Clean Up Alfalfa with a Dormant Season Application of Sharpen® Herbicide

**Sharpen Herbicide Benefits**

**Powered by Kixor® Herbicide Technology**
- Control of the toughest broadleaf weeds such as common groundsel

**Resistance Management**
- Additional site of action to manage and/or prevent resistant broadleaf weeds, such as ALS resistant London Rocket

**Flexible**
- Broad-spectrum broadleaf weed control
- Quick burndown
- Effective dormant season herbicide application without yield loss

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Now available in convenient quart-sized packaging.

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**Sharpen Herbicide**

**Gramoxone® SL Herbicide**

**Weed Control in Dormant Alfalfa**

<table>
<thead>
<tr>
<th></th>
<th>Common Groundsel</th>
<th>Shepherd’s Purse</th>
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<tbody>
<tr>
<td>60 DAT 100%</td>
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<td>60 DAT 85%</td>
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<tr>
<td>60 DAT 83%</td>
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UCCE Trial – Groundsel and Shepherd’s Purse control in dormant alfalfa. Trial location: Tracy, CA. Treatment date: 1/6/15. Rating date: 3/6/15. All treatments include Hasten® (MSO) and Ammonium sulfate at 1.0%. Sharpen herbicide rate: 2 fl oz. Gramoxone SL herbicide rate: 32 fl oz.

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Powered by Kixor herbicide technology, Sharpen herbicide drives burn down three to five times faster than 2, 4-D or glyphosate and offers broad-spectrum control of tough broadleaf weeds.

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**Technical Information Bulletin**

We create chemistry
**Application Timing by Regions**

In Region A (red), make Sharpen® herbicide applications at least 90 days before first planned cutting or yield reductions may occur.

In Region B (orange), make Sharpen herbicide applications at least 75 days before first planned cutting or yield reductions may occur.

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**Best Use Recommendations**

**Application Rates**
- One application of 2 fl oz/A during dormancy
- Tank mix with Prowl® H2O herbicide for extended residual control of grasses and small seeded broadleaf weeds

**Application Recommendations**
- Adjuvants: MSO (1% v/v or a minimum of 1 pt/A) + AMS (8.5-17 lbs/100 gals), OR MSO (1% v/v or a minimum of 1 pt/A) + UAN (1.25-2.5 gals/100 gals)
- For best results, apply by ground using a minimum of 10 GPA of water
- Rainfast 1 hour after treatment
- Do not apply through an irrigation system
- Do not use a nonionic surfactant (NIS) as a substitute for MSO
- Do not apply to alfalfa > 4 inches tall

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**Sharpen Herbicide Burndown**

**Dormant Season Alfalfa**

- Sharpen Herbicide (2 fl oz/A) + AMS + MSO
- Gramoxone (1 qt/A) + AMS + COC

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2014 Parlier, CA – Photo taken 15 DAT. Sharpen herbicide treatment included MSO at 1.0% v/v + AMS at 8.5 lb/100 gal. Gramoxone herbicide treatment included COC at 1.0% v/v + AMS at 8.5 lbs/100 gal.

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**Sharpen Herbicide Yield**

**Dormant Season Alfalfa**

![Graph showing yield comparison between Check, Gramoxone Herbicide 32 fl oz, and Sharpen Herbicide 2 fl oz.](image)

*77 Days After Treatment (4-1-15)*

- Check
- Gramoxone Herbicide 32 fl oz
- Sharpen Herbicide 2 fl oz

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2015, Trial location: UC Davis Agronomy, Davis, CA. Sharpen herbicide treatment included MSO at 1.0% v/v + AMS at 8.5 lb/100 gal. Gramoxone herbicide treatment included COC at 1.0% v/v + AMS at 8.5 lbs/100 gal.

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**Superior burndown, equal recovery!** Visit your retailer to order Sharpen herbicide today. To learn more, visit [www.KixorHerbicide.com](http://www.KixorHerbicide.com).