

Sheep HEALTH REPORT

A National Institute for Animal Agriculture Publication

Spring 2002

Spotlight on Scrapie Eradication

Briefing provides journalists with complete look at national program

The National Scrapie Eradication Program has taken the first steps of a long journey. And the journey will require the coordinated efforts of every segment of the industry.

That was the message passed along to agricultural media representatives during a scrapie educational briefing held in Riverdale, Md., in late February.

Editors representing general farm magazines and special-interest sheep and goat publications heard 10 speakers talk about the latest research on scrapie and other transmissible spongiform encephalopathy (TSE) diseases.

Dr. Linda Detwiler, USDA-APHIS-VS veterinarian and recognized authority on TSEs, reminded the group that these diseases are

considered "part of a family." BSE in cattle, chronic wasting disease (CWD) in deer and elk, and many



Dr. Diane Sutton discussed scrapie symptoms at the scrapie educational briefing for journalists.

other TSEs of animals are similar. These also are closely related to the new variant Creutzfeldt-Jakob disease and other TSEs in humans.

Though scrapie is not considered a threat to human health, the world has focused on eliminating TSE diseases to help alleviate any possible threat. "There's a push around the world to eradicate scrapie and other TSEs," Dr. Detwiler said. "The fact that the U.S. has scrapie and CWD is a stigma for our trade with other countries."

National Scrapie Program Coordinator Dr. Diane Sutton pointed out that the goal is to eliminate scrapie outbreaks by 2010, and be officially declared free of the disease according to international standards by 2017.

The strategic plan calls for maximizing the detection of scrapie through tracing and testing exposed and high-risk animals; slaughter sur-

veillance; and producer education. The new identification requirements that recently went into effect help to assure that animals can be traced back to their flock of origin.

Pilot projects involving live-animal surveillance may help provide answers as to how to improve scrapie eradication efforts, Dr. Sutton added. Pilot projects "will help us get a better understanding of if, and how, breeding for genetic resistance should fit into the program," she said.

"Genotype plays a strong role in the development of clinical disease, but its effect on infection and transmission has not been fully determined."

Dr. Katherine O'Rourke discussed the third-eyelid live-animal test for scrapie. In the late 1990s, she discovered that prions, the disease agent associated with scrapie, collect in pockets of lymphoid tissue in the sheep's third eyelid. This tissue can be "clipped" from the live animal and tested for presence of the prion.

She also discussed recent research indicating a scrapie-infected ewe that carries a fetus which contains a resistant prion genotype (QR or RR at codon 171) has no detectable scrapie prion protein in her reproductive tissues. Since scrapie is believed to be spread through contact with placental tissues at lambing, "this could have an impact on the management and control of scrapie," she said.

Inside This Issue...

PAGE 3

Animal Health Protection Act
Featured in New Farm Bill

PAGE 4

TSE Confirmed in Vermont
Sheep

PAGE 7

Scrapie Surveillance Ready for
Phase II

PAGE 8

Ready, Set, Show!

NIAA ID/INFO EXPO 2002

National Food Animal ID Symposium to address ID issues

Advancement of individual animal identification is the focus of a summer symposium and trade show sponsored by NIAA.

ID/INFO EXPO 2002 will take place July 28 through Aug. 1 at the Sheraton Chicago Northwest, Arlington Heights, Ill. It will feature the National Food Animal Identification Symposium, the first-ever National Equine Identification Symposium, plus a trade show

showcasing manufacturers and service providers in the animal ID and information systems business.

NIAA has previously facilitated three livestock identification conferences in 1998, 1994 and 1988.

Neil Hammerschmidt, chair of the NIAA Animal ID and Information Systems Committee, said the committee's goal is to continue the work from previous ID symposiums and extend new efforts into advancing a National ID Plan.

The National ID Task Force, which is made up of representatives from some 30 animal agriculture organizations, will bring a preliminary draft National ID Plan to the 2002 ID Symposium. The Task Force report will be delivered on Thursday morning, Aug. 1. It will

be followed by a break-out group session where particular ID issues, such as standardization of ID tags, numbering systems and premises ID will be addressed.

"It's a hands-on opportunity to advance the National ID Plan," said Hammerschmidt. "We will basically tell participants, 'Here's the plan, here's more background information. Now, let's roll up our sleeves and move forward.'"

The National Food Animal ID Symposium objectives are to offer the latest information on database management, information systems, ID technology, National ID programs in other countries, and emerging technology and application. It also will feature panel discussions with livestock producers as well as market operators and packing plant managers.

The ID/INFO EXPO program and registration information are available at the NIAA Web site: www.animalagriculture.org.

**ID•INFO
EXPO 2002**



Sheep Health Report

Spring 2002

Publisher

National Institute for
Animal Agriculture
Glenn N. Slack, President & CEO

Editor

Dean Houghton
dhoughton@animalagriculture.org

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

For a free subscription, send your name and mailing address to NIAA at:

1910 Lyda Avenue
Bowling Green, KY 42104-5809
ph.: 270-782-9798 fax: 270-782-0188
e-mail: NIAA@animalagriculture.org
Web site: www.animalagriculture.org

ASAS Announces Annual Meeting

The 2002 Joint Annual Meeting of the American Dairy Science Association, American Society of Animal Science, and the Canadian Society of Animal Science will be held in Quebec City, Canada, July 21-25. This meeting will bring together 3,500 scientists, researchers and students from some 50 countries to exchange new information and developments in animal agriculture.

John P. Oliver, president of Maple Leaf Bio-Concept, will headline the opening session of the 2002 ADSA-ASAS Joint Meeting.

The information-packed symposia will highlight numerous research topics, including:

- Application of Functional Genomics in Animal Breeding/Genetics;
- Bioterrorism/Ag Security;
- Food Safety;
- Assessment of Low Input Tech-

nologies for Animal Production Systems in Developing Countries;

- Nonruminant Nutrition: Phytase;
- Environmental Stress on Livestock and Economic Implications.

For more information, go to: www.fass.org/quebec02.

The 142nd Annual California Wool Growers Association

Convention and Membership Meeting will be held Aug. 8-10 in Sacramento. Educational seminars and tours will be a highlight of the event, along with committee meetings, a photo contest and a silent auction. The CWGA annual meeting also is known for providing great food and great entertainment!

For information, contact CWGA at 1225 H Street, Suite 101, Sacramento, CA 95814. Call (916) 444-8122 for more information, or visit the CWGA Web site at www.woolgrowers.org.

Animal Health Protection Act Featured in New Farm Bill

Updated, modernized statutes help animal industry deal with disease threats

Consolidation, modernization and clarity. That's what the Animal Health Protection Act (AHPA), passed recently as a part of the Farm Security and Rural Investment Act of 2002, offers to the U.S. animal agriculture industry.

It consolidates animal health statutes that had been scattered throughout 20 various codes that date back as far as the 1880s.

This new legislation updates regulatory language to reflect today's modern agricultural and transportation system. It also provides a single statutory framework and allows transparency of animal health statutes as desired by U.S. trading partners.

The Animal Agriculture Coalition (AAC) said a new statute was needed "to fill gaps in existing laws, clarify the areas of uncertainty, standardize USDA's responsibility and authority, and enhance the Secretary of Agriculture's ability to carry out the mission of APHIS."

The updated statute allows APHIS "to deal expeditiously with serious animal disease outbreaks that may threaten animal health and the economic viability of the \$107 billion U.S. animal agriculture industry," said AAC.

Bernadette Dunham, assistant director of governmental relations for the American Veterinary Medical Association, said the new Animal Health Protection Act will benefit AVMA members and the entire ani-

mal agriculture industry.

"It ensures animal health protection and that we can move quickly in the case of a serious disease outbreak," said Dunham.

Another important reason for updating AHPA was the emergence of new diseases and new types of disease agents in recent years.

"Prions didn't even exist in anything that was in the books," said

Dunham. "We needed to update statutes and make sure that current disease issues, especially prions, are acknowledged."

The act also enhances flexibility to address the changing needs in technology and policy, enhancing the Secretary's ability to carry out the mission of USDA-APHIS.

In addition, the AHPA helps to fill gaps in existing law that were pointed out in the recent Animal Health Safeguarding Review performed for APHIS.

For example, there are foreign animal diseases with long incubation times that may not be detected until after numerous infected or exposed progeny are born. The new legislation provides for such situations by treating progeny the same as the imported animals.

Long time coming. USDA began discussions about consolidating and revising animal health statutes more than a decade ago. The House Committee on

Agriculture, Subcommittee on Department Operations, Research, and Foreign Agriculture held two hearings on the need for integration and synthesis among APHIS' numerous plant and animal authorities in 1983 and 1988.

The result was two draft parallel bills, the Plant Protection Act and the AHPA. After almost 18 years, the consolidated and modernized plant protection legislation was passed as a part of the Agricultural Risk Protection Act of 2000.

Both the PPA and the AHPA boosted penalties for such activities as smuggling because of the threat of bringing damaging pests and diseases into the U.S.

Industry perspective. Paul Rodgers, director of regulatory and technical services for the American Sheep Industry Association, said that the AHPA provided a much-needed update to the national framework for animal health rules and regulations.

Consolidating the rules and reflecting the realities of modern agriculture "will help make it more clear to states and other stakeholders in the animal industry how disease issues will be interpreted by the federal government, and how regulations might apply," Rodgers said.

"AHPA also makes U.S. animal health statutes more transparent for our international trading partners. That could prove to be a great benefit as well."



Farm Bill FYI

The new Animal Health Protection Act is found under Section X, Miscellaneous, of the Farm Security and Rural Investment Act of 2002.

For more information, visit the USDA Web site, www.usda.gov/farmbill.

CWD Working Group Looks to Eliminate TSE in Cervids

The Department of the Interior (DOI) has joined with USDA to develop an integrated plan to assist states in combating chronic wasting disease (CWD) in deer and elk. The initiative is being carried out by a joint working group the departments have formed to address the problem.

The working group convened May 23 to develop an integrated, workable plan on how federal agencies will assist states in managing the disease that is affecting cervids (members of the deer family) in several western and Midwestern states.

The CWD working group is co-chaired by USDA-APHIS Administrator Bobby Acord and DOI's U.S. Fish and Wildlife Service Director Steve Williams. Task force membership includes representatives of five USDA and five DOI agencies, states, and university research groups that specialize in wildlife diseases.

The working group established six committees to ensure a comprehensive and timely approach to respond to this disease.

The committees focus on research, surveillance, diagnostics,



disease management, regulatory issues, and communications/information dissemination.

CWD is a transmissible spongiform encephalopathy (TSE) of deer and elk. Officials said there is no evidence that CWD is linked to disease in humans, nor is there evidence that the disease can be transmitted to any domestic animals other than deer or elk.

The disease was first recognized in a mule deer in northern Colorado in 1967, and was identified as a TSE in 1978. In the mid-1980s, CWD was detected in free-ranging deer and elk in northeastern Colorado and southeastern Wyoming. In May 2001, CWD was found in free-ranging deer in the southwestern corner of Nebraska.

Officials have recently found CWD cases in other areas. CWD

has been found in wild deer in Wisconsin, the first state east of the Mississippi River to report it.

States that have, or have had, CWD in their farmed elk herds include South Dakota, Nebraska, Colorado, Kansas, Oklahoma and Montana.

"Working together with industry, states and other federal agencies is vital in further addressing this issue," said Deputy Undersecretary of Agriculture Dr. Jim Butler. "In particular, working with the Department of the Interior will ensure the most efficient response to CWD by coordinating efforts of both departments in research, surveillance and management."

In conjunction with the states and industry groups, APHIS is developing a nationwide program to eliminate CWD from farmed elk. The agency will soon issue proposed regulations for this program, which, if finalized, would require that all captive cervids be enrolled prior to interstate movement.

USDA officials said the department recognizes the jurisdiction of states and acknowledges the state wildlife agencies as the lead for managing CWD in free-ranging cervids.

APHIS has assisted, and will continue to assist, states affected with the disease by providing laboratory and diagnostic testing support and by assisting with CWD surveillance activities.

TSE Confirmed in Vermont Sheep

Tests conducted on a flock of sheep confiscated last year from a farm in Vermont confirm that two of the 125 sheep tested positive for an atypical undifferentiated transmissible spongiform encephalopathy (TSE) of foreign origin, according to USDA.

The flock of 125 sheep was confiscated in March 2001 after four animals from an associated flock tested positive for TSE in July 2000.

USDA will continue to conduct additional tests to determine the type of TSE in these sheep.

The sheep, imported from Belgium and the Netherlands in 1996, were placed under federal restrictions when they entered the country as part of USDA's scrapie control efforts. In 1998, USDA learned that it was likely that sheep from Europe were exposed to feed contaminated with bovine spongiform encephalopathy (BSE). At that time, the state of Vermont, at the request of USDA, imposed a quarantine on these flocks, which prohibited

slaughter or sale for breeding.

The sheep were confiscated by USDA in March 2001 and transported to USDA's National Veterinary Services Laboratories in Ames, Iowa, where they were euthanized. Tissue samples were collected from the sheep for diagnostic testing and USDA will continue with additional tests which could take up to 3 years to complete. In all, USDA has acquired 380 sheep from a total of three flocks. All of the animals were humanely euthanized, sampled and disposed and did not enter the animal or human food supply.

Strong Case Built for Developing National Animal Health Lab Network

An important tactical maneuver remains in the war on agroterrorism and disease—developing a national animal health strategy with uniform diagnostic laboratory test standards and information-sharing links.

Networking the nation's federal, regional and state diagnostic labs is the first and most logical step. Dr. Patricia Blanchard, DVM, president of the American Association of Veterinary Laboratory Diagnosticians (AAVLD), leads a growing group of animal scientists, laboratorians and veterinarians who support the development of a state-of-the-art National Animal Health Laboratory Network (NAHLN). AAVLD believes U.S. animal disease diagnosis and surveillance would function most effectively as a shared responsibility between publicly funded state animal health labs and federal animal health labs administered by USDA's Animal and Plant Health Inspection Service (APHIS).

Dr. Randall Levings, Director of the National Veterinary Service Laboratories, Ames, Iowa, said access of state labs to a large routine diagnostic sample flow is important to national surveillance. "The large laboratory capacity in qualified personnel, facilities, and equipment represented by the Network will be critical to animal disease emergency response," he said.

NAHLN is essential for protecting the health and well being of livestock, poultry and companion animal health, and for protecting the public health from diseases common to animals and humans, according to AAVLD.

Dr. Blanchard, a diagnostic pathologist at the California Animal Health & Food Safety Laboratory, said the growing threat of foreign animal disease and terrorist attacks warrants development of NAHLN.

"Foot-and-mouth disease in Eng-

land stepped up emergency preparedness efforts and review of current practices in laboratories," she said. "The terrorist events of Sept. 11 and human anthrax infections magnified the need for coordinated and cooperative preparedness amongst state and federal laboratories."

Though these highly visible events intensified efforts, they were not the beginning of changes, said Dr. Blanchard. In 2000, the OIE member countries approved standards for labs performing testing for infectious diseases that closely follows the ISO17025 guide. "Implementation of these standards places new demands on labs," she said.

Animal industries also have higher expectations of labs today, including early recognition and notification of emerging diseases and disease trends. "This requires new methods to identify an emerging disease and greater communication between states," said Dr. Blanchard.

Dr. Levings believes the NAHLN's biggest challenge is coordination. "To build and maintain a fully functional NAHLN, mechanisms to coordinate roles and particularly testing and result information will have to be designed," he said.

Meeting the challenge. What exactly is needed to implement the Network? AAVLD would like to see the NAHLN plan be patterned after the comprehensive public health laboratory response network coordinated through the Centers for Disease Control (CDC).

While the basic infrastructure of a national lab network is in place, critical features to rapidly address new threats are missing, according to AAVLD. These include:

- A secure communication, reporting and alert system.
- Standardized, rapid diagnostic techniques used at all levels.

- Modern equipment and experienced personnel trained in the detection of emergent, foreign and bioterrorist agents.
- A national training, proficiency testing, and quality assurance system to assure that all labs in the system meet quality standards.
- Federal & state facility upgrades to meet biocontainment requirements.
- Periodic scenario testing and associated response network.

Secretary Veneman: 'Extraordinary Focus' on Protecting Agriculture

"We are engaged in looking at the entire food supply with the idea of protecting it—not just against unintentional threats, but also against intentional threats." That's according to USDA Secretary Ann Veneman, who was the keynote speaker at the National Institute for Animal Agriculture annual meeting held March 25-28 in Chicago.



Secretary Veneman explained USDA's stepped-up prevention programs March 26 at the NIAA recognition banquet. She emphasized that Sept. 11 has strengthened the working partnerships among state and federal government, universities and industry.

"USDA is now working closely with Gov. Tom Ridge and the Office of Homeland Security staff in understanding the whole issue of protecting our food supply," Secretary Veneman said.

Scientists Building Knowledge on Johne's in Sheep, Goats

Ovine Johne's was on the agenda at the National Johne's Working Group (NJWG) meeting conducted March 23 in Chicago. Dr. Sue Stehman of Cornell University and Dr. Bill Shulaw of the Ohio State University updated representatives of the 80-member NJWG on the latest in diagnostic tools for detecting Johne's in sheep and goats.

The NAHMS Sheep 2001 study should help shed light on just how much Johne's (paratuberculosis) is present in the nation's flocks. In that study, blood samples were drawn for serological testing using agar-gel immunodiffusion (AGID). Pooled fecal samples also were collected. Those samples are currently being cultured using liquid media.

Dr. Stehman pointed out that sheep and goat producers may be confused by the fact that many of the testing options, test interpretations and control programs that apply to cattle do not work when dealing with ovine Johne's.

Further confusing the picture is the fact that goats may harbor either the cattle strain of Johne's or the sheep strain. And it appears an intermediate strain that has characteristics "somewhere in between the cattle and sheep strain" may be affecting goats in the Midwest, Dr. Stehman added.

She reminded producers that they can monitor their flock for Johne's without blood or fecal testing. Regular body condition scoring and

keeping records of numbers and causes of wasting on the farm will help track possible infection. "The thin ewe is a good place to monitor disease," Dr. Stehman said. Sorting through other potential causes of wasting, such as inadequate nutrition, "broken" mouth, parasitism, OPPV infection or caseous lymphadenitis will help determine if Johne's should be suspected.

"This disease can have a very real impact on economics," Dr. Stehman said. "Unless management changes are made to break the disease cycle, the organism builds up in the environment. Some operations can go from seeing an occasional thin ewe to culling 10 percent of their two-year-olds due to wasting."

Rules Set for Ewe Lamb Expansion Plan

The USDA has published the new rule on the extension of the Lamb Meat Adjustment Assistance Program (LMAAP) for an additional year through July 31, 2003. The new rule includes the much anticipated ewe lamb expansion payment program that will provide incentives for producers to purchase or retain breeding ewe lambs.

USDA has allocated an additional \$37.7 million for the extension of LMAAP. Of that amount, \$26 million will be allocated to the new ewe lamb expansion payment program for years three and four of LMAAP, while the remaining funds are for payments for feeder and slaughter lambs marketed during year two through year four of LMAAP.

"We are very pleased that USDA issued this program rule consistent with the information released last fall," said Frank Moore, Wyoming

sheep producer and president of the American Sheep Industry Association (ASI). "The program is designed to be simple and effective." To be eligible for the ewe lamb expansion payment, a sheep operation must retain or purchase ewe lambs into their herd Aug. 15, 2001, through July 31, 2003.

The producer must certify that the eligible ewe lamb meet several basic criteria, including: not older than 18 months of age; identified according to an APHIS- approved scrapie program (compliance with the federal interstate movement restrictions for scrapie as it applies to the state in which you operate) and does not exhibit parrot mouth or foot rot.

Eligibility requirements also include certification of the number of ewe lambs retained or purchased since Aug. 15, 2001, in order to

receive the \$18 per head payment. Producers will also need to certify to several basic quality factors of the lambs, including retention in a herd for a production cycle. Details are



available at county FSA offices.

LMAAP is designed to help relieve economic injuries suffered by the domestic lamb and sheep industry and to help stabilize market conditions. ASI was instrumental in securing the LMAAP program, which was part of an initial \$100 million industry assistance package first announced in 1999 after the industry filed a Section 201 trade case against imports.

The additional assistance was first announced last August.

Scrapie Surveillance Ready for Phase II

Nationwide study will look for the disease in cull ewes

Phase II of the Scrapie: Ovine Slaughter Surveillance (SOSS) study went into effect April 1. Over the next year, scientists are geared up to gather tissue samples from approximately 14,000 cull ewes and examine these tissues for the presence of scrapie.

"We're sampling in specific slaughterhouses across the nation to get a better feel for the prevalence of scrapie in the nation," said Dr. Randy Pritchard with the Center for Animal Health Monitoring (CAHM), USDA-APHIS-VS. He pointed out that all ewes, whether they test positive or negative for scrapie, will be traced to their state of origin, defined as the last point at which they were used for breeding purposes.

However, these tracebacks will not involve regulatory action. The study is designed to help researchers find how prevalent scrapie might be in various regions of the nation.

The study involves 22 plants in 12 states. Each plant will have a specified number of animals they will sample weekly, in cooperation with FSIS officials. The plants will collect tissue from the brain stem (obex) and tonsils as well as lymph tissue from near the trachea.

These tissues will be sent to certified laboratories, and results will be analyzed by officials at CAHM and the Centers for Epidemiology and Animal Health (CEAH). Laboratories will test the tissues collected in Phase II using immunohistochemistry to identify scrapie-positive animals. Genetic testing for resistance at codon 171 also will be performed randomly, and on all positive animals. Phase II is expected to take about a year.

Samples from approximately 1,200 cull animals were collected during 2001 in Phase I, which was the design, planning and start-up phase of the SOSS study.

Phase III of the study involves analysis and reporting of the findings. Officials hope to refine the slaughter surveillance approach for use in regulatory programs, as well as determine which tissues are the best to collect.

The study also will involve a calculation of the national and regional prevalence of scrapie, the preva-

lence by face color and genotype, and will examine the ages of animals that are sampled.

"It involves a lot of manpower to get all these samples taken," Dr. Pritchard said. "But the SOSS study should provide a lot of information about how best to use resources as the industry moves along in the scrapie eradication program."

American Lamb Checkoff Order Published

The USDA's Agricultural Marketing Service has issued the final rule establishing a national, industry-funded lamb promotion, research and information program. The program is expected to generate more than \$3 million per year, and is the first national livestock assessment to include slaughter companies.

Under the program, U.S. lamb producers, feeders and lamb packers will all pay an assessment. Individual U.S. lamb producers and feeders will pay a one-half (\$.005) cent per pound assessment based on live weight, and the first handler, primarily lamb packers, will pay an additional 30 cents per carcass.

The proposed order calls for a deduction at sale, however, remittance will occur at the slaughter level for most transactions.

Publishing the order lays out the logistics of how the program will work, who will be assessed and other details. The next step is to issue rules, which will set a date at which collections will begin, followed by the procedures to nomi-

nate board members.

Assessments are expected to begin in July, and the board is expected to be in place by late summer or early fall.

"It's time for us to be getting about the much-needed job of improving the marketing of American lamb," said Paul Rodgers, director of regulatory and technical services for the American Sheep Industry Association.

The order calls for a delayed referendum to be conducted no later than three years after assessments begin. During this time period, refunds may be requested. Lamb imports will not be assessed.

A lamb checkoff program has been in development since May 1999, when USDA brought together a task force of all segments of the industry to investigate lamb checkoff possibilities.

The program will fund promotion, research and information programs. Specific programs will be determined by the program's 13-member board of directors, who will be appointed by the U.S. Secretary of Agriculture.

Ready, Set, Show!

New brochure outlines scrapie program requirements for exhibitions

Sheep and goat producers preparing to exhibit their animals this show season are urged to become familiar with new movement restrictions and identification requirements associated with a national program to eradicate scrapie.

"Requirements for Going to The Show," a brief brochure on what exhibitors need to know as part of the new scrapie eradication program, is now available from the National Scrapie Education Initiative conducted by the National Institute for Animal Agriculture.

"Our aim with this brochure is to help exhibitors understand what is required in terms of individual animal identification and health certificates for showing their sheep and goats," said Glenn N. Slack, NIAA's president and CEO.

The brochure will be distributed through NIAA's Scrapie Information Network, comprised of state departments of agriculture, state Farm Bureaus and state and federal animal health officials. The

network also includes breed associations, state and national sheep and goat producer associations and state extension specialists.

The brochure, as well as other information about the scrapie eradication program, is also available on the Internet at www.animalagriculture.org/scrapie.

The summer show season "is going to be a test for the industry,"

said Dr. Cindy Wolf, a small-ruminant specialist with the University of Minnesota. "We will see how well everyone understands how the scrapie regulations work."

In general, any breeding animal going to any show with entries from more than one state will require official USDA identification and must be accompanied by a health certificate.

"However, there are exceptions," Slack said, so he offered the following suggestions for exhibitors:

- Read a copy of *Requirements for Going to The Show*.
- Check with your local veterinarian or your State Veterinarian's Office to see if your state has any further rules and regulations.
- Check with the show/exhibition organizers to see if there are any special rules pertaining to that particular event.

For an individual copy of the brochure, write to Scrapie Eradication, National Institute for Animal Agriculture, 1910 Lydia Ave., Bowling Green, KY 42104-5809, or call (270) 782-9798.



Non-Profit Organization
U.S. POSTAGE
PAID
Permit No. 82
Bowling Green, KY
42104

Sheep
Health Report
National Institute for Animal Agriculture
1910 Lydia Avenue
Bowling Green, KY 42104