

# CATTLE HEALTH REPORT

A National Institute for Animal Agriculture Publication

Fall/Winter 2007

## WANTED: National Surveillance Systems

A meeting of the joint U.S. Animal Health Association (USAHA) and American Association of Veterinary Laboratory Diagnosticians (AAVLD) Committee on Animal Health Information Systems at the associations' annual meeting, in Reno, on Oct. 23 resulted in a key action: the group wants comprehensive and integrated surveillance systems developed at the national level to progress rapidly. The committee also called for the development of a "national reportable animal disease list."

Having a comprehensive, integrated National Animal Health Surveillance System (NAHSS) would address—and ultimately answer—multiple questions. Three top-of-mind questions include:

- 1) Can the USDA rapidly find disease throughout the nation wherever it may arise?
- 2) Can the U.S. make statements about its national disease status that will convince trading partners and consumers that American agricultural products are safe and disease free?
- 3) Can national policy decisions be based on actual surveillance data so that

tax dollars can be spent wisely?

The group agreed that a comprehensive national surveillance system should focus on diseases of significant economic or health impact, such as foot-and-



mouth disease, and on emerging diseases and issues. Another point of agreement was that the information system infrastructure be built to support a comprehensive and integrated surveillance system where efficiencies might be gained by leveraging efforts and activities across diseases, species, field activities, laboratory specimens, database development and even standardized analytic and

reporting methods.

Dr. Bruce Akey, director of the Cornell University Veterinary Diagnostic Laboratory and co-chair of the joint committee, stresses that the "old" way of surveillance has shown great success in eradicating many diseases where a sample collector's approach to surveillance is "stove piped" to one sample, one test, one disease, one location, one of many databases and information that represents a fraction of American industry but cannot provide confidence to consumers and trading partners about the disease status for the United States as a whole. He adds that the "new way" of surveillance is more applicable in today's world of diseases that are rare but of great concern to those who buy U.S. products.

"In a new and comprehensive surveillance system, one sample could serve multiple purposes," Dr. Akey states. "It will be tested for several diseases, both species specific and cross species.

"Test results will be electronically transmitted through the National Animal

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## Battle Against Fever Tick Heats Up

Five counties along the Texas-Mexico border that were once fever tick free areas no longer enjoy that status. The fever tick has invaded, and Texas livestock health officials say this incursion of fever ticks could cost upwards of \$13 million and take as long as two years to stop.

"For most of the country, the fever tick has been pushed out of sight, out of mind, since the 1940s," states Dr. Bob Hillman, Texas' state veterinarian and executive director of the Texas Animal Health Commission (TAHC). "This tick, however, is capable of transmitting a foreign animal disease, and it's sitting in our backyards.

"If we don't stop it, the fever tick could spread from coast to coast, except the arid lands of New Mexico and Arizona, and as far north as Washington, D.C. As the tick spreads, so will the need

At the October joint meetings of the U.S. Animal Health Association (USAHA) and the American Association of Veterinary Laboratory Diagnosticians (AAVLD), Dr. Hillman requested support from various organizations, including the National Institute for Animal Agriculture's (NIAA) Board of Directors, for increased funding to fight this pest. NIAA's Board agreed to this proposal.

for personnel and resources. Win the battle along the Rio Grande in Texas, and other states won't have to fight the war."

### Active Steps Taken

The Texas Animal Health Commission placed temporary fever tick

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Health Laboratory Network (NAHLN) backbone. This information will be fed upward to a centralized database and is to be available for use at the state and local levels."

Dr. Aaron Scott, Centers for Epidemiology and Animal Health (CEAH), National Surveillance Unit (NSU), Fort Collins, Colo., emphasizes that surveillance is not the business of collecting samples—it is the business of collecting information.

"A comprehensive and integrated national surveillance must be designed for finding samples that have the most information value. If the characteristics of the disease permit a sample from one animal

or farm to provide that information for two diseases, then we have gained efficiency," Dr. Scott explains. "This kind of surveillance system, however, is far more encompassing than simply doing two tests on one sample."

Dr. Scott offered several examples of a comprehensive, integrated approach. Field operations might use common infrastructure for multiple diseases—from staff, trucks, copy machines to sample sources. In addition, with the "new way," laboratories might use standardized data systems for reporting results, and database designers might use modules that are based on a common template rather than starting fresh for each disease. Data entry systems might be integrated so that field personnel can enter multiple sets of data through a common portal at the

sight of the sample collection."

"The system is comprehensive when it provides information about all of the population and multiple diseases and is representative of all the nation," he adds.

Dr. Scott points out that the 21st Century has seen increased mobility of people and movements of animals. As such, he says there will be growing need to demonstrate to American consumers and foreign trading partners that U.S. food and livestock are disease free.

"To gain and maintain this confidence, we must be able to make statements about disease status in our nation and industries as a whole, and we must leverage the limited funds in the most efficient manner possible—that is what comprehensive integrated national surveillance is all about," he summarizes. ●

**Fever Tick Battle***(cont'd from page 1)*

quarantine on 1,116.3 square miles in five Texas border counties: Starr, Zapata, Maverick, Dimmit and Webb. An 852-square mile permanent quarantine butts up against the Rio Grande and is under the management of the U.S. Department

of Agriculture's (USDA) 60-person Fever Tick Force.

The USDA made \$340,000 available for immediate fever tick needs in south Texas, and the Texas state legislature granted the TAHC an extra \$150,000 to purchase the acaricide used for dipping vats and in spray rigs. The USDA kicked up tick inspection forces by adding up to 30 temporary tick inspectors.

Together the USDA and TAHC, which detailed inspectors to south Texas on a rotating basis, are working with ranchers to locate and eradicate the tick. All cattle, horses, penned deer, llamas, camels and other species that can host the tick are being visually inspected or "scratched."

Animals in the quarantined areas moving from their premises undergo another "scratch" inspection and then are dipped or sprayed and permitted for movement. Horses are put under 14-day inspections and treatment if they're moved routinely from their home base.

When fever tick-infested livestock are detected, the premises are quarantined for six to nine months. As of early October, this included at least 25 premises in the temporary quarantine areas and about 56 premises in the permanent quarantine zone.

Cattle remaining on tick-infested premises must be inspected and dipped every 14 days or treated with doramectin every 28 days. The animals may be moved



to a new site if they have undergone two consecutive tick-free inspections and dippings, have a moving permit and are transported immediately.

**Tracing Movement**

"To get a handle on potential fever tick spread, the TAHC field staff also is tracing the movement

of cattle from infested premises in the temporary quarantine area within the past year," Dr. Hillman states. He adds that many of these animals had been moved as calves without any clearly defined destination or without any identification except the livestock market back tag.

Although the fever tick does not cause disease, Dr. Hillman points out that "cattle tick fever is imminent if the fever tick is carrying Babesia and transmits it to cattle that are naïve." While this would not be a common occurrence, it could happen.

A far more likely scenario involves wildlife. Dr. Hillman notes that free-ranging cervids do not respect national borders, shallow rivers, low fences, quarantines or permits for movement. He says that, right now, wildlife presents the greatest risk for fever tick movement.

"If we are ultimately to be successful in our battle against the fever tick and cattle tick fever, we must eliminate the current fever tick incursions in the free areas of Texas, then push the pest back into Mexico," Dr. Hillman states. ●



## Cattle Health Report

### Fall/Winter 2007

*Cattle Health Report* provides the latest information on issues pertinent to cattle health initiatives, strategies, research and regulatory action. It is a communications initiative of the NIAA Cattle Health Committee and is produced in cooperation with USDA-APHIS. Reprinting is encouraged.

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# NAIS Business Plan Under Development Lists 7 Strategies

During the general session of the National Institute for Animal Agriculture's (NIAA) ID•INFO EXPO in Kansas City, Mo., in August, Dr. John Clifford, Deputy Administrator, USDA/APHIS/Veterinary Services, publicly announced a business plan for advancing animal disease traceability.

This business plan supplements the National Animal Identification System (NAIS) Draft User Guide which was issued in 2006 and is being updated and re-published in December 2007. The NAIS Business Plan was also explained at the October joint annual meetings of the U.S. Animal Health Association (USAHA) and the American Association of Veterinary Laboratory Diagnosticians (AAVLD).



**USDA/APHIS'**  
**Dr. John Clifford**  
**announces NAIS**  
**business plan.**

"We are excited about the future of NAIS," stated Neil Hammerschmidt, one of three NAIS program coordinators. "We've come a long way. . .we are headed in the right direction."

As of Oct. 30, 2007, premises registration had totaled 422,852.

"While premises registration continues to be a priority, premises registration alone will not get the job done," Hammerschmidt emphasized. "Animal identification is progressing as well."

Hammerschmidt emphasized that the NAIS business plan is being designed to obtain the greatest return on investment while advancing traceability. The approach taken also focuses on establishing action relevant for each species.

## Plan Includes 7 Strategies

The NAIS business plan to advance traceability is comprised of seven strategies:

Strategy 1: Prioritize species/sectors.

Strategy 2: Harmonize animal identification systems.

Strategy 3: Standardize data elements of disease programs to ensure compatibility.

Strategy 4: Integrate automated data capture technologies with disease programs.

Strategy 5: Partner with states.

Strategy 6: Collaborate with industry.

Strategy 7: Advance identification technologies.

## Strategy 1

To maximize the effectiveness of resources, NAIS program coordinator Dr. John Wiemers explained that species have been prioritized into two tiers. Tier 1 encompasses primary food animals—cattle, swine, poultry, sheep, goats, deer and elk—and equine. Horses are listed as a priority due in part to frequent animal movement. Tier 2 covers all other livestock.

Each tier is then broken into three categories: high priority, medium priority and low priority.

Within Tier 1, bovine is a high priority, ovine is a low priority and all other livestock are a medium priority. Dr. Wiemers noted that sheep are ranked as a low priority "not because they aren't important."

"It just means that that ship is sailing straight with a full sail. They have a good hand on the rudder. The resources are there to make that sector very capable of traceability," Dr. Wiemers told those attending ID•INFO EXPO. In the end, the sheep industry will require less resources and is therefore ranked as a lower priority.

## Strategy 2

"The harmonization of animal identification systems will result in more cost-effective options benefiting producers while achieving increased animal disease traceability for the entire industry," Dr. Wiemers stated.



**Neil Hammerschmidt**  
**gives an overview**  
**of the NAIS**  
**business plan.**

Domestic programs that fall under the "harmonization" strategy include breed association and performance recording, Agricultural Marketing Services (AMS), Quality Systems Assessments and industry alliances.

"Standardization of animal identification within our trade partners is imperative," Dr. Wiemers said.

## Strategy 3

Dr. Wiemers specified the integration of NAIS with disease programs as "one of our immediate priorities." National standards will be set, and definitions will be given in regulatory form.

The sole version of animal identification number recognized will be 840. A transition or sunset date will aid moving to this

Animal Identification Number (AIN).

"Additionally, the seven character Premises Identification Number (PIN) will be recognized as the sole official format for the premises identification number," Dr. Wiemers shared. "Other formats can be used for other purposes, but, for official disease control programs for state movement of livestock, the seven-character PIN will be the official format."

## Strategy 4

"Several of the existing disease control programs have begun to incorporate various data capture technologies. Further integration of these technologies will provide great benefit to our traceability," Dr. Wiemers stated.



**Dr. John Wiemers**  
**discusses**  
**Strategies 1-4.**

## Strategy 5

During ID•INFO EXPO, National Animal Identification System (NAIS) program coordinator Dr. Dave Morris said that the NAIS business plan recognizes the need for states to address local disease priorities as well as the need to focus on species industries in their most prominent areas of needs.

"USDA will continue to support state, tribe and territory cooperative agreements," Dr. Morris elaborated. States will be responsible for identifying traceability risks and identify how such risks will be addressed.

## Strategy 6

Dr. Morris listed several collaborative efforts in place with industry partners. Groups cited by Dr. Morris included but were not limited to National Pork Board, American Angus Association, National Milk Producers Federation, and National Future Farmers. USDA is also planning to work cooperatively with accredited veterinarians, Brand State Working Group, packers and renderers. Veterinarians were acknowledged as being first responders to outbreaks.

"These are important to us because these producers receive information directly from these organizations and can assist our efforts greatly," Dr. Morris stated. Work includes outreach efforts and identification of premises.

Additional partnerships efforts that are a USDA priority include those with feedlots,

## NAIS Business Plan

(cont'd from page 3)

livestock markets, industry alliances and harvesting facilities.

### Strategy 7

The advancement of identification technologies strategy addresses both today's technologies and emerging technologies. Performance standards will be pinpointed, with advancing technologies evaluated. The goal is to have accurate, timely information.

### Summary

In closing remarks to ID•INFO EXPO participants in Kansas City, Dr. Morris stat-

ed, "We will continue to advance traceability through industry-state-federal partnerships."

The NAIS business plan for advancing animal disease traceability is in draft stage, with the USDA seeking input from targeted groups. NAIS staff liaisons conducted confer-



*Dr. David Morris shares information regarding Strategies 5-7 and provides the summary.*

ence call discussions with the species working groups and the subcommittee in early November. Similar teleconferences were hosted by USDA with industry organizations, state animal health officials, areas veterinarians in charge and staff members working on animal ID issues.

"While not all comments may be addressed in the published draft, we intend to read and review each of them before publication," Dr. Clifford stated. "The USDA appreciates past contributions to the development and implementation of NAIS and will continue to work with industry to make the program a success." ●

## New Producer-Led Coalition: National Dairy Animal Well-Being Initiative

Members from every sector of the dairy industry have banded together to form the National Dairy Animal Well-Being Initiative. Two years work by more than 60 individuals came to fruition when the coalition introduced the first draft of proposed principles and guidelines at the World Dairy Expo in October.

"The proposed principles and guidelines are intended to provide a uniform umbrella of assurance that the industry is meeting its ethical obligation for dairy animal well-being," states Frances Lechner, member relations manager for United Dairywomen of Arizona, who co-chaired the Producer Outreach Subcommittee.

"Our goal is to protect consumer trust and confidence in the dairy industry by demonstrating dairy producers' commitment to animal well-being."

Principles and guidelines have been drafted for five key areas: nutrition; animal health; housing and facilities; handling, movement and transportation; and third-party oversight.

The initiative's guiding principle for animal health is stated as: "The health of all animals and animal groups should be maintained through preventive care programs augmented by rapid diagnosis and treatment when necessary." Under the guidelines, it is stated dairy operations should have "a valid Veterinary-Client-Patient Relationship (VCPR), a current herd health plan, appropriate euthanasia guidelines and training, management protocols for painful procedures and conditions and management protocols for special needs animals."

Over the next nine months, dairy producers will have an opportunity to review the draft principles and guidelines and pro-

vide their input via their co-op or industry association. Once the input is received, the coalition will finalize the principles and guidelines.

Lechner and her co-chair Joan Behr, director of communications and employee development at Foremost Farms USA, stressed that the National Dairy Animal Well-Being Initiative is not another on-farm animal welfare program. It is simply a program created by a group of concerned dairy industry stakeholders who know producers are committed to doing what's right and want to help the industry successfully manage this challenging issue.

Organizations and producers can get involved in two ways. First, they can demonstrate support of the work by signing an endorsement form. (Endorsement forms for producers, organizations and processors are available at the group's website: [www.dairywellbeing.org](http://www.dairywellbeing.org).)

Secondly, dairy industry stakeholders can take part in an on-farm animal welfare program that incorporates the well-being principles and guidelines being developed by the coalition.

The 30-plus organizations involved in the Initiative at this point include American Association of Bovine Practitioners, Wisconsin Livestock Identification Consortium, Dairy Management Inc., International Dairy Foods Association and National Milk Producers Federation as well as numerous milk cooperatives, universities, food companies and other groups.

Dairy cooperatives endorsing this new initiative include Dairy Farmers of America (DFA), California Dairies, Inc., Maryland and Virginia, Northwest Dairy Association, Michigan Milk Producers, Northeast Dairy Association, United Dairywomen of Arizona,

Foremost Farms USA, Milwaukee Milk and DairyLea. These cooperatives represent more than 25,236 farms and more than 104.1 billion pounds of milk marketed annually. The cooperatives account for approximately 57 percent of the milk marketed in the United States annually, based on current statistics from USDA.

To learn more about the National Dairy Animal Well-Being Initiative, visit the group's website: [www.dairywellbeing.org](http://www.dairywellbeing.org). ●

### NIAA 2008 Annual Meeting Animal Care and Well-Being: Facts NOT Fiction

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**Who should attend?** Producers, animal health and management professionals, animal agriculture extension specialists and everyone who is involved in or cares about animal agriculture—cattle, swine, sheep, goats, poultry and equine—and its future.

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## BVD Working Group Takes Control, Eradication Charge Seriously

Industry estimates reveal that about one out of 10 beef cow herds have at least one persistently infected (PI) animal with bovine viral diarrhea (BVD), and one out of every 100 to 400 calves born are PI.

When these numbers are applied to the financial side, BVD is estimated to cost \$10 to \$24 per breeding animal. Thus, in a 200-head cow herd, losses would reach \$2,000 to \$4,800 per year. In the feedlot, the economic loss can be as great as \$21,000 to \$100,000. That loss isn't a year's loss; it's the economic loss by feedlots in just a few weeks.

In 2001, the Academy of Veterinary Consultants (AVC) issued this position statement on BVD: "...that the beef and dairy industries adopt measures to control and target eventual eradication of BVDV from North America." Endorsing this statement were the American Association of Bovine Practitioners Board of Directors and National Cattlemen's Beef Association Animal Health & Well-being Committee.

The beef and dairy industries have wrapped their arms around this position statement. And, today, the industry's BVD Working Group (WG) is leading the charge targeting BVD control and eradication.

Focused on biosecurity and biocontainment, the BVD Working Group has identified three disease control fundamentals: 1) prevent transmission; 2) increase immunity; and 3) eliminate the agent.

To enhance communication across the industry, the WG has developed herd and individual animal level categories and have a standardized descriptor for each category. Individual animals have four standardized descriptors and every animal fits into one of these levels: Status 1, tested PI negative and vaccinated; Status 2, tested PI negative and not vaccinated;

Status 3, not PI tested and vaccinated; and Status 4, not PI tested and not vaccinated.

The Working Group has also stated that vaccinations must be administered per label, and vaccine administered to breeding animals must carry a fetal protection label.

Another area undertaken by the BVD Working Group is validating and determining the most appropriate use or uses of current and future tests for the diagnosis of BVD PI status.

Current BVD PI diagnostic tests include IHC ear notch immunohistochemistry, microplate virus isolation, ELISA using serum and fresh tissue, PCR (polymerase chain reaction) and virus isolation.

"Each of these diagnostic tests has advantages and disadvantages," Dr. Maas states. "And BVD PI testing methods may differ for different cattle operations."

### PI Animals

Through the years, control efforts have zeroed in on identifying PI animals since they are the primary source of BVD infection.

Extensive research shows that PI animals are born persistently infected and that calves not born persistently infected cannot become persistently infected. Nevertheless, PI animals are an unwanted commodity in any bovine herd.

PI calves come from two sources. Fewer than 10 percent of PI calves are born to pregnant BVD-PI females. More than 90 percent of PI calves are the result of a non-PI pregnant female becoming infected with the BVD virus during the first half of gestation. And the BVD virus that infects the non-PI pregnant female can easily come from PI animals within the herd, as PI animals constantly shed BVD viruses to herdmates.

Identifying PI animals is just the start

of a larger problem. That challenge is the disposition of PI animals.

The AVC's stand on the disposition of PI cattle is summarized in this position statement: "The cattle industry has a moral and ethical obligation not to sell known diseased or damaged animals to other parties without full disclosure. In support of the AVC BVD ad hoc committee's mission of BVD control, we recognize that responsible disposition of animals with BVD (PIs) will be an important component of BVD control."

"The dilemma of how to deal with known PI cattle becomes more critical as BVD testing becomes more widespread. Appropriate disposition of known PI cattle must take into account the adverse impact those cattle have on health, welfare and the economic return of other cattle and cattle operations they may expose to BVD," the statement continues.

"It is widely recognized that a PI animal is defective, and, once confirmed, their PI status should thereafter be disclosed as exposure to these cattle has health ramifications for all cattle, especially those intended for reproductive purposes. Therefore, marketing and movement of PIs in any manner that potentially exposes at-risk cattle is strongly discouraged."

States that have implemented state BVD programs are at work addressing this PI animal disposition challenge. States agree that PI animals should not be sent to a sale barn, as that only exposes other animals to the BVD virus. Alternatives include donating the animal for research or, if the PI animal is at market weight, selling it directly to slaughter since BVD poses no threat to humans. PI animals below market weight should be euthanized or isolated and fed to market weight then sold for slaughter. ●

## Several Voluntary State BVD Programs in Place

Disease control. That's the impetus behind state voluntary bovine viral diarrhea (BVD) programs.

"The benefit of a statewide control program rests in consistency," states Dr. James Kennedy of the Colorado State University Veterinary Diagnostic Lab, Rocky Ford, Colo. "If each veterinarian, rancher, pharmaceutical company or breed association develops a BVD control program, the result will be that no one truly knows what measures of control have been implemented, and the disease status of an animal

becomes uncertain. The producer is left without any method to evaluate the potential risk of buying a disease problem.

"A statewide control program provides a third party to verify that the program's elements are being followed. Third-party verification is a key component if control programs are to be considered worthwhile."

Dr. Kennedy adds that, once a consistent program with third-party verification is developed, the producer can realize a financial benefit through offering his live-

stock for sale certifying the animals have met a minimum set of requirements, thereby allowing the producer to better predict the risk of owning the cattle.

State voluntary BVD programs typically have four basic components: education, management/biosecurity, herd testing/diagnostics and critical review of benefits. And, since state programs are voluntary, all strive for enrollment or participation.

## State BVD Programs

(cont'd from page 5)

"We currently struggle with BVD because of a lack of understanding of what the disease may cause and how the disease is transmitted," Dr. Kennedy relates. "This apparent educational gap goes beyond the producer and is equally shared by the veterinary profession.

"The solution to this problem exists in the university system where, through cooperative extension and professional education, the producer and veterinarian can be kept abreast of the increasing scientific knowledge concerning BVD."

Dr. Soren Rodning, Auburn University Extension Veterinarian, agrees with the need for education. He notes that the education component of the Alabama program, which is administered by the Alabama Cooperative Extension Service and the Alabama Department of Agriculture and Industries, focuses on informing veterinarians and producers about the health impacts and cost of the BVD virus. Under the management component of the program, program administrator's work with veterinarians and producers to implement and validate good management practices.

### Herd Testing Component

"Herd testing is an extremely important program component," Dr. Rodning states. "The most important goal of the testing component of the program is to provide accurate results. The second goal is to provide timely service to meet the needs of different segments of the

Alabama cattle industry."

The official diagnostic test for the Alabama program is an antigen capture ELISA on individual ear notch samples. Veterinarians may collect and submit samples with the producer's cooperation or producers may collect and submit samples. Either way, the cost of the test is just \$3.00/sample for Alabama cattle, as the Alabama Department of Agriculture and Industries financially subsidizes a portion of the diagnostic costs.

Like Alabama's voluntary BVD program, Montana's voluntary BVD program emphasizes education and screening.

Montana's state screening project began as a pilot project in 2006 and turned into a permanent project in 2007. During its first year, 65 Montana ranches representing more than 38,000 head of beef cattle participated. During 2007, participant numbers increased by 365 or so, jumping to 430-plus producers representing more than 150,000 head of beef cattle. The Montana BVD-persistently infected (PI) Herd Screening Project is supported by the Montana Stockgrowers Association and funded through the Montana Beef Network.

"The ranchers and feeders have been doing the work themselves, with technical assistance, a screening kit and cost-share funding spurring some of them on," states Clint Peck, director of the Montana Beef Quality Assurance programs for Montana State University. "The cost-share part will be ratcheted down until 2009. First-year producers received more funding than second-year producers, and 2008 participants will receive

more than 2009 participants."

Peck adds that producers participating in Montana's program are doing more than identifying PI calves. Their involvement in the program is leading to an understanding of biosecurity.

"They get biosecurity—and seeing the need for more than vaccination. It's a great unintended consequence of the program," Peck states.

Dr. Kennedy of the Colorado Voluntary BVD Program advises veterinarians and producers to have a surveillance strategy to determine level of herd risk for the presence of PI animals—high vs. low risk.

Colorado State University has developed a set of 20 questions called the BVD Risk Analyzer, which is designed to assist producers in calculating their risk of having a BVD PI animal in the herd. To check out your BVD risk, simply visit [www.dlab.colostate.edu](http://www.dlab.colostate.edu) then click on "Colorado Voluntary Control Program 2007" located on the far left. Once taken to this page, click on "Calculate your risk" located on the right side.

"Herds that are considered high risk for containing PI animals should utilize laboratory tests to do whole-herd screening to find all PI animals and then remove them," Dr. Kennedy states.

"The industry must be committed to finding BVD PI cattle so this disease can be controlled. In the end, states with BVD programs will benefit from their cattle having improved reproductive performance, improved calf performance, lower treatment costs and lower death loss." ●

## New Tools for Johne's Program

The National Johne's Disease Program continues to move forward, with actions taken by the National Johne's Working Group (NJWG) and the Johne's Disease Committee at the recent U.S. Animal Health Association's (USAHA) annual meeting furthering these efforts.

The Johne's Scientific Advisory Committee recommended that the milk ELISA test, which is gaining in popularity with producers, be approved for use in the official Johne's Program when samples are run in an "approved laboratory." This action was endorsed by the NJWG and approved by the Johne's Committee and USAHA Board. Eight Dairy Herd Improvement Association (DHIA) labs offer the test to producers and anticipate running more than 100,000 samples during

the coming year.

The group also adopted a recommendation that allows authorized DHIA technicians to collect milk samples for the ELISA test to be run in approved DHIA labs.

"When implemented, these actions will make 'official' Johne's testing easily available to more producers and should provide a strong boost for the program," states Dr. Ken Olson, Johne's Education Coordinator.

Scott Wells, Johne's Committee chair, presented a concept paper suggesting that program herd classification levels be revamped. With revised classification levels, test negative herds and herds with animals that test positive but are actively working to control the disease would be classified on a continuum. The proposal would continue

to recognize "low risk" herds while providing increased recognition for herds that use available tools to reduce disease incidence and decrease the risk of spreading the disease. This concept will be considered as a revision for the program.

The current Johne's Strategic Plan was adopted in 2004 and updated in 2005, meeting participants recognized the need to review the plan to assure it addresses current producer needs. Resolutions supporting development of an updated strategic plan were adopted with the expectation that a draft will be put forward by the National Institute for Animal Agriculture (NIAA) annual meeting in April 2008. A strong effort will be made to obtain pro-

## UK Hit with FMD, Bluetongue

Dairy producer Raymond Brown of the United Kingdom (UK) addressed the 2007 ID•INFO EXPO in Kansas City, Mo., in late August. His topic: Disease control and the ability of the British Cattle Movement Service (BCMS) to forward and backward track sentinel animals using individual animal identification and movement records. During his presentation, Brown remarked, "you never know what disease challenges are around the corner."

Within a two-month time frame, Brown's remark took on additional meaning as two devastating animal diseases—FMD and bluetongue—struck Brown's homeland. This was the first incidence of FMD since 2001, and the first incidence of bluetongue ever.

### FMD Strikes First

The UK's Chief Veterinary Officer reported that cattle on a farm near Guilford, Surrey, had foot-and-mouth disease (FMD) on Aug. 3. Tests confirmed that 39 animals had the disease and more than 100 cattle were culled to try to contain it. By the end of September, eight premises had been infected.

An investigation carried out by the UK government's Health and Safety Executive (HSE) linked the outbreak to a combination of unfortunate events at a British government-controlled laboratory site. The events started with wastewater containing the live virus strain—O1BFS—entering the drainage pipework, leaking out and contaminating surrounding soil. Then construction activities near the effluent drainage system disturbed and moved the soil in a way that contaminated some of the vehicles with the live virus.

"We established that some of the vehicles, probably contaminated, drove from the site along a road that passes the first infected farm," the government-issued report stated.

Although reports initially pinpointed Merial Animal Health Ltd. as the sole outbreak source, the government's investigation spread the outbreak's responsibility among three organizations.

"Three organizations operating at the site—the Institute for Animal Health (IAH), Merial Animal Health Ltd (Merial) and Stabilitech Ltd (Stabilitech)—all worked with varying amounts of the live virus strain—O1BFS—that caused FMD in the first infected herd in Surrey," the report reads. "Results of sequencing tests commissioned as part of the investigation indicate that this strain is highly likely to have originated from the Pirbright site. However, due to very small differences in the strains used by the three organizations, it has not been possible to pinpoint precisely the exact origin of the virus found in the infected animals."

HSE's report, submitted to the Secretary of State for Environment, Food and Rural Affairs on Aug. 31, concluded there was no evidence of a biosecurity failure—as originally thought—and no biosecurity arrangement were breached through malicious intent of staff.

HSE and the Department for Environment, Food and Rural Affairs (Defra) issued a coordinated safety alert to employers conducting work on pathogens in hazard groups 3 and 4 as a reminder of the measures needed to ensure primary and secondary containment.

"This safety alert is to draw employers' attention to issues arising from our investigation which need wider dissemination and action," HSE Chief Executive Geoffrey Podger continued. "Although these issues already form part of the basis on which such sites are permitted to operate, the purpose of the alert is simply to remind operators of their obligations. Both HSE and Defra will be reviewing these issues during their usual reg-

ulatory visits with the priority attention focused on sites handling hazard group 4 pathogens."

### Bluetongue

Within 30 days of the release of the HSE's report on FMD, Britain's first case—and the first occurrence ever—of bluetongue was confirmed at a rare breeds farm. Within two weeks, more than 20 cases of the disease had been confirmed. Within four weeks, that number had grown to 50 confirmed premises affected by bluetongue.

To halt the spread of the virus, UK veterinarian officials quickly established protection zones and control zones.

The strain of the virus detected was the same BTV8 strain that has swept across Germany, France and the Netherlands, causing huge losses in livestock. It is speculated that the virus was transmitted by a cloud of midges blown by warm winds across from Germany, the Low Countries or northeastern France.

"The only thing saving us from bluetongue is our climate," stated Prof. Peter Mertens of the Institute of Animal Health at Pirbright in Surrey. "If we start having frost, it will kill off the majority of adult midges. A few good frosts will really bring the midge season to an end. When that happens, it's the end of transmission."

While there is no vaccine usable in Britain, the virus cannot replicate beneath 15°C.

Another fear looms, however. Despite the seasonal death of midges, the disease is known to return the next year—a process known as "overwintering." And, often, when the disease does return, it returns with greater intensity.

Merial—the same Merial that has facilities at Pirbright, England—is reportedly developing a killed vaccine which is predicted to be ready by 2008. ●

## NIAA Directors Headline Speaking Program

Dr. Cindy Wolf, Dr. Peter Timoney and John Adams, all three members of the National Institute for Animal Agriculture's (NIAA) Board of Directors, delivered major addresses at the only joint general session of the recent meetings of the U.S. Animal Health Association and the American Association of Veterinary Laboratory Diagnosticians in Reno in October.

The general theme of the session was the status of major diseases facing U.S. animal agriculture. Dr. Wolf, a sheep and goat specialist/producer, updated the industry

on the scrapie eradication program and urged the industry to support the final push toward eradication. John Adams, recently retired CEO of the National Milk Producers Federation and a dairy farmer, detailed the effort to control John's disease, a non-program effort, first initiated by industry and now a government-industry effort.

Speaking on behalf of Dr. Charles Issel, his colleague at the University of Kentucky, Dr. Timoney addressed the disease, equine infectious anemia (EIA.) EIA is largely under control in most areas of the

country, due to state regulations which require coggins test annually. Drs. Timoney and Issel agree the industry must decide how to go forward with EIA. For example, in most areas of the nation, the control program could work well with tests administered at the time of sale rather than annually, thus saving producers millions of dollars.

All three speakers agreed from their various perspectives that producers/industry must drive the future of these and other diseases of concern. ●

## Johne's Program

(cont'd from page 6)

ducer input for development of the plan.

### Survey on Tap

A valuable source of input will be the national dairy producer survey on Johne's being mailed to more than 7,000 producers across the country. The survey is funded by Johne's Disease Integrated Program (JDIP) and coordinated by Dr. Ernest Hovingh of Pennsylvania State University and Dr. Olson.

"The survey will allow us to assess producer knowledge of the disease and program, program participation barriers and effective incentives for Johne's program participation," Dr. Olson states. "It will help identify changes needed in the program as well as new materials that would be most useful to producers."

"While initial national results show that education programs have been effective, the majority of dairy herds in all regions have the disease. A significant amount of work remains to be done," Dr.

Olson elaborates.

During the meetings, preliminary results from the National Johne's Disease Demonstration Herd Project were presented. Work from two large Texas dairy herds, reported by Dr. Mario Villarino, showed that Johne's positive cows were removed from the herd about 130 days sooner than negative cows. Lifetime production was reduced by over 8,900 pounds, and replacement costs were increased by over \$205/positive cow. Implementation of recommended management practices resulted in net savings of nearly \$123,000 per year in a 5,000-head cow herd.

"While initial national results show that education programs have been effective, the majority of dairy herds in all regions have the disease. A significant amount of work remains to be done," Dr. Olson elaborates.

Dr. Beth Patton reported on three Wisconsin demonstration herds that include vaccination in their herd plans. Dr. Patton explained that, before vaccination, each herd was required to comply with all state vaccination requirements. She pointed

out that preliminary results appear positive, with an apparent reduction of the incidence in these herds. Additional data will be gathered in these herds to provide a more comprehensive assessment of the process.

Work also continues on the research front. Dr. Vivek Kapur, leader of the JDIP, announced approval by U.S. Department of Agriculture Cooperative Research Education and Extension Services's (USDA/CREES) National Research Initiative of a four-year extension for the program. JDIP coordinates a comprehensive research program that looks at new diagnostics and therapeutics as well as identifies ways to make current tools more useful.

As a supplement to the ongoing program, USDA/Animal and Plant Health Inspection Service (APHIS) is providing funds for a special three-year project to develop and evaluate new vaccines for possible use in the program.

Presentations from the NJWG meeting are available on the Johne's Education site [www.johnesdisease.org](http://www.johnesdisease.org). They can be found by clicking on "NJWG." ●



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