Ben Stegman, DVM, cVMA

House agriculture committee testimony in favor of H.426

Chair Partridge, Members of the committee; Good morning. I appreciate the opportunity to present testimony in favor of H. 426, particularly in the area of updates to the brucellosis and tuberculosis testing protocols for raw milk producers in Vermont.

I'm Dr. Ben Stegman, a veterinarian from Cavalier ND, I've been practicing in a mixed animal setting in NE ND and NW MN since 2007, and during that time have gained a fair amount of experience with these issues as a USDA accredited veterinarian both in my practice, and my consulting activities with small dairies, including my own family farm.

I am a proud proponent, producer, and consumer of fresh unprocessed milk, and so am certainly in favor of legislation that improves VT farmer's access to their markets, and ensures a safe supply of milk to consumers.

I am, however sympathetic to both sides of the argument, I realize that Tuberculosis and Brucellosis both constitute a huge concern for states, not only in terms of public health, but with respect to market access, as has been illustrated in recent years with our experience with the bovine tuberculosis outbreak in Northern MN.

I hope today to be able to clarify some issues with these tests as an individual animal risk mitigation strategy, and to perhaps allay some fears regarding the relaxation of testing requirements on raw milk producers in VT.

I've been asked by Andrea Stander with the Rural Vermont organization to address several points. I will briefly cover each, and then will do my best to answer any questions you may have.

1. **Currently VT requires an annual test for TB and BRUC in addition to the initial test before selling milk. Any reduction of protection by going to every three years?**
    a. Increasing the frequency of a high sensitivity test will only improve safety in situations of high prevalence.
        i. The CFT and the tests for brucellosis have high sensitivity, but relatively poor specificity; we expect a fairly high rate of false positives, and rely on additional testing and investigation to confirm or disprove the diagnosis.
    b. Reducing prevalence is the most effective public health risk reduction strategy.
        i. Historically, major issues prior to the current federal testing programs. Nationally coordinated efforts have provided the best reduction in prevalence, not simple local testing routines.
        ii. Screening tests for both diseases are less useful as individual animal assessments, than for use in regional eradication strategies.
            1. Brucellosis:
                a. cattle have a range of responses to the infection, and may not always test positive on the blood test prior to showing clinical signs such as abortion. (Too late to prevent zoonosis).

b. Kittelberger, et al in the mid 1990s- cross reactivity with fairly common non-brucellosis organisms.
c. With the success of modern eradication efforts, there has been interest in moving beyond the traditional serologic based tests with high sensitivity, to a more specific individual animal assessment (not currently available) "Bercovich, 1998- Serological tests cannot differentiate between cattle infected with Brucella and cattle infected with microorganisms that serologically cross-react with B. abortus antigen. These cattle and cattle with 'natural' antibodies jeopardize the Brucella-free status of a herd. Likewise, infected cattle with serologically inconclusive test results or which elude detection are also a hazard to Brucella-free herds.

c. Tuberculosis:
    i. -5% false responders are expected with the CFT,
        1. co-infections with other environmental mycobacteria
        2. Individual variation between veterinarians and animals.
        3. As a veterinarian accredited to perform TB tests, if I don't have at least one responder for every couple hundred tests I do, I can expect to have my technique and protocol reviewed.
    ii. Risk for transmission of bovine TB real, especially involving deer populations cohabiting with cattle
        1. Current data from APHIS shows the excellent detection ability of the currently recommended surveillance protocols for TB in AF states. Able to detect a prevalence of 0.0002 % in AF states with 95% confidence.
    iii. There is no demonstrable benefit to increasing the frequency of the screening tests for TB unless a state's TB status has been downgraded.

2. Is there any reduction of public health risk by testing ALL the hooved animals on the farm compared to just those lactating?

a. Brucellosis
    i. I don't know of any obvious benefit to testing other species besides cattle, since sheep and goats are not typically susceptible to infection by b. abortus, and thankfully, b. mellitensis hasn't been in the US since the 70's.
    ii. For non-lactating animals, providing all incoming animals are tested prior to addition to the herd, VT does not have any known natural reservoir for the disease, thus the low prevalence is the true risk reduction mechanism for transmission, not frequent testing.

b. TB,
    i. the only benefit would be to find the infection early in the face of higher than normal prevalence.
    ii. As I've already discussed, the existing federal surveillance program has been performing well to detect TB incidence, especially in low prevalence areas.
    iii. Cattle used for production of raw milk are at no higher risk of encountering TB than cattle from standard dairies. If the state of VT were

to lose its accredited free status, there might be a reason to continue testing at the current level, but otherwise there is no reason to continue the current annual test requirement for any species on the farm.

iv. **Again, good biosecurity for the farm and the state is the best risk reduction strategy.**

3. **Any reduction of protections by switching to testing of the lactating animals plus testing of any new animal before it is added to the herd?**
    a. As long as new animals were tested before addition to the herd, the frequency of testing should be dictated by the regional and state wide risk.

Bottom line-

- The best strategy to reduce the potential of Brucellosis or Tuberculosis being transmitted by consumption of raw milk is to ensure low state and national prevalence of the diseases.
- The current national and state wide systems in place are highly successful at doing this.
- Increasing frequency of screening tests in low prevalence areas simply results in more false positive results, increased costs to the producer, and no net benefit to public health or animal disease management.