

# COW/CALF CORNER

The Newsletter

From the Oklahoma Cooperative Extension Service

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## Is Tuberculosis a Re-emerging Disease?

by Dave Sparks, DVM, Area Extension Food-Animal Quality and Health Specialist

Historically, tuberculosis has been a major problem in the United States. It has caused economic losses to livestock producers and serious loss of life to the American public. Because of its potential for great harm it has been the focus of efforts that had virtually eliminated it in this country by the last half of the 1900's. The public almost got to the point where people didn't need to fear TB. Pasteurization regulations for milk and dairy products were initiated because the bacteria cannot survive the heat process. The current meat inspection laws were put in place largely to catch infected animals before their meat entered the food chain. Today, there is no danger of contracting the disease from legal meat or dairy products, yet the disease seems to be making a significant comeback due to several unrelated factors.

Most cases of bovine tuberculosis are diagnosed at post mortem inspection of cattle and bison at packing plants. When a diagnosis has been made, state and federal authorities then test the herd of origin and other herds that may have had contact with the herd of origin. States apply for and are granted levels of certified status, which then determines the extent that producers must participate in eradication and monitoring programs. The highest level is TB Free. This allows for relatively unrestricted movement, both interstate and within the state. With the finding of two cases of TB within a state in a four year time period, the level is moved down to MAA, or Modified Accredited Advanced. This requires more testing, especially in interstate shipment. The finding of three or more cases within one year moves a state's status down to Modified Accredited. This requires all breeding animals to be tested within 60 days of shipment and a whole herd test within 12 months. In addition all feeder animals must have a test prior to movement. Oklahoma is currently TB Free, but we did have a confirmed case in 2006, so one more case by 2010 would see a decrease in status here.

Currently, several states have undergone downgrades, or are preparing for them. Minnesota has had 11 cases in cattle herds and 17 white-tailed deer cases since 2005. Michigan has had a large problem in their deer population with spread to cattle and at least to one deer hunter. California has recently been downgraded after finding tuberculosis in three Fresno county herds. Before deciding that this is all a long way from home, consider that our neighbor, New Mexico, is also having difficulties. Eddy county and Curry county in Eastern New Mexico have had cases. Seven other herds have been designated potential high risk TB herds. In Curry county, approximately 11,500 cows were depopulated. While most of the problems have been in dairy herds, the 2006 case in Oklahoma was a beef cow in a beef herd. So what accounts for this upswing?

One of the biggest factors may be a change in how wildlife populations are managed. Historically, cases of TB in wildlife were considered to occur occasionally as spread from cattle. It was accepted that TB couldn't maintain itself in free roaming wildlife. In recent years, however, hunters have used feeding and development of food plots to pull deer into areas and baiting to bring them together at selected points. The pendulum has now swung to where deer are serving as a reservoir for cattle due to increased population density and animal to animal contact. According to Dr. Stephen Schmitt, veterinarian in charge of Michigan's Wildlife Disease Laboratory, "If you treat wildlife like livestock, you're liable to

get a livestock disease.” When Michigan enacted laws making feeding or baiting of deer illegal in problem areas and redesigned hunting seasons to reduce the deer population to what the land could naturally carry, they greatly reduced the incidence of the disease.

Another factor to consider is that as more cattle movement occurs, it becomes more important to be able to document the movement. It makes a lot of difference what kind of area cattle are moving from, and it is important to be able to identify the animals. Veterinarians within the Oklahoma Department of Agriculture, Food, and Forestry feel like it is quite possible that the 2006 case of TB confirmed in Oklahoma was actually a cow that came in from another state. The rancher had purchased cows from a neighboring state, but because the individual animals identity could not be confirmed as a part of that shipment, Oklahoma was credited with the case.

A third possibility is just starting to be considered by health professionals. TB has long been considered to be a disease transferred from cattle to man, but now researchers are looking at the opposite. It may be that people who reside in other countries where they contract the disease from consuming unpasteurized milk or uninspected meat can carry the disease into this country and introduce it into cattle. In Mexico, TB is widespread and *Mycobacterium bovis*, the organism that causes bovine TB, affects about 17% of the cattle herds. While human to cattle transmission is still theoretical in the U.S, it has been documented in South Africa where tribesmen contract the disease in their home areas and then carry it to the more populated areas where they are employed to work with livestock.

So what does this mean to Oklahoma cattlemen and what can we do to safeguard our TB Free status? When you add cattle to your herd make sure that they are long time Oklahoma resident cattle, or be sure you determine their true point of origin. Use a permanent ID system, such as a brucellosis test tag or calfhood vaccinate test tag to identify these additions to your herd. These tags may take an extra effort to record and file but it could help save a lot of grief in the future. Apply careful consideration before enacting or allowing wildlife management plans that include feeding, baiting or increasing wildlife populations. Be careful when screening workers or others that may come in contact with your cattle. If you don't know the person or their health status, consider requiring a TB test as a condition of employment.

There is no reason for undue alarm or public fear of TB danger, but we have had one case, and we don't need another. The regulatory veterinarians at the Oklahoma State Veterinarian's Office are working hard to ensure the safety of our herd with the least possible restriction to movement. Common sense management and some eyes-open awareness can help them achieve this goal.

Editors Note: On September 11, 2008, USDA- APHIS announced that New Mexico was reclassified as modified accredited advanced for TB.

## **Crop Production and Trade Provide Mixed Signals for Cattle Markets**

By Derrell S. Peel, OSU Extension Livestock Marketing Specialist

Several reports issued this week add mixed signals to already volatile cattle markets. The latest USDA Crop Production reports, as expected, lowered corn and soybean crop estimates. The flood-delayed corn crop has been further impacted by regional dryness and disease problems, resulting in a nearly 3 bushel drop in average yields from the August projections. The September estimate of the 2008-09 corn crop is

12.1 billion bushels, down from the August estimate of 12.3 and down from the 2007 crop of 13.1 billion bushels. USDA slightly increased the projected average farm price of corn for the 2008-09 crop year to a range of \$5.00-\$6.00/ bushel. Clearly the feed cost challenges for livestock production will remain for the foreseeable future. There is still more potential for corn crop reductions before harvest. The late crop is very vulnerable to an early frost.

In better news, the latest USDA livestock and meat trade data showed general improvement in the trade picture and we should gradually see more positive market impacts in the months ahead. Year to date compared to last year, beef exports Japan are up 55 percent, Mexico is up 14 percent and beef exports to Canada are up 35 percent. The latest data is for July and also showed a large jump in exports to South Korea and indications since then are that shipments to Korea are very strong. Total beef exports through July were up nearly 28 percent from last year.

Beef imports are down from all major suppliers and total imports are down 24 percent from last year. Cattle imports from Canada have been very strong in recent months and are up 43 percent year over year through July. However, the July monthly total showed a sharp decrease in the rate of Canadian cattle imports and imports will likely drop below year ago levels in the last part of 2008. Mexican cattle imports are down 33 percent from last year and expected to remain low for the balance of the year.

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