

Agriculture by Marcia Merry

Bovine tuberculosis reappears

Free trade and infrastructure breakdown in the U.S. food chain now show up in diseased animals.

Bovine tuberculosis, the disease of cattle analogous to tuberculosis among humans, was all but wiped out in the United States as of the 1970s. The rate of infection declined from an estimated 5% of the national cattle inventory carrying the disease in 1917, when a federal eradication program began, down to 0.5% of the cattle inventory affected as of the early 1980s. But now that is changing. Both *mycobacterium bovis* (cattle) and *mycobacterium tuberculosis* (human) are on the increase.

Over the decade of the 1980s, which saw the advent of free trade and the letdown in animal disease surveillance and meat inspection, bovine tuberculosis staged a comeback. The number of beef carcasses showing up with evidence of TB at U.S. slaughterhouses soared from a yearly average of 120 in the 1970s, up to 266 in 1988, then 293 in 1991, and 613 in 1992.

TB-infected carcasses are being reported now at a higher rate of detection than ever found by the U.S. Department of Agriculture, since the founding of its slaughter surveillance program.

The hazard of the cattle disease includes its potential transmission to humans. People can contract the disease through the air, milk, or meat. Transmission is highly unlikely as long as milk is pasteurized, and meat is inspected and handled properly. However, the more the disease is prevalent in cattle herds, the more the possibility it can be spread to humans. Over the past year there has been an alarming increase in incidence of TB

among midwestern slaughterhouse workers.

Recent outbreaks of the cattle disease have occurred in several states, but the concentration is in the Southwest, in the vicinity of the Mexican border. The rate of disease is also rising among captive herds of elk and deer in Texas, Oklahoma, Colorado, Montana, Idaho, Nebraska, and certain eastern states.

Veterinarian Robert Hillman, chairman of the TB committee of the U.S. Animal Health Association, calls the resurgence of the disease "dramatic." In statements to the *Kansas City Star* in May, Hillman said, "The Mexican free trade agreement is a very big consideration. It is vital that trade agreements and procedures for entry be based on sound scientific data, not on somebody's whim and not because someone can make some money doing this."

In recent years, there has been an increase of both slaughtered and on-the-hoof beef coming into the United States. Officially, the cattle crossing borders are supposed to be tested and travelling with paperwork documenting that they are tuberculosis free. However, in May, Billy D. Johnson, an official of the U.S. Department of Agriculture (USDA), spoke of reports that counterfeit TB documents are for sale.

A second reason for the bovine TB resurgence, cited by Dr. Hillman, is the reduction of government aid to cattlemen to eradicate the disease.

The main way that TB has been successfully fought over past decades

of this century, is that when an infected herd was identified, the cattleman was asked by the USDA Animal and Plant Health Inspection Service to either destroy or isolate the herd. Government money was available to the cattleman to compensate him for his losses. Now that funding has been reduced.

In the past, typically 12 infected herds were identified nationwide per year, but now that number is rising alarmingly.

The latest outbreak that has veterinary epidemiologists worried is in Karnes County, Texas, hundreds of miles inland from El Paso, which is on the U.S.-Mexican border, and the site of the only recent serious outbreak in Texas in recent times. In May, 86 dairy cows in Karnes County were diagnosed with *mycobacterium bovis*. How did it get there?

Terry Beals, executive director of the Texas Animal Health Commission, stated, "We intend to treat this as a very high priority." The diseased animals are part of a larger herd of 250 cows, which has been quarantined indefinitely. State authorities have sent in two epidemiologists to Karnes County to track down how the cattle may have become infected.

Last year, Beals expressed alarm about the consequences of importing potentially infected Mexican steers into Texas.

Some other states, previously listed as free of bovine tuberculosis, have now been reclassified by the USDA because of new outbreaks of the disease. Prior to January 1992, there were 40 states listed as free of bovine TB, but last year New York and Pennsylvania, both leading dairy-producing states, lost that status.

Last year, the USDA asked the National Academy of Sciences to study federal eradication efforts, and the report is due for release this year.