Moderate to heavy giant ragweed or morningglory infestations (3% OM or less): 2.0-2.5 fl. oz./A (0.031-0.039 lb ai/A)
- Applications 15-30 days prior to planting (>3% OM): 2.5 fl. oz./A (0.039 lb ai/A)

#### Application Timing

Preplant incorporated; No more than 4 weeks prior to planting; for optimum control apply 2 weeks prior to planting.

#### Application Method

Spray soil with a low pressure herbicide sprayer (20-40 psi) fitted with uniform coverage nozzles. Spray volume should be sufficient for consistent, even treatment, typically 10 gallons or more per acre. To maintain a well-mixed product, continue adequate mixing during application. Apply to seedbed comparatively free of clumps (for optimum

#### Precautions

- If organic matter is higher than 5%, weed control may be reduced.

#### Restrictions

- For preplant incorporated use, product should be applied 4 weeks or less before planting.
- Make a maximum of only one soil application per year.
- For soil applications, apply a maximum of 0.039 lbs of cloransulam-methyl active ingredient per acre (2.5 fl. oz. of **PROVONIS®** per acre per year).



results). Incorporate product after application into the top 1-3 inches of soil.

### SOYBEAN – PREPLANT SURFACE

To control susceptible weeds, **PROVONIS®** can be applied to soybeans preplant surface. See **Weed Species** chart for specific weeds controlled or suppressed.

#### Application Rates

- Use Area A (3% OM or less): 2.0 fl. oz./A (0.031 lb ai/A)
- Use Area A (>3% OM): 2.5 fl. oz./A (0.039 lb ai/A)
- Use Area B (all OM): 2.5 fl. oz./A (0.039 lb ai/A)
- Moderate to heavy giant ragweed or morningglory infestations (3% OM or less): 2.0-2.5 fl. oz./A (0.031-0.039 lb ai/A)
- Applications 15-30 days prior to planting (>3% OM): 2.5 fl. oz./A (0.039 lb ai/A)
- Suppression of annual grasses: > 1.0 fl. oz./A (0.016 lb ai/A) (not to exceed 2.5 fl. oz./A, 0.039 lb ai/A)

#### Application Timing

Preplant surface application; for optimum control apply 2 weeks before planting.

#### Application Method

Spray soil with a low pressure herbicide sprayer (20-40 psi) fitted with uniform coverage nozzles. Spray volume should be sufficient for consistent, even treatment, typically 10 gallons or more per acre. To maintain a well-mixed product, continue adequate mixing during application. Apply to seedbed comparatively free of clumps (for optimum results). If rainfall is not anticipated, incorporate product into top 2 inches of soil prior to planting.

#### Notes

- Timely rainfall of at least ½ inch is necessary for best results; shallow incorporation of product will help offset lack of rainfall. Take care to limit exposure of untreated soil during planting for optimum weed control.

#### Precautions

- If organic matter is higher than 5%, weed control may be reduced.

#### Restrictions

- Make a maximum of only one soil application per year.
- For soil applications, apply a maximum of 0.039 lbs of cloransulam-methyl active ingredient per acre (2.5 fl. oz. of **PROVONIS®** per acre per year).

### SOYBEAN – PREEMERGENCE

To control susceptible weeds, **PROVONIS®** can be applied preemergent to soybeans. See **Weed Species** chart for specific weeds controlled or suppressed.

#### Application Rates

- Use Area A (3% OM or less): 2.0 fl. oz./A (0.031 lb ai/A)
- Use Area A (>3% OM): 2.5 fl. oz./A (0.039 lb ai/A)
- Use Area B (all OM): 2.5 fl. oz./A (0.039 lb ai/A)
- Moderate to heavy giant ragweed or morningglory infestations (3% OM or less): 2.0-2.5 fl. oz./A (0.031-0.039 lb ai/A)
- Applications 15-30 days prior to planting (>3% OM): 2.5 fl. oz./A (0.039 lb ai/A)

#### Application Timing

Preemergence – spray after planting soybean seeds, but before weeds or soybeans emerge. Spraying up to 2 days after planting will give optimum control.

#### Application Method

Spray soil with a low pressure herbicide sprayer (20-40 psi) fitted with uniform coverage nozzles. Spray volume should be sufficient for consistent, even treatment, typically 10 gallons or more per acre. To maintain a well-mixed product, continue adequate mixing during application.

#### Precautions

- If organic matter is higher than 5%, weed control may be reduced.

#### Restrictions

- Make a maximum of only one soil application per year.
- For soil applications, apply a maximum of 0.039 lbs of cloransulam-methyl active ingredient per acre (2.5 fl. oz. of **PROVONIS®** per acre per year).

## SOYBEAN – BURNDOWN

To control susceptible weeds, **PROVONIS®** can be applied as a burndown application. See **Weed Species** chart for specific weeds controlled or suppressed.

### Application Rates

- Use Area A (3% OM or less): 2.0 fl. oz./A (0.031 lb ai/A)
- Use Area A (>3% OM): 2.5 fl. oz./A (0.039 lb ai/A)
- Use Area B (all OM): 2.5 fl. oz./A (0.039 lb ai/A)
- Moderate to heavy giant ragweed or morningglory infestations (3% OM or less): 2.0-2.5 fl. oz./A (0.031-0.039 lb ai/A)
- Applications 15-30 days prior to planting (>3% OM): 2.5 fl. oz./A (0.039 lb ai/A)
- Suppression of annual grasses: > 1.0 fl. oz./A (0.016 lb ai/A) (not to exceed 2.5 fl. oz. /A, 0.039 lb ai/A)

### Application Timing

Burndown application prior to planting soybeans or as a cleanup application after soybean harvest.

### Application Method

Spray soil with a low pressure herbicide sprayer (20-40 psi) fitted with uniform coverage nozzles. Spray volume should be sufficient for consistent, even treatment, typically 10 gallons or more per acre. To maintain a well-mixed product, continue adequate mixing during application.

### Notes

- A sufficient rain event is necessary for best results.
- A burndown application can provide some residual control for preplant and preemergence weeds and foliar control for postemergence weeds.
- If more than 1.0 fl oz/A (0.016 lb ai/A) of **PROVONIS®** is applied, suppression of preemergent annual grasses may occur, provided adequate rainfall transports product into the soil. Postemergent annual grasses are not controlled or suppressed.
- Foliar burndown is enhanced when an adjuvant system and a liquid nitrogen fertilizer are used with **PROVONIS®**.

### Precautions

- If organic matter is higher than 5%, weed control may be reduced.

## SOYBEAN – POSTEMERGENCE

To control susceptible weeds, **PROVONIS®** can be applied postemergence to soybeans. See **Weed Species** chart for specific weeds controlled or suppressed.

### Application Rates

- Broadcast application at weed growth stage indicated on chart: 1.0 fl. oz./A (0.016 lb ai/A)
  - Second application for later germinating weeds: 1.0 fl. oz./A (0.016 lb ai/A)
- OR-
- Broadcast application for residual control or substantial weed growth: 2.0 fl. oz./A (0.031 lb ai/A)

### Application Timing

Broadcast spray before R(2) stage of soybean growth, and within or before weed growth stage and/or size for optimum control.

### Application Method

Spray foliage with a low pressure herbicide sprayer (20-40 psi) fitted with uniform coverage nozzles. Spray volume should be sufficient for consistent, even treatment, typically 10 gallons or more per acre. To maintain a well-mixed product, continue adequate mixing during application.

### Notes

- Some residual soil activity on broadleaf weeds (except Sicklepod) can be achieved from a postemergent application, dependent on application rate and environmental conditions such as weed type and amount, rainfall, amount of vegetation, etc.
- Optimum results are achieved when an adjuvant system is used with **PROVONIS®**.
- If weed growth or canopy is heavy, use at least 15 gallons of spray solution per acre, for thorough coverage.

### Precautions

- If **PROVONIS®** is applied to soybeans prior to first trifoliolate leaf stage, some reversible chlorosis (yellowing of leaves) may result.
- A 7 day application interval (either before or after) should be observed between application of **PROVONIS®** and other postemergence herbicides, if not applying together as tank mix partners.

### Restrictions

- Postemergence application yearly maximum is 2 fl. oz. per acre (0.031 lb ai/A).

## ADJUVANTS

Adjuvant System A – Nonionic Surfactant (0.125 to 0.25% v/v dilution) + Urea Ammonium Nitrate (2.5% v/v dilution) or dry Ammonium Sulfate (2 lb/acre)

Adjuvant System B – Nonionic Surfactant (0.25% v/v dilution)

Adjuvant System C – Crop Oil Concentrate or Methylated Seed Oil (1.2% v/v dilution)

Adjuvant System D – Crop Oil Concentrate or Methylated Seed Oil (1.2% v/v dilution) + Urea Ammonium Nitrate (2.5% v/v dilution)

- If weeds are under stress due to environmental issues (such as lack of water), Adjuvant System D is preferred, but could heighten crop injury.
- For optimum results when applying **PROVONIS®** postemergent, an adjuvant system should also be used.
- For optimum results with burndown applications of **PROVONIS®**, an adjuvant system, along with a liquid nitrogen fertilizer should also be used.

## TANK MIXES

To control or suppress a greater range of weeds, **PROVONIS®** can be tank mixed with other herbicides, as long as application methods and timing are the same, and the particular tank mix is not barred on the **PROVONIS®** or tank mix partner label. **PROVONIS®** can also be tank mixed with other agricultural pesticides to address various types of agricultural pests. When tank mixing **PROVONIS®** with other herbicides or pesticides, follow all label instructions, restrictions and precautions on all tank mix partners, and do not go beyond any maximum mandated application rates on any tank mix partner label.

Burndown applications of **PROVONIS®** can be enhanced by tank mixes with herbicides having complimentary weed control profiles, such as herbicides containing 2,4-D, paraquat, glyphosate, glufosinate, as well as other herbicides registered for burndown use on soybeans.

Take care when applying postemergent and tank mixing with other herbicides – soybean plants can be susceptible to effects such as chlorosis or stunting. Make sure to observe any particular timing restrictions indicated on tank mix partner labels.

Take care when applying postemergent and also tank mixing with glufosinate or glyphosate, that soybeans are glyphosate-tolerant or glufosinate-tolerant. Additionally, when tank mixing with glyphosate or glufosinate, add the adjuvant ammonium sulfate (8.5-17 lbs per 100 gallons spray mixture), for optimum control. When tank mixing with a non-surfactant loaded glyphosate product, add a non-ionic surfactant to the spray mixture at 0.125-0.25% v/v, prior to complete dilution of the tank mix partners.

In some circumstances, tank mixing with some grass herbicides (herbicides containing clethodim or aryloxyphenoxy propionates such as quizalofop-p-ethyl, fluazifop-p-butyl and fenoxypop-p-ethyl) can have an antagonistic effect and reduce efficacy on some types of grass weeds. Making sure to use maximum rates prescribed on tank mix product labels can help alleviate such effects. For best results, Helena Agri-Enterprises, LLC recommends that **PROVONIS®** not be tank mixed with aryloxyphenoxypropionates if target weeds are fall panicum or wooly cupgrass.

**PROVONIS®** can be tank mixed with synthetic pyrethroid or chlorpyrifos insecticides when applied postemergent. However, adding additional tank mix partners to **PROVONIS®** + synthetic pyrethroids, chlorpyrifos or other insecticides could cause stunting, leaf burn or other injury to soybeans.

## SPECIAL APPLICATIONS

### Sequential Application in Glyphosate-Tolerant Soybeans

**PROVONIS®** can be used sequentially as a preplant or preemergent foundation soil herbicide application. This will give suppression or control of broadleaf weeds indicated in weed chart for soil application. This application can help ensure that a foliar application of a glyphosate product to glyphosate tolerant soybeans can be made at the best possible time.

### Application of PROVONIS® in Liquid Fertilizer

**PROVONIS®** can be mixed and applied with liquid fertilizer. To do so, it is recommended that the **PROVONIS®** be premixed with water (approx. ½ pint water mixed with 2.5 fl. oz. (0.039 lb ai) **PROVONIS®**) prior to adding to the spray tank containing the liquid fertilizer. Take care that **PROVONIS®** is entirely and consistently mixed prior to adding to the spray system. For more complete mixing, **PROVONIS®** can be added to the system through a screen (20-35 mesh size). If premixing **PROVONIS®** in a separate container, be sure to add any rinsate from that container to the spray system. Adding a compatibility agent may be needed for thorough mixing, particularly if **PROVONIS®** is not the only component being mixed with the liquid fertilizer (take particular care if one of the mix partners is an emulsifiable concentrate product). Refer to MIXING section for information on how to mix products, and use of a compatibility test prior to mixing.

### Application of PROVONIS® in a Dry Bulk Fertilizer

**PROVONIS®** can be used to impregnate or coat dry bulk fertilizers. Use prescribed rates and directions for use indicated for **PROVONIS®**, when used with dry bulk fertilizers, to give the same level of weed control when applied diluted in liquid. If the dry bulk fertilizer consists of coated limestone and/or ammonium nitrate, do not use with **PROVONIS®**, as the **PROVONIS®** will not be absorbed properly onto these substrates. Most other dry bulk fertilizers should be acceptable for impregnation or coating with **PROVONIS®**.

Mix appropriate amount of **PROVONIS®** with enough water to yield at least 6 pints of water per ton of dry bulk fertilizer to be treated. Ensure that **PROVONIS®** is entirely and consistently mixed with water prior to spraying onto fertilizer. Spray **PROVONIS®** solution onto dry bulk fertilizer, ensuring consistent coverage of the fertilizer. Finish mixing in a dry bulk fertilizer blender (such as ribbon, belt, closed drum, or other commonly used type of blender).

Approximately 200-700 lbs of fertilizer mixture is used per acre. Appropriate amounts of **PROVONIS®** to apply per ton of fertilizer:

$$\frac{2000}{\text{Lbs./acre of fertilizer}} \times \text{fl. oz. / acre of PROVONIS®} = \text{fl. oz. of PROVONIS® per ton of fertilizer}$$

Dry bulk fertilizer / **PROVONIS®** blend should be applied to soil immediately after blending. Take care that application to soil is homogeneous, as inconsistent application will adversely affect control and suppression of weeds, and could cause injury to soybeans. Soil incorporation may improve weed control (if conventional tillage is used).

If you choose to blend **PROVONIS®** or other pesticides with dry bulk fertilizers, you are responsible for complying with all state and Federal regulations pertaining to use or sale of such mixtures.

### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in original container only. In case of leak or spill, contain material with absorbent materials and dispose as waste.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on-site according to label use directions or at an approved waste disposal facility.

#### **CONTAINER HANDLING:**

##### ***(Nonrefillable plastic containers less than or equal to 5 gallons)***

Nonrefillable 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 and drain for 10 seconds after the flow begins to drip. 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 offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration; or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

##### ***(Refillable containers)***

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Return to the point of sale or 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.

### CONDITIONS OF SALE AND LIMITED WARRANTY

The Directions for Use are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of HELENA AGRI-ENTERPRISES, LLC or the SELLER. To the extent consistent with applicable law, all such risks shall be assumed by the buyer. Helena Agri-Enterprises, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use, subject to the inherent risks referred to above. HELENA AGRI-ENTERPRISES, LLC MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, HELENA AGRI-ENTERPRISES, LLC AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

HELENA AGRI-ENTERPRISES, LLC and the SELLER offer this product, and the Buyer and User accept it, subject to the foregoing Conditions of Sale and Warranty which may be varied only by agreement in writing signed by a duly authorized representative of HELENA AGRI-ENTERPRISES, LLC.