



University of California Cooperative Extension

Livestock, Range & Watershed

Division of Agriculture & Natural Resources

County of San Luis Obispo

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NAP and Drought Declaration, 2002:

Local ranchers will be receiving assistance through the Farm Service Agency's (FSA) Non Insured Assistance Program (NAP) for hay and feed losses. In addition, the County Emergency Board, consisting of FSA, Agricultural Commissioner, UC Cooperative Extension, Natural Resources Conservation Service and Office of Emergency Services has met and is moving forward with a 2002 drought declaration for San Luis Obispo County. This declaration may make it possible for farmers and ranchers to receive more assistance through the FSA under the 2002 Livestock Assistance Program (LAP) and Emergency Loan Assistance. Please call Jennifer Anderson, FSA at (805) 928-9269 for further information.

Deadlines for NAP, 2003:

The 2003 crop year is quickly approaching and it is time to insure your 2003 crops. The cost is \$100 per crop per county, or \$300 per producer per county with a waiver for Limited Resource

Producers. The **DEADLINES** are August 1, 2002 for row crops and fall planted seed crops. September 1, 2002 for native grass grazing land and forage crops (hay). There will be **NO LATE FILE** applications accepted. Please contact Jennifer Anderson, FSA at (805) 928-9269, for further information.

Bovine Tuberculosis:

For an update on this subject, you can find information by accessing the Animal Health branch of the California Department of Food and Agriculture, at their website; <http://www.cdffa.ca.gov/ahfss/>. At this site, click on Animal Health and look for "Hot New Items". Here you will see the topic Bovine Tuberculosis where you will receive current information about the disease and the efforts being made to prevent its spread.

Just Published:

The following ANR publication: **A Handbook for Raising Small Numbers of Sheep** is now available. Written by Ralph Phillips, John Glenn, Martin Dally, Mylon Filkins, Dana Van Liew, and Bruce Lane, this is third edition of this handbook and covers topics such as management, reproduction, nutrition, health, and wool quality. It also includes plans for barn and feeding equipment, and a useful glossary. If you would like to purchase a copy, call or visit the Cooperative Extension office in San Luis Obispo and ask for this publication by name or by its publication number 21389. The price of this 73-page publication is \$8.00

Pinkeye Therapy

Wayne Jensen

It is that time of the year again when the problem pinkeye can occur. Dr. John Maas, Extension Veterinarian at UC Davis, again has provided the following timely information to help you, should you have the problem this season.

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 if it is feasible 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 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. Starting last May 1, 2002 this treatment is now 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 you 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.

Space did not allow for information regarding the list of registered pesticides for cattle this year and information for the use of these pesticides for fly control in this edition the newsletter. If you would like a copy of this information call me and I will send it separately.

The Central Coast Agri-tourism Council

Jeff Rodriguez & George Work



What is Agri-tourism? Agri-tourism by its very nature is a branded product and is most often sold directly to the consumer. Is it for you? The first step in deciding is to assess your

resources and find something you would enjoy sharing with other people as a new and profitable enterprise.

There is the more traditional agri-tourism products, trail rides, hunting, farm stays, u-pick. But many others can be added; demonstrations of traditional rural activities, cheese making, quilting, seminars, specialty livestock (angora goats, llamas), festivals and events, wildlife watching, and many more.

The Small Farm Center at UC Davis helped to start several agri-tourism working groups around the state, including the central coast effort which meets monthly. The group meets at various producer's locations to experience their operations and share ideas. The Small Farm Center has a web site (www.calagtour.org) that is very informative for anyone interested in agri-tourism.

The last couple of meetings were held at the Harris Stage Lines in Paso Robles and at the Avila Valley Vineyard. The structure of the organization was discussed and nominations for officers and board of directors were taken at these meetings. In addition many other topics were discussed

There have been participation from several diverse groups at each meeting including; producers (farmers and ranchers), economic development organizations, tourism promoters, Chamber of Commerce, Vintners, county government, UC Davis, Cal Poly, Community

Alliance With Family Farmers, Farm Bureau, and the RC&D Council.

For more information and the next meeting date and location contact Jeff Rodriguez at 772-5623, or George and Elaine Work at 467-3233.

Drought and Climate Change

Royce Larsen

Rainfall has been way below normal on the Central Coast, and the entire Western US this past year. The current drought has seen acute water shortages, an early wildfire season, and reduced crop and forage yields. Rainfall in the California Central Coast mostly came during December, and was well below normal for the year. There was good germination in the fall followed by rainfall shortage and colder than normal temperatures through the remainder of the growing season. Both quantity and quality of available forage was drastically below normal in most parts of the Central Coast, up to 100% in some areas. This has led to hardships for many producers.

While it has been difficult here on the Central Coast, the world in general has been grappling with climate change. In the recent Volume 56(3) of California Agriculture, the impact of climate change was discussed. There is a greater scientific consensus today showing that human activity is causing atmospheric greenhouse gases and particles to increase, which in turn is leading to global climate change. Some of the newest evidence of warming came during February of 2002. An Antarctic ice shelf 650 feet thick and 1,250 square miles, believed to be 12,000 years old, broke off into the Weddell Sea. This huge ice shelf disintegrated into thousands of icebergs in less than 2 months.

In its assessment of current science on global warming, the Intergovernmental Panel on Climate Change (IPCC) determined that current and anticipated impacts of global climate change include:

- More Hot days and higher heat indexes.
- Fewer cold/frost days.
- Increases in precipitation over the Northern Hemisphere, and possible decreases over other regions.
- Heavier precipitation events, more severe droughts.
- Retreat of nonpolar glaciers.
- Decreases in snow cover.
- Thawed, warmed and degraded permafrost in parts of the polar, subpolar and mountainous regions.
- Lengthened growing seasons.
- More frequent El Niño weather events.
- Earlier plant flowering, bird arrival, dates of animal breeding, and emergence of insects.

It is expected that California will be slightly wetter than it is today, especially in Southern California. However, if the snow line does increase in elevation due to warmer weather, there could be more winter flooding and reductions in water supplies from reservoirs for irrigation and other uses during the summer. This could lead to less available soil moisture during the summer. Mean sea levels are expected to rise about 1 foot. These higher sea levels could lead to increased salt water intrusions and flooding of valuable low lying farm land.

There is still uncertainty about these changes. There is not complete agreement from scientists, and different models show different results. The severity of the current drought and the unusual climate of the recent past may lead one to wonder about the possibility of a changing climate. Other information available is a recent case study of the past multidecadal streamflow regimes for middle Boulder Creek, Colorado.

This report provided some useful results for helping with the understanding of the long-term climate and water variations. Based on a 285-year long tree-ring reconstruction, the analysis of the reconstructed streamflow provided useful insights for assessing regional water resources. Some key findings were: (1) a wider range of hydrologic variations on multidecadal time scales, not seen in the current instrumental record, (2) wet/dry regimes show dissimilar fluctuations across various flow thresholds, and (3) temporal changes in the flow probabilities have varied patterns corresponding to wet and dry regimes.

Even more difficult is the ability to predict the future climate and plan accordingly. Scientists are getting better at predicting the near future climate, such as El Niño / La Niña events. The National Oceanic Atmospheric Administration (NOAA) has a Climate Diagnostics Center web page www.cdc.noaa.gov/ which helps advance the prediction and understanding of climate variability.



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