

# **DESICCATION OF ALFALFA TO FACILITATE HARVEST OF ALFALFA GROWN FOR SEED - WASHINGTON**

## General Information

### USE INSTRUCTIONS AND INFORMATION

Do not apply this product through any type of irrigation system.

When Gramoxone SL 2.0 is applied at less than 10 gallons per acre finished spray volume, a drift control or spray deposition additive SHOULD be used. Refer to the additive label for use directions.

### Spray Drift Information

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

- The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
- Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45°.

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

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

### USE INFORMATION

Gramoxone SL 2.0 is a contact herbicide used to control or suppress a broad spectrum of emerged weeds. Gramoxone SL 2.0 controls most small annual weeds -

both broadleaves and grasses, and suppresses perennial weeds by destroying green foliage. Gramoxone SL 2.0 can also be used as a desiccant/defoliant at harvest.

Gramoxone SL 2.0 is formulated as a liquid which contains 2 pounds of active ingredient per gallon. The formulation contains a nontoxic odor and an emetic (an agent which will induce vomiting if the product is swallowed). The odor is included in the formulation to help prevent accidental ingestion of Gramoxone SL 2.0.

Gramoxone SL 2.0 is rapidly absorbed by green plant tissue and interacts with the photosynthetic process to produce superoxides which destroy the plant cells. Gramoxone SL 2.0 requires actively growing green plant tissue to function. Thorough coverage of all green foliage is essential for effective weed control and for effective crop desiccation/defoliation. Gramoxone SL 2.0 is not as effective on drought-stressed weeds, weeds with little green foliage (i.e., mowed or cut weeds), or mature woody bark of trees and vines.

Clay and organic matter rapidly tie up Gramoxone SL 2.0. As a result, Gramoxone SL 2.0 has no residual soil activity to affect later-planted crops or later germinating weeds.

#### ROTATIONAL CROPS

All rotational crops may be planted immediately after the last application of Gramoxone SL 2.0.

#### RAINFASTNESS

Because Gramoxone SL 2.0 is rapidly absorbed by the weed foliage, rain occurring 15-30 minutes or more after application will have no effect on the activity of Gramoxone SL 2.0.

#### APPLICATION

Since Gramoxone SL 2.0 is a contact-type herbicide, it is essential to obtain complete coverage of target weeds to get good control. Improper application technique and/or application to large, stressed, or mown weeds will usually result in unacceptable weed control and unacceptable crop desiccation/defoliation. Complete coverage is also essential for good crop desiccation/defoliation.

## USE OF A NONIONIC SURFACTANT OR CROP OIL CONCENTRATE/METHYLATED SEED OIL

Always add one of the following (failure to use one of the following at recommended rates will result in reduced performance of Gramoxone SL 2.0).

**Nonionic Surfactant:** For ground and aerial application, add nonionic surfactant containing 80% or more surface-active agent at a minimum of 0.25% v/v (2 pt/100 gal) of the finished spray volume.

**Crop Oil Concentrate:** Add a nonphytotoxic crop oil concentrate or methylated seed oil containing 15-20% approved emulsifier, at 1.0% v/v (1 gal/100 gal) of the finished spray volume for ground applications. For aerial applications, add 1 pint of crop oil concentrate per acre. Do not use crop oil concentrate when using Gramoxone SL 2.0 for cotton harvest aid.

Use an adjuvant that meets the requirements of the Chemical Producers and Distributors Association (CPDA) adjuvant certification program.

## NOZZLE SELECTION

The use of flat-fan nozzles will result in the most effective application of Gramoxone SL 2.0. Flood nozzles are generally not as good as flat fans since they produce large uneven droplets. The use of flood nozzles may result in reduced weed control due to inadequate coverage.

## SPRAY CARRIER

Always use clean water (free of mud or clay), clear liquid nitrogen, or complete clear liquid fertilizers as the carrier when spraying Gramoxone SL 2.0. Muddy water, or suspension-type fertilizers containing clay, can inactivate Gramoxone SL 2.0. Never use suspension-type fertilizers containing clay as the spray carrier. If using a complete clear liquid fertilizer containing high phosphate levels as the spray carrier, always use the higher rate of Gramoxone SL 2.0 and surfactant.

**Note:** When using liquid fertilizers such as 28% N as a spray carrier, it is important that nonionic surfactant still be used with Gramoxone SL 2.0. Liquid fertilizer carriers cannot substitute for surfactant.

## RATES OF GRAMOXONE SL 2.0

Follow rates listed with each use of Gramoxone SL 2.0. Use the higher label rates when weeds are dense or large. Also, use higher label rates for harvest aid when crop vegetation is dense. For broadcast applications of Gramoxone SL 2.0 with backpack sprayers, the application rate must not exceed 0.50 lb ai/A (one quart) in a minimum of 30 gallons of spray solution per acre.

## SPRAY VOLUME

Follow minimum spray volumes listed with each use of Gramoxone SL 2.0. These are minimum volumes only, and spray volumes should be increased as necessary to obtain complete coverage of the target weed or plant without runoff from the foliage.

WHEN SPRAYING LESS THAN 20 GALLONS OF SPRAY CARRIER PER ACRE, TARGET WEEDS SHOULD NOT EXCEED 6 INCHES IN HEIGHT.

## APPLICATION TIMING

Gramoxone SL 2.0 should be applied to emerged weeds when they are small. Weeds 1-6 inches in height are the easiest to control. Larger weeds may be more difficult to control. When weeds have been grazed or mowed, thus removing much of the green foliage, allow the weeds to regrow to a height of 2-4 inches before spraying if possible.

Similarly, when forage or grain crops have been harvested prior to spraying, weeds present in the field will also have been cut. To allow for adequate green foliage to remain on weeds in this situation, raise cutter bars as high as possible from the ground to cut stubble and weeds at a greater height.

## BURNDOWN OF GRASS COVER CROPS OR VOLUNTEER CEREALS

When using Gramoxone SL 2.0 for control of grass cover crops or volunteer cereals, best results are obtained when Gramoxone SL 2.0 is applied prior to tillering or after boot stage. This is especially important with a wheat cover crop or volunteer wheat. Treatments made between tillering and boot stage will generally not provide complete control. Do not expect complete control of perennial cover crops.

## PRECAUTIONS AND RESTRICTIONS

### EQUIPMENT/CONTAINER

Flush all spray equipment with water after use each day. Gramoxone SL 2.0 is corrosive to aluminum. Aluminum spray equipment and aluminum aircraft structures that are exposed to spray solution or spray drift should be flushed thoroughly with water immediately after use.

In dry areas, dust stirred up by high winds or equipment tires can coat weed or plant leaves and reduce Gramoxone SL 2.0 activity. Avoid applying Gramoxone SL 2.0 in extremely dusty conditions.

### LIMITATIONS AND PRECAUTIONS

- For Cotton Harvest Aid: Do not pasture livestock in treated fields or feed treated foliage.
- DO NOT use around home gardens, schools, recreational parks, or playgrounds.
- In preplant and preemergence (to the crop) uses, do not apply to soils lacking clay minerals, e.g., peat, muck, pure sand, artificial planting media.
- Seedbeds and plantbeds should be formed as far ahead of planting and treatment as possible to permit maximum weed and grass emergence prior to treatment.
- To reduce germination of new weeds, seeding or transplanting should be done with a minimum amount of soil disturbance.
- Gramoxone SL 2.0 used for preplant weed control over the top of plastic mulch may damage transplants which come in contact with the plastic. Sufficient rainfall or sprinkler irrigation to cause wash-off prior to planting may be needed to prevent damage to the crop.
- Weeds and grasses emerging after application of Gramoxone SL 2.0 will not be controlled or suppressed.
- Unless otherwise indicated, crop plants emerged at time of application may be severely injured or killed if contacted by sprays of Gramoxone SL 2.0.

### PARAQUAT-RESISTANT WEED MANAGEMENT

Some naturally occurring weed biotypes resistant to paraquat may exist through normal genetic variability in any weed population. The repeated use of herbicides with the same mode of action is known to lead under certain conditions to a

selection of resistant weeds. Certain agronomic practices reduce the likelihood that resistant weed populations will develop and integrated strategies are known to manage such problem weeds.

The active ingredient in Gramoxone SL 2.0 is paraquat, a mechanism of action Group 22 herbicide, which inhibits Photosystem I.

Within the USA specific biotypes of a number of species, including horseweed/marestail (*Conyza canadensis*), hairy fleabane (*Conyza bonariensis*), goosegrass (*Eleusine indica*) and American black nightshade (*Solanum americanum*) have become resistant to paraquat.

General principles of herbicide resistance management:

Apply integrated weed management practices. Use multiple herbicide mechanisms of action with overlapping weed spectrums in rotation, sequences or mixtures. Use the full specified herbicide rate and proper application timing for the hardest to control weed species present in the field.

Scout fields after herbicide application to ensure control has been achieved. Avoid allowing weeds to reproduce by seed or to proliferate vegetatively.

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 preemergence residual herbicide as appropriate.

Use cultural practices, such as cultivation and crop rotation, where appropriate.

Use good agronomic principles that enhance crop competitiveness.

Contact your local extension specialist, certified crop advisor, and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

Since the occurrence of resistant weeds is difficult to detect prior to use, Syngenta accepts no liability for any losses that may result from the failure of Gramoxone SL 2.0 to control resistant weeds.

Refer to the label for tank mix and REI information.

Limitations, Restrictions, and Exceptions

FOR DISTRIBUTION AND USE ONLY WITHIN THE STATE OF WASHINGTON

## For Desiccation of Alfalfa to Facilitate Harvest of Alfalfa Grown For Seed

- Use higher rates with very dense canopies or with heavy weed pressure.

### Spray Volume:

Ground Applications: use a minimum spray volume of 20 – 25 gallons per acre. Always add a nonionic surfactant containing 75% or more surface-active agent at 0.125% v/v (1 pint per 100 gallons), OR add a nonionic surfactant containing 50-74% surface-active agent at 0.25% v/v (2 pints per 100 gallons) of the finished spray volume for ground applications.

Aerial Applications: use a minimum spray volume of 5-10 gallons per acre. Always add a nonionic surfactant at 0.25% v/v (2 pints per 100 gallons) of the finished spray volume.

Frequency and Timing of Applications: Usually only one application is needed. If a second application is needed, make it at least 4 days prior to the planned harvest date.

### Restrictions / Precautions:

- When using this product in Eastern Washington, refer to WSDA restrictions on the use of desiccant herbicides.
- Do not make more than two applications per year. The maximum application rate per year is 8 pt/A.
- Do not harvest until at least 4 days after application.
- For harvest aid and desiccation applications, the restricted-entry interval (REI) is 24 hours.
- Do not apply when weather conditions favor drift from treated areas.
- Do not apply by ground equipment within 25 ft. or by air within 75 ft. of lakes; reservoirs; rivers; permanent streams, marshes or natural ponds; estuaries; and commercial fish ponds.
- For use only on fields in production of alfalfa seed. Not for use on fields producing alfalfa for livestock feed.
- Do not cut current year's alfalfa seed crop for hay or forage. DO NOT graze current year's treated alfalfa seed crops.
- Chemigation: For use in accordance with this SLN label do not apply this product

through any type of irrigation system.

#### Additional Restrictions:

1. All alfalfa seed screenings shall be disposed of in such a way that they cannot be distributed or used for human food or animal feed. The seed conditioner shall keep records of screening disposal for three years from the date of disposal and shall furnish the records to the director immediately upon request. Conditioner disposal records shall consist of documentation of on-farm disposal, disposal at a controlled dumpsite, incinerator, composter, or other equivalent disposal site and shall include the lot numbers, amount of material disposed of, its grower(s), and the date of disposal.
2. No portion of the alfalfa seed plant, including but not limited to green chop, hay, pellets, meal, whole seed, cracked seed, roots, bulbs, leaves and seed screenings may be used or distributed for food or feed purposes.
3. Alfalfa seed shall bear a tag or container label which forbids use of the seed for human consumption or animal feed.
4. Alfalfa may not be distributed for human consumption or animal feed.

#### Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

#### Pre-Harvest Interval

4 days

#### Rates

[field rates 0](#)

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#### Restricted Entry Interval

24 hours

#### Timings

[N.A.](#)