

**FALL 2010**

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**2011 WASGA Winter Seed School - Program**

**WASGA Winter Seed School Registration Form**

**Alfalfa Pollinator Workshop**

## UPCOMING EVENTS

**January 23 - 25, 2011**  
 WASGA Winter Seed Conference. Harrah's, Las Vegas, NV. For more information please call (509) 585-5460.

**January 24, 2011 4:30 p.m.**  
 NW Alfalfa Research Council Meeting, - Harrah's, Las Vegas, NV. For more information please call (509) 585-5460.

**January 24, 2011 6:00 p.m.**  
 WASGA Board of Directors Meeting, - Harrah's, Las Vegas, NV. For more information please call (509) 585-5460.

**February 15-17, 2011**  
 National Alfalfa and Forage Alliance Board of Directors Meeting, Washington D.C. For more information Call (651) 484-3888

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### Mayweed Chamomile Control in Alfalfa Seed Production Rick Boydston, USDA-ARS

Mayweed chamomile (*Anthemis cotula*, alias dog fennel) is a problem weed in alfalfa seed production. Scentless or corn chamomile (*Anthemis arvensis*) is a closely related species, but lacks the ill-smelling odor of mayweed chamomile. Mayweed chamomile and scentless mayweed are annual weeds, reproducing by seed and normally flowering from May through October. The seed is small and can be a contaminant in the harvested alfalfa seed. Mayweed seed left on the soil surface was nearly completely destroyed by burning alfalfa residues in 2009 and 2010 studies. Mayweed chamomile is controlled well by several preemergence applied herbicides labeled in alfalfa seed such as, flumioxazin (Chateau), metribuzin (Sencor), hexazinone (Velpar) and diuron (Karmex), but these herbicides are often applied after some mayweed has germinated and emerged during the fall or winter months. Pendimethalin (Prowl), a commonly used preemergence herbicide in alfalfa seed production, does not control mayweed. Imazamox (Raptor) controls smaller mayweed seedlings, but some mayweed populations have developed resistance to herbicides with this mode of action [aceto lactate synthase (ALS) inhibitors]. Bentazon (Basagran) and bromoxynil (Buctril) applied postemergence control small mayweed seedlings (about 1 inch), but larger seedlings often survive treatment. 2,4-DB (Buterac) does not control mayweed well.

Two field trials were conducted in 2010 in alfalfa seed production fields infested with mayweed chamomile (Touchet, WA) and scentless mayweed (Warden, WA). Six preemergence herbicides and six postemergence applied herbicide treatments were tested at the Touchet, WA site and six postemergence applied herbicides were tested at Warden. *Several of the herbicides tested (sulfentrazone, pyroxasulfone, indaziflam, saflufenacil, chloransulam, and asulam) are not labeled in alfalfa.* Preemergence treatments were applied Feb. 12, 2010 after the field had been tilled with a Danish tine harrow in January. The entire trial was treated with Gramoxone (paraquat) at 0.75 lb ai/a at the time of the preemergence herbicide applications to control all emerged weed seedlings. Postemergence treatments were applied March 24, 2010 when alfalfa was 6 to 8 inches tall and mayweed chamomile was 0.5 to 1 inch tall at Touchet. At Warden, herbicide treatments were applied March 4, 2010 when alfalfa was 1.5 to 2 inches tall and scentless mayweed was 3 to 5 inch tall.

Results Touchet. Alfalfa injury was minor following all preemergence treatments. Postemergence treatments injured alfalfa from 8 to 21% at 13 days after treatment. 2,4D-B (Buterac) at 1 lb ai/a tended to injure alfalfa the greatest whether applied alone or tank mixed with asulam (Asulox). The least injury was observed with asulam alone at 1.67 lb ai/a. By early June, no alfalfa injury was evident with any herbicide treatment. Alfalfa seed yields in August were not significantly different among herbicide treatments.

On April 6, 2010, mayweed chamomile was controlled 95% or greater by all preemergence treatments except pyroxasulfone at 0.19 lb ai/a, which controlled the weed 83%. By early June, mayweed chamomile control had decreased with all preemergence treatments except indaziflam at 0.0652 lb ai/a, which remained at 97% control. Flumioxazin at 0.125 lb ai/a and sulfentrazone (Spartan) at 0.19 lb ai/a were still controlling mayweed chamomile 89% by early June, whereas control with pyroxasulfone had dropped to 35%.

All postemergence treatments controlled mayweed chamomile well except 2,4D-B which only marginally suppressed the weed. Asulam took longer to begin showing symptoms on mayweed plants, showing little activity at 2 weeks after treatment. However, asulam applied alone and in tank mixes with bentazon or 2,4D-B controlled mayweed chamomile well by early June.

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Herbicide treatments applied to alfalfa seed at Touchet, WA in 2010.

No.	Treatment	Rate (lb ai/a)	Timing
1	Flumioxazin (Chateau)	0.125	pre
2	Sulfentrazone (Spartan)	0.19	pre
3	Pyroxasulfone (KIH-485)	0.19	pre
4	Saflufenacil (BAS800)	0.044	pre
5	Indaziflam	0.065	pre
6	Metribuzin (Sencor)	0.75	pre
7	Chloransulam (Firstrate)	0.021	post
8	Asulam (Asulox)	1.67	post
9	Bentazon (Basagran)	1	post
10	2,4DB (Buterac)	1	post
11	Asulam (Asulox) + Bentazon (Basagran)	1.67 + 1	post
12	Asulam (Asulox) + 2,4DB (Buterac)	1.67 + 1	post
13	Nontreated		

Results Warden. Alfalfa injury was greatest (78%) with flumioxazin (Chateau) + paraquat (Gramoxone) at 0.125 + 0.5 lb ai/a in mid March, and injury lessened with time, but was still 33% on May 20, 2010. Alfalfa was also injured 27% by 2,4D-B (Buterac) alone or in a tank mix with asulam (Asulox), but injury did not persist past April. Alfalfa injury was least with asulam (Asulox) applied alone. Alfalfa seed yield was not significantly different among herbicide treatments.

Flumioxazin plus paraquat provided the quickest burn down of mayweed chamomile, but larger plants eventually recovered and control was only 77% by May 20, 2010. Although slow to act initially, asulam (Asulox) alone or in tank mixes with 2,4D-B or Imazamox (Raptor) controlled mayweed chamomile 97% or more by May 20, 2010. Imazamox alone at 0.039 lb ai/a partially controlled mayweed chamomile 83%, whereas 2,4D-B did not control mayweed chamomile.

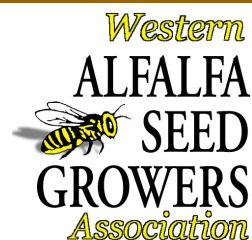
Herbicide treatments applied to alfalfa seed at Warden, WA in 2010.

No	Treatment	Rate (lb ai/a)
1	Flumioxazin (Chateau) + Paraquat (Gramoxone)	0.125 + 0.5
2	Asulox (Asulam)	2.5
3	Buterac 200 (2,4DB)	1.25
4	Asulox (Asulam) + Buterac 200 (2,4DB)	1.25 + 1
5	Imazamox (Raptor)	0.039
6	Imazamox (Raptor) + Asulox (Asulam)	0.039 + 1.25
7	Nontreated	

Greenhouse trials conducted on mayweed chamomile with preemergence and postemergence herbicides substantiated the results from field trials. Preemergence applications of indaziflam, sulfentrazone, and saflufenacil all controlled mayweed well, whereas pyroxasulfone suppressed the weed, but some seedlings survived. Chloransulam (Firstrate) applied postemergence to mayweed chamomile controlled the weed at the three rates tested in the greenhouse, indicating the Touchet population used was not resistant to this ALS inhibitor herbicide. Asulam applied postemergence greatly suppressed mayweed at two rates tested.

Sulfentrazone, indaziflam, saflufenacil, chloransulam, and asulam have potential to be useful tools for mayweed chamomile and scentless mayweed control in alfalfa grown for seed if registered in the crop. Further details and complete results of these studies can be found in our annual report to the Washington Alfalfa Seed Commission.

**WINTER SEED CONFERENCE**  
**JANUARY 23 - 25, 2011 - HARRAH'S, LAS VEGAS, NV**



**SUNDAY, JAN. 23**

1:00 pm - Begin Setting up for Trade Show

5:00 - 8:00 - **Get Acquainted Reception -**

**SPONSORED BY LIPHATECH**

**MONDAY, JANUARY 24**

**7:00 am - Registration Desk Opens - Trade Show Ongoing**

**SESSION 1 -**

8:30 - Welcome -

8:40 - Round Up Ready Update - Genetic Supplier Panel Discussion

9:30 - Progress of the Re-Deregulation Process - Sid Abel - Asst. Deputy Administrator for BRS, USDA, APHIS

10:00 - "Recent Advances in Biotech and Molecular Breeding Approaches in Alfalfa " - Maria Monteros, Assistant Professor, Forage Improvement Division, The Samuel Noble Foundation

10:30 - Break—Sponsored by Forage Genetics

**SESSION 2 -**

10:45 - RR and Alfalfa in the Midwest - Dr. Dan Undersander, Univ. of Wisconsin

11:20 - BiOps and Buffers - Heather Hansen, WA Friends of Farms and Forests (Invited)

**12:00 - Luncheon Sponsored by Beaver Plastics**

**Luncheon Speaker - Joe Funk, Editor—Seed Today "Sustainability"**

**SESSION 3 - RESEARCH REPORTS**

1:30 - Chalkbrood & Bee Import and Price Data - Rosalind James

2:00 - Alkali Bee Research Projects - Jim Cane

2:20 - "Size and Sex Ratio of Wild Alfalfa Leafcutting Bees" - Kevin O'Neil

2:40 - "Insect Management on Alfalfa Seed" - Doug Walsh

3:00 - "Alkali Bee Project" - Amber Vinchesi

3:20 - 5:00 - **Researcher's Poster Panel Session—Sponsored by JWM Leafcutters**

**4:30 NW Alfalfa Seed Research Council Meeting & WASGA BOARD MEETING**

**TUESDAY, JANUARY 25**

**SESSION 4 -**

9:00 - Call to Order - Opening Announcements

9:10 - Renewable Energy: Success, Progress, Pitfalls, Technology Innovation, Financing Opportunities - Chris Cassidy, USDA Rural Development, National Business Renewable Energy Advisor

9:40 - "The Factors Affecting Fertilizer" - Jim Fitzgerald, Far West Agribusiness Association

10:10 - Break—Sponsored by Forage Genetics

**SESSION 5 - INDUSTRY AND MARKET REPORTS**

10:30 - NAFA Update

11:00 - Canadian Report—Bob Wilson, Northstar Seeds

11:30 - State of the Industry—Paul Frey, Cal West Seeds

12:00 (Noon) - Conference adjournment



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JANUARY 23 – 25, 2011 - HARRAH'S, LAS VEGAS, NV

### 2011 ANNUAL WINTER SEED CONFERENCE



Harrah's Casino and Hotel in Las Vegas, NV has been chosen as the site for the 42nd annual Western Alfalfa Seed Growers Associations Winter Seed Conference. The Conference program will be as follows:

Sunday, January 23 – Welcome Reception 5:00pm – 8:00pm  
Monday, January 24 – Main Program 8:30am – 3:00pm  
Noon Luncheon  
Researchers Poster Panel 3:20pm – 5:00pm  
Tuesday, January 25 – Program 9:00am-12:00pm

The program will include a Round Up Ready Update, Reports from the researchers and top notch speakers talking on Alfalfa Seed and other Ag related issues.

***Rooms for this event have been secured at a special rate of \$55.00 per night (Sunday – Tuesday). To reserve your room call Harrah's at (888) 458-8471 by January 3, 2011. When reserving your room make sure to give them the following code: SHWA11***

A Conference Registration form is enclosed. These are also available on the WASGA website at [www.wasga.org](http://www.wasga.org). We look forward to seeing all of you in Las Vegas.

Sponsorship opportunities are still available and there registration forms can be found online.

If you have any questions, please contact us at (509) 585-5460.