

Report from California Meeting on Bovine Tuberculosis

Sacramento, California

December 12, 2008

The Animal and Plant Health Inspection Service held a series of public listening sessions on the future of the national bovine tuberculosis (TB) program. In attendance were various State agriculture and wildlife officials, industry representatives, producers, public health officials, and members of the general public. This document summarizes comments and suggestions from focus group sessions at the California meeting (held December 12, 2008), public comments from the meetings, and written comments to USDA officials.

Description of Respondents

Representation at Meeting

15	Industry Representatives
10	State
12	Producers
2	Public Health Officials
0	Wildlife Officials
<u>3</u>	<u>Other</u>
42	Total

Public Comments

Rocky Lisky, Liskey Farms Incorporated
Dick Nock, Represents 500 cow-calf producers in San Luis Obispo and Santa Barbara County, cattleman's associations. Also represents cow-calf producers: Templeton Livestock Market Source and Age Verified Program
Doug Maddox, Holstein Association USA and Ruann Dairy
Stephen Maddox, California Dairies, Ruann Dairy
Richard Breitmeyer, State Veterinarian, CDFA
Tom Talbot, Cow-Calf Producer, President, California Cattleman's Association, and Veterinarian
Ria de Grassi, California Farm Bureau

Written Comments

Document from National Cattlemen's Beef Association
Arizona Cattle Growers Association/Arizona Cattle Feeders Association

Biosecurity

APHIS Summary/Interpretation of Comments and Suggestions:

Need to promote good biosecurity. This includes 1) limit commingling with risky cattle, 2) don't raise breeding replacements in close contact with feeder cattle, 3) test farm workers and others in close contact with livestock, and, 4) consider worker changes such as requiring worker permits and having employers pay for tests and health care.

Comments from focus groups:

- Require TB testing of workers.
- Need to promote good biosecurity (best practices and quality assurance).
- There is no incentive for the industry to address the problem, since there is little cost to industry.
- Participants also strongly emphasized their desire to have better tests and their desire to have farm workers tested for TB prior to working on California farms.
- Consider worker changes (require worker permits, pay for tests and health care)

Suggestions from focus groups:

- Producers should come up with herd management plans.
- Limit commingling with risky cattle.
- Have laborers tested for TB prior to working on California farms.

Suggestions from public and written comments:

- Industry must take greater responsibility for the program. We've got to eliminate risky management practices that jeopardize biosecurity, such as raising breeding replacements in close contact with feeder cattle, especially commingling Mexican and exhibition cattle.
- As to biosecurity issues, the representative of the California Farm Bureau Federation indicated that it's members expressed support for the livestock industry to voluntarily adopt a policy of testing all farm employees for TB as a step to better manage whatever risk humans may pose in transfer of TB to cattle. Another member e-mailed the representative saying that he believes that that same concept should be applied or encouraged to apply to testing of all those individuals who would have significant contact with farm livestock. And on a personal basis I know because my parents are having to move into an assisted living facility that those people moving in have to be TB tested as well. So it's not something that would be applicable to just a farm environment. People are concerned about TB in other environments.

Control vs. Eradication

APHIS Summary/Interpretation of Comments and Suggestions:

Comments were mixed. While overall and long term eradication should be the goal, in the short term, control is what is practical.

Comments from focus groups:

- Eradication not realistic nationally because of wildlife issue.
- Eradication not practical without better test.
- Eradication ideal, but in short term, control is what is practical.
- In the long term, the TB program should focus on eradication of the disease.
- Most folks opted for a control program and thought a control program could be as successful as the current eradication program:
 - Wanted a less severe (punitive) program;
 - Geographical risk assessments are needed;
 - 'Devil is in the details';
 - Sophisticated testing of infected herds is needed;
 - Control with eradication of the disease in infected herds is needed;
 - Good DNA analytic tools are available but aren't being used;
 - Eradication is unattainable; control is more effective;
 - Most of the points brought forth in the public comments need to be addressed in order to have a multifaceted control program;
 - Eradication calls for depopulation with indemnity, which is too expensive;
 - Control program with geographical risk assessment is needed.
- All members in the group wanted to have a control-focused program, then have the results of the control-focused program evaluated in order to consider the possibility of an eradication program.
- This is a matter of semantics and depends on how we define eradication. Unless there is worldwide eradication, there will always be TB spillover back into the U.S. If TB is eliminated from the domestic herd, it technically has not been eradicated in that new cases will occur due to spillover. To that end, we are really controlling factors that minimize the chance for domestic animal infection. Wildlife reservoirs, the latency of TB, and its existence in other countries will make true eradication difficult. Perhaps we collectively should change our thinking about how we define TB eradication.

Comments from public and written comments:

- Obviously, our current program is less than effective. While eradication of bovine TB must remain our ultimate goal, success will not likely be achieved under the current program.

Education and Outreach

APHIS Summary/Interpretation of Comments and Suggestions:

Risk can be reduced through education, such as increasing producer awareness of good biosecurity practices. Industry is better positioned to share with itself and has more credibility than government in doing so. Industry must take greater responsibility for the program. Consider spending more on sharing information at meetings, not just on written materials.

Comments from focus groups:

- Risk should be reduced through education
- Improve outreach about biosecurity:
 - Increase producer awareness by promotions;
 - Biosecurity recommendations are available from CDFA, USDA;
 - Holstein magazine to publish recommended biosecurity practices;
 - Biosecurity is common sense and doesn't have to be expensive.

Comments from public and written comments:

- Significantly more educational outreach to producers needs to occur about TB as a disease (ex. risks associated with Mexican cattle and human-to-animal transmission, etc.), as well as about the programmatic aspects of the disease. Though all parties need to be involved in doing outreach, industry is better positioned to share with its members and has more credibility than government in doing so.
- The USAHA subcommittee could be tasked with developing informational items and distributing information regarding risky behaviors.

Suggestions from focus groups

- More outreach to the industry groups is needed to educate about risky behavior.
- Education should not be focused on written material. More education needs to take place at meetings, i.e., BQA (Beef Quality Assurance)
- Industry must be made aware of the problem.

Suggestions from public and written comments:

- Industry must take greater responsibility for the program. And we've got to support education and outreach efforts to enhance producer's participation in the TB program.

Funding

APHIS Summary/Interpretation of Comments and Suggestions:

If TB is important, the funding for the program needs to be made available. USDA needs to ensure that public funding continues. Consider collaborating with CDC for additional funding (see section on public health).

Comments from focus groups:

Make effective use of current funding.

Comments from public and written comments:

With this kind of an economic impact, we have to start out with “if funds are available???” I think the first thing that we need to do is recognize that TB is important, and funds need to be made available. I think it’s incumbent on all of us to do that.

Suggestions from public and written comments:

TB is a disease of public health significance, and as such, the budget for the USDA TB program should ensure the public funding continues.

Imports and Mexican Cattle

APHIS Summary/Interpretation of Comments and Suggestions:

Mexican cattle are seen as a risk because the TB status of Mexican States is poor. People find it alarming that a large number of TB incidents in the last five years could be linked to Mexican steers. Identification and traceback are essential to solving this problem. Testing on imports and regular testing after import is one suggestion. Breeding replacements raised in feedlots with exposure to feeder cattle, including Mexican steers and heifers, and commingling of Mexican and U.S. event cattle, are risky behaviors. Better biosecurity practices need to be in place. The infection can come in with the cattle, immigrants, and products. All three need to be addressed. There needs to be improved slaughter surveillance at houses that slaughter fed cattle, including Mexican cattle.

Comments from focus groups:

- Risks of disease transmission from Mexico:
 - Mexican cattle and people;
 - More TB in feeder cattle from Mexico;
 - Possibility of infecting the wildlife populations;
 - Questionable if TB test is properly applied in Mexico;
 - Mexican heifers are supposed to be spayed;
 - No dairy cattle allowed into the U.S.;
 - Status of Mexican States—many don't have any status;
 - Feeder cattle trade is very important to both U.S. and Mexico;
 - Don't allow feeder cattle and breeding cattle to commingle;
 - Mexican cheese and unpasteurized milk has infected people.
- Regarding the inability to track incoming Mexican cattle, one producer indicated that he ships thousands of Mexican cattle, identified with the blue metal ear tag, to another State and the tags are never lost. In general, the producers indicated that these tags worked well and if they were not on the animal, someone probably removed them intentionally.
- There was concern regarding the integrity of test results for some cattle imported into the US, which is compounded when cattle arrive without a tag indicating which Mexican State they came from. Alarming to all attendees was the large number of TB incidents in the last 5 years that could be linked to Mexican steers.
- Some State Veterinarians were concerned and cynical about Mexican cattle, and therefore suggest regulating them more stringently. The program should focus on preventing risky producer behaviors that expose domestic cattle to Mexican cattle. We need to focus on stopping risky behaviors (for example, stop placing replacement cattle with Mexican-origin cattle and prevent fence-to-fence contact between).
- With all the Mexican cattle running with domestic cattle in feedlots, we do not see TB. Some of the producers did not accept the "contact" issue. A better "Mexican steer" definition is needed, as well as better differentiation regarding animals destined to move directly to slaughter versus those that are to become roping steers.

- There was some speculation that mandatory country-of-origin labeling (COOL) may, by default, substantially reduce the importation of Mexican cattle for feeding.

Comments from public and written comments:

- A producer indicated that he feeds 15,000 Mexican cattle per year that have contact with domestic animals along a fence line on pasture. All of the animals are inspected by FSIS at slaughter and absolutely no TB lesions have been identified in the last year. Accordingly, field evidence did not seem to support that side-by-side housing of Mexican with domestic cattle was indeed a risk on pasture. State officials reported that a slaughter plant in question had not submitted any granulomas to the laboratory, which raised their suspicions and concern that if samples had been submitted by the plant to the lab, TB would have been found. In summary, there is debate about what is really risky behavior, underscoring the need for epidemiological research to confirm.
- Along this line, there was concern about whether testing of feeder cattle in other States was of value if their overall risk was low.
- Some attendees had heard that feeder cattle were being tested in other States. Attendees felt that university research into these types of epidemiological issues was almost nonexistent. Accordingly, USDA should be responsible for coordinating and ensuring that such research is done so that risks could properly be assessed and more valid program decisions made.
- We have a problem with Mexican cattle. Somehow we've got to have better control of that.
- We know that we've got a border problem and we need to do some additional testing. It's apparent to me that because of NAFTA or some other reason we have to give more respect to Mexican cattle coming across the border than our own domestic cattle. And I believe that we need to have a 60- or 90-day additional test on those cattle coming in, in order to insulate our domestic cattle, whether it's our cow-calf guys or the dairy industry. Dairies have gotten bigger. They've gotten more selective. They send their baby calves out to be raised, and they send their heifers out to be raised. And feedlots, trying to stretch, trying to cover costs are now having dairy cattle on with their beef cattle. Obviously, that opens us up to different problems. It's not a problem as long as there's no Mexican cattle on the feedlot. And somehow we've got to be able to test and restrict that. Obviously, there are problems with tracing some of our cattle, the people had cut all the eartags out. You have the same thing at some feedlots. Mexican cattle coming in have ear tags, but they head to a feedlot and they're cleaned up; all of a sudden you lose tracking. We have a million cattle coming from Mexico every year. Thirty to forty or more this year, I think there's more than fifty being found at packing houses positive for TB. That is a problem. We've got it recognized. Somehow we need to identify them, hold them before they mix with our domestic cattle and spread this insidious disease.
- Importation of Mexican feeder cattle continues to present a significant risk for introduction of TB into the United States. Breeding replacements are often raised in feedlots with exposure to feeder cattle, including Mexican steers and heifers. We've got inadequate program funding, which will likely prevent future

depopulation of affected herds, especially large herds like our dairies here in California. Congregation and multiple movements of large numbers of cattle increase the risk of transmitting disease and often prevent effective animal tracking. There's little flexibility under the current program.

- One participant stated that, while the attempt has been made to associate Mexican feeder steers to the current situation in California, after testing almost 350,000 trace-ins and trace-outs there's been absolutely no evidence of transmission from Mexican feeder cattle. It is essential that the source of TB in California be accurately identified. Without the identification of the source, it is likely that California will continue to experience very small isolated occurrences of TB in the future.
- We believe that stronger regulatory attention must be paid to the risk to U.S. cattle from imported animals of Mexican-origin. Today, listening to various comments made here, it sounds like not everybody is necessarily on the same page as what exactly that risk is, so certainly that needs to be made more clear.

Suggestions from focus groups

- The group was in favor of have better safeguards in place regarding the importation of Mexican cattle:
 - Require secondary testing for Mexican cattle at border;
 - Focus on areas contributing to the greatest problem in the short term— Mexican cattle, poor tests available, etc.;
 - Limit commingling with risky cattle;
 - No commingling with Mexican cattle.
- Mexican cattle: What are some restrictions that could be put in place to reduce TB introduction? We need to stay focused on improving the science so there will be better testing at the border. In the short term, we need to work with the dairy and beef groups to prevent the commingling. A suggestion was made by a university official that USDA should look at the work that was done with the poultry industry, where there is greater enforcement. A suggestion was made to change the rules to allow testing on the U.S. side of the border.

Suggestions from public and written comments:

- Require a test on all Mexican-origin cattle prior to moving them out-of-State (i.e., interstate).
- We've got to require effective separation of feeder cattle, especially Mexican-origin feeder cattle from breeding cattle. This is especially critical in confined feedlot settings.
- We've got to enhance surveillance and enforcement to mitigate risk of infected cattle being smuggled across the U.S./Mexican border.

Indemnity/Depopulation

APHIS Summary/Interpretation of Comments and Suggestions:

Depopulation is no longer feasible; it is expensive, labor intensive, and a waste of animal life. One suggestion is that the program and producers would be better off isolating and testing out positive animals (i.e., the test-and-removal strategy). If indemnities are paid, they should be tied to risk. Depopulation money might be better spent on test development that, once available, would allow for test-and-remove strategies.

Comments from focus groups:

- Depopulation is no longer viable in some instances
- What would replace depopulation?
- Depopulation and indemnities: Mass euthanasia of cattle for disease control is becoming less socially acceptable.
- Because we have a registered herd, the value of our cattle far exceeds the \$3,000 cap, and it bothers me a little bit. We have an indemnity program, and I appreciate that, because a lot of countries don't. However, you talk about the economic impact just in what we've done so far, it has cost us more than \$2 million this year just in extra feed, lost revenue, undervalue of cattle. So, it's a huge impact on us, just as an individual operation. (Owner of TB-affected herd.)

Comments from public and written comments:

- Attendees wished to avoid massive depopulations in the future, in that they are expensive, labor intensive, and a waste of animal life. There was speculation whether the depopulation money might be better spent on test development that, once available, would allow for test-and-remove strategies. The program and producers would be better off isolating and testing out positive animals. Attendees noted that strategies for addressing the disease in a herd needed to vary with each operation type. For example, a small operation, where they can test out and send animals to slaughter—the test-and-removal strategy—might be very effective. Conversely, for a very large operation with lots of in-out flow, a total depopulation might be more effective from a business perspective.
- Indemnity funds have become an expensive use of TB program funding, and while we continue to support the end goal of eradication, we are obviously not achieving that objective under the current regulatory approach. Economic reality dictates that we use whatever funding is available to achieve the greatest progress toward eliminating TB presence in livestock.

Suggestions from focus groups

- Move away from depopulation as initial response.
- Indemnities should be tied to risk.

Public Health

APHIS Summary/Interpretation of Comments and Suggestions:

There is concern about transmission of TB between cattle and humans. Testing workers is one possible solution to help protect both people and livestock. USDA needs to work more alongside public health officials on so many of these types of issues. This means both local public health agencies and the Centers for Disease Control and Prevention (CDC). The CDC can help with research on transmission of the disease and possibly share the funding of the program. USDA needs to make available the resources to consider every potential source of infection.

Comments from focus groups:

- USDA should be working more alongside public health officials on so many of these types of issues. Though cattle-to-cattle spread is the main source of infection, there is a human component. Even if we shut off the border, we will still have animal TB from humans. Many people die from TB, and there is a huge desire for a better test and vaccine, yet with all the human health funding, they use the same test the animal TB program does.
- What do the respective dairy industries need to do to protect employees? Should the dairy industry have the public health department test potential new hires on the dairy? Maybe the collective program should be more proactive in this regard.

Comments from public and written comments:

- The public health department thought it was important to test the employees at another dairy, but not at my dairy. They didn't think I had a problem. They did not want to force testing of any additional employees, and that's a concern. We have now instigated testing in my peer group, and I have several dairies in my peer group. We've started testing all employees, and you can do that, legally, despite the rumors to such. But public health has got to realize that that is a problem. The current risk of transmission of bovine TB from people to animals has not been adequately assessed.
- Human reservoirs of bovine TB must be considered, especially in dairy settings where workers often have close contact with animals.

Suggestions from focus groups:

- The group wants USDA to petition the CDC for funding and a risk assessment on the bovine to human potential problems.
- General consensus that more collaboration between animal and public health is needed.
- More needs to be understood and researched about the linkage between humans and animals and TB spread. For example, can urinary transmission of TB from humans to cattle occur? We need to know a lot more in this regard than we presently do.
- In California, producers are just becoming aware (due to a press release) of the TB threat humans can pose to animals. An educational effort is needed in this regard for the industry.

Suggestions from public and written comments:

- I think that the CDC should definitely be involved in this. They may have sources of funding we may or may not be able to tap into.
- One of the last USAHA recommendations was tracking bovine TB and the human population. One participant stated that about five percent of the people with TB carry bovine TB, and it's very important to know where that's at. When you find a person who's suspect, they x-ray the lungs. That's not where people carry bovine TB. They carry it in the kidneys, small intestines, and we need to do some blood testing on those suspect people that are exposed to it. And there's, no reason why we can't test our employees just like they do the school teachers and everybody else.
- USDA should officially request that the CDC evaluate this risk in order to provide standardized investigation in mitigation protocols for producers, veterinarians, and State and local public health officials.
- And once evaluated, if warranted, producers need to recognize the risk and screen and treat people that are infected with bovine TB that work with livestock.
- It is essential that USDA make available the resources to consider every potential source of infection, both bovine-to-bovine transmission and human-to-bovine. It is important that jurisdiction concerns between animal health agencies, including USDA, and public health agencies be set aside so that the risk of inter-species transmission can seriously be addressed and the reoccurring episodes in California can be eliminated. Until this is done we will never get complete eradication of the disease in California, and we'll remain in a cycle of dealing with periodic cases.
- Accurate identification of the source of these infections is critical to ensuring that we will eliminate this disease once and for all. USDA's efforts can make a huge difference for California cattle producers, but changes are needed now.
- Another concern I have is the possibility of cross-contamination from humans working for the infected herds. I believe it would be prudent to TB-test all workers in contact with affected animals plus any past workers who have had contact with more than one infected herd. There are safety disease precedents with sexually transmitted diseases (STDs) and other communicable diseases that would negate civil rights concerns. The State health department should work with the national TB program to eliminate this cross-contamination possibility when the original source of the TB has not been found.

Regulations

APHIS Summary/Interpretation of Comments and Suggestions:

Regulations are out of date and need to be revised. Regulation change is very slow so consider ways to speed the process up. Please give the suggestions from these listening sessions more respect than you did in 2005. We do not want to lose the gains that have already been made toward eradicating the disease; however, likewise we cannot afford to be crippled economically by well-meaning regulations. The new regulations need to have “uniformity balanced with flexibility”. In addition, we need a strategic plan for infectious diseases.

Comments from focus groups:

- What does an outbreak consist of? We need a definition. Is one cow in a herd of 14,000 an outbreak? We should be moving toward a case-by-case definition.
- How much change is actually possible in the short term?
- The national TB program is obsolete but people have made the difference.

Comments from public and written comments:

- Program changes by way of the current regulatory process go through a lengthy legal process, which is too slow and makes us unable to respond to the needed changes and really creates an undo burden on our producers.
- Change in regulations need to be addressed much quicker.
- It's easy to criticize the regulations. However, the facts are, as we see them, show that the California dairy industry has some major problems with TB. We would hope that by modifying current procedures, the California beef industry would get some much needed relief. I offer some considerations, which we'll obviously discuss again today. The facts are there are no known incidents of TB in native cows in California. There is a minimum of dairies located on the majority of ranch land in the State of California. The San Joaquin Valley and Chino areas are the major dairy populations in the State. The California beef industry is being held hostage by the USDA regulations resulting from complications of TB in the dairy industry. As we understand it, there has been some reluctance to test for TB in some of the cow-killing plants (i.e., slaughterhouses). We're suggesting that TB identified cattle be quarantined to the ranch or county in which they are located and allow native beef cattle to move out-of-State outside of a quarantined area.
- Again, in 2005, we've fine-tuned the regulations. And I hope that these hearing sessions give a little bit more respect to some of those concerns and what we've got going.
- So, foremost, members of the California Farm Bureau Federation want USDA to know that they are very concerned about the direction of the tuberculosis program. Our members do not want to lose the gains that have already been made toward eradicating the disease. However, likewise they cannot afford to be crippled economically by the well-meaning regulations.

Suggestions from focus groups

- Regulations: All participants agreed the regulations need to be more flexible.

- More uniformity is needed:
 - Need to focus on uniformity so that there are not so many different State requirements for the movement of cattle;
 - Different States and different regulations are a nightmare;
 - Uniformity is the key, even if regulations are tougher.
- In the short term, the TB program must address the regulations that are out of date and are doing more harm than good.
- Program needs to have “uniformity balanced with flexibility”.
- We need a strategic plan for infectious diseases.

Research

APHIS Summary/Interpretation of Comments and Suggestions:

Need research (and funding for research) on 1) better tests and test procedures, 2) epidemiology of the disease, 3) DNA typing (and more people capable of this work need to be hired).

Comments from focus groups:

- Diagnostics and testing: Rumors are going around that some of the small companies are close to producing a more reliable test and the group agreed that USDA should be supporting this research. It's seen as the number one problem. A sample database of Mexican cattle strains is needed.
- However, to determine the risks, much more epidemiological research is needed.
- Along this line, more funding and research is also needed for DNA typing. DNA typing information can then be used to research how the disease spreads. Concurrently, there is a scarcity of people in government ranks that can do DNA typing; more need to be hired.

Comments from public and written comments:

- Detection of TB in large herds with complex movements requires significant funding and personnel to accomplish the required investigation, tracing, and testing, yet often these do not reveal the source of the infection.

Suggestions from public and written comments:

- You know what's interesting? Over 8,000 animals were depopulated. They call it an outbreak. It was not an outbreak; it was a discovery. Only seven (infected) animals were found in the three herds. One single (infected) animal in our herd, and we tested 13,000 animals now three times. And you're worried about putting the calves through the chute? We're going to put ours through the chute about five or six more times, the whole herd. The CWT (California, Cooperative Working Together) is going to depopulate 61,000 cows this month. We've already depopulated 8,000 animals as a direct result of TB. Wouldn't it be more effective if we had a program taking all this money—the funds that it's taking to kill cows for economic reasons—and spend it on research and developing a better test?

State Status

APHIS Summary/Interpretation of Comments and Suggestions:

State status is an outdated feature of the program. The TB regulations victimize producers, limit their business practices, and are very costly. When State status changes, there is an immediate devaluation of cattle from that State. Fear of change of State status drives action more than fear of the disease. There needs to be a risk-based approach in place that will give confidence both nationally and among trading partners in the safety of animal movements. This would allow low-risk or no-risk animals to move more freely. Herds, zones, or regions determined locally would be better than using State lines for quarantines. The risk of pasture transmission is lower than the risk of confinement transmission

Comments from focus groups:

- Where would geographic lines be drawn? Don't know.
- When a TB-positive herd is found, other State Veterinarians lock your State out in an effort to avoid getting the disease. This is very clearly a States' rights issue that will not go away. An effort is needed to bring State Veterinarians to the table to determine what steps and measures are necessary in the program to build confidence that, when another State has a TB positive case, sufficient measures and safeguards are in place and being taken to safely export from other (non-affected) parts of the affected State. This "locking out" mentality that State Veterinarians display is due, purely and simply, to a lack of knowledge and confidence regarding what the other State is doing to contain a TB-positive herd. If we provide assurances in the program, and increase program discipline/rigor, then State Veterinarians' confidence will grow.
- An important industry concern related to this is the inability of industry to evolve and function in the most business-efficient manner due to State status concerns/rules.
- Fear is what is driving the protective stance of State Veterinarians in regard to locking out cattle from TB-positive States. Zone lock-down time should vary based on risk and epidemiological parameters that should, for example, include the size of the operation involved as well as the number of trace-outs associated with it. We must collectively understand the risks better if we want to be able to say where the disease came from, and thus be able to instill confidence in others about the caliber of containment efforts.
- The biggest goal of the beef industry in California is gaining the ability to move low-risk cattle to other States. In short, they believe that with current regulations, other State Veterinarians are afraid to import California cattle for fear their State will be severely punished in the unlikely event they get TB from California. Even though the risk of getting TB from California beef cattle, especially those from Northern California, is extremely low the fear of being penalized (in the event they get TB) is causing State Vets in other States to not want California beef cattle.
- Has risk of most cattle changed since cases of TB in dairy cattle? If risk hasn't changed, then regulatory change shouldn't occur.

- Dropping State status for small risk is not reasonable.
- How do we deal with the individual producer?
- How do we deal with riskier groups of cattle, producers?
- Risk assessment is critical.
- Transmission risks—within and between herds, especially involving Mexican cattle.
- State status is antiquated.
- Can the 5-year status be changed? Yes
- There are questions around States' rules holding up in court. Federal rules are outdated.
- Risk of pasture versus confinement transmission: it's increased in confinement
- Can TB be transmitted via wind, manure?
- There was general appreciation among attendees that USDA is not continuing to defend the old program, is recognizing that the status quo is not longer acceptable, and is beginning to look at the program differently. The current program needs to be abandoned and replaced with something newer. As an example, a producer indicated that he currently buys cattle from closed herds and moves them to various facilities in different States. He has relatively little risk from the different owners supplying his herd; however, from a program perspective, this is viewed as risky and he is over-regulated. In short, the TB regulations victimize producers and limit their business practices.
- Among all attendees, there was a sense that the impact of program requirements on a State that has found a TB positive animal is far worse than actually having the disease.

Comments from public and written comments:

- TB testing of the cattle moving across Oregon and California line is what I'm particularly interested in. You're probably aware (maybe you're not) that Klamath County has a lot of good pasture ground that California cattle use quite a bit in the summertime and vice versa. Northern California has great winter pasture, which the folks in Klamath like to use. Both these scenarios are a long way from the present problem area, and pose virtually no threat for spreading TB. Our particular ranch practice is this: We run our cows on private property from May to December in Oregon, which is, our ranch is about three miles from the California line. We own some property just inside the California line, I mean, a quarter mile. It's a property around a little lake there—sand dunes, brush, excellent cabin grounds—but that's where we get into trouble. We raise our own replacement cattle, only occasionally buying outside females, so we're a very isolated herd. The last time the herds in the Fresno area tested positive for TB back in 2002, 2005, in that range, we had to test our cows in November of 2004 at a cost of some \$1,400. It's not only a dollar cost, but you run your cows through the chute twice in three days, it gets pretty exciting. They don't like that too well. I would urge that we devise a regional approach to isolated outbreaks in the future that protect our industry without punishing all the bordering States. I realize that no matter where you draw the line, someone like myself will have a sad story to tell, but there has to be a better way to do business. As a matter of human safety, I

would urge that those people directly involved with these herds be tested as well. We need to find the root of the problem and not just cut the head off. Thank you.

- If a herd must undergo tests and removal prior to quarantine release, a State is likely to lose its free status for a minimum of four to six years under the current program. And under current rules, States immediately lose free status with the discovery of two affected herds, placing an extreme economic burden on our producers. Program impacts are now often worse than the disease itself.
- Loss of a State's TB-free status results in the significant cost required for interstate movement often in classes of cattle and geographic regions not at risk of disease as you just heard, especially in a large State like California.
- There's little flexibility in the current system.
- Program impacts are worse than the disease itself.
- The current State classification system means little. A political boundary does not accurately define the risk of the State's entire cattle population.
- And then many States add additional movement requirements, which add further costs largely due to fear of the program rather than of the disease itself.
- Realizing that every outbreak is different and allowing flexibility to manage each individual situation is a necessity, as is the understanding that using State lines to manage TB outbreaks accomplishes nothing.
- I think it is important to recognize that one application of the program will not necessarily work for all areas affected by TB. It is time for USDA to recognize that there needs to be significant flexibility in dealing with each individual situation. The idea that one set of regs will work no matter what the risk, the source of the disease, or the geographical location can no longer be considered correct. The fact that a giant State like California has an extremely small number of affected animals, from a small number of dairies located in close proximity to one another into which no source can be identified, surely makes it a different situation than in a State like Michigan, which has a larger number of animals from a larger number of premises where wildlife has been identified as the source of the disease.
- California's producers do appreciate the steps leading the USDA's suspension of testing requirements on pasture-to-pasture cattle for one year in the States of California, Nevada, Oregon, and Idaho. It is, however, of critical importance to recognize the minimal risk posed by feeder cattle that will travel east from California, either to grass or feedlots beginning in the spring. The continued testing requirements on these cattle impose unnecessary hardships and expense on producers. It will not be enough for USDA to impose a delay of compliance regarding testing of these animals, as many States have already imposed their own, more stringent test requirements.
- And this may mean that our only course of action for the foreseeable future is a TB control program that is based on a geographic risk of disease transmission, because obviously Congress is not planning on talking about a \$700 billion bailout of the livestock industry as they have for other industries out there. So, certainly we need to be very prudent about how we spend of what monies we do have available. So, thank you very much for our opportunity to comment.

- As a beef cattle producer who winter grazes in northern California and summer grazes in southern Oregon, I am deeply concerned with the present national rules and regulations regarding State TB status. When the occurrence of TB disease occurs in a limited area such as Fresno County, I believe that control measures regarding that county should be activated but movement elsewhere in the State or crossing State lines should not be penalized when the danger of exposure is moot.
- Naturally all exposed cattle and surrounding cattle should be tested, as should source cattle if identified. By regionalizing TB, the savings for the entire cattle industry would be enormous.
- These handling procedures and shipping conditions are not in the best interest of the livestock, the seller, the buyer, or the entire California beef industry, hence the reluctance of buyers to buy California calves because of the complications of holding and awaiting the results of the TB test. The desire to buy calves by out-of-State buyers has been or certainly will be diminished, and only adds to the woes of the already depressed cattle market.

Suggestions from focus groups

- The TB program needs to move away from the use of geopolitical boundaries (State status) and implement a case-by-case approach tailored to where the disease problem is, with the exception of traceouts. More flexibility is needed within a State to manage an outbreak, allowing the State to focus on the area in question and not the entire State, without its status being threatened. Furthermore, the geopolitical approach causes other States to be more competitive and rigid in rule application, declining to accept cattle from anywhere in your State once a TB outbreak has occurred.
- States should evaluate movement allowances using a risk assessment methodology. For example, one might test Mexican and dairy cattle more heavily due to their higher risk. Accordingly, program activities undertaken—and therefore funding—need to be focused on where the risk is. However, to determine the risks, much more epidemiological research is needed.
- USDA should focus on improving market accessibility for low risk cattle.
- USDA should lessen restrictions on movement of cattle from TB-infected States in short term.
- Need to make movement of out-of-State cattle a priority.
- Quarantine needs to be altered.
- Open State borders to low-risk cattle from California and other TB States.
- Need more flexibility in the program; consider risk-based regionalization.
- Need to have more flexibility in the program because of the State status. Even if State status in a State does not change, feds tip their hand that they think cattle from a particular State (like California) are risky.
- Should focus on risk; determine the areas that are risky by virtue of epidemiology and risk assessments.
- Policies should be more risk based. USDA should help address these risks:
 - Cattle type,
 - Location.

- Should have specified areas of risk within a State.
- Focus on risk instead of State status.
- Need to eliminate State status and remove accreditation that will help other States be more confident in purchasing California cattle.
- Suggestion was made by State Vet that the States decide what status they want. If they want regionalization, then they are responsible for working with State partners to ensure trade.
- Need to reevaluate whole State status protocol.
- Redefine geographic boundaries for classifying TB status.
- One participant thought that new cases should be treated as a re-infection of the herd.

Suggestions from public and written comments:

- It is necessary to remove State status altogether to enable individual States to be able to use best available risk analysis to accept these animals without fear of having your own status jeopardized. It is time to recognize that TB is not a disease that impacts the entire States equally, but a disease of individual premises and specified risk. It is time to focus on affected premises or areas, and let unaffected areas continue to do business as usual. This not only makes sense from an economic standpoint but from a risk standpoint as well. One of the most frustrating parts of the TB situation in California is the failure to identify the source of the infection.
- And we've got to expand the use of the genotyping or fingerprinting to enhance epidemiologic investigations. It's a new tool the USDA has, and we think it's very effective. And we'd ask the USDA to facilitate meetings of State and regional epidemiologists to review State and national data to maximize understanding of disease transmission, and also regularly share these strains with both public health officials and our Mexican counterparts.
- Presently, our members believe that the Federal regulations are more extreme than the TB disease warrants, particularly in this State of California. Cattle ranchers, this week at our meeting, reported the loss of California's TB accredited free status immediately devalued their beef heifers by 30%, and that's regardless of whether those heifers are in remote areas like Modoc County, California, or in a county that neighbors to a TB-affected property. That said, relative to the regulatory framework we ask that USDA re-evaluate the necessity of State status and limit livestock movement restrictions to premises most closely associated with risk of disease transmission.
- We've got to develop new disease classification standards for States and countries that have reached zero prevalence of infection, but subsequently find affected herds,. We've got to remove the archaic consequences of losing our TB-free status.
- We've got to allow for area and regional-wide controls to be implemented by State and Federal officials when TB is detected, including quarantining the herd and investigating those high-risk movements. An application of appropriate movement control is necessary to protect all States, thus eliminating the need for each State to place its own individual movement requirements, which again, adds tremendous

cost. We've got to have flexibility in test-and-removal requirements for quarantined herds in order to recognize herds or parts of herds with low-disease risk and remove that artificial 2- to 4-year burden. We need reduction in the number of herd tests required to release quarantined herds, but we can compensate that by doing additional annual follow-up tests on those herds.

- Tailor TB program to each State.

Surveillance

APHIS Summary/Interpretation of Comments and Suggestions:

Continue slaughter surveillance and enhance submission rates from plants that process fed cattle. This will give us an opportunity to monitor fed cattle including Mexican cattle.

Suggestions from public and written comments:

- We've got to enhance slaughter surveillance for TB. That remains critical. We're doing a pretty good job now on adult cattle, and we've got to continue to do that, but we also need to enhance submission rates from plants that process fed cattle. Many of these plants submit almost zero suspect lesions. So, we have a false sense that there's not infection in that class of cattle. And if we get those submission rates up it will give us an opportunity to monitor fed cattle sources, including Mexican cattle.

Testing

APHIS Summary/Interpretation of Comments and Suggestions:

Need a better test and more funding for test research. A serologic test with better sensitivity and specificity is needed to provide rapid, objective, and accurate test results. Need positive samples to validate tests and a bank of samples to assess the new tests in the pipeline. Need to improve test procedures so that, for example, Mexican cattle are tested when they come in and periodically tested thereafter. Need to make sure there are enough professionals now and in the future to be available to do the testing. Consider having laborers tested prior to and while working on California farms.

Comments from focus groups:

- The group members strongly emphasized their desire to have better tests.
- Focus on areas contributing to the greatest problem in the short term: Mexican cattle, poor tests available.
- Desire to have laborers tested for TB prior to working on California farms.
- New, short turnaround tests in the research phase are 'good' candidates for testing TB.
- Los Alamos lab has a human TB test and is working to develop one for cattle.
- Testing is critical for cattle movement but only for one component.
- Considerable frustration over the lack of money for research; Bruce Knight said that he could more easily get money for depopulation than for research.
- Mexico is an option for infected cattle samples; we need an infected sample bank.
- Diagnostics and testing: Rumors are going around that some of the small companies are close to producing a more reliable test and the group agreed that USDA should be supporting this research. Currently used tests are seen as the number one problem. We need a sample database of Mexican cattle strains.
- All participants agreed that no matter what testing was on the horizon it would not matter if there are not enough licensed vets to complete the testing. Everyone agreed that there is a need to explore the accreditation of vet techs to support this need. Cattleman's association wants more relaxed requirements for licensing practitioners. Long-term we should be exploring more scholarships for large animal vets, which may be being done at the University of California-Davis.

Comments from public and written comments:

- It is time to recognize that the current caudal fold test (CFT) has been used for the identification of TB since 1917. It's outdated. As a practicing veterinarian, I've long recognized that both the administration and the reading of the tests are difficult and subject to a great deal of inaccuracy. Recently, I was made aware that there are a number of companies that are on the verge of developing a reliable serologic test that would not only minimize the amount of animal

handling, but would also dramatically increase the sensitivity and specificity of the TB test, making it significantly more accurate. It is essential that the funding needed to complete the development of these tests be allocated as soon as possible. The return on investment for developing an accurate TB test will be huge for everybody involved in this program.

Suggestions from focus groups

- To facilitate better test development (i.e., replace the CFT with something better), a serum bank is desperately needed. Perhaps the U.S. should accept data developed in other countries in an effort to not repeat previously done research.
- Improve diagnostic tests.
- Where are we in the development of new tests? How much money? Couldn't we spend some of the money spent on indemnity for depopulation of healthy animals on research?
- Change schedule of testing to speed up release of herds .
- Need better tests/testing.
- Need positive samples to validate tests.
- Industry needs to assist in obtaining funding.
- New test needed.
- Increase resources towards a better test – this should be a short-term goal

Suggestions from public and written comments:

- We need to develop more accurate diagnostic tests. It's crazy. We sold 14,000 animals in 15 States and they're still trying to chase them down, and we need a better way of handling that. We need more accurate tests for TB,
- We're still doing a nineteenth century test for TB. We need to update that. Talking with Under Secretary Knight, he said it was easier for him to ask for indemnity to buy out cattle than it was to ask for \$2 million to put into additional, and more specific, testing. We need a simple, one-stop test that is as specific as possible. So not only do we not hassle the cattle quite so much and take that burden off, but we also are able to minimize the number of cattle that we have to depopulate.
- There must be significant improvement and investment in improved diagnostics, a point you've heard a couple of times already.
 - The current CFT lacks sensitivity and specificity and requires handling cattle twice. This adds significant costs and the results are often subjective.
 - A serologic test with superior sensitivity and specificity is desperately needed to provide rapid, objective, and accurate test results.
 - Many companies have diagnostic test candidates, but lack access to adequate numbers of known positive cattle samples necessary to validate those tests.
 - An approval process for new diagnostic tests must be streamlined, and also could include pilot application in high-risk populations to assist that validation.
 - The comment was made that, in California, as a side-note, we've spent over \$16 million in this State since the first of the year chasing this disease. Just think if we would have applied those dollars to new diagnostics.

- It is obvious just by the fact that we are here today that USDA recognizes that there are major problems with the current TB eradication program in the United States. While it is understood that the Federal government has experienced difficult financial times, please also understand that the beef cattle industry is also experiencing difficult financial times, and that requiring an unnecessary burdensome expensive testing on extremely low-risk cattle is not benefiting the public, the program, the cattle, or the producers.
- Funding and development of a new, accurate serologic test is essential. Developing a test that has the ability to accurately say that an individual cow has TB or doesn't will go a long way towards allowing us to achieve our goal in this country.
- California's beef cattle producers have an extremely difficult time understanding why the interstate moving of beef cattle has been subject to a significant increase in testing requirements, expense, and delays, when only seven dairy cattle from a few dairies located in a small geographic area have been found positive for TB. At no point in the epidemiological study was there ever any link between the infected cows and beef cattle of any kind. Beef cattle all over the State of California, some of which are hundreds of miles away from the TB cows, are subject to unnecessary testing if their owners wish to transport them across State lines. It is this kind of inflexibility in the current regs that needs to be carefully reviewed and corrected.
- The American Farm Bureau Federation's policy, which is also California Farm Bureau Federation policy, has a longstanding position that USDA should develop a more accurate TB test so that TB diagnosis in livestock is more efficient and less expensive, not only for the government agencies, but for private parties alike. To achieve this, we may very well need to revisit the use of those indemnity funds. Funding diagnostic research would be a better investment in the long run than depopulating entire herds, especially those large herds that may have just one positive animal.
- We've got to determine test requirements for high-risk livestock, such as annual testing of roping and exhibition cattle, which are often Mexican-origin cattle. And we can do this using an advisory panel of experts, which could be facilitated through the United States Animal Health Association, which includes State, Federal, and industry representatives.

Traceability

APHIS Summary/Interpretation of Comments and Suggestions:

Traceability is key to the success of the program. After testing, producers don't know what happens to the cattle. ID is difficult to trace so maybe an ID indicating native U.S. cattle would be useful, or producers should consider branding. Mandatory ID would be useful; ID must be mandated and uniform for it to be logistically workable for producers. 48-hour traceback is needed. At least producers can encourage others to have registered premises ID. Markets and dealers should be required to log all changes in ownership of animals moving through their facilities. In mandatory ID, there is still the problem of protecting confidentiality.

Comments from focus groups:

- Industry producers should be encouraging others to have registered premise ID because of the increasing movement of cattle.
- Improved tracing is critical.
- Traceability is the key.
 - Traceability is surprisingly difficult.
 - Mandatory ID would be useful.
 - Dairy industry is not completely supportive of ID, though.
- Producers: After testing, we do not know what happens to the cattle. ID is difficult to trace; often the numbers are handwritten and the ID is lost. The silver tags are inadequate and the manufacturers' tags tell you nothing. We suggest creating a patriotic tag that is red, white, and blue and the producers will be more on board. Cattle crossing the borders must be ID'd, and there are an increasing number of dairy cattle moving out of the State.
- We do not know the "risk sources" and need to have better traceback (long term).
- Key to success of the TB effort is animal identification and recordkeeping, which ultimately ensures traceability. Change of ownership traceability is currently a huge hole in the program. If an animal goes to a market, then goes to slaughter, the ability to trace it is lost. If brands are used, and more brand inspections are performed, there is much more success in tracing. We should consider branding dairy calves as well before moving them to calf raisers. The brand could be applied by anyone in any State, but the fact that the brand is inspected gives the State veterinarian increased ability to link the calves, via the brand, to a producer for tracing purposes.
- Also, markets and dealers should be required to log all changes in ownership of animals moving through their facilities. Overall, identification will have to be uniform and mandated for it to be logistically workable for producers. Too many different tags are currently being added, removed, and replaced. Under the current scenario, it is too burdensome for producers to track all the identification applications and removals for the variety of devices and methodologies available.
- There seems to be decreased positives in the slaughter surveillance program even with increased samples. Shows very low prevalence.

Comments from public and written comments:

- Regarding mandatory animal ID: it's only as good as your recordkeeping. Obviously, you've got to be able to protect the confidentiality and figure out how to do that.
- Number one, we need mandatory ID. We've been doing this seven months. Today we are still tracing down animals on the list we gave to the Federal veterinarians. We need a 48-hour traceback. That would be the first step. It says that APHIS does not have an effective system or controls for appraising, approving, and tracking live animals in the U.S. We need to have mandatory ID in order to do that.

Suggestions from focus groups

- Some form of permanent identification for calves should be considered.

Suggestions from public and written comments:

- Industry must take greater responsibility for the program: We've got to enhance the traceability of cattle with individual, permanent identification and adequate recordkeeping.

Wildlife

APHIS Summary/Interpretation of Comments and Suggestions:

Even though wildlife is not a concern in California at this time, it remains a danger in terms of spreading bovine TB. Control measures, such as movement controls on livestock in proximity to known wildlife reservoirs, will help prevent transmission.

Comments from focus groups:

- Wildlife at this time is not a concern in California.
- Wildlife remain a dangerous reservoir for bovine TB: Infected wildlife in some areas of the U.S. continue to spread infection to livestock.

Comments from public and written comments:

- I just talked to the people up in Minnesota, Wisconsin, and Michigan. We talked about wildlife. I said, you know, I think we can solve our problem. We just have a border on the south; we need to control both the people and the cattle. You got a problem with wildlife, and I said, I don't know how they—how you're—going to control that. I'm not sure they know the difference between the Minnesota and Wisconsin borderline.

Suggestions from public and written comments:

- Effective control measures adequate to protect all other States must be determined and implemented in affected regions.
- To prevent transmission to nonaffected areas, Federal and State officials need to control movements of livestock in proximity to known wildlife reservoirs.

Miscellaneous

Comments from public and written comments:

- I would like to compliment the State and Federal vets for all the work. It's interesting watching 60 to 70 people working almost seven days a week, in three-week rotations trying to solve the problem. And I will just say that from a first-hand, close-up look, I compliment all of them because they work very hard trying to get on top of this.
- And I'm going to ask all producers to really continue to work with us, especially after a new administration change, because it's going to be important that the new administration also understands how important this is. Thanks.
- Recognizing the realities of trade, politics and funding, as well as the current lack of effective tools necessary to eradicate TB from the United States, alternate strategies must be implemented that can control the disease in animal populations and protect public health without being an economic burden to the cattle industries.

Roles and Responsibilities

APHIS Summary/Interpretation of Comments and Suggestions:

In the current California situation, the authorities have worked well. Coordination has been good. "Very impressed."

Federal Government

- Broad-based rulemaking
- Funding or research
- Program direction
- Must enforce ID recovery at slaughter plants
- More rationally control dispersal of indemnity, i.e., scaled as per risk
- Regarding disparate TB requirements across States, it is principally a government function but industry has a role to play in that they are the ones being victimized by the unwieldy requirements. Overall, USDA (or some other non-State entity) should work to address this issue by analyzing it, coming up with sound alternative ways to run the TB program, and subsequently getting States to move away from the geopolitical mechanism.

State

- Enforcement of rules
- Education and outreach
- State Vets must agree on risks through dialogue
- USDA agency-to-agency communications need to be improved. Many examples were cited of the APHIS right-hand not knowing what the FSIS left-hand was doing. Better communication and coordination between agencies and departments needs to occur. APHIS should take the lead in ensuring that this communication and coordination occurs.

Producers/Industry

- Education
- Biosecurity
- Industry must sustain pressure
- Accountability
- Improve practices
- Beef and dairy industry need to go to congress together to ask for research funds; they need to work together. The National Milk Producers Federation and the National Cattlemen's Beef Association are working together on other projects.
- If an isolate is found in one herd, the industry has to work locally to make sure animals are not moving in and out of that herd locally. There are some things that only industry can stop; the government cannot.

These summaries and points reflect the observations, opinions, and knowledge of listening session participants and other commenters. They are not fact-checked, nor do they reflect the views of USDA.