



Pest Control Notes

Yolo-Solano-Sacramento Counties

70 Cottonwood St., Woodland, CA 95695 Ph: 530-666-8143 Fax: 530-666-8736

MEETING ANNOUNCEMENTS

**ALFALFA AND SMALL GRAINS FIELD DAY
UC DAVIS, MAY 14, 2008**

**GARBANZO FIELD DAY
UC DAVIS, JUNE 5, 2008**

Also, for those of you who like to plan way ahead, the California Alfalfa and Forage Symposium will be held in San Diego on December 3-4, 2008 at the Town and Country Resort and Convention Center, with a pre-symposium tour of the Imperial Valley on Dec. 2. See <http://alfalfa.ucdavis.edu> for more information.

❖ UC Davis Alfalfa and Small Grains Field Day

When: Wednesday, May 14, 2008 8:15 am-4:30 pm

Where: UC Davis Agronomy Field Headquarters

**Bonus:* 6 CE hours applied for

The University of California Cooperative Extension and Department of Plant Sciences, 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, Davis, on Wednesday May 14.

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:

8:15	Registration
8:30-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.

❖ **UC Davis Garbanzo Field Day**

Where: UC Davis Vegetable Crops Field Station

When: Thursday, June 5, 2008 9 am–11 am

**Bonus:* 2 CE hours applied for

This study includes a very nice fall-planted garbanzo yield trial with ca. 6 commercial checks and 14 WSU selections, and a nice comparison of 2-row versus 3-row Sierra and Sutter varieties on 5-foot beds.

Topics to be addressed will include:

- Garb variety trials: *S. Temple, UCCE, Plant Sciences UC Davis Campus*
- Garb herbicide and weed management studies

Directions: UC Davis, Hutchison Dr. about 1/3-mile west of Hwy 113 on the south side of the road (just west of the Agronomy field headquarters). Turn south at the Vegetable Crops field headquarters and continue south down the road to the end of the farm (about ¾ of a mile).

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.

ORGANIC ALFALFA PRODUCTION

Resources

A UC cost study is now available for organic alfalfa production at <http://coststudies.ucdavis.edu>, or through our UCCE office in Woodland. A chapter on Producing Alfalfa Hay Organically will also be available soon at <http://alfalfa.ucdavis.edu> in the new California Alfalfa Production Manual. Many chapters are already on line at this website for information on irrigated alfalfa in California.

Weevil Control

We have been evaluating a number of different organically approved insecticides for weevil control in alfalfa. These include PyGanic5.0, Ecotrol, CedarGuard, GCMite, and Entrust (organic form of Spinosad). In a research trial this spring at UC Davis, Entrust at 1.25 oz/A showed the most promise with 61% weevil control after 4 days post treatment, 58% control after 11 days, and 47% control after 15 days. Although not as efficacious as the conventional Warrior pyrethroid treatment, Entrust will help reduce weevil numbers below the economic threshold level giving some protection to the alfalfa crop.

WATER QUALITY RESEARCH UPDATE

For the past 2-years we have been evaluating management practices that can be used on farms to minimize offsite movement of sediments and sediment associated pyrethroids in irrigation tailwater. Currently pyrethroids are an issue of concern because they have been found in surface waters at levels that are toxic to some aquatic species.

Our data show that sediment traps or tailwater ponds designed to hold water for at least 45-60 minutes that trap medium grain silt particles and coarser sediments before leaving fields can reduce offsite movement of sediments and pyrethroids by at least 50%. More information on designing and incorporating sediment traps in your farming operation can be obtained through the local NRCS and RCD office along with cost share programs.

Vegetated grass strips planted at the ends of drains designed to capture and filter irrigation tail water reduced offsite movement of sediments and pyrethroids by at least 75% in our research trials. Although clearly beneficial, the efficacy of the vegetated strips will depend on tailwater flows, sediment loads, and the size of the vegetated strips. In our trials, the grasses were planted with fescue and perennial ryegrass and filtered about 50% of the tailwater at 300 ft where we took our water quality samples.

The polyacrylamide PAM added to source water via tablets or granules placed in the furrows, or liquid formulations injected in the source water reduced offsite movement of sediments and pyrethroids by at least 90%. PAM works by causing sediments to bind together in water and settle out, and must be applied to source water to be efficacious. Cost for the tablets is \$8.70/A (1 tablet per furrow), for the liquid PAM \$11.00/A (5 ppm), and the granules \$1.60/A. Current research is focusing on how to apply the PAM so that it is both most cost effective and efficacious for sediment and pyrethroid reduction in row crop production.

ECOSYSTEM SERVICES IN AGRICULTURAL LANDSCAPES

Hedgerow Update

Data that we collected on insects attracted to hedgerows of native California shrubs and perennial grasses on field crop farms in Yolo County has finally been analyzed and clearly documents the benefits of managed vegetation on farms. Flowering plants on farms including Ceanothus, toyon, buckwheat, coffeeberry, elderberry, and coyotebrush attract beneficial insects that feed on the pollen and nectar provided by these plants. As a result, hedgerow plantings can serve as great replacement vegetation for weedy areas where we find an abundance of pests. In particular, mustard, radish, and Malva serve as major hosts for stinkbugs, cucumber beetles, flea beetles, and Lygus bugs that infest adjacent crops when the weeds dry down. This year, in a collaborative project with UC Berkeley, our research will focus on the economic value that these beneficial insects in the hedgerows may play on pest control and pollination in adjacent crops. For more information on planting hedgerows and cost share information, contact the NRCS or RCD office.

Bat Update

Bats are beginning to migrate back to our Sacramento Valley where they will take advantage of seasonal flights of insects and raise their young (usually only one offspring per year). In a collaborative project with the USDA in Washington, we have determined through genetic analysis that bats feed on codling moth, a major pest of walnuts, apples, and pears. This year we will be working on trying to place an economic value that bats may have on pest control in agriculture. For more information on putting up bat houses on farms, give me a call at my office at 530-666-8734.

Website Resources:

UC Cost of production studies: <http://coststudies.ucdavis.edu>

UC IPM for urban and agricultural pest control issues: <http://ipm.ucdavis.edu>

Alfalfa production including the new California Alfalfa Production Manual: <http://alfalfa.ucdavis.edu>

Dry bean production: <http://beans.ucanr.org>

Hello all,

I have been granted a sabbatical leave from July 1, 2008 to March 2, 2009 so will be away from the UC Cooperative Extension office during this time. My plans are to write 2 papers (one on water quality protection in row crop production and the other on common dry bean production in California). I also intend to study Spanish, including attending a language immersion program in Chile, and will do some work on sunflower seed production. In my next newsletter I'll let you know about contacts for alfalfa and forage as well as dry bean production questions.

Have a great and productive spring and I hope to see you at our upcoming meetings.

Sincerely, Rachael Long

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University of California
Yolo County Cooperative Extension
70 Cottonwood Street
Woodland, CA 95695

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