California Bovine Tuberculosis Update  
By the California Department of Food and Agriculture (CDFA), Animal Health Branch  

Due to the recent confirmation of bovine tuberculosis (TB) in two additional dairy herds in Fresno County, it was anticipated that in August the United States Department of Agriculture (USDA) would downgrade California’s bovine tuberculosis status from “Accredited Free” to “Modified Accredited Advanced” (MAA) through notice in the Federal Register. A single cow in each of these two additional herds was confirmed positive in June, bringing the current total number of California herds affected to three.

This most recent outbreak was first identified in a single animal through routine testing in all slaughter facilities, which is the primary surveillance method for tuberculosis in cattle. The subsequent epidemiological investigation revealed two more affected herds that were identified through live cattle testing.

The source of infection for the dairy herds has not yet been identified. The genotype of the isolate from the first affected herd is most similar to recent isolates from feedlot cattle in the Southwest, many of which originated from Mexico. Preliminary results indicate the infections in the first and second herd are not related. Direct movement of an infected animal from the first herd carried the infection to the third herd.

Once a herd is classified as affected it remains under quarantine, if not depopulated, until it has completed at least eight negative whole herd tests over a minimum of four years. Two additional negative annual herd tests are required after the quarantine release. Depopulation of cattle from one of the affected herds has begun. Federal regulations require that for a state to regain its “TB Free” status, a waiting period of two years must occur with no more positive tuberculosis tests after depopulating the last affected herd. If not all affected herds are depopulated, a two-year waiting period must occur after animal health officials have released the quarantine on the last affected herd.

The downgrade in California’s tuberculosis status is required by the USDA’s Code of Federal Regulations following the detection of two affected herds within 48 months. The status downgrade will impose additional testing requirements on California’s cattle industry when shipping animals out of state. Other states that are currently in a downgraded status include Minnesota, Michigan and New Mexico.

When moving cattle to other states, veterinarians or producers must check with the receiving state for their TB testing requirements, which may be more restrictive than federal requirements. Current federal regulations require intact cattle over six months of age that originate in an MAA state or zone, and are not known to be infected with or exposed to tuberculosis, to be officially identified and accompanied by a certificate stating that the animal tested negative to an official tuberculin test conducted within 60 days prior to interstate movement. There are some exceptions, including:

- Cattle or bison from an accredited herd, with evidence of a whole herd test within 12 months of the movement.
- Cattle moving directly from an approved market to a federally inspected slaughter facility.
- Breeding beef herds moving for grazing may be permitted to test within 12 months, and the test is good for 3 years, if there is a commuter herd agreement between the two states.

To reduce the burden of interstate testing requirements on industry, CDFA animal disease control experts are working with industry to evaluate a “Split State” designation. This would entail regionalizing part of California so that part of the state could return to a “TB Free” status while intensive disease eradication efforts continue in the affected area. As part of the application for Split State Status, CDFA officials must develop a management zone and demonstrate to USDA that there is a plan in place to prevent the disease from spreading out of that zone. This will include restricting the movement of cattle from the zone, and requiring TB testing of cattle that move from the zone into the rest of California. It will take several months to develop a regionalization plan, which then must be approved by USDA officials before being enacted.
Since bovine tuberculosis was first detected in January 2008, more than 100 herds and about 150,000 cattle have been tested as part of the investigation. With the downgrade in status, private veterinarians will play an increasing role in surveillance and testing of animals affected by interstate shipping requirements.

Bovine tuberculosis does not threaten the quality and safety of milk and meat products produced in California. Almost all milk sold in California is pasteurized, which destroys organisms that could be harmful to humans, including tuberculosis organisms. The state’s two raw milk dairies are regularly tested for tuberculosis. All cattle processed for meat are inspected for signs of tuberculosis infection and rejected for consumption if they show signs of the disease.

While the risk of humans contracting bovine tuberculosis is extremely low due to the safeguards of routine meat inspection and milk pasteurization, there is a slight possibility that people can contract tuberculosis through respiratory exposure to live infected cattle or their carcasses, and through consuming illegal soft cheese products. Conversely, humans infected with TB can transmit it to cattle in the same manner. The bovine tubercle bacteria has a broad range of hosts including pigs, goats, deer, cats, dogs, foxes, badgers, marsupials, and sheep.

The best way for cattle producers to prevent bovine tuberculosis is to maintain a closed herd. Purchased cattle or cattle reentering the herd should be isolated and tested to determine their potential disease status. A significant risk for bovine TB is contact between breeding cattle and Mexican feeder cattle – producers must ensure their replacement cattle never have any contact with these high-risk cattle. Producers can help prevent TB in their herds by maintaining accurate records of animal identification and movements, preventing contact with cattle of unknown tuberculosis status, and arranging professional diagnostic workups of sick animals. It may also be prudent to establish a tuberculosis testing policy for employees.