

Swine HEALTH REPORT

A National Institute for Animal Agriculture Publication

Fall/Winter 2006

USDA Watches for Classic Swine Fever

The U.S. Department of Agriculture's Animal Plant Health Inspection Service (APHIS) is currently in the midst of implementing a renewed effort to monitor Classical Swine Fever (often referred to as Hog Cholera). The renewed surveillance program was initiated in March of 2006.

Classical Swine Fever (CSF) is a foreign animal viral disease which could potentially prove catastrophic for the U.S. swine industry if it gets into the United States. Clinical signs of acute CSF include mortality, usually within one to two weeks of infection; clinical signs of chronic CSF also include mortality but occur more intermittently. However, CSF can erode

the immune system making pigs vulnerable to other infections; as such, animals infected with the chronic form of CSF will often live for several months but eventually die of either direct or indirect causes.

Participants in the current surveillance program include private practitioners who can collect tonsil or nasal swab samples, clearly mark the submission as "CSF Specimen," and submit to their respective state diagnostic laboratory. State diagnosticians will subsequently pre-



pare samples and take care of all associated paperwork for submission to the National Animal Health Laboratory Network (NAHLN)

In 1961 USDA initiated the Hog Cholera Eradication Program. The United States was declared CSF-free in 1978 and retains that status. However, CSF is common across the

world and could be easily reintroduced into U.S. herds via several modes of transmission, thus making ongoing surveillance especially important. ●

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'Swine 2006' Study Underway

The National Animal Health Monitoring System's (NAHMS) fourth national study of America's swine industry began in July 2006. NAHMS collects national surveillance data which provides benchmarking data for the overall health of the U.S. swine herd.

The project, entitled *Swine 2006*, will include surveys regarding health management practices and issues from 17 different states. Animal Plant Health Inspection Service (APHIS) is encouraging all practitioners to share with producers the importance of participating in the study.

Previous endeavors have been successful on a number of counts.

As an example, recent success of such surveillance includes documentation of the cost of PRRS to the industry and supporting the need for additional research funding. Additionally, nationwide accounting of biosecurity practices have allowed for improved insight into potential breaches and prevention of catastrophic introduction of foreign animal diseases.

Increased producer participation in *Swine 2006* allows for improved industry knowledge and subsequent shaping of management practices and policy. For more information contact: USDA APHIS, VS CEAH in Fort Collins, CO. ●

Hot Topics

Surveillance, Wildlife Diseases High on Agenda at Animal Health Meetings

The U.S. Animal Health Association (USAHA) and the American Association of Veterinary Laboratory Diagnosticians (AAVLD) recently held their annual joint meeting in Minneapolis (October 12-18). USAHA is mainly an organization for state and federal government animal health officials (both scientists and administrators) with representation from various trade associations and professional societies. AAVLD is just what the name implies - an organization comprised of diagnosticians. The joint USAHA/AAVLD meeting often serves as an important

venue for discussion regarding emerging issues surrounding animal disease and as a forum to begin resolving various issues of concern.

Two prevailing topics dominated this year's meeting: 1) Disease "surveillance" based on predictive models measuring prevalence and subsequent threat of these diseases to the

eradicate a given animal disease. But, surveillance in the 21st century is a far cry from not only your grandpa's surveillance of 50 years ago but also your dad's of just 15 years ago. And this is just the beginning. Surveillance techniques are likely to grow and expand even more in the next 20 years according to some of the speakers at the USAHA/AAVLD meeting.

This rapid change has been driven by two factors: the threat of foreign animal diseases and the expansion of information technology capabilities that make it possible to collect, transmit and analyze an amazing amount of data.

Recognizing the ever-increasing disease threats and opportunities to expand export markets, the USDA's Animal and Plant Health Inspection Service/Veterinary Service (APHIS, VS), working with the National Association of State Departments of Agriculture (NASDA), began a review of the U.S. animal disease surveillance system. In addition to the 9/11 events, the occurrence of bovine spongiform encephalopathy (BSE) and the global risk of foreign animal and emerging diseases spurred those efforts into high gear, and as a result, the National Animal Health Surveillance System (NAHSS) was created in 2003. The NAHSS is a network of alliances and partnerships among government agencies and private entities designed to facilitate information exchange, enhance current surveillance programs, and

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DR. BRIAN MCCLUSKEY
USDA CEAH

total domestic herd/flock and to humans; 2) Zoonotic diseases in wildlife that affect domestic animals and possibly even humans. AAVLD committee meetings often surround diagnostic issues and techniques; meanwhile, USAHA committees primarily deal with disease control policy.

Here are some of the highlights of the presentations and discussions:

Surveillance:

Surveillance has been an essential part of every effort to



**NATIONAL
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**Swine
Health Report**

Fall/Winter 2006

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

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establish and maintain the necessary infrastructure for surveillance.

"The NAHSS is a USDA, APHIS, VS initiative to integrate existing animal health monitoring programs and surveillance activities into a comprehensive and coordinated system, as well as to develop new surveillance methods and approaches," according to Dr. Brian McCluskey, USDA Centers for Epidemiology and Animal Health (CEAH), who spoke at the Scientific Session of the joint meeting. Dr. McCluskey leads the National Surveillance Unit (NSU), the coordinating entity for animal health surveillance activities.

The goal of the NAHSS, says McCluskey, is to systematically collect, collate, and analyze animal health data and promptly disseminate animal health information, especially to those partners obligated to respond: other federal agencies including the Department of Homeland Security, the Centers for Disease Control and Prevention (for humans) and others such as State Veterinarians and USDA scientists in the field.

Surveillance, McCluskey says, depends upon many inter-related activities including sampling at slaughter and marketing facilities and reports by veterinarians and other animal health professionals in the field.

"That's where the readers of the Health Reports come in. We need their first-hand knowledge of what's going on out there on the farms, ranches, and production facilities to make surveillance work. They've been great partners in the past and we hope that will continue," he says.

Dr. McCluskey noted a num-

ber of "successes" that have been achieved by the NAHSS including the incorporation of the National Animal Health Laboratory Network (NAHLN), which was created through the cooperation of the AAVLD, APHIS, and the Cooperative State Research, Education, and Extension Service. This network combines federal laboratory capacity with the facilities, professional expertise, and support of state and university animal health laboratories, enhancing the detection and response for animal health emergencies, including foreign animal diseases.

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In addition, guidelines and standards for the construction and operation of surveillance systems have been created, as well as surveillance plans for BSE, classical swine fever, and new targeted methods for pseudorabies and brucellosis. For more information go to the NSU website:

<http://nsu.aphis.usda.gov/>. For more information on how NSU/NAHSS fits with the work at USDA's Food Safety and Inspection Service (FSIS) and the broader scope Bio-surveillance at the Department of

Homeland Security see other presentations made at the meeting at www.usaha.org.

Wildlife:

The fact that wildlife and domestic livestock and fowl can and do spread diseases to each other has resulted in modifications to government and industry eradication programs for such diseases as tuberculosis (TB) in cattle and pseudorabies in swine. Some of these diseases, such as TB, posed a human threat as well and fueled the need for eradication programs. But with the emergence of BSE/Mad Cow disease some years ago, and now with the extensive news coverage of a possible avian influenza (AI) H5N1 pandemic, even the general public is keenly aware of the overall problem of diseases spreading not only from wildlife to domestic animals but also to other species including humans. While these two high profile diseases grab most of the attention, a number of others issues, such as TB being transmitted from deer and bison to domestic cattle in Michigan and Wyoming and pseudorabies in wild boars threatening to re-infect the nation's swine herd, must be dealt with by animal health officials and the industry.

Another example, with a reverse twist, is the following: some wildlife officials theorize that Bighorn sheep in the Rocky Mountains are being infected with various diseases by way of domestic sheep grazing on public land. Therefore, there is a movement to ban domestic sheep from federally-owned public grazing land which would make sheep production

Outreach Programs on Feral Swine Disease Threats Launched

Four states — Iowa, Missouri, Pennsylvania, and Wisconsin— have initiated educational programs to make hog producers aware of the disease risk of exposure to feral swine, according to information presented to the United States Animal Health Association (USAHA) Committee on Transmissible Diseases of Swine.

Current estimates of feral swine in the United States put the population at more than 2 million animals in about half of all states, with the distribution and density increasing rapidly



throughout many parts of the country. In addition to disease threat, damage caused by feral swine can occur in many forms. Some common examples are rooting and feeding on forest regeneration sites, row crop and pasture lands, and food plots or plantings for wildlife; damage to ponds, tanks, springs, and water holes; and damage to wild ecosystems and threats to biodiversity.

Two major concerns about feral swine shared by professional wildlife managers and livestock officials as well as livestock producers are (1) that feral swine are known to be very adaptable, have high reproductive capabilities and, because of their feeding habits and behavior, can signifi-



cantly impact wild ecosystems and (2) that feral swine are known disease carriers. USAHA is particularly concerned about swine brucellosis and pseudorabies, two serious swine diseases that have been eliminated from domestic swine populations.

In fiscal year 2006, there were 12 swine herds reported to be infected with pseudorabies and 13 herds reported to be infected with swine brucellosis. Six of these herds had dual infections. Feral swine were involved in all the cases. ●

Mark Your Calendars for April 2-5, 2007!

SACRAMENTO TO HOST 2007 NIAA ANNUAL MEETING

BioFuels Energy: Animal Agriculture at the Crossroads—That's the theme of the 2007 National Institute for Animal Agriculture's annual meeting which will be held April 2-5 at the Hyatt Regency Sacramento.

"BioFuels are taking off," says Annual Meeting Chair Jim Fraley. "Is that generally good for animal agriculture, or frankly, will it drive up our feed costs?"



Can we pass those costs on to consumers? These are questions everyone in animal agriculture is asking him/herself, and we'll try to answer them in Sacramento this spring," he says.

As usual the planning com-

mittee has scheduled an extra, one-day symposium on the 5th (Thursday) with a special "hot topic" emphasis. This one is expected to be based on the recent outbreak of E. coli. The program will feature local accounts and experts. "And, what better place to do it, but in the capital of the state where the problem originated. It should be both fascinating and informative," Fraley adds.

USDA Holds Firm to Voluntary NAIS, Other Policies

Secretary of Agriculture Mike Johanns has some clear ideas about how the National Animal Identification System (NAIS) should work. During his address at the ID INFO EXPO 2006 in August, Johanns shared these thoughts, outlining what he believes is the best approach for the program: 1) NAIS is a voluntary system driven by the States and the private sector; 2) NAIS is a State-Federal-Industry partnership that allows for competitive forces in the free market to keep costs down; and 3) The Federal government does not control animal identification or movement records.

These same messages were reiterated by other U.S. Department of Agriculture (USDA) officials throughout ID INFO EXPO and again at the U.S. Animal Health Association's annual meeting in Minneapolis in mid-October. They were also key points in USDA's launch of the NAIS Community Outreach Program two weeks later at a workshop in Kansas City for State/Federal Animal ID coordinators and industry representatives.

Johanns and staff emphasized that the goals of NAIS can be achieved with a voluntary system, but still acknowledged the challenges a voluntary program can bring. They stressed the importance of educating producers about the value of NAIS and motivating them to participate in the program. A key part of this effort, they said, is listening to producer concerns and taking action to address them. USDA's decision to house animal movement records in private and State databases was in keeping with this approach.

USDA officials pledged to continue collaborating on NAIS with the States, industry, and producers to create a versatile, quality system. Through the new outreach campaign, USDA is working together

with its State and industry partners to seek feedback on the program and ensure that NAIS makes sense for everyone.

As part of these efforts, USDA has recently published a draft NAIS User Guide at <http://animalid.aphis.usda.gov/nais/naislibrary/userguide.shtml>. The Guide provides helpful information about what NAIS is and how it can help protect producers' animals and their investment. The Guide is intended as a resource to help producers make informed decisions about participation in NAIS. USDA is also accepting comments on the Guide through January 22, 2007, to gain producers' insights on the program.

There are three components of NAIS: premises registration, animal identification, and animal tracing. The first priority of NAIS has been implementing premises registration – the foundation of the program. USDA and the States are close to their goal of registering 25 percent of premises in the United States (estimated to be at least 1.4 million) by January 31, 2007. The number of premises registered across the country stands today at more than 333,000, or 24 percent, and continues to rise each week.

The second component of NAIS, identifying animals individually or by group/lot with a unique identification number, is progressing. Animal identification is available now for several species. The States and industry continue working on this component so that it will eventually be an option for all species. In support of this work, USDA has approved two companies to manufacture animal identification number (AIN) devices, and a third has submitted devices for approval. USDA is also in the process of approving AIN managers who will be authorized to distribute devices.



secretary mike johanns

Another recent change is USDA's plan for the distribution records of AIN devices to be submitted to private- or State-operated AIN Device Distribution Databases, rather than to USDA's AIN Management System. Animal health officials will request access to the AIN device distribution records only when there is an animal disease issue that warrants their use. This change is slated for implementation in April 2007.

The final component of NAIS, animal tracing, is under development by the States and private sector. Once this component is complete, producers will be able to choose an animal tracking database (ATD)—operated and maintained by private industry groups or States—and report certain animal movements. In the case of an animal health emergency, these databases will be accessible by animal health officials through a "communications system" called the Animal Trace Processing System (ATPS). ATDs are currently being approved on an interim basis and agreements signed relative to their operation.

Johanns and staff remained firm on their position that the Federal government should maintain only limited NAIS information, and that the AIN Device Distribution Databases and ATDs should be operated privately and/or by State governments to ensure the protec-

Porcine Circovirus Vaccine Approved for Use by US Swine Producers

Boehringer Ingelheim Vetmedica, Inc., (BIVI) announced in late October that it has received Animal Plant Health Inspection Service (APHIS) approval for a new vaccine designed to protect swine from diseases caused by porcine circovirus type-2 (PCV2). The single-dose, 1-ml vaccine Circo-Flex has been demonstrated to possess both efficacy and safety for use in pigs. The product will be commercially available to producers in early 2007.

Circovirus is believed to be the primary agent responsible for what's commonly referred to as Postweaning Multisystemic Wasting Syndrome (PMWS). The onset of PMWS symptoms typically occurs between 8 and 12 weeks of age. Symptoms include, but are not limited to, chronic wasting, dermatitis,

and/or diminished growth rates. Morbidity rates are highly variable, but among those affected, mortality rates are often very high. PCV2 can also cause several other problematic situations including increased reproductive failure manifested primarily as late-term abortions and increased incidence of mummified fetuses and stillborns. PCV2 is often responsible for a phenomenon known as "stairstep" mummies in which fetuses appear to have died at varying stages of gestation.

The disease is increasingly a problem in the United States. As a result, the American Association of Swine Veterinarians created an Ad-Hoc committee to deal with PCV2-related diseases to establish a plan of action. ●

Surveillance, Wildlife (continued from pg. 3)

impossible in many western states.

Numerous presentations, papers, and committee agenda items focused on these and other diseases, but of course, avian flu got by far the most attention at the USAHA-AAVLD meeting. For example, Robert Cook, of the Wildlife Conservation Society, described his organization's Global Avian Influenza Network (GAIN) for surveillance of wild birds. The goal of GAIN is not to duplicate efforts of countries such as the U.S. but to work in less developed nations where the governments have neither the resources nor the expertise to monitor the spread of the disease.

In addition, two half-day sessions, one on various diagnostic tests for AI and the other covering more general information on its spread and control methods, were held. More than a dozen scholarly presentations were given while committees spent hours discussing what needs to be done and making several resolutions regarding AI.

And, these are just today's high profile diseases. Literally hundreds of papers and studies on everything from foot and mouth disease in pronghorn and mule deer to canine distemper to diseases of skunks and squirrels were presented and made available to attendees.

In addition to the USAHA website listed before, much more information on assorted aspects of wildlife diseases is also available at www.aavld.org. ●

USDA Releases 2005 U.S. Animal Health Report

The USDA released in October the 2005 U.S. Animal Health Report, a national overview.

The report addresses the many components of the U.S. animal health infrastructure, animal population demographics, approaches to foreign animal disease surveillance, and new initiatives.

The 2005 U.S. Animal Health Report is available on the APHIS website at http://www.aphis.usda.gov/publications/animal_health/content/printable_version/2005_us_animal_health_report.pdf.



News Briefs News Briefs News Briefs News Briefs News Briefs

Benjamin Richey Named Exec. Dir. of USAHA

Benjamin Richey has been named Executive Director of the United States Animal Health Association (USAHA). He took the helm as chief administrator of the organization on Nov. 1. As Executive Director, Richey will be responsible for relocating the central office to the Kansas City area, expanding membership, and coordinating the work and reports of some 33 committees.



Benjamin Richey

Richey is a graduate of Purdue University. Previously, he has served as Director of Communications for the National Institute for Animal Agriculture (NIAA) and as an account executive for a Kansas City-based advertising agency.

Drs. Reed and McElwain Receive APHIS Animal Health Award

Dr. Willie Reed and Dr. Terry McElwain were presented with the APHIS Animal Health Award by Dr. Ron DeHaven, Administrator of USDA's Animal and Plant Health Inspection Service (APHIS), during the opening joint general session of the United States Animal Health Association (USAHA) and the American Association of Veterinary Laboratory Diagnosticians (AAVLD).

In presenting the awards, DeHaven noted that both recipients have served as president of AAVLD, Reed in 2003 and McElwain in 2004. "Both of these men are passionate about veterinary diagnostics," DeHaven said, "and each will take every opportunity to share their vision with anyone who will listen."

Reed recently accepted the position of Dean of the College of Veterinary Medicine at Purdue University. Prior to that he was Director of the Animal Health Diagnostic Laboratory at Michigan State University as well as Chair of the Department of Pathobiology and Diagnostic Investigation there.

McElwain is Executive Director of the Washington Animal Disease Diagnostic Laboratory. He is a Diplomate of the American College of Veterinary Pathologists and holds an academic appointment as full Professor of Pathology in the Department of Veterinary Microbiology and Pathology at Washington State University.

"The dedication, pride and integrity that Dr. Reed and Dr. McElwain demonstrate every day reflect positively on the activities they direct and on their states, AAVLD, USAHA and animal agriculture in this country," DeHaven said.

'Medal of Distinction' Awarded to Dr. Campbell and Dr. McCapes

Dr. Clarence Campbell and Dr. Dick McCapes were the first

recipients of the new U.S. Animal Health Association's "Medal of Distinction," the highest award presented to an Association member.

"These two individuals are highly deserving of this award," said Dr. Bret Marsh, USAHA president, as he presented the medals. Marsh said the new medal, which was established in May will be awarded annually to recognize one or more USAHA members who have demonstrated outstanding leadership, provided exemplary service, and have made significant contributions to the advancement of the Association.

Campbell retired as Florida State Veterinarian in 1991 after 38 years of service. McCapes retired from the faculty of the School of Veterinary Medicine, University of California at Davis, in 1994.

Both individuals served as president of USAHA — Campbell in 1966 and McCapes in 1999.

National Assembly Award Presented to Dr. Holland

Dr. Sam Holland, South Dakota State Veterinarian, was honored the National Assembly's Award by state regulatory officials during the opening joint general session of the U.S. Animal Health Association (USAHA) and the American Association of Veterinary Laboratory Diagnosticians (AAVLD) at their joint meeting in Minneapolis in October. ●

AASV, Pork Checkoff Team-up to Clarify Japanese MRL Recommendations

The American Association of Swine Veterinarians (AASV) and the Pork Checkoff have teamed up to make information on Japanese maximum residue limits, or MRLs, more user-friendly to veterinarians and producers through the Pork Checkoff's website, www.pork.org.

New Japanese market requirements came into effect on May 29. These market specifications require imported pork products to comply with modified withdrawal periods for certain animal health products including antibiotics. "Japan is a valuable export market for US pork producers representing 45

percent of all United States pork exports at a value of \$1.070 billion. It is important that U.S. pork producers take this issue seriously," said Phil Seng, Chief Executive Officer of the United States Meat Export Federation.

"In cooperation with the AASV, withdrawal information on specific products is now available on a much simplified, searchable, sortable and printable database on the revamped Web site," said Paul Sundberg, vice president of science and technology for the Pork



Checkoff. "The information on the site will be updated each time an animal health product company provides us with updated or new information."

Recommended withdrawal periods to comply with new Japanese MRL requirements apply to breeding herd and finishing animals. The Japanese requirements are based on the international Codex standards.



USDA Holds Firm (continued from page 5)

tion of information. As NAIS moves forward, USDA is demonstrating a strong commitment to producers by ensuring that the program continues to evolve to meet their needs.

The Species Working Groups (EG) reported on their current recommendations at ID INFO EXPO. They are similar to reports made to the National animal Identification System Subcommittee of the Secretary's Advisory Committee on Foreign Animal and Poultry Disease. The following are major point reported by the Swine Species Working Group for direction and implementation of NAIS:

Swine Working Group

- The industry currently has a mandatory program in place

that works.

- The industry supports a mandatory publicly funded system including:
 - A system of state-held databases that don't add to producer costs
 - Capture and maintenance of movement data by producers, production systems, and markets that is reported when required.

More detail on individual species WG reports can be found at <http://www.animalagriculture.org/proceedings/2006IDProceedings.asp> in the "Pre-conference Seminar" area. ●

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