## **Wyoming Livestock Roundup article**

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## Brucellosis Consortium continues to work toward test, vaccine goals

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A 2005 workshop, known as the Laramie Agenda, brought together more than 40 international animal disease experts and over 80 stakeholders from the U.S. and Canada to talk about the next steps in developing better brucellosis tests and vaccines.

At that time it was suggested that new tests and vaccines would take between 10 and 20 years and cost \$20 to \$50 million.

"That's a big price tag, but if you look at what it costs to develop a drug or vaccine – it's expensive," says UW College of Agriculture and Natural Resources Dean Frank Galey.

There are two issues the researchers have been asked to address specifically – the development of a more rapid, or accurate, test for brucellosis in wildlife and cattle and, long-term, continue to work to better understand the disease to develop a better vaccine.

Through efforts by the Wyoming Brucellosis Coordination Team, the Wyoming State Legislature granted seed money to pull together the Consortium for the Advancement of Brucellosis Science (CABS), which Galey says consists of two groups of people.

"One group is the scientists we could identify nationwide who are interested in doing brucellosis research, and the other is the stakeholders, including veterinarians from Montana, Wyoming and Idaho, wildlife leaders from the three states, ranchers, wildlife and ag groups, as well as representation from the Wyoming Legislature," explains Galey.

"The stakeholder group, if we do get funding, will make sure the researchers spend the money wisely, and they will help raise some funds so the Consortium has some money for research," he adds.

The scientist side of the group includes, among others, a researcher in Virginia who is looking into a super RB51 vaccine, but Galey says he's hampered by a lack of funding. Research at the lab in Ames, Iowa that Galey calls promising is looking into oral vaccines for elk or wildlife.

Of both of those research projects, Galey says, "We just need to get them some funds to test these ideas. Most everyone's funding right now is shoestring."

Galey notes that CABS has tremendous support from senators from Wyoming, Montana and Idaho, and that he has met with them and their staffers in Washington, D.C., as well as several members of the U.S. House from the region.

"They've agreed to put together some proposed language in the next Farm Bill that would hard-wire some money for the Consortium to the tune of \$1.8 million per year for the next 10 years to develop some candidate vaccines and develop a better test," says Galey.

More importantly, explains Galey, the USDA can choose to fund CABS, but has chosen not to.

"They have a consortium program where they can competitively look at a proposals, and they've refused to see ours," says Galey. "The word is they're not interested in brucellosis at USDA research. USDA APHIS is interested, but their sister agency, the National Institute of Food and Agriculture, is not. When I approached them about APHIS's worry about brucellosis, they said the stakes were too small"

Galey says what they did say was that if the national ag and livestock organizations would identify brucellosis research high in their priorities, that would make a difference.

"They need to know that brucellosis should be one of those topics submitting proposals, because we're completely shut out of the competitive game now, although we'll keep trying to work through the Farm Bill," he notes.

In addition to Farm Bill opportunities, Galey says the state of Wyoming is in.

"In the last biennium, the Wyoming Legislature has awarded UW funding for the Consortium, which they'll hopefully continue to do, and in the last biennium they gave us \$400,000 to do brucellosis vaccine research, which is underway," says Galey. "The state of Wyoming is in, and what we need to do is get the federal competitive agencies to get in, also."

Galey asks that any organizations in a position to comment would do so, as well as individuals.

"Please tell them brucellosis is important to the state and national beef industry," he asks.

With regard to the cost to the state every time brucellosis is found in Wyoming cattle, Galey says the estimated cost for each case helps justify funding for research.

"A conservative estimate is that direct and indirect costs to the state of Wyoming totaled around \$4 million when we had the case in 2004, and it costs the state every time we have an active case," he says.

Galey says that, in addition to state and federal funding, CABS is in communication with private entities as well, such as the Gates Foundation, for testing outside the country, and the Turner Foundation. Also, UW recently received a private investment that's expected to total around \$10 million.

"That will support hiring another faculty member, as well as graduate students to study wildlife diseases, and the intent would be to start with brucellosis," notes Galey.

"We need to keep pushing the vaccine thing, but one of the big side benefits of doing vaccine immunology research on this disease is that we'll end up with better tests," says Galey, adding that UW scientist Gerry Andrews is working on one such test and is getting ready to test it on live bugs in the BSL3 lab once it's certified.

"That test has some promise to be more accurate and more rapid, and one that you can do right next to the animal," says Galey. "We're getting closer to that one, and that research has been funded by the Wyoming State Legislature."

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