



News Release

Media Contact Information:

Dean Loftis
dloftis@mccormickcompany.com
(903) 564-6545

Top Beef, Dairy Thought Leaders Discuss BVDV Eradication at Symposium

Officials outline three-pronged strategy of diagnostics, vaccinations and biosecurity

AUSTIN, Texas — Oct. 31, 2014 — More than 50 veterinarians, laboratory personnel, researchers and animal health company officials participated in the Bovine Viral Diarrhea Virus Eradication: Reality or Myth? Symposium on Oct. 13 in Kansas City, Missouri. The symposium, which addressed the significant economic impact of BVDV on the cattle industry, was held just prior to the joint U.S. BVDV/ESVV Pestivirus Symposium and the American Association of Veterinary Diagnosticians/United States Animal Health Association annual meeting.

According to event organizer Jeff Baxter, senior product manager at Thermo Fisher Scientific, the symposium explored and opened lively discussion about how diagnostic and surveillance tools can be orchestrated in a comprehensive program to manage and control BVDV on a nationwide basis. "The eradication effort starts with understanding the baseline from a foundational perspective," Baxter said. "The three critical elements are vaccination, diagnostics and biosecurity, and it will take a collaborative effort industrywide to achieve our goal of eradicating BVDV across the nation."

Economic Impact of BVDV

Dr. John VanLeeuwen, professor at the University of Prince Edward Island, Canada, spoke about the significant production and economic losses the disease causes, even when the effects are "subclinical," or not easily detected.

"BVD is one of those insidious, production-limiting diseases that affects many cattlemen and their livestock, even though owners may not be aware of it," VanLeeuwen said. "It's a virus that can produce what are called persistently infected (PI) animals that look normal, but spew out the virus, potentially causing disease and production losses through the rest of the herd."

He said research shows that costs can run up to \$100 per head, per year in epidemically infected herds.

"The PIs often don't survive more than a year, although they can survive up to five years and usually have reduced productivity," VanLeeuwen explained. "The rest of the herd can suffer losses associated with abortions and poor reproduction in the cows and poor growth in the calves, and then significant losses in feedlots when the virus ends up causing diarrhea and respiratory disease."

(more)

For proof eradication can be accomplished, VanLeeuwen pointed to a program in Norway started in 1993 that eliminated the virus in 10 years. He said it has been estimated the program cost about \$10 million to implement during the decade, resulting in a massive estimated savings of \$10 million to \$50 million per year in production costs for Norwegian cattle and dairy producers.

Where Do Producers Start?

Dr. Tom Shelton of Merck Animal Health offered a practitioner's perspective on the effects of BVDV and how to approach controlling it.

"During my 25 years of practice before I assumed my technical service job, I learned BVDV underlies a lot of problems in both beef and dairy herds, be it reproductive, immunological, respiratory, diarrheas or others," Shelton said. "The disease tends to present itself subclinically, not clinically."

Shelton said detrimental economic effects include:

- reduced milk production, increased clinical mastitis
- reduced reproductive performance
- growth retardation
- increased occurrence of other diseases
- unthriftiness
- early culling
- increased mortality of young stock

Shelton said while vaccinations play a role, diagnostics and surveillance are needed to help successfully manage the disease.

"We took a fairly segregated dairy area that included upwards of 250,000 dairy cows from a number of different dairies," Shelton said. "By testing the incoming heifers over a period of years, we remarkably reduced the number of PI animals coming back through calf ranch protocols."

Using PCR to Help Control

Dr. Gregg Hanzlicek of Kansas State Veterinary Diagnostic Laboratory (KSVDL) told the group his lab has been developing tools and offering guidance for using polymerase chain reaction (PCR) to prevent and control BVDV on U.S. beef operations.

One tool KSVDL developed for cow-calf operators is a survey based on recommendations for BVDV control cited in the latest literature. "This tool allows one to compare BVDV control programs between two hypothetical herds," Hanzlicek explained. "It puts a dollar value on following the recommendations and a dollar value if you don't follow those recommendations. It asks about biosecurity, vaccination and many other factors."

(more)

He said ultimately the survey:

- allows one to economically compare different management scenarios for controlling and preventing BVD
- allows producers to enter their real-life input values such as calf, cull cow prices, test costs
- provides an estimate of economic outcomes based on management practices
- stimulates discussion about biosecurity, vaccination programs, testing options, etc.

A Regional Eradication Success

Dan Grooms, DVM, of Michigan State University's College of Veterinary Medicine and a team of researchers successfully conducted an eradication program in Michigan's Upper Peninsula from 2007 to 2012.

"The project was a success," Grooms told the group. "Although we didn't fully eradicate BVDV because it was only a five-year project, we showed we can make significant impact by getting rid of the virus in a region of a country. We demonstrated that an eradication effort needs to be a cooperative project. It's not just a top-down kind of government-regulated eradication program. It's basically a project where producers, veterinarians, industry leaders, universities, pharmaceutical companies and diagnostic labs must work together to really make a significant impact in eradicating this virus."

Grooms said the regional eradication effort was successful by employing diagnostics to identify existing PIs and to help monitor whether BVD showed up again in a herd, as well as implementing vaccinations and biosecurity.

"I hope this will show everyone that this type of program could be implemented on a larger scale at a relatively low cost," Grooms said. "Even if not at a national scale, it can be done successfully at a county or state level and make a great impact on BVDV."

Details and results from the study can be found at <http://www.ncbi.nlm.nih.gov/pubmed/23902449>.

"BVDV affects all levels of our cattle industry," Grooms said. "The virus is known to have multiple effects on reproductive efficiencies. We know it can cause health problems in cattle, such as diarrhea. It's an important part of our respiratory disease complex in our feedlot industry. This virus is immunosuppressive, which can lead to secondary problems with potentially devastating effects on our cattle herds. This is why BVDV eradication is so important."

About Thermo Fisher Scientific

Thermo Fisher Scientific Inc. is the world leader in serving science, with revenues of \$17 billion and 50,000 employees in 50 countries. Our mission is to enable our customers to make the world healthier, cleaner and safer. We help our customers accelerate life sciences research, solve complex analytical challenges, improve patient diagnostics and increase laboratory productivity. Through our four premier brands – Thermo Scientific, Life Technologies, Fisher Scientific and Unity Lab Services – we offer an unmatched combination of innovative technologies, purchasing convenience and comprehensive support. For more information, please visit www.thermofisher.com.