



## Update on Controlling Smutgrass in Irrigated Pastures

### **DID YOU KNOW...**

YouTube is a great way to use social media to reach people outside of ranching and agriculture?

by Theresa Becchetti

Livestock and Natural Resources Farm Advisor

Last summer UC Farm Advisors and Specialists researched ways to control the invasion of smutgrass that is occurring in the valley's irrigated pastures. The control of 95% of mature plants was obtained with the application of 33% glyphosate by a rotary wiper in early July.

A publication was developed that covers the biology of smutgrass and how that relates to control or management, herbicides for control smutgrass, intensive grazing to manage smutgrass, and nutritional content of smutgrass that may explain why animals prefer not to graze it. For a complete report go to *WRIC site* (<http://wric.ucdavis.edu>) or the Livestock and Natural Resources section of our county website (<http://ucanr.org/livestock>) or contact the Farm Advisors' office..



Figure 1. Thirty days after treatment –note the application skip spot at the end of the check.

More research and demonstration will be conducted this summer. A June glyphosate rotary wiper application will be conducted along with July. Also a preemergence herbicide, pendimethalin (Prowl), will be applied this spring to determine if the seed bank can be depleted with the combination of both treatments in one year. The long term goal is to develop a rigorous management program that will give long-term suppression of smutgrass within a couple of year.

Glenn Nader, Livestock-Natural Resource Advisor, Sutter and Yuba Counties

To simplify information, trade names of products have been used. No endorsement of named products is intended, nor is criticism implied of similar products which are not mentioned.

Update on Controlling Smutgrass in Irrigated Pastures.....	Pg. 1
Preventing Damage From Liver Flukes.....	Pg. 2-3
Excellence in Range Management.....	Pg. 3
YouTube and Cattle?.....	Pg. 3
59th Annual Livestock Forum.....	Pg. 4-5

The University of California prohibits discrimination or harassment of any person on the basis of race, color, national origin, religion, sex, gender identity, pregnancy (including childbirth, and medical conditions related to pregnancy or childbirth), physical or mental disability, medical condition (cancer-related or genetic characteristics), ancestry, marital status, age, sexual orientation, citizenship, or status as a covered veteran (covered veterans are special disabled veterans, recently separated veterans, Vietnam era veterans, or any other veterans who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized) in any of its programs or activities. University policy is intended to be consistent with the provisions of applicable State and Federal laws. Inquiries regarding the University's nondiscrimination policies may be directed to the Affirmative Action/Equal Opportunity Director, University of California, Agriculture and Natural Resources, 1111 Franklin Street, 6th Floor, Oakland, CA 94607-5200 (510) 987-0096.

## Preventing Damage from Liver Flukes

Hopefully, we will have a wet and warm spring this year to fill up the reservoirs and get the grass going. One of the potential problems with weather like this is that liver flukes can be very active. Just the thought of these creatures makes you a little bit uneasy. The idea that a microscopic creature on a blade of grass can end up as a large parasite in the liver of your cattle sounds like something out of a science fiction novel. However, that is just what happens on a continual basis in most all of California. Very few beef cattle slaughtered in California are free of liver flukes. The common liver fluke of cattle, *Fasciola hepatica*, does have this bizarre life cycle. The cattle ingest grass with an encysted stage of the fluke present. After the cattle eat this contaminated grass, the juvenile flukes “burrow” through the lining of the intestine, escape into the peritoneal cavity (the inside of the abdomen) and migrate to the liver. The flukes bore their way into the liver and over the next 6 weeks or more make their way to the interior of the liver and finally arrive in the bile ducts where they begin to lay eggs. The fluke eggs are shed into the manure of the cattle. These eggs hatch and make their way to fresh water snails, which they infect and undergo additional development. They eventually emerge from the snail as young flukes and encyst (form a resistant coating) on blades of grass. When cattle ingest them, the life cycle can be completed.

***What damage do flukes cause?*** This is a common question, since such a high percentage of our cattle in California have liver flukes. The young flukes cause quite a lot of damage as they migrate through the liver. If only a few flukes are migrating through the liver at one time, the damage to the cattle is minimal. However, if many flukes are migrating at the same time, the damage to the liver can be extensive. In these cases, diarrhea, weight loss, and jaundice (yellow mucous membranes) can be observed. In addition to the direct damage to the liver, there is another problem liver flukes can precipitate and that is Redwater.

Redwater (Bacillary Hemoglobinuria) can affect cattle at any time of the year; however, it is most common in the late spring, summer, and autumn. Redwater is caused by a bacterium called *Clostridium hemolyticum*, which colonizes in the liver of susceptible cattle and produces protein toxins that in turn destroy the body's red blood cells, damages other organ systems and rapidly causes death. The migrating flukes damage local areas in the liver causing low oxygen tension and the bacteria prefer these conditions and begin to grow rapidly in these damaged areas. The disease has a short incubation period and the vast majority of affected cattle are usually found dead and bloated.

Another problem liver flukes seem to be associated with is decreased fertility. Studies have been published that show decreased pregnancy rates in replacement heifers and increased age to puberty in heifers infected with liver flukes. Thus, flukes can cause losses in a number of ways: (1) direct damage to the liver, with weight loss and diarrhea, (2) death loss due to Redwater secondary to liver damage of migrating flukes, and (3) decreased reproductive performance.

***Can we eliminate liver flukes?*** Because of our relatively mild winter conditions, the abundance of snails (the intermediate host), and wildlife reservoirs, it is doubtful we will be able to eliminate flukes on our ranches. We do not have liver flukes as a problem in our feedlots or dairies because of the absence of these sources of infection.

***How can we minimize the losses due to flukes?*** Our best option is the use of drugs to kill the flukes during strategic times of the year. Unfortunately, the timing is dependent on the individual ranch operation. Killing the adult flukes that are residing in the liver of cattle *before* turning them onto clean pastures seems to be the most cost-effective strategy. This not only kills the flukes; but it prevents further shedding of eggs on the pastures. Maximum transmission of flukes occurs in spring and summer in warmer regions and late summer to fall in cooler regions. Depending on your pasture rotation schedule, the use of drugs to kill flukes in the fall or late winter/spring should be the minimum management strategy.

***Which drugs are effective against liver flukes?*** Currently, there are only two drugs available that are effective against liver flukes in cattle. Both work best against the adult flukes, but there is some effect on the migrating juvenile flukes. Clorsulon is effective only against liver flukes and it is sold alone as Curatrem® or in combination with ivermectin as Ivomec® Plus. Thus, Curatrem® can be used to kill the flukes or Ivomec® Plus can be used to kill the flukes plus the internal parasites (worms) and external parasites (sucking lice). Additionally, albendazole (Valbazen®) has activity against flukes and internal parasites. All the drugs and combinations of drugs have advantages and disadvantages in terms of cost, ease of administration, withdrawal times, and effectiveness. Consult with your veterinarian to be certain which product will work best for your operation. Also, review with your veterinarian the time of year that will be most cost-effective for administration of drugs to kill flukes.

John Maas, DVM, MS, Diplomate, ACVN & ACVIM, Extension Veterinarian  
School of Veterinary Medicine, University of California-Davis

## **Excellence in Range Management**

Every year the California-Pacific Section of the Society for Range Management recognizes a ranch that is doing more than just raising livestock. Criteria for the award include:

- ◆ Consideration of nominee's stewardship of rangeland as demonstrated by sustainable productivity of natural forage, livestock, timber, wildlife habitat, water quality, protection of riparian habitats, production of other commodities, and aesthetic values;
- ◆ Contributions toward rangeland advancement off the ranch, including association work and training activities that encourage proper management;
- ◆ Improvements made in overall efficiency of the range management goals; and
- ◆ The manager's ability to develop creative solutions to rangeland management challenges.

This award is presented each fall and if you think you may know of a deserving ranch, including your own family ranch, please contact me, Theresa Becchetti at (209) 525-6800, so we can work on submitting your ranch for consideration.

## **YouTube and Cattle?**

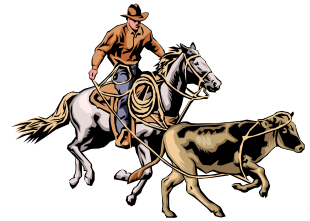
For those who are tech savvy and know your way around YouTube, check out the video from Feedstuffs Foodlink: "Don't Blame the Cows!" Featuring Dr. Frank Mittleohner who spoke at last year's Livestock Forum discussing research based facts of cattle's contribution to air quality: [http://www.youtube.com/watch?v=kf7ueqqQty8&feature=player\\_embedded#](http://www.youtube.com/watch?v=kf7ueqqQty8&feature=player_embedded#).

YouTube is a great way to use social media to reach people outside of ranching and agriculture. And you can link videos from YouTube to your Facebook page and potentially reach thousands of people with a positive image of agriculture. If you have not seen them yet, California Beef Council has also posted videos of ranchers as well as Beef Backer Awards. <http://www.youtube.com/user/CalifBeefCouncil#p/u>

You can also go to [www.youtube.com](http://www.youtube.com) and then search for either of these videos, or any others. Feedstuffs Foodlink has many videos discussing many different issues facing the livestock industry. Passion for the Land is also on YouTube. They are a series of videos by ranchers in the Sierra Valley that discuss ranching and preserving the land for future generations. A few of them were viewed last year at the Livestock Forum and the Westside Ranchers' Meeting.



**University of California**  
Agriculture and Natural Resources



**59<sup>th</sup> Annual Oakdale Livestock Forum**

March 1, 2011  
Oakdale Community Center  
**110 South Second Street**  
Oakdale, CA 95361

This meeting is sponsored by the University of California Cooperative Extension, the California Beef Cattle Improvement Association and the Calaveras, Tuolumne and San Joaquin/Stanislaus Cattlemen’s Associations.

- 9:30 a.m. **Registration and Morning Hospitality**
- 10:00 a.m. **Welcome, Opening Remarks**
- 10:05 a.m. **Estimating Forage Losses on Annual Rangelands**  
*Theresa Becchetti, Livestock-Natural Resource Advisor, Stanislaus & San Joaquin Counties*
- 10:30 a.m. **What Would You Do? Animal Health Q & A**  
*Dr. John Maas, UCCE Veterinary Specialists*
- 11:15 a.m. **Marketing 101 – Different Marketing Avenues**  
*Larry Forero, Livestock-Natural Resource Advisor, Shasta & Trinity Counties*
- 12:00 p.m. **Beef Lunch**  
*Prepared by the San Joaquin/Stanislaus Cattlewomen’s Association*
- 12:30 p.m. **Do You Know Your Weeds?**  
*Scott Oneto, Farm Advisor, El Dorado, Amador, Calaveras, & Tuolumne Counties*
- 12:45 p.m. **The Futures Market – Reducing Your Risk**  
*Dr. Steve Blank, UCCE Financial Management Specialists*
- 1:30 p.m. **Livestock Risk Protection Program**  
*Leticia McElroy, USDA Risk Management Specialist*
- 2:15 p.m. **Cows on Flickr – Public Perception of Grazing**  
*Sheila Barry, Livestock-Natural Resource Advisor, Bay Area*
- 2:45 p.m. **Afternoon Hospitality Break**
- 3:00 p.m. **Rangeland Weed Management Opportunities with NRCS & UCCE**  
*Diana Waller, NRCS Stanislaus County*
- 3:30 pm **Closing Remarks**

The University of California prohibits discrimination or harassment of any person on the basis of race, color, national origin, religion, sex, gender identity, pregnancy (including childbirth, and medical conditions related to pregnancy or childbirth), physical or mental disability, medical condition (cancer-related or genetic characteristics), ancestry, marital status, age, sexual orientation, citizenship, or status as a covered veteran (covered veterans are special disabled veterans, recently separated veterans, Vietnam era veterans, or any other veterans who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized) in any of its programs or activities. University policy is intended to be consistent with the provisions of applicable State and Federal laws. Inquiries regarding the University's nondiscrimination policies may be directed to the Affirmative Action/Equal Opportunity Director, University of California, Agriculture and Natural Resources, 1111 Franklin Street, 6th Floor, Oakland, CA 94607-5200 (510) 987-0096.

# 59<sup>TH</sup> ANNUAL OAKDALE LIVESTOCK FORUM

## REGISTRATION FORM

**Tuesday**

**March 1, 2011**

**110 South Second Street**

**Oakdale, CA**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Daytime Phone: (\_\_\_\_) \_\_\_\_\_ Number Attending \_\_\_\_\_

Refreshments and lunch will be provided to all participants.

**Please return this form with payment of \$10.00 for each participant. Enclose a check or money order payable to U.C. Regents. Payments & Registration are due by February 18<sup>th</sup>, 2011 (or pay \$15.00 at the door).**

**Mail registration to:**

**Theresa Becchetti, Livestock Advisor**

**U.C. Cooperative Extension**

**3800 Cornucopia Way, Suite A**

**Modesto, CA 95358**

**(209) 525-6800**

*A Calaveras, San Joaquin, Stanislaus & Tuolumne Counties educational program*



University of California  
Agriculture and Natural Resources

# LIVESTOCK LINES

Stanislaus & San Joaquin Counties

February 2011 ♦ Volume 17 No. 1

## Upcoming Educational Events

The 59<sup>th</sup> Annual Oakdale Livestock Forum is quickly approaching. The agenda is included in this newsletter and will have many interesting and diverse topics. Marketing will be heavily featured this year, everything from different marketing options to the Futures market to a new USDA program to help ranchers reduce risk of selling cattle on the Futures market.

Catheys Valley is the location for a meat goat workshop on March 15, 2011 from 10:00 a.m. to 2:00 p.m. Titled "Goats for fun, profit, and fire control," the workshop will touch on many different topics ranging from basic goat health, nutrition, guard animals, and even contracting goats for weed control. If you are interested, please contact Theresa at (209) 525-6800 or Maxwell Norton in the Mariposa County office (209) 966-2417 for more information and to register.

Current Resident or:

NONPROFIT ORG.  
U. S. POSTAGE PAID  
MODESTO, CA  
PERMIT NO. 400

COOPERATIVE EXTENSION  
UNIVERSITY OF CALIFORNIA  
3800 CORNUCOPIA WAY, SUITE A  
MODESTO, CA 95358