UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION

LIVESTOCK LINES

Stanislaus & San Joaquin Counties June 2009 ◊ Volume 15 No. 2

DID YOU KNOW...

Cancer risks were lower for vegetarians, except for colorectal cancer which was higher. ***Avoiding meat consumption didn't reduce all cancer risks.*** Everything in moderation is what mom used to say, right?

by
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Livestock and Natural Resources Farm Advisor

Smutgrass – Another Invasive Grass...

Irrigated pastures are important forage bases in our area. Unfortunately they are now being invaded by a perennial grass that is not palatable to livestock, creating a decrease in carrying capacity. The Sacramento Valley has had smutgrass in their pastures for a little while now, long enough to start to work on strategies to combat it. I have found a few pastures in our area that also have smutgrass. Right now we have very limited amounts of it in the northern San Joaquin Valley, and it would be nice if we could get rid of it completely. The following article was written by my colleagues in the Sacramento Valley and provides more information about smutgrass. If you think you may have it, please let me know. I will try to work with everyone to make sure we have the most current information to control and eliminate (if possible) smutgrass before it takes over our irrigated pastures. Cooperative Extension is trying some different control methods at the Sierra Field Station by Marysville. I will keep you informed of their progress as they move forward.

Smutgrass in Irrigated Pastures

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Joe DiTomaso-Weed Specialist, UCD

Smutgrass (*Sporobolus indicus*) is a weedy tufted perennial grass. It is native to tropical America. It occurs as a weed in many different areas, but is most problematic in pastures and turf in the southern and western United States. Smutgrass is well adapted to the warm summer temperatures of the Sacramento Valley, particularly in irrigated areas. Its name is derived from a black fungus that often develops in its seed head in humid areas. At first glance, smutgrass may appear to be a desirable bunchgrass, however, its palatability is very low. Even in rotational grazing situations, cattle generally avoid smutgrass.

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.

Understanding the biology of smutgrass is important to managing this pest:

1. Smutgrass is a warm season perennial—it remains dormant in the winter, actively grows and produces seed during the warm summer months.
2. The plant can produce up to 45,000 seeds per year.
3. Because the seeds are very small, they are easily distributed by animals, wind, and water.
4. Fruits become sticky with a gelatinous mucilage when moistened. This accounts for an adaptability in irrigated areas.
5. Seed germination on undisturbed soil is about 9%. Germination rate can increase up to 94% if the soil surface is disturbed.
6. Seeds can survive in the soil for more than 2 years.

Mature tall fescue also grows in clumps and can resemble smutgrass from a distance. However, smutgrass has a very distinct spike-like inflorescence (see photo above) that is not obviously branched. This characteristic makes it easy to distinguish smutgrass from other irrigated pasture grasses. Initial infestations with smutgrass in pastures generally occur when the soil has been disturbed and moisture is available. To prevent infestation, it is critical to manage such areas and prevent establishment.

The tools available to manage smutgrass include:

1. Burning
    - A. Burning can reduce old leaf and stem biomass of smutgrass and clean up the pasture if a rancher plans to graze the smutgrass the following spring. However, researchers at University of Florida found burning alone was not an effective measure in the control of this weed.
2. Mechanical
    - A. Research has shown that while repeated mowing can decrease the diameter of individual plants, the density of plants increased. When mowing was discontinued, smutgrass eventually returned to its previous density.
    - B. Mechanical attempts to remove the plant can lead to soil disturbance, which can have the reverse effect and increase in the infestation.
3. Biological Control
    - A. There have been no biological control efforts for this weed in the U.S.
4. Grazing Management
    - A. Although not studied, it may be possible to manage smutgrass through careful grazing practices. A well established pasture with ample canopy cover can reduce bare ground areas from receiving necessary sunlight for germination and establishment of smutgrass (i.e. don't graze pastures too low, as this will reduce competition with more desirable species).
5. Chemical
    - A. Glyphosate products (Roundup®, etc.) are very effective for spot treatment of smutgrass if the plant is actively growing. Control of smutgrass with herbicides is lower during the late fall, winter and early spring seasons, when plants are not actively growing. Because glyphosate is a non-selective herbicide, treated areas should be reseeded with desirable grasses and/or clover to prevent reinfestation. For more information on control and identification contact your local Farm Advisor's office.

Product	Rate	Water	Timing	Application
Round-up	2% Glyphosate	98%	Mid spring-Mid-Fall	Spray or wick foliage to wet

When herbicides are used, it is important to read and follow all label instructions—understanding the label improves efficacy and assures the product is being applied safely. Some products require an OperatorID number. If you have any questions about this, call your local Agriculture Commissioner's office.

Table summarizes the products outlined above.

Product	Operator ID	Restricted Materials Permit	Notice of Intent	Use Report
Round-up	**Yes**	**No**	**No**	**Yes**

References:

DiTomaso, J.M. and E.A. Healy. 2007. Weeds of California and Other Western States. Univ. Calif. Agr. Nat. Res. Publ. #3488. Oakland, CA.

Ferrell, J.A., M.B. Adjei, J.J. Mullahey and P. Mislevy. 2006. Smutgrass control in perennial grass pastures, University of Florida.

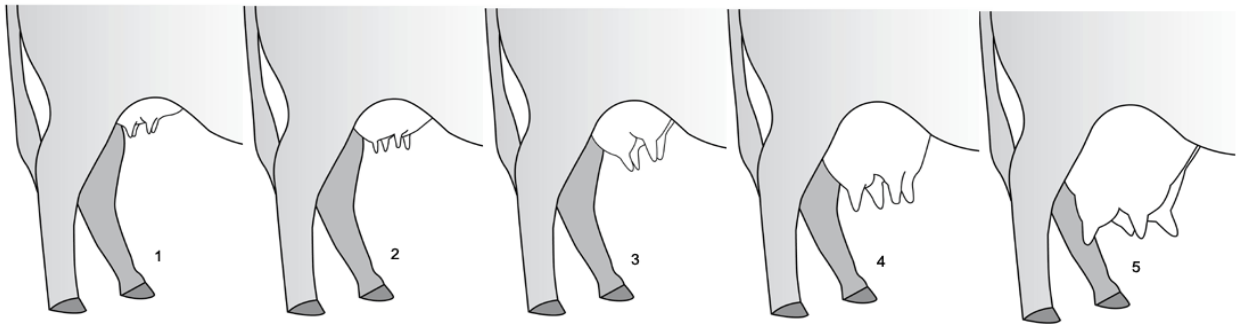
Cancer Incidence in Vegetarians

Good news for us meat eaters. A paper from the American Journal of Clinical Nutrition looked at cancer incidence in vegetarians compared to nonvegetarians. The result, cancer risks were lower for vegetarians, except for colorectal cancer which was higher. Avoiding meat consumption didn't reduce all cancer risks. Everything in moderation is what mom used to say, right?

Udder and Teat Scoring in Beef Cattle

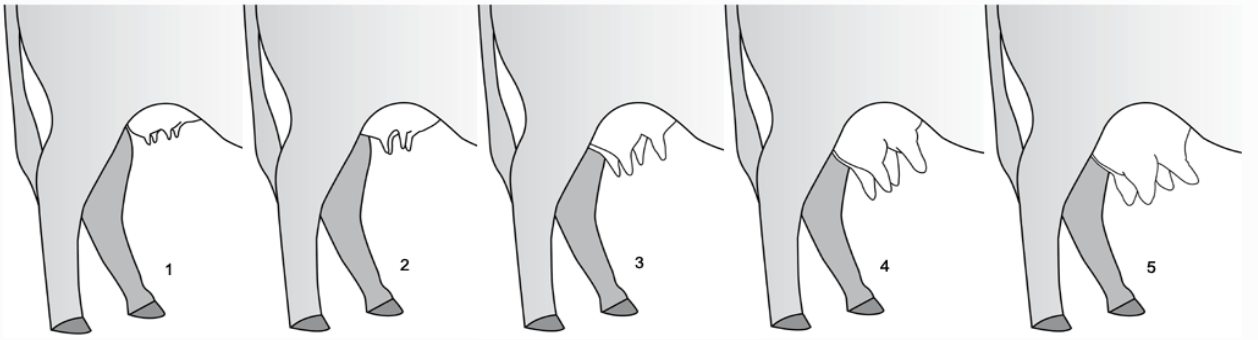
University of Nebraska has developed a scoring system for evaluating udder and teats of beef cows. Research has shown that selection of replacements should take into consideration udder and teat conformation. Both traits are moderately heritable, and have an impact on weaning weights as well as preventing mastitis and intervention to help a calf nurse when first born. An incidence rate of 17.5% of mastitis in one research project resulted in a decrease in weaning weights by 12.5%. Although selecting and culling based on conformation of teats and udders may be considered convenience trait selection, selecting against poor teats and udders increases profit potential by increasing calf performance, reducing calf sickness, increasing longevity of the cow, and reducing labor inputs.

The scoring systems for udder suspension and teat size are shown on the next page. As you wean calves, make decisions on keeping replacement heifers, and on cows to cull, you may want to take a moment to score udders and teats to help make your final decision.



Drawing 1: Udder suspension - Very Tight, very pronounced median suspensory ligament. Udder suspension score = 9.
Drawing 2: Udder suspension - Tight atachment, pronounced median suspensory ligament. Udder suspension score = 7.
Drawing 3: Udder suspension - Intermediate attachment. Udder suspension score = 5.
Drawing 4: Udder suspension - Loose attachment, weak median suspensory ligament. Udder suspension score = 3.
Drawing 5: Udder suspension - Very loose and pendulous attachment, very weak median suspensory ligament. Udder suspension score = 1.

Udder suspension . Udder scores of 5 (Drawing 3) are typical of many commercial beef cows.



Drawing 1: Teat size - very small and symmetrical. Teat size score = 9.
Drawing 2: Teat size - small and symmetrical. Teat size score = 7.
Drawing 3: Teat size - Intermediate in length; still have symmetry. Teat size score = 5.
Drawing 4: Teat size - Large, variable in length and symmetry. Teat size score = 3.
Drawing 5: Teat size - Very large, variable length and symmetry. Teats appear to be thick. Teat size score = 1.

Teat size. Teat scores of 3 and lower (Drawings 4 and 5) will impact your profitability in some manner (increased labor at calving, mastitis, decreased weaning weights, etc) and replacements from these cows should be discouraged.

Ranch Water Quality Short Course

In cooperation with our local NRCS office, we will be holding a 2 day Ranch Water Quality Short Course in late September. The short course will cover a variety of topics from ranch planning, mapping, weed control, ways to protect and enhance water quality on your ranch, as well as different funding opportunities available. The dates are set for September 21st and 28th, and please be sure to check upcoming Livestock Lines for more details and registration information.

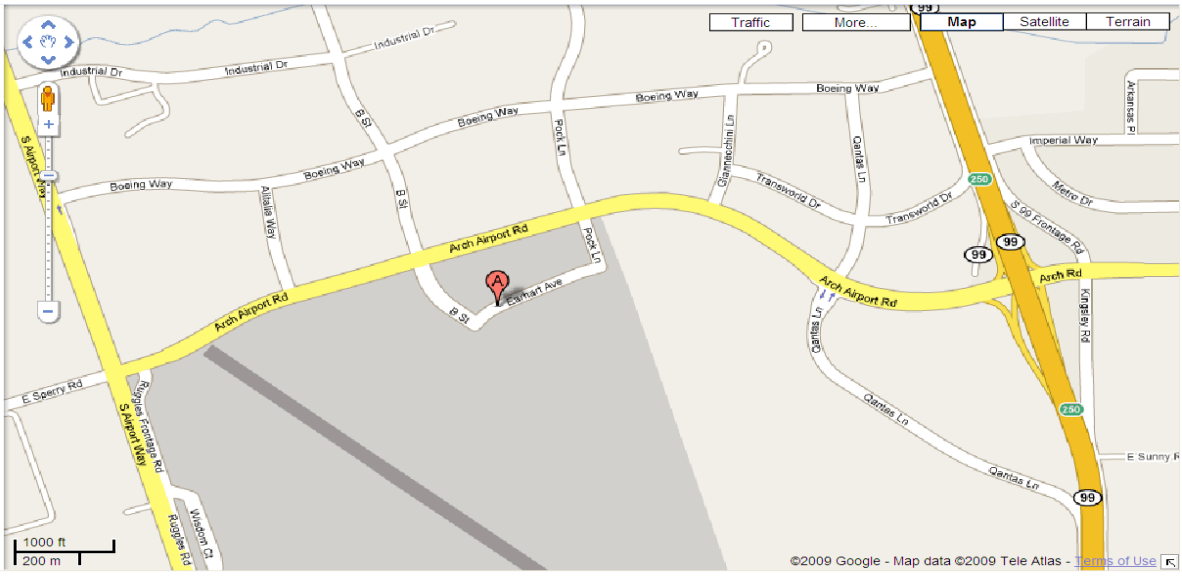
Small Landowner Short Course

This is a half day program designed for landowners with less than 10 acres, and specifically geared to horse owners. Information will cover a variety of topics including pasture management, fencing and corral options, nutrition, and water quality concerns. This will again be presented in cooperation with our local NRCS office, and the date set is September 18th. Future Livestock Lines will have more details and registration information. If you are interested please call me at the Modesto office with your information to ensure you receive notification. And if you have neighbors or friends who may be interested, please pass along the information.

Beef Quality Assurance

It has been a while since we have had a Quality Assurance program in the area. If you have not been certified, or if it has been a while, please mark July 22nd on your calendar. There will be new information presented if you have gone in the past. There is no charge for the meeting unless you need to be certified, and then it is $25 per ranch (not per person) and you need to pre-register.

July 22nd, Stockton Ag Center, 2101 East Earhart Avenue, off Arch-Airport Rd.
1 pm - Beef Quality Assurance Program – Dr. John Maas, Jim Oltjen, Theresa Becchetti
3 pm - Vaccination Site Demonstration by Fort Dodge and Dr. John Maas



MUST REGISTER FOR CERTIFICATION
Cost is $25 per Ranch/Premise – Payable at the door

Ranch Name_____

Address_____

City/Zip_____

Name Individual(s)

_____

_____

_____

Phone _____ **Fax** _____

E-mail _____

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UPCOMING EVENTS:

✯Beef Quality Assurance Program
San Joaquin County Ag Center, July 22, 2009

✯Ranch Water Quality Shortcourse
September 21 & 28 2009, Location and info TBA in upcoming Livestock Lines

✯Small Landowner Shortcourse
September 18, 2009, Location and info TBA in upcoming Livestock Lines

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