



Pest Control Notes

Yolo-Solano-Sacramento Counties

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MEETING ANNOUNCEMENT

**ALFALFA AND SMALL GRAINS FIELD DAY
UC DAVIS, MAY 21, 2009**

See details on page 2

Hello all,

I returned from sabbatical leave in March and since then have been working on stem nematode issues in alfalfa, writing grant proposals for pest management work, and organizing upcoming field meetings. While on leave, I lived in Chile and studied Spanish and traveled to the Midwest to learn more about pest management issues in sunflower production. I also wrote a common dry bean production booklet as well as two papers on management practices for water quality protection in furrow-irrigated crops. I'll advertise these publications in my newsletter when available through our University of California website.

Since my return, there have been some changes in our UCCE office with Diane Metz's retirement and Kent Brittan now serving as our County Director as of April 1, 2009. As a result of Kent's new appointment, I will be taking over his oil seed crops including sunflower and safflower.

I'm glad to be back with a number of projects to work on including alfalfa stem nematode control, a safflower variety trial with hybrid and non-hybrid varieties, and pest management practices sunflower headmoth control. I'll also be working on a project to evaluate pollination and pest control services provided by beneficial insects that live in hedgerows surrounding crops and pollination and pest control issues in onion seed production.

I look forward to seeing you at our upcoming field day at UC Davis. Happy Spring!

Sincerely, Rachael Long, Farm Advisor

NEW PUBLICATION

Irrigated Alfalfa Management, for Mediterranean and Desert Zones, UC ANR Publication number 3512 available for order at <http://alfalfa.ucdavis.edu> (\$65.00 each) or through our UCCE office in Woodland. This is a great resource with 24 chapters focused on all aspects of alfalfa hay production. You can also access the individual chapters on the UC Davis alfalfa website to read them online.

For information on organic alfalfa production, see Chapter 21 in this book titled, 'Producing Alfalfa Hay Organically', and the '2007 UC Cooperative Extension Sample Costs to Establish and Produce Organic Alfalfa Hay in the Intermountain and Sacramento Valley', at:
<http://coststudies.ucdavis.edu>.

Also available at <http://coststudies.ucdavis.edu>:

2008 UC Cooperative Extension sample costs to establish and produce alfalfa hay in the Sacramento Valley.

2008 UC Cooperative Extension sample costs to produce beans, single-cropped in the Sacramento Valley.

2008 UC Cooperative Extension sample costs to produce beans, double-cropped in the Sacramento Valley.

❖ **UC Davis Alfalfa and Small Grains Field Day**

When: Thursday, May 21, 2009, 8:30 am–4:00 pm

Where: UC Davis Agronomy Field Headquarters

***Bonus:** 6 CE hours applied for

The University of California Cooperative Extension and Department of Plant Sciences at UC Davis, is pleased to announce the Small Grains and Alfalfa Field Day to be held on the Agronomy Farm, UC Davis Agronomy Field Headquarters, Hutchison Road in Davis.

Directions: Take Hutchison Rd. about 1/3 mile west from Hwy 113 in Davis. The agronomy field headquarters will be on the south side of the road.

The purpose of this field meeting will be to take a look at and discuss research trials and crop production issues in California related to forages and cereal grains. This will include variety trials, pest and disease updates, and weed control.

Agenda:

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| 8:30 | Registration (coffee and donuts) |
| 8:45-Noon | Small Grains Field Day |
| Noon-1:00 | BBQ lunch, sponsored by California Crop Improvement Association |
| 1-4:30 | Alfalfa and Forages Field Day. Focus will be on alfalfa varieties, pest management, RR alfalfa, weed identification and control, deficit irrigation trials, and other forage trials. |

For more information, contact our UCCE office in Woodland at 530-666-8143. There is no need to pre-register for this field day and there is no charge.

Alfalfa Stem Nematode update

As most of you are probably aware, the alfalfa stem nematode has caused serious yield losses to the first alfalfa harvest throughout the northern San Joaquin and Sacramento Valleys. This pest is a tiny microscopic worm that is almost host specific to alfalfa and lives and feeds inside the alfalfa plant. The most recognizable symptoms of stem nematode in alfalfa are patches of stunted plants with twisted and deformed “mouse ear” size leaves with a crinkled appearance. Stunted plants typically have swollen stems that are thick and short.

The stem nematode has always been present in our area, but this is the first time we’ve had such a serious outbreak. No one knows what caused the problem, but it may have been due to the warm temperatures in January followed by a wet period in February. This pest thrives in cool, wet conditions, feeding on alfalfa crowns and buds and reproducing rapidly. Most become inactive when temperatures rise above 75°, but become active again when conditions are favorable. As a result, most infected plants should recover, but there may be some yield reduction to the second cutting, depending on the severity of the infestation.

To manage alfalfa stem nematodes, efforts should be made to prevent the introduction and limit the spread of this pest into new areas. When working in an infested field, clean crop debris and soil from equipment before entering a clean field. After harvest, remove all dry hay and dust clinging to balers and other equipment because stem nematodes have the ability to withstand very dry conditions. Infested fields should also be harvested last throughout the growing season. Nematodes can spread from field to field in runoff water, so this makes them difficult to control.

Rotation with small grains and other crops for two to four years will reduce stem nematode populations. When planting new stands, select alfalfa varieties that have a high level of resistance to stem nematode (giving 51% plant resistance), which will help manage this pest. However, even the best varieties may become infected and develop symptoms during years with extended periods of wet, cool conditions.

The use of foliar applied pesticides with nematocidal properties for stem nematode control is still being evaluated. Applications of pesticides to alfalfa early March did not show any benefit against the alfalfa stem nematode compared to untreated plots. However, it could be that our timing was off and the pesticides need to be applied late fall or early winter when the nematodes may become active again as temperatures cool. We’ll keep you updated as we continue to learn more about this pest.

Egyptian Alfalfa Weevil update

Weevils were tough to control this year and many fields had to be treated twice to prevent serious damage to alfalfa. Several factors may have contributed to this problem, including stem nematode infestations and a longer weevil hatch. With fewer and smaller plants, the weevils may have concentrated on the remaining plants in fields.

Weevil resistance to the pyrethroids is unlikely as there are no such reports in the literature or from my colleagues in other states. When controlling weevils next year, be sure that you are getting adequate coverage. If you've had problems controlling weevils in the past in certain fields you may want to consider tank-mixing pesticides with different modes of action.

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