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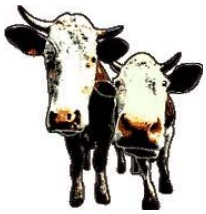

Local Fodder

July 2002

Inside this issue

BOVINE TUBERCULOSIS IN CALIFORNIA

After more than 10 years without a case of bovine tuberculosis in California, a new outbreak occurred this past May in a Tulare County dairy herd. Since May 13, the California Department of Food and Agriculture (CDFA) has tested 16 herds, 23,171 animals, and has slaughtered 334 exposed animals. The CDFA has tested herds in Tulare, Kings, Fresno, Kern, and Stanislaus Counties. Even though these most recent cases of bovine TB have occurred in dairy cattle, there are concerns for beef cattle producers.

This article will help you understand more about bovine tuberculosis and inform you of measures to take to protect your beef herd from infection to bovine TB.

The Cause and The Disease

Tuberculosis is caused by three different types of germs called *Mycobacterium bovis*, *M. avium*, and *M. tuberculosis*. Bovine TB is caused by the germ *M. bovis* and can infect both humans and animals. *M. tuberculosis* primarily affects humans, but can also be transmitted to hogs, cattle and dogs. *M. avium* can affect all types of birds, as well as hogs and cattle.

The TB causing germs generally grow very slowly and can often lay dormant for several years within the host's body without causing the disease. As a result of the slow rate of growth, the tuberculosis disease usually takes many months to develop. Outside a host's body, the TB germs cannot survive long when exposed to heat, direct sunlight, and dry conditions. Cool, moist, and dark conditions help prolong the life of TB germs in the environment.

Transmission

Bovine TB is most commonly transmitted from animal to animal and from animal to human through the respiration of tiny droplets or aerosols containing TB bacteria and through contaminated water. Risk for transmission is greatest in enclosed areas with little ventilation, such as in barns. Transmission to humans and animals can also occur by drinking raw milk from infected cows. Pasteurization of milk and cooking meat will kill any TB causing bacteria in those products.

Symptoms and Diagnosis

Because there are no outward symptoms of bovine TB, it's presence in your herd can be quite elusive for many years. Bovine TB gradually causes lesions and then nodules to develop on most of the internal organs, lymph nodes, nervous system, and body cavity. In the early stages of the

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disease, the lesions are small and difficult to find. However, lumps and nodules become more prominent in the later stages of the disease. As the lungs become progressively affected by bovine TB, the animal may lose weight and coughing may occur. In many cases infected livestock will appear perfectly healthy and without any signs of infection until slaughtered. This was the case in Tulare County where a routine inspection of a slaughtered cow led to the discovery of suspicious lesions that were later confirmed to be caused by bovine TB.

Diagnosis of TB in livestock using the caudal fold tuberculin test can easily be made without a post-mortem inspection. An injection of tuberculin is given between the layers of skin of the caudal tail fold and checked after 72 hours. Animals affected with TB will show swelling around the point of injection, indicating a positive test result for exposure to one of the three types of TB. Since the tuberculin test does not specify the type of TB, further tests are necessary in those animals that initially test positive.

Treatment

People with bovine TB can be treated with antibiotics over a 6 to 12 month period, however, such treatments are not feasible for livestock. Therefore, animals that test positive for TB are slaughtered and rendered.

Control

The most effective method of controlling bovine TB in the nation's livestock has been through regular federal inspections in slaughter facilities. Once a carcass is suspected of TB, tissue samples are collected and tested. If the tests are positive for bovine TB, the CDFA and USDA become involved in tracing the infected animal back to the herd of origin. All animals in the herd of origin are then tested and all positive animals are eliminated with indemnities paid to cover the owner's losses. Additionally, veterinarians attempt to trace the movement of all potentially infected animals to determine the origin of the infection and the extent of infection to other animals and herds.

Bovine TB in the United States

In addition to the recent cases of bovine TB in California, the states of Michigan and Texas have also had positive cases in the past few years. Michigan discovered bovine TB in several herds of beef cattle in 1998. Since that time bovine TB has also been detected in a domestic cat and various wildlife including deer, bobcats, and coyotes. Michigan now has an aggressive eradication program in which all cattle will be tested and identified. In Texas the occurrence of bovine TB has been increasing since 1990, and two cattle herds tested positive in 2001. Captive deer herds in Texas have also tested positive for bovine TB.

How Bovine TB Affects Beef Producers

Although the recent cases of bovine TB in California were isolated to dairy herds, beef cattle and even sheep and goats can easily become infected. Practices common for some beef cattle producers greatly increase the risk of exposure to bovine TB and other infectious diseases. Such practices include the use of raw milk from dairy cows for struggling newborn beef calves, and grafting dairy bull calves on to beef cows that have lost their calves. These practices can easily introduce infections from a dairy herd into a beef herd via infected milk and infected calves.

Beef cattle can become infected with bovine TB many other ways, some of which are the sharing of pastures with infected dairy cows or heifers, and wildlife; close cross-fence contact between infected neighboring animals; introducing breeding stock into your herd that became infected by previous herd contact or stockyards.

Once again the importance of bio-security must be emphasized to reduce the risk of infection in your and your neighbors' herds. Here are some practices to follow to reduce your risk:

- Avoid using raw milk from dairy herds for colostrum and milk replacement.
- Do not graft young dairy calves on to your cows that have lost their calves.
- Maintain a closed herd by raising your own replacement stock.
- If replacement stock must be purchased, request historical health information of the herd of origin or buy from accredited TB-free herds.
- Test purchased replacement stock for TB - contact your veterinarian.
- Maintain your fences in good condition to prevent mingling with neighboring animals.
- If contact with neighboring animals is inevitable, try encouraging your neighbors to adopt bio-security management practices.

Your veterinarian should be your first source for information on bovine TB. Additional information can be found by contacting the following offices:

CDFA, Animal Health Branch
Redding District 530-225-2140
Modesto District 209-491-9350

PINKEYE THERAPY

Reprinted from the May 2002 issue of California Cattlemen's Magazine

Last month we discussed fly control methods. One of the important aspects of fly control is decreasing face fly infestations as a method of helping to prevent pinkeye in cattle. Another aid in the prevention of pinkeye is to clip the pastures if grass is too long and headed out. This will decrease much of the irritation to the cattle's eyes that can initiate the beginnings of a pinkeye outbreak. The irritation of dust, plant pollen, or weed seeds will promote the heavy shedding of the pinkeye bacteria (*Moraxella bovis*) by a few "carrier cows" in the herd. These carriers spread the organism by contact and face flies to the rest of the herd and the susceptible animals will become infected and have clinical pinkeye.

If pinkeye cases do occur, what are the treatment options? One of the professors in the School of Veterinary Medicine at UC Davis has completed several years of research on this subject. Dr. Lisle George has examined several methods to treat pinkeye and these and other methods are summarized below.

First, if you are going to examine the eye for a foxtail or other weed—use disposable latex exam gloves. You can obtain these from your veterinarian or other animal health product source. After you have touched the eye (extracted the foxtail or treated the eye) or nose area, throw the gloves away. They are badly contaminated with the pinkeye bacteria. If you used a halter or nose tongs to restrain the animal, disinfect this equipment. Nolvasan® disinfectant is a good choice for this procedure. For treatment, use disposable needles and syringes for any treatments.

The pinkeye agent is a bacterium and therefore, antibiotics are indicated for treatment. The question has been, "Which antibiotic, what dose, what route?" The best two treatments are as follows:

1. Long-acting tetracycline (Biomycin® or LA-200®)

Dose: 20 mg/kg body weight (9 mg/lb.)
Route: intramuscularly or subcutaneous (these products are irritating to tissues and should be given sub-Q whenever possible) both are labeled for sub-Q use.
Frequency: Two injections 48 to 72 hours apart.

2. NuFlor® (florfenicol)

Dose: 20 mg/kg body weight (9 mg/lb.)
Route: Intramuscularly
Frequency: two injections 24 hours apart

Alternatively, NuFlor® can be used as single injection for longer action.

Dose: 40 mg/kg body weight (18 mg/lb.)
Route: Subcutaneous
Frequency: one treatment

NOTE: if the tetracycline product is not labeled for pinkeye, you must obtain a prescription from your veterinarian, as this constitutes an extra label use of this product. Also, NuFlor® is not currently labeled for pinkeye and you must have your veterinarian's prescription to use this drug for pinkeye in cattle.

Both of these treatments work very well. Continued use of tetracyclines in areas with high numbers of anaplasmosis cases can make the cattle susceptible to sickness due to anaplasmosis. Consult with your veterinarian regarding this potential problem.

Another treatment option is to give Penicillin as an injection under the white part of the eyeball (the sclera). If you are not expert in this method, have your veterinarian train you on the proper way to administer this treatment. Do not attempt this method without training. To achieve good results, give 1 ml (1 cc) under the sclera of both eyes for at least

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3 days. This method achieves good results; but is less effective than the use of oxytetracyclines or NuFlor®. Again, you will need your veterinarian's prescription for the use of penicillin if it is not labeled for use in pinkeye.

For many years Furox sprays or powders (Nitrofurazone, Furox®, Topazone®, NFZ Puffer, P.E. 7, etc.) placed into the eye were used for the treatment of pinkeye. This method was not as effective as the above methods. However, beginning on May 1, 2002 this treatment will be illegal for cattle. This is irrespective of whether you have a prescription or not. Do not use the furacin-type drugs in cattle any more.

Still available for pinkeye treatment is the Gentocin® Pinkeye spray. This product is sprayed into the eye to help kill the *Moraxella* organism. As with all treatments that are placed directly into the eye, proper restraint is necessary and the use of disposable latex gloves is recommended. Remember that material placed into the eye only stays there a few minutes before the tears wash it out.

For many years, treatment with dexamethasone (Azium®) has been popular. Research indicates that when this is given under the sclera, there is no difference in the rate of healing. Therefore, use of this product is not usually recommended.

Keep written records of treatments and results. Discuss these with your veterinarian as your reevaluate pinkeye prevention and treatment plans for the future. Also, if your cattle are copper deficient or selenium deficient, the number of pinkeye cases will be greater and the severity will be worse. Be sure your mineral program is working, as this is important in the animal's immune response to this bacterial pathogen.

John Maas, DVM, MS
Diplomate, ACVN & ACVIM
Extension Veterinarian
School of Veterinary Medicine
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SURVEY RESULTS

Some of you may remember the survey I sent out last fall, and some of you may remember completing the survey. To those that did complete and return the survey, I thank you. As a reminder, this was a survey I sent out to help me learn what types of assistance livestock producers in Napa, Solano, and Yolo Counties are interested in receiving. Below you can find a summary of the results and tables with the results expressed as totals and percentages.

- A total of 39 of 350 responded (11%) representing 80,000 acres of rangeland and 6,000 acres of irrigated pasture.
- 47% of respondents are cow-calf producers, 19% lamb producers, 25% seedstock producers, and 17% are stockers.
- Weed Control information was the most highly requested, followed by Animal Health, Grazing Management, and Animal Management.
- Animal Health, Grazing Management, Animal Management, and Weed Control were ranked in that order for importance to the production operations.
- The natural resource issues such as Soil Erosion, Watershed Management, and Stream Water Quality ranked very low with slightly less than 1/3 of respondents interested in receiving information on those topics.

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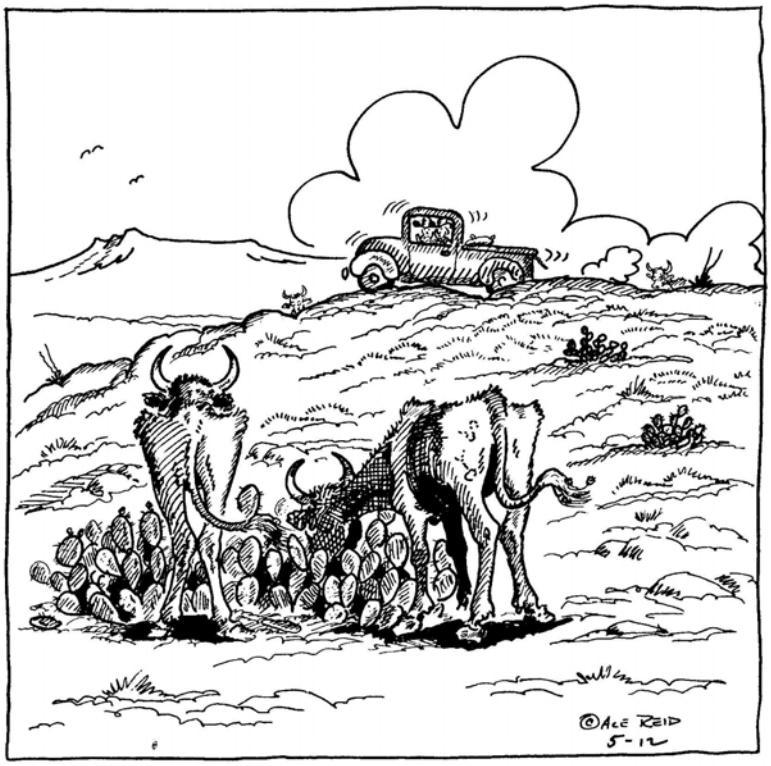


I wintered mighty good . . . all my cows are still standin' up!

USDA Relief to Lamb Producers

WASHINGTON, April 8, 2002 – Signups begins today for U.S. Department of Agriculture incentive payments to help ewe lamb producers suffering financial losses due to current market conditions.
The Lamb Meat Adjustment Assistance Program is a 4-year program started in 2000 to help stabilize the lamb market. To date, LMAAP has provided over $25 million in assistance. The program will now provide $26 million in incentive payments to help producers increase the supply of domestic lamb meat.

Applications are available at USDA Service Centers. The incentive payments have 2 application periods. Applications for the first period (Year 3), which lasts from Aug. 1 2001, through July 31, 2002, are due by Aug. 15, 2002. Applications for the second period (Year 4), which lasts from Aug. 1, 2002, through July 31, 2003, are due by Aug. 15, 2003.

To be eligible, producers must purchase or retain a ewe lamb to expand the sheep herd from Aug. 1, 2001, through July 31, 2003. The producer must also certify that each ewe lamb:

- is not older than 18 months of age,
- has not produced an offspring,
- does not possess characteristics of parrot mouth, foot rot or scrapie, and
- is identified according to state identification requirements that comply with a USDA Animal and Plant Health Inspection Service approved scrapie program for interstate movement.

Payments will be $18 per ewe lamb, subject to the availability of funds. If application amounts exceed the funding limit of $26 million, USDA will prorate payments. Funds not utilized during the first application period will be carried forward to the next year.

The LMAAP final rule was published in the Federal Register on March 26, 2002. Further information on program restrictions, eligibility requirements and other LMAAP payments is available from local USDA Service Centers and on FSA's web site at www.fsa.usda.gov.

The Solano/Napa FSA office is located in Dixon at 1170 N. Lincoln St., #109, Dixon, CA 95620, 707-678-1931 ext. 2.

The Yolo FSA office is located in Woodland at 221 West Court St., Suite 1, Woodland, CA 95695-2983, 530-662-2037.

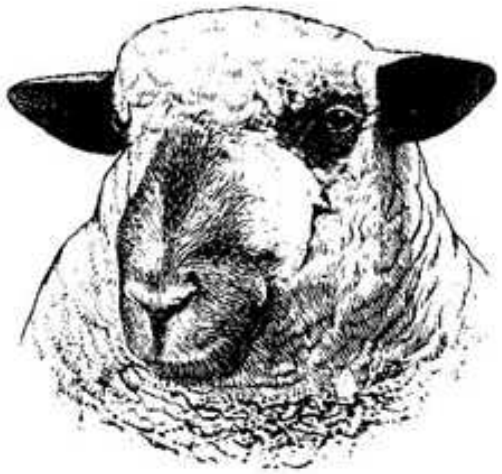
Free Weed Control Brochures

The Solano County Weed Management Area has published a brochure for identifying and controlling eleven of the more common noxious weeds in the Solano County area. Along with the brochure comes a pocket-size calendar which indicates the optimal times for various control methods. The weeds highlighted in the brochure are yellow starthistle, purple starthistle, artichoke thistle, tamarisk, perennial pepperweed (a.k.a. white-top), puncturevine, Arundo (a.k.a. giant reed), pampasgrass, common reed, barb goatgrass, and medusahead.

In the brochure are color pictures of each weed along with information on identification, reproduction, and control of each weed.

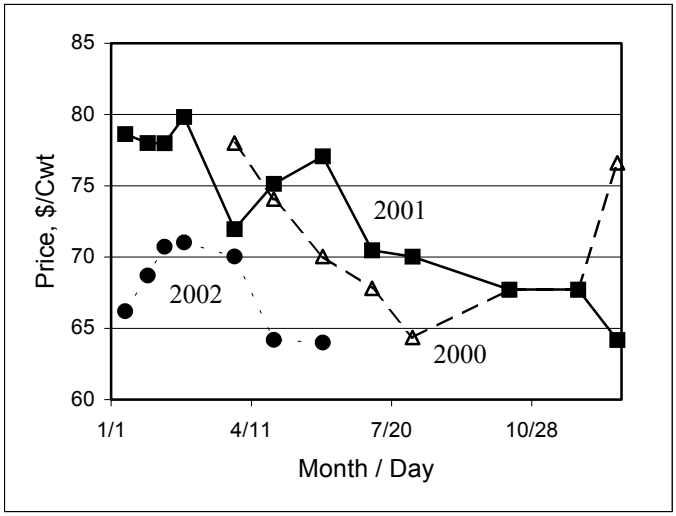
If you would like a free brochure, one can be sent if you call me at the UC Cooperative Extension office at 707-435-2459, or contact the Solano County Department of Agriculture at 707-421-7465. You can also pick one up if you are in either office.

The Weed Management Area (WMA) is a locally based committee composed of representatives from local government and non-government organizations and private landowners. The WMA is funded by the California Department of Food and Agriculture with a mandate to develop weed control programs. The Solano County WMA welcomes anyone in Solano County interested in participating. Meeting are held on the second Wednesday of each month. Call the Solano County Ag. Department at 707-421-7465 for more details.

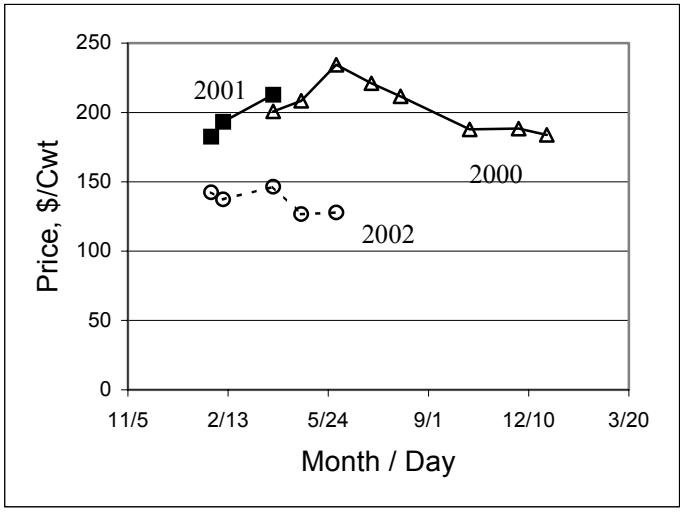


MARKET TRENDS

Live fed steer average prices.



Average price Lamb Cutout (65 Lbs. & Dn.).



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- The intensity of weed damage was, on average, described as being present and difficult to control, with 1/3 describing a more severe situation.
- Yellow starthistle was by far the most pervasive weed, followed by medusahead and purple starthistle.
- Yellow starthistle and medusahead were equally ranked in causing the highest economic losses, followed by purple starthistle.
- Intensive cattle grazing and herbicides were the most favorable methods for controlling weeds.

Table 1. Ranking of Program Areas

Program Area	Avg. Rank 1=most important	% wanting information
Animal Health	2.6	66.7
Grazing Management	2.8	66.7
Animal Management	2.8	48.7
Weed Control	3.1	76.9
Animal Nutrition	3.4	56.4
Forage Improvement	4.2	61.5
Predator Problems	4.3	53.8
Native Grasses	4.6	53.8
Marketing Alternatives	5.2	38.5
Employee Safety	6.1	23.1
Soil Erosion	6.8	38.5
Watershed Management	7.1	30.8
Pesticide Regulation	8.1	28.2
Stream Water Quality	8.7	23.1
Conservation Easements	11.8	12.8

Table 2. Ranking of Common Weeds

Weed	Rank (1-5)	Respondents % of total
Yellow starthistle	1.7	72
Medusahead	1.6	46
Purple starthistle	2.2	33
Goat Grass	2.5	10
Perennial pepperweed	2.5	5
Spiny cocklebur	2.6	26

Omaha corn prices.

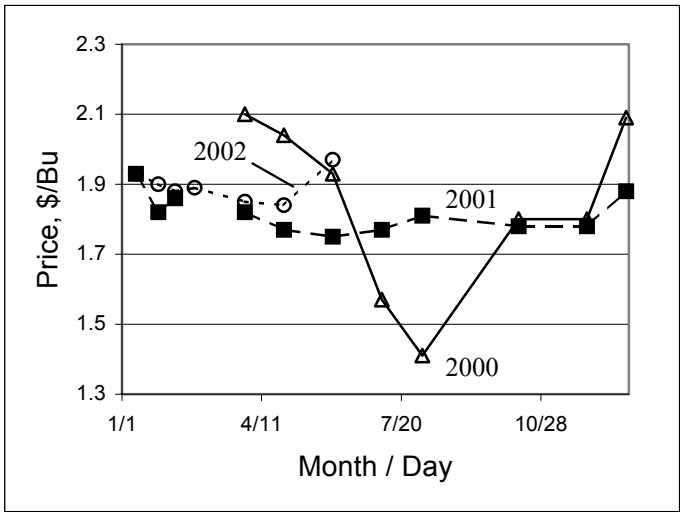

Table 3. Weed Control Methods

Control Method	% of respondents willing to use method
Intensive cattle grazing	67
Herbicides	64
Burning	46
Disc & re-seed	39
Intensive sheep grazing	31
Intensive goat grazing	18

Morgan Doran
Livestock & Natural Resources Farm Advisor
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CATTLEMEN'S SUMMER MEETING

The Yolo Chapter of the California Cattlemen's Association invites you to their summer meeting.

There will be information meetings in the afternoon covering toxic plants, rangeland productivity, and beef quality assurance. A BBQ steak dinner will be served in the evening. Come for one or both events.

Date:	Thursday, August 22, 2002
Time:	1:00 PM, Identifying Toxic Plants 1:45 PM, Estimating Rangeland Productivity 2:30 PM, Break with snacks and drinks 3:00 PM, Fort Dodge Quality Assurance Program -Injection site lesions 5:00 PM, Officers & General Business Meeting 6:00 PM, Drinks and social 6:30 PM, BBQ Steak Dinner
Place:	Fire House, downtown Esparto, CA.

There is a price for attending the events, to be paid at the door:
$ 15 per person for Dinner
$ 20 per person for Information Meetings and Dinner

R.S.V.P. By August 15, 2002
Call Fred Fullerton, 530-796-3147

COOPERATIVE EXTENSION
U.S. Department of Agriculture
University of California
Oakland, California 94612-3560

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Local Fodder

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Si desea folletos en Español, llamame a teléfono 707-435-2459 o 530-666-8739, informame de su nombre y dirección de correo.

Calendar of Events

Cattlemen's' Summer Meeting - Information meetings and dinner Location: Firehouse in downtown Esparto, Yolo County, 1 PM $20 meeting and dinner, $15 dinner only; RSVP to Fred Fullerton by August 15, 530-796-3147	August 22
California Wool Growers Association 142nd Annual Membership Meeting Location: The Hilton, Arden Way in Sacramento For a registration form and more information call 916-444-8122	August 8-10
Lamb Meat Adjustment Assistance Program applications are due Relief assistance for lamb producers (see page 6) Contact your nearest Farm Service Agency office for more information Solano/Napa Counties 707-678-1931 Yolo County 530-662-2037	August 15