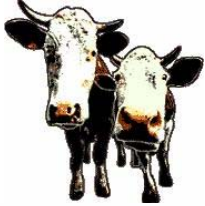




University of California Cooperative Extension - Solano, Yolo & Napa Counties

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Local Fodder

December 2004

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ANIMAL IDENTIFICATION IN 2004

Written by John Maas, DVM, MS

About a year ago this column was devoted to a discussion of mandatory cattle identification programs and some of the serious questions the beef industry would have to address regarding this issue. In December of 2003 the first case of BSE in the U.S. was detected in a dairy cow imported from Canada into Washington and the time frame for a U.S. animal ID system was immediately moved up. This month's column will be devoted to examining what an ID program looks like in a foreign country that has been working on this issue for over 25 years.

The example we will discuss is the French cattle identification system. France is an important example because they have the largest cattle herd in continental Europe and they are the largest beef exporter in the European Union. France is about 1.3 times the size of

California. France has a human population of 60 million and California has less than 36 million. France has about 20 million cattle and all the cows and calves in California would number less than 6 million. It is obvious that cattle production in France is a major agricultural concern. The average herd size is about 70 cows and the average farm is about 150 acres or slightly less. Many of the cows are dairy cows or dual purpose cattle (milk cows that are later slaughtered for beef). They also have large numbers of beef cattle such as Charolais, Simmental, Maine-Anjou, etc. The French started their animal identification program in 1978 with the introduction of permanent individual animal identification. They have refined and revised their program many times over the past 27 years, including the creation of a national data base for cattle identification data in 1999.

How does the ID system work in France?

When a calf is born the owner registers the birth of the animal and submits a request for that animal's individual identification. This submission goes to Department authorities. A Department in France is equivalent to a county in the U.S. Each Department coordinates with the national identification system to process each registration and request. The owner can submit this information by mail, fax, or email. The owner then receives in the mail the animal's passport with all required information and two ear tags for application on the calf. This process is usually accomplished within 7 days. The passport is the animal's permanent documentation and must be retained at all times by the owner and must accompany the animal during any and all movements or changes in ownership. The two ear tags are applied to the calf as soon as practical. Both ear tags are identical and contain the country code (FR), the department number (for example

(Continued on page 2)

(Continued from page 1)

71), an eight digit unique number with the last 4 digits being the animal's working number for day-to-day herd use. Additionally, there is a bar code on the tag that is unique for all this information. For example, the two tags might have FR (country code) 71 (the Department code) 1256 7891 (the last 4 digits being the working number), and the bar code for all this information. If one or both ear tags are lost, the owner must reapply for new eartags and updated passport documentation in a manner similar to the application when the calf was born.

On the front side of the passport will be the animal's unique identification number in addition to the following information: the 4 digit working number, sex, breed, date of birth, place of birth (premise information), cow's identification number, breed of cow, breed of bull, and the animal's health certificate document. The back side of the passport contains the animal's genetic certification data, the passport document number, and 6 places to record a change in location or ownership. Each of these change of location/ownership blanks contain the animal's identification number, a unique premise identification description and number, a date of arrival, a date of departure, and a signature line. Whenever an animal is sold or moved this information must be supplied on the passport and this must be accompanied by a valid signature. If an animal dies for any reason, a veterinarian must document that occurrence on the animal's passport and submit that information to the animal health authorities. In essence, each animal that dies has a death certificate issued via the completion of the passport and health certificate document.

What happens when an animal is slaughtered?

In France, most of the 3 million-plus cattle that are slaughtered each year for beef are more than 24 months of age. These animals are tested for BSE and the animal identification documents are essential for this surveillance process to occur. When any animal is taken to the slaughter facility it must have both ear tags in place (the tags must be identical to each other) and the animal must be accompanied by its original passport. The passport and the ear tags must match and additional bar coded documents are prepared the day prior to slaughter. These bar coded documents are based on the passport/ear tag information and will accompany the various parts of the animal (head, heart, tongue, carcass, offal, etc) through the slaughter and packing house process. If an animal is brought to the slaughter house without proper documentation the owner will be fined about \$300, the animal will be euthanized, and will be sent to a rendering plant and reduced to meat and bone meal which is then incinerated.

What does this system cost in France?

The cost of the French animal identification system is

shared between the farmer and the government. The producer pays 3 Euros (about \$3.60) per animal per year and keeps all the necessary records and documentation related to the individual animal identification. The government supplies the ear tags and the passports, maintains the data base, and provides veterinary services for documenting animal deaths and other activities related to animal identification. These costs amount to about 10% of France's animal health and welfare budget and are about \$160 million per year. This for a country about 1.3 times the size of California. Also for comparison purposes, France has about 4,600 veterinarians working full time or part time for national animal health and welfare programs. In California there are only about 500 veterinarians registered to use the Brucellosis vaccine. Therefore, that number plus the CDFR and USDA veterinarians would be only a fraction of what another developed society has in terms of professional resources. Obviously, the French model which was developed over a 25+ year period and well supported by the taxpayer will not be immediately applicable to the U.S.

Where do we go from here?

We have a number of problems that need to be solved with any animal identification system we initiate. We have to be effective in terms of ownership issues. We have cattle industries that are different in the western U.S. versus east of the Rockies. In the West we need brand laws or similar mechanisms to determine ownership, in the East brands are not even a consideration. The need for production records and individual animal identification will increase, not diminish. The need for trace back for disease outbreaks will continue with us for the foreseeable future. Also, our trading partners, whether foreign or domestic will continue to be interested in source verification. We will need cattle identification systems.

Now, we have to consider some tough questions. Who will pay for the programs? Who do the programs benefit and who has the most to lose? If the identification system costs are born entirely by the producers, it is my opinion the beef industry will be bankrupted. The already subsidized dairy industry will also be negatively impacted but not crippled. Who will maintain the data bases and ownership information? Our FOIA (Freedom of Information Act) laws do not exist in France, so they do not see this as an issue. This is a make-or-break issue for the litigious U.S. system. What is the potential liability for the producer that first places the identification on the animal? These are the same conceptual concerns as for the FOIA issues. Hopefully, our program will evolve with input from the grass roots segments of the various industries as well as the regulatory communities. I would urge you to stay involved at the local level and with state and national organizations to be sure that U.S. and state regulations make sense for you and all beef producers.

PUBLIC WORKSHOP NOTICE

ADOPTION OF RULE 11.1

AGRICULTURAL OPERATING PERMIT PROGRAM

On January 18, 2005, Yolo-Solano Air Quality Management District (District) staff will hold a workshop to discuss the adoption of proposed District Rule 11.1, Agricultural Operating Permit Program.* Proposed Rule 11.1 establishes a new permit program specifically created to implement new permitting requirements for agricultural sources of air pollution. These new requirements were added to the California Health and Safety Code by California Senate Bill 700 (SB 700). The proposed rule is intended to create a permit program directly affecting agricultural operations. Proposed Rule 11.1 includes permitting and application requirements, program fees, and all other regulatory components needed to establish a new District permit program.

Proposed Rule 11.1 has been reviewed by the Agricultural Permitting Advisory Committee (APAC). To learn more about APAC and their involvement with proposed Rule 11.1, please visit the District's website (www.ysaqmd.org) or contact Paul Hensleigh at (530) 757-3650.

*NOTE: This workshop is to discuss the adoption of proposed District Rule 11.1 and is not intended to determine whether a permit is necessary or to have farm owners/operators submit applications. If the District Board adopts proposed Rule 11.1, shortly thereafter, District staff will hold workshops to aid farm owners/operators determine whether the rule applies to their operation (early 2005).

The workshop will be held at the following time and location:

Tuesday, January 18, 2005

3:00 p.m.

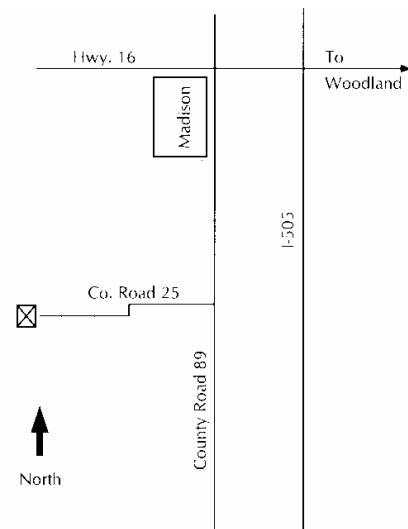
**Yolo-Solano Air Quality Management District
1947 Galileo Court, Suite 103
Davis, California 95616**

The public is invited to attend this meeting. The draft rule will be available on the District's website (www.ysaqmd.org) under the Permits/Rules link prior to the workshop. In order to be discussed at the workshop, written comments are encouraged to be submitted to the District's office by January 17, 2005. Additional written comments are encouraged to be submitted by January 31, 2005. Please contact Paul Hensleigh at (530) 757-3650 if you have any questions or concerns.

WILDLIFE FRIENDLY WATER STRUCTURES

The Natural Resources Conservation Service (NRCS) Uplands Biologist, Wendell Gilgert, will lead a workshop to demonstrate cost-effective ways of installing wildlife-friendly structures on your ranch. Such methods may include ramps for troughs or smooth wire fencing.

Date: Friday, January 14, 2005
Time: 9:00 to 11:00 am
Location: Yolo Land and Cattle Co. Headquarters
(see below for directions)
Sponsors: Audubon California, Yolo RCD, & NRCS



Wal, I jist can't enjoy any of this prosperity fer dreadin' the day
when the bottom falls out agin!

MANDATORY FURLOUGH CLOSES YOLO COUNTY UCCE OFFICE DECEMBER 20-31

Due to the need to balance the Yolo County budget, a mandatory countywide furlough will be implemented for all departments from December 20-31, 2004. (Note: Safety & Health departments will remain operational during this period.)

The University Cooperative Extension office in Woodland will be closed during this time. We will reopen on January 3, 2005.

If you have an urgent matter, you may contact Larry Clement, County Director at the UCCE office in Solano County at 707-421-6791 or ldclement@ucdavis.edu. Or you may leave a voice mail on our main line 530-666-8143 and an advisor will return your call when we return.

We apologize in advance for any inconvenience this may cause, but will do our best to make sure that the needs of the Cooperative Extension clientele are met to the best of our ability.

LIVER FLUKES

Written by John Maas, DVM, MS

This past year has been mild or wet and mild in many areas of the state and cattle may be on irrigated pastures earlier and longer than usual. Because of these factors, liver flukes may be more of a problem than in most years. Just the thought of these creatures makes you a little bit uneasy. The idea that a microscopic "egg" 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 and 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 these cysts, the life cycle of the fluke 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. **NOTE: If a mature cow or bull is found dead and bloated when it was normal the day before always suspect Redwater as the cause of death.**

Another problem liver flukes seem to be associated with is decreased fertility. Studies have shown 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.

Rangeland Water Quality Conference

February 23 & 24, 2005

Heidrick Ag History Center, 1962 Hays Lane, Woodland, California

Sponsors

University of California, Division of Agriculture and Natural Resources
US Dept. of Agriculture, Forest Service, Region 5
US Dept. of Interior, Bureau of Land Management
Natural Resource Conservation Service
California Pacific Section, Society for Range Management

Goal

Increase knowledge of rangeland water quality issues in California including management approaches and strategies for implementation.

Desired Outcomes

- ◇ Dissemination of new and critical key reference materials to participants.
- ◇ Provide web-based extension of water quality presentations.
- ◇ Enhanced understanding of issues and science related to rangeland water quality.

Topic areas will involve a number of presenters with an opportunity for question-and-answer session at the end of each topic.

Target Audience

Anyone addressing water quality issues on rangelands including land owners/managers, resource management professionals, agency personnel, researchers and educators.



Agenda on reverse



Rangeland Water Quality Conference

One registrant per form please

Name _____ Org./Aff. _____
Address _____ City _____ State _____ Zip _____
Phone _____ E-mail _____



\$125 registration fee if postmarked by February 1, 2005 \$ _____

Add \$50 late fee if postmarked after February 1, 2005 \$ _____

Total enclosed payable to UC Regents (Tax ID# 94-6002123) \$ _____

Return to: UCCE Forestry, 1851 Hartnell Avenue, Redding, CA 96002-2217

On-line registration and credit card payment available at <http://nature.berkeley.edu/forestry/rangelandwq/>

Agenda

February 23, 2005

- 9:00 – 10:00 *Registration*
- 10:00 **Rangeland Water Quality Overview**—*Bill Stewart*, California Department of Forestry and Fire Protection
- Regulatory Environment**—*speaker unconfirmed*
- Pathogens**—*Rob Atwill*, Session Chair, University of California, Davis, Cooperative Extension
- Noon – 1:30 *Lunch*
- 1:30 **Sediment**—*David Lewis*, Session Chair, University of California, Sonoma County Cooperative Extension
- Nutrients**—*Barbara Allen-Diaz*, Session Chair, University of California, Berkeley
- Temperature**—*Ken Tate*, Session Chair, University of California, Davis, Cooperative Extension
- 5:20 *Adjourn*

February 24, 2005

- 8:00 **Biota**—*Joseph Furnish*, Session Chair, USDA Forest Service, Region 5
- Climate Change and Water Quality**—*Dennis Baldocchi*, University of California, Berkeley
- Management Approaches**—*Morgan Doran*, Session Chair, University of California, Solano County Cooperative Extension
- Getting to Implementation**—*Mel George*, University of California, Davis, Cooperative Extension
- Noon *Adjourn*

Questions?

For registration questions, contact:

Sherry Cooper, 530-224-4902
slcooper@nature.berkeley.edu

For other questions, contact:

Joni Rippee, 510-642-0095
ripee@nature.berkeley.edu

[http://nature.berkeley.edu/forestry/
rangelandwq/](http://nature.berkeley.edu/forestry/rangelandwq/)

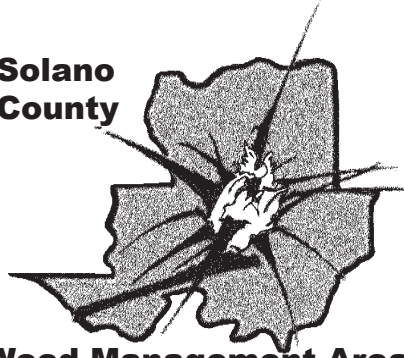
Continuing Education

Participants will receive 10 continuing education units from the Society for Range Management.



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**Solano
County**



Weed Management Area

Fourth Annual Weed Identification & Management Workshop

Thursday, January 13th, 2005
9:00 am – 11:40 pm
Dixon Fairgrounds

Speakers

Joe DiTomaso, UC Davis

Morgan Doran, UCCE

Dixon Fire Department

Dave Singh, Solano Co. Dept. of Agriculture

Dustin Robinson, Solano Co. Dept. of Agriculture

Walt Cheechov, NRCS

Discussion Topics

- Perennial Pepperweed and Annual Grass Control
- Weed Mapping Project Update
- Procedures for Prescribed Burning
- Pesticide Laws and Regulations
- EQIP cost sharing opportunities

Continuing Education Credits

Qualified Applicators earn 2.5 units through DPR

This workshop is sponsored by the Solano County Department of Agriculture,
the Solano County Weed Management Area (a consortium of agencies and organizations)
and the Solano Resource Conservation District

For more information, contact Tacy Currey (707) 678-1655 or Morgan Doran 707-435-2459

CALENDAR OF EVENTS

4th Annual Solano County Weed Identification & Management Workshop
 Location: Dixon Fairgrounds, 9 AM—12 PM
 Free; Continuing Education Credits
 For more info, contact Tacy Currey 707-678-1655 or Morgan Doran 707-435-2459

Wildlife Friendly Water Structures Workshop
 Location: Yolo Land & Cattle Co, end of County Road 25, Yolo County, 9 AM—11 PM
 For more info, contact Yolo County RCD 530-662-2037

Rangeland Water Quality Conference
 Location: Heidrick Ag. History Center, Woodland, CA
 Early registration by Feb. 1 is \$125, afterward \$175
 See website for more information and registration: <http://nature.berkeley.edu/forestry/rangelandwq/>

February 23-24

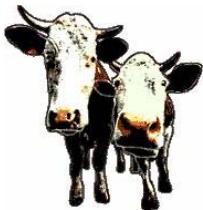
January 14

January 13

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**University of California
 Agriculture & Natural Resources
 Cooperative Extension**
 501 Texas Street
 Fairfield, CA 94533



Local Fodder
 Happy Holidays
 December 2004

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