

Swine HEALTH REPORT

A National Institute for Animal Agriculture Publication

Fall 2005

Animal ID Progress Reported, Concerns Outlined at ID/INFO EXPO

ID/INFO EXPO 2005 was an opportunity for industry stakeholders to hear the latest information on animal identification in the U.S. And, the event proved to be an even more important chance for stakeholders to voice concerns and pose questions to industry leaders on the future direction of the system.

Hundreds of questions were posed to the 67 speakers at the one-of-a-kind conference and trade show, held Sept. 27-29 in Chicago. Approximately 530 individuals attended the event. The record attendance included producers, veterinarians, animal identification

companies and service providers, state and federal animal health officials and other allied industry stakeholders.

Since the Aug. 30 announcement by Agriculture Secretary Mike Johanns that the animal tracking database will be developed and implemented by the industry, stakeholders have been attentive to how this portion of the system will move forward.

Dr. John Clifford, deputy administrator for USDA, APHIS, Veterinary Services spoke to participants about USDA's expectations.



Dr. John Clifford

"What USDA is looking for is a single legal entity that represents all species groups and all allied industries that are affected by this program," he said. Clifford added that USDA would plan to enter a Memorandum of Understanding (MOU) with this legal entity to carry out state and federal health officials' needs for an animal movement database. Clifford later clarified that health officials would need a single interface for 24/7 access to the data, indicating that a single, central database is not the only viable option.

Clifford also made it clear that there are no USDA dollars currently available to help establish or oper-



Dr. David Thain

ate the private database. An Oct. 12 stakeholders meeting, hosted by USDA, provided an information session on how the system could work, further clarifying the industry's role.

Clifford, who was joined by Deputy Under Secretary for Marketing and Regulatory Programs, Dr. Chuck Lambert, both encouraged progress as USDA would continue with premises registration and the animal identification numbering system (AIN).

Dr. David Thain, state veterinarian for Nevada and president of the National Assembly of State Animal Health Officials, offered a state-level assessment of NAIS, noting that accomplishments have been made



Dr. Ken Olson

with premises registration, as well as some state legislation for animal ID. More importantly, he encouraged stakeholders to maintain a simple mindset to move ahead with animal ID, and to not "squander this opportunity."

Dr. Ken Olson, KEO Consulting, offered an industry perspective on NAIS.

See *Recommendations* | page 7

Inside This Issue...

PAGE 2
Private Database Topic Leads Discussion at USAHA

PAGE 3
Wisconsin ID Project Shows Practical Application

PAGE 4
AASV Announces PRRS Position

PAGE 5
PMWS, Feral Swine Among Topics at USAHA

PAGE 6-7
News Briefs

PAGE 8
USDA Releases 2004 Animal Health Report

Private Database Leads Discussion Topics at USAHA's Livestock Identification Committee

A privately held database became a contentious issue at the U.S. Animal Health Association's (USAHA) Livestock Identification Committee in early November. The day-long meeting on Nov. 8, part of the organization's 109th annual meeting, hosted a variety of constituents interested in the future of the private animal tracking database.

A number of industry leaders spoke throughout the day about the various components of animal identification, ranging from identification technology such as RFID

and DNA, to pilot project updates and a state survey on legislation involving animal ID. USDA also provided an update on federal activities of the National Animal Identification System (NAIS), including the database.

"Privatization of the animal tracking database is a significant issue; one that USDA takes very seriously," said Dr. John Clifford, APHIS deputy administrator for veterinary services. "Privatization of the database will help us achieve our end goal while strengthening our partnership with industry."

The collection of animal movement data, which is essential to achieving full-traceability in 48 hours, is the greatest challenge of the program, according to Clifford. He urged stakeholders to work collectively to resolve the data collection infrastructure questions and to remain focused on advancing premises registration and animal identification.

"While the privatization of the animal movement tracking database is a change from our initial direction, the overall fundamentals of NAIS continue to follow the direction that many of you helped establish over the past several years. The key components as defined in the Draft Program Standards will continue to guide the implementation of NAIS."

During the business meeting,



the private tracking database was discussed in depth by a number of committee members, following a pair of motions on the issue.

"We owe it to ourselves, to this debate, and we owe it to the Secretary to explore if and how this can be imple-

mented," said Matt Brockman, Texas and Southwestern Cattle Raisers Association, who advocated the defeat of a resolution that would recommend that USDA implement the tracking database as outlined in the U.S. Animal Identification Plan (USAIP), but to

no avail. Other committee members argued that the industry was not properly represented in the decision to pursue a private database.

At the end of the day, the committee had

passed the aforementioned resolution, which was in turn debated and passed again in the membership meeting.

Additionally, during the membership meeting, a directive was passed that, essentially, the USAHA president assemble a group of representative stakeholders to meet with the Secretary of Agriculture to discuss solutions for this resolution passed by the USAHA.

Another resolution for USAHA to help develop the necessary components for a privately held database, via a consortium, was tabled during the committee meeting and lacked votes to be brought back to the floor. ●

"Privatization of the animal tracking database is a significant issue; one that USDA takes very seriously."

DR. JOHN CLIFFORD
APHIS DEPUTY ADMINISTRATOR
FOR VETERINARY SERVICES



Swine Health Report

Fall 2005

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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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1910 Lyda Avenue

Bowling Green, KY 42104-5809
ph.: 270-782-9798 fax: 270-782-0188
niaa@animalagriculture.org
www.animalagriculture.org

Wisconsin ID Project Shows Practical Application

"How's it going to work?" is a common question among producers and veterinarians when it comes to animal identification. With a broad range of technologies and services available, reaching a conclusion can be challenging.



ID/INFO EXPO 2005 provided an opportunity for individuals to hear some of the successes and challenges with animal ID, as the event offered pilot project updates for all species, including swine.

Dr. Dan Short, Extension livestock specialist with the University of Wisconsin, presented findings from a project conducted by the Wisconsin Pork Association, along with the Wisconsin Livestock Identification Consortium and Digital Angel Corporation.

The project, titled Pilot Project to Determine the Effectiveness of Electronic Identification (EID) in a Swine Breeding Herd Operation, evaluated just that: how will EID devices work in an operation combined with herd management software incorporating that technology.

The project was initiated in September 2004, and ran through June 2005. A total of 812 animals were tagged during the course of the project. Following the completion, some key recommendations were made based on the findings.

Hardware:

The final report indicates a wireless tag reader is a better tool, simply because it is cordless. Additionally, they found that a black-colored reader was less visually startling to the pigs than a yellow one. The wireless reader also made

scanning tags more efficient, according to Short.

Scanners would be more effective with a counter, the report said, as well as making sure data can be transferred completely when using different tag companies. Short also noted the importance of equipment that can withstand a variety of environmental conditions.

Software:

The report indicated that other than a few minor problems, software interface with the WLIC system is workable, as data is transmittable and readable. Cooperators on the

project hope that software continues to advance, becoming more user-friendly.

Tags:

The project had success with tag retention, though it began to decrease as the project progressed. Infections raised concerns in the project, which cited a need for further research on the cause.

Clearly, the project gave a firsthand look at how EID can be used on the farm. Projects like this will continue to be valuable in determining what technology will work best. ●

NPPC: ID System Must Build On Existing Program

Any national swine identification system must build on the existing pork industry-state-federal partnership that has been in place since 1988, the National Pork Producers Council (NPPC) said on Sept. 28 at a hearing before the House Agriculture Subcommittee on Livestock and Horticulture.

The pork industry supports – and already has – an effective swine ID system modeled after the one used in the successful Pseudorabies Eradication Program, NPPC President-elect Joy Philippi, a Nebraska hog farmer, told the panel. The species-specific approach is consistent with the U.S. Department of Agriculture's recent animal ID announcement.

"Pork producers are comfortable with the current level of recording and reporting, and we already have accepted the costs of this system," said Philippi. "We are working with USDA to continue enhancing our current swine identification system within the stan-

dards put forth by the Department for its National Animal Identification System (NAIS), but we don't want additional costs or reporting put on pork producers." The pork industry has formed a swine identification implementation task force made up of industry stakeholders and government representatives to begin implementing needed enhancements to the existing swine ID system. Among the enhancements to the system the pork industry supports are:

- Mandatory premises registration, which includes owner and location data, by 2007.
- Mandatory IDs for groups/lots by 2008.
- Mandatory individual animal IDs for market breeding swine and show pigs by 2008.

The existing mandatory ID system requires swine moved in interstate and international commerce to be identified and the information to be reported to federal and state databases.

AASV Announces PRRS Position

During its fall meeting on Oct. 12, 2005 in Kansas City, the American Association of Swine Veterinarians Board of Directors adopted a position statement regarding the eradication of Porcine Reproductive and Respiratory Syndrome (PRRS). Dr. Scott Dee offered a draft statement to the Board for consideration which the Board evaluated, modified and adopted. It was the opinion of the Board that PRRS eradication is the ultimate goal and the AASV should take a lead role in supporting the endeavors of researchers, practitioners and producers as they strive to achieve this goal. The Board revisited the success of the PRV eradication program and indicated that the success of that program was the direct result of stakeholder direction and involvement.

Following is the position state-



ment adopted by the AASV Board on PRRS eradication.

Porcine reproductive and respiratory syndrome (PRRS) is a significant production-limiting disease of swine that is estimated to cost the US industry approximately 560 million dollars per year. Control of the disease via traditional methods has not been effective in all cases; therefore, it is the position of the AASV that eradication of the disease from the North American swine industry is the long term goal. The AASV will take a leadership role by partnering with the swine industry to promote collaborative PRRS eradication efforts at the local, regional, and national levels, communicating the need and identifying sources of funding to support such initiatives, and assisting in the transfer of new PRRS-related information and technology across its membership, in order to achieve this goal. ●

AASV Annual Meeting Program Goes "Beyond the Basics"

Attendees at the 37th annual meeting of the American Association of Swine Veterinarians (AASV) will look to the future as they engage in educational sessions focused on the theme "Beyond the Basics." The meeting is scheduled for March 4 to 7, 2006 in Kansas City, Mo. The meeting program is now available on the Internet at www.aasv.org/annmtg.

Dr. Scott Dee, AASV president-elect and the meeting's program chair, explains, "This year's meeting 'Beyond the Basics' will build on the themes 'Back to the Basics' and 'Applying the Basics' from previous meetings. We hope to take a visionary trip into the future and see what the industry holds for swine veterinarians." He emphasizes that the program will also provide plenty of information that can be applied to swine farms immediately after the meeting.

For those interested in a more in-depth look at a specific topic, pre-conference seminars on Saturday and Sunday address a wide range of individual subjects: applied pharmacology, grow-finish records, case studies, gilt development, boar stud issues, foreign animal disease, sow productivity, nutrition, financial planning, parity segregation, PCV2/PMWS, and business for the soon-to-be-veterinarian.

Registration is limited to veterinarians and veterinary students. For more information, contact the AASV office at (515) 465-5255, fax at (515) 465-3832, or e-mail aasv@aasv.org. ●

NAHRS Nears Full State Participation

All but eight states are now actively participating in the National Animal Health Reporting System (NAHRS), according to a report presented at a meeting of the Committee on Animal Health Information Systems on Nov 7. The committee is a joint effort of the U.S. Animal Health Association (USAHA) and the American Association of Veterinary Laboratory Diagnosticians (AAVLD).

According to the report, several other states are finalizing their reporting procedures. The 42 participating states represent 86 percent of the cattle, 66 percent of the swine, 90 percent of the sheep, 67 percent of the poultry

and 84 percent of the catfish value of U.S. production for these commodities.

Under NAHRS, state animal health officials report on a monthly basis on the occurrence or non-occurrence of specific diseases listed by the World Organization for Animal Health (OIE). The U.S. Department of Agriculture's Animal and Plant Health Inspection Service uses this information in a number of different ways. The data provides the basis for the annual report that the United States is obligated to make to OIE. The information also supports trade negotiations and is useful in providing access for U.S. animal agriculture products in world markets.

PMWS Emerging as Key Disease

The U.S. Animal Health Association (USAHA) Committee on Transmissible Diseases of Swine received a briefing on Post-weaning Multisystemic Wasting Syndrome (PMWS) in North America at its meeting in November.



There are still large gaps in knowledge about this syndrome. Since late 2004, there has been an increase in severe cases of PMWS in Quebec, Canada. These cases are characterized by severe wasting and high morbidity and mortality. There also appears to be an increase in PMWS cases currently occurring in Ontario. While the disease does occur in the United States, the very severe form has not been commonly reported.

There currently are four "camps" of thought on the cause of PMWS:

- Porcine Circovirus type 2 (PCV2) alone (perhaps mutated strain);
- PCV2 plus a non-infectious co-factor;
- PCV2 plus an infectious co-factor; and
- Novel pathogen (PCV2 is secondary).

It was emphasized that the presence of PCV2 does not equal PMWS. It also appears that PMWS does not follow a normal infectious spread through a production system.

The committee recommended that USDA's Agricultural Research Service (ARS) immediately commit resources to conduct PMWS research in the areas of diagnosis, control and biosecurity. ●

Feral Swine Addressed at USAHA

Although there is no pseudorabies infection in U.S. commercial production swine, the disease exists in feral swine and this fact dominated discussions at the meeting of the U.S. Animal Health Association (USAHA) Pseudorabies Committee in early November.

Four instances of infection were found in feral swine in 2005. A "transitional" herd in Louisiana was detected through slaughter surveillance, which was tested and destroyed. Some captured feral swine in Arizona seized by state officials at a "hog/dog fight" were found to be positive for the disease and destroyed. Two herds in Louisiana were found on slaughter surveillance. All the animals were

captive feral pigs. They were slaughtered; no hogs remain on the farms.

The committee was told that feral swine continue to spread into the Midwest (Iowa, Wisconsin, Michigan and Nebraska) and the Northeast (Pennsylvania and New Jersey). The committee recommended that surveillance programs for pseudorabies and swine brucellosis be targeted at commercial swine that originate from geographic areas where feral swine exist. Surveillance in commercial swine from other areas of the country should be limited to levels sufficient to demonstrate absence of disease consistent with international trade requirements. ●

Mission Accomplished Video Unveiled

A video chronicling the successful eradication of pseudorabies virus (PRV) from the U.S. domestic pig population was unveiled during the U. S. Animal Health Association's (USAHA) Committee on Pseudorabies meeting. The video, titled *Mission Accomplished: The Successful Eradication of Pseudorabies Virus in the United States*, was produced by the National Institute for Animal Agriculture (NIAA) through a grant from USDA's Animal and Plant Health Inspection Service.

The state-federal-industry eradication effort, widely considered as a model for future disease eradication programs, was initiated in 1989 when there were more than 10,000 infected swine herds nationally. It was in 2002 that the zero-infected-herd level was first recorded in the United States. Today, every state in the nation maintains Stage V, or free, status.

The video features a number of individuals that played a key role in the program's success. Jim Leafstedt, a pork producer from South Dakota, appears throughout the video, which chronicles the history of the program, formation of the National PRV Control Board, program standards, funding and technical contributions.

It also highlights the state-federal-industry collaborative endeavor that was a hallmark of the eradication program.

The role of pork producers, swine veterinarians, researchers and diagnosticians, federal and state regulatory officials and other stakeholders who contributed to the program's success were also chronicled in the 15-minute video.

Copies are available in DVD or VHS format at no cost by contacting NIAA at (270) 782-9798 or niaa@animalagriculture.org.

News Briefs News Briefs News Briefs News Briefs News Briefs News Briefs

AASV Foundation Requests Research Proposals

The American Association of Swine Veterinarians Foundation is seeking research proposals for funding in 2006. Up to \$12,000 will be disbursed, with a maximum of \$6,000 (\$US) awarded per project. Proposals are due January 31, 2006. The selection and announcement of projects for funding will take place in March.

Proposed research must fit into one of the five action areas stated in the AASV Foundation mission, which include:

- Enhancing the image of the swine veterinary profession,
- Supporting the development and scholarship of students and veterinarians interested in the swine industry,
- Addressing long-range issues of the profession,
- Supporting faculty and promoting excellence in the teaching of swine health and production, and
- Funding research with direct application to the profession.

Proposals must also contain the following: Identification of the issue, background information, description of the project, timeline, budget and a plan to apply results for maximum return to swine veterinarians and/or veterinary students.

No project timeline is to exceed twelve months. A final report will be due within 60 days of stated project completion. For more information, or to submit a proposal, contact the AASV Foundation at 902 1st Avenue, Perry, Iowa 50220, by calling 515-465-5255, fax at 515-465-3832 or email at aasv@aasv.org.

USAHA Elects New Leadership

Dr. Bret Marsh, Indiana State Veterinarian, was elected president of the United States Animal Health Association (USAHA) at its 109th annual meeting in Hershey, Pa. on Nov. 9.



Dr. Bret Marsh

President-elect of USAHA is Dr. Lee M. Myers, Georgia State Veterinarian. Other officers

are James Leafstedt, South Dakota pork producer, first vice-president; Dr. Don Hoenig, Maine State Veterinarian, second vice-president; Dr. Richard Breitmeyer, California State Veterinarian, third vice-president; Dr. William L. Hartmann, Minnesota State Veterinarian, treasurer; and Dr. J Lee Alley, retired Alabama State Veterinarian, secretary.

Pork Board to Fund DNA Database Project

The Pork Checkoff Animal Science Committee has funded a project at Iowa State University to begin construction of a DNA database for animal health related genetic conditions and disease. This study will serve as a pilot project for future data collection needs for the swine genome sequence. Genomic applications and research will be limited initially by access to comprehensive genetic based information that links performance for an economically important trait or condition to accurate pedigree information.

Flu Shot Recommended for Swine Farm Workers

The Pork Checkoff recommends that all swine farm workers get a flu

shot in anticipation of the flu season, which runs from October to May.

Influenza viruses can be classified as type A, B and C. Type A influenza can be passed between people and pigs. "The flu shot contains two type A viruses that we want to prevent from spreading," said Dr. Liz Wagstrom, assistant vice president of science and technology for the Pork Checkoff. "The vaccine also has a type B virus in the mix, but this type of virus is not of concern to the health of our pigs. Humans will develop antibodies against the flu virus two weeks after taking the flu shot."

Wagstrom recommends other practices to reduce infection of pigs with human influenza viruses. Among them is modifying sick-leave policies that encourage workers to stay away from the farm if they are suffering from acute respiratory infections. "Virus shedding is at its peak when the clinical illness is most severe but can last as long as the symptoms do and that is from three to seven days," Wagstrom said.

Good building ventilation and good hygiene also will reduce transmission of the flu viruses. Wagstrom said, "To prevent pigs and humans from other species' influenza viruses, producers also should look at bird-proofing their buildings, treating the water if there is a chance it can be contaminated with bird fecal material, protecting feed from birds and enforcing biosecurity practices such as the use of farm-specific clothing and footwear."

For more information, a fact sheet titled "Influenza: Pigs, People and Public Health" is available from the Pork Checkoff. The fact sheet is available by calling 800-

News Briefs News Briefs News Briefs News Briefs News Briefs News Briefs

456-PORK and on www.pork.org under Hot Topics and Producer/Public Health.

USDA Offers \$3 Million for NAIS Projects

The U.S. Department of Agriculture's Animal and Plant Health Inspection Service announced on Nov. 9 it will award \$3 million in cooperative agreements to states and tribes for conducting research to develop or test potential solutions for animal identification and automated data collection in support of the National Animal Identification System (NAIS).

Applicants are encouraged to propose research or field trial projects to:

- Enhance the effectiveness of col-

lecting animal identification data in typical production, market and abattoir environments;

- Establish identity validation when official identification devices are lost, removed or malfunction;
- Conduct economic assessments of animal identification systems and technologies in typical production, market and abattoir environments; and
- Evaluate emerging animal identification technologies with advanced data collection systems to ascertain the adaptability of the technology for use in NAIS.

Funding application packages are available on the APHIS Web site at www.aphis.usda.gov/mrpbs/fmd/agreements_announcements.html. The deadline for application is Dec. 30. Any awarded funds will be available

for cooperator expenditures incurred within 12 months from the date of signature for the notice of award.

Projects applicable to any livestock or animal industry associated with NAIS are eligible for funding. Collaboration among researchers, private companies and other allied industry is strongly encouraged.

Pork Checkoff Releases Pork Production Safety Systems Materials

According to the Centers for Disease Control and Prevention, agriculture has four times the rate of occupational deaths than private industry, making it one of the most



hazardous industrial sectors to work in. The Pork

Checkoff has identified worker safety as an issue that requires the attention and education of swine producers and is making the Pork Production Safety Systems program available to producers.

The Pork Production Safety Systems materials guide producers and employees on issues related to occupational safety and regulations. The set includes materials for trainers, such as production trainers, consultants and human resources managers; materials for producers, including a guide to OSHA regulations, information on providing a safe workplace and a template for producing a customized worker safety employee manual. The materials are CD/DVD based. More materials are planned for the near future including a Spanish version of the documents.

Pork Production Safety Systems materials can be obtained from the Pork Checkoff at (800) 456-Pork. ●

ID Progress, Concerns *(continued from page 1)*

"The public has to trust what we're doing, the international community has to trust what we're doing," said Olson. He noted that some stakeholders were concerned with credibility of an industry-managed database.

Swine industry participants had the opportunity to hear about pilot projects from Wisconsin and Minnesota, as well as the latest recommendations from the Pork Industry Working Group (see *Swine Health Report, Summer 2005*). The recommendations, presented by Dr. Harry Snelson of the American Association of Swine Veterinarians, centered on the concept of transitioning the current identification methods used in the swine industry, as with the pseudorabies program.

Aside from those concerns,

progress is still happening in other facets of NAIS. USDA reported that all 50 states are capable of registering premises, and as of Nov. 15, 147,205 premises have been registered in the United States.

In addition to presentations on premises registration, reports on 20 pilot project reports were presented from across the country, featuring cattle, markets, transporters, sheep, swine and equine. Though many of the projects showed that technology still needs to be improved, many producers appear to be willing to participate and actively engage their operations in the national animal identification effort.

Presentations from the event can be accessed on the Internet at www.animalagriculture.org. ●

APHIS Releases 2004 U.S. Animal Health Report

The U.S. Department of Agriculture released the 2004 U.S. Animal Health Report on Oct. 7, a national overview of domestic animal health in the United States, which is the first report of its kind.

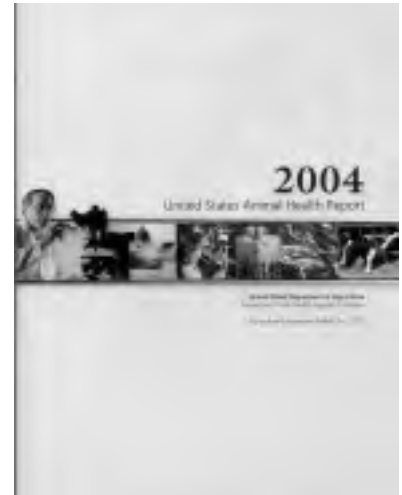
The report addresses the many components of the U.S. animal health infrastructure, animal population demographics, new initiatives and approaches to foreign animal disease surveillance.

The report is a result of an external review of the nation's animal health safeguarding system. The animal health safeguarding review, which was released in November 2001, assessed the performance, processes and procedures used to ensure mission success for the USDA's Animal and Plant Health Inspection Service; specifically it's veterinary services program as well as industry part-

ners.

New animal-health initiatives highlighted in the 2004 U.S. Animal Health Report include:

- The National Animal Identification System, tasked with coordinating the establishment of species-specific working groups, supporting the development of state premises systems and developing a national allocation database for premises identification numbers in order to develop a national tracking system for U.S. livestock.
- The national surveillance unit – located within the Centers for Epidemiology and Animal Health – responsible for coordinating the development of the national animal health surveillance system.
- The bovine spongiform encephalopathy (BSE) enhanced surveillance plan, designed to aug-



ment USDA's existing targeted surveillance efforts by strengthening surveillance in the high-risk cattle population.

The 2004 U.S. Animal Health Report can be found on the APHIS Web site at www.aphis.usda.gov/lpa/pubs/2004_us_animal_health_report.pdf. ●

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Pork Board Approves 2006 Budget, PRRS, PMWS Funding

The National Pork Board at its November meeting approved a 2006 strategic plan and budget that calls for spending \$48.8 million in Pork Checkoff revenue to address the nine critical pork industry issues identified earlier by the board. The budget and plan now go to the U.S. secretary of agriculture for final approval.

Included in the plan are three research projects designed to help provide producers with the tools to address the porcine respiratory and reproduction syndrome (PRRS) in their herds. All three projects involve work to improve vaccination strategies. The total for the three projects is just under \$100,000. The Pork Checkoff is

also coordinating with the USDA funded PRRS-CAP to get as much capital, human and equipment resources as possible focused on solving the PRRS problem for the U.S. producers. Seven projects have been funded at a total of \$755,036 in that initiative.

The board also approved a \$220,000 project to help prevent or respond to an especially virulent form of porcine postweaning multi-systemic wasting syndrome (PMWS). PMWS, which is increasing in Canada, is a disease syndrome of weaned piglets – and now also in pigs of market weight – with clinical signs that include progressive weight loss, jaundice and high mortality rates.