

## COMMITTEE ON SCRAPIE

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The Committee met on October 4, 2011 at the Adams Mark Hotel in Buffalo, New York from 8:40 a.m. to 10:00 a.m. Twelve members and 8 guests were present.

### **National Scrapie Eradication Program**

Diane Sutton, United States Department of Agriculture, Animal and Plant Health Inspection Service, Veterinary Services (USDA-APHIS-VS) gave the following update of the scrapie eradication program:

#### **Scrapie Eradication Program Results**

- There has been a 96 percent decrease in the percent positive sheep sampled at slaughter adjusted for face color, from 0.16 to 0.0067 percent, since the start of Regulatory Scrapie Slaughter Surveillance (RSSS) in FY 2003 thru August 31, 2011.
- A decrease of 40 percent newly infected and source flocks was reported in FY 2011 thru August compared to the same date in FY 2010.
- At the current rate of progress, we expect the prevalence to be at or near zero for FY 2017.

#### **Slaughter Surveillance**

- The number of animals sampled through slaughter surveillance in FY 2011, through August 31, 2011 was 34,146 a decrease from 42,104 in FY 2010—a decrease of 19 percent. The decline was primarily due to strict adherence to targeting criteria to reduce testing costs.

#### **Scrapie Surveillance Plan**

- Implementation FY 2011
  - States with RSSS collection sites continue to sample all targeted sheep and goats.
  - States have State-of-origin sampling minimums for sheep for FY 2011 and FY 2012.
  - The annual State-of-origin sampling minimum for sheep is 20 percent of the number required to detect a scrapie prevalence of 0.1 percent with 95 percent confidence or 1 percent of the breeding flock in the State, whichever is less. The objective is to sample sufficient sheep in a 5-year period to detect a scrapie prevalence of 0.1 percent with 95 percent confidence or 5 percent of the breeding flock in the State, whichever is less.
  - If this minimum number was not collected in FY 2010 through RSSS, the State will be expected to find other sampling sources to meet the minimum. Thirty-two States met the FY 2011 sampling minimum in FY 2010.
  - Ongoing sampling of nonclinical goats 2, 3, 4 and 5 years old began in FY 2011.
- VS plans to set annual State-of-origin sampling minimum for goats once the proposed rule revising title 9, *Code of Federal Regulations* (9 CFR) parts 54 and 79 is finalized.
- After States have met their sheep and goat sampling minimums for 5 years, or have accumulated the required number over a longer time period and have not detected a case of classical scrapie, they may be designated as a lower-risk State with lower annual sampling minimums.

**Note:** These are minimums. Plans are to continue to collect samples from the maximum number of targeted animals given the available budget.

#### **FY 2012 Funding**

- The President's budget for FY 2012 includes \$15.9 million for the Scrapie Program as part of the Equine, Cervid and Small Ruminant Line. This is a \$2 million decrease from the FY 2011 budget of \$17.9 million. VS is looking at options for addressing this short fall including making changes to the Scrapie Flock Certification Program.
- As in FY 2011, APHIS plans to support supplement surveillance and identification compliance activities through the use of surplus indemnity funds in FY 2012. These activities include: collection and testing of

samples for scrapie; identification compliance monitoring and enforcement at concentration points; and provision of official eartags to producers. This use reflects the greatest benefit to the program.

#### ***FY 2012 Priorities***

- VS priorities for scrapie are to focus on improving the effectiveness and cost efficiency of surveillance and to increase animal identification compliance. This will be accomplished in part by publishing a proposed rule that would address gaps in identification and require States to meet reasonable surveillance targets to remain consistent States. States must meet these targets for VS to demonstrate geographically appropriate surveillance to meet the criteria for freedom and have confidence that all of the cases have been found.
- The rule would propose to:
  - Give the APHIS Administrator authority to relieve requirements for sheep and goats exposed to scrapie types, such as Nor98-like, that do not pose a significant risk of transmission
  - Increase flexibility in how investigations can be conducted and allow the epidemiology in a specific flock to be given more consideration in determining flock and animal status
  - Add a genetic-based approach to regulation
  - Make goat identification requirements similar to those for sheep to support ongoing slaughter surveillance in goats; no changes will be made in the consistent State requirements regarding identification of goats in intrastate commerce
  - Tighten the definition of slaughter channels
  - Expand the individual identification requirement to all sexually intact animals unless moving as a group/lot (allows mixed-source groups moving in slaughter channels under 18 months)
  - Limit the use of tattoos and implants to animals not moving through markets and not in slaughter channels
  - Reduce recordkeeping requirements by making them similar to the current uniform methods and rules compliance guidance
- APHIS is also revising its scrapie import regulations to bring them more in line with the OIE scrapie chapter. This will ensure that we meet OIE criteria for free status and prevent the reintroduction of scrapie after free status is achieved.

#### ***Scrapie Flock Certification Program (SFCP) Standards***

- APHIS is considering options for revising the SFCP standards to reduce costs associated with the program and to incorporate recent changes. Scrapie program staff has collected input from SFCP enrolled producers, industry representatives, and State and federal stakeholders. Options being considered include:
  - 1) Eliminating the Complete and Selective Monitored Categories
  - 2) Having accredited veterinarians conduct inspections at owner expense
  - 3) Decreasing frequency of inspection in the complete monitored category and removing the inspection requirement from the Selective Monitored Category
  - 4) Eliminating the Complete Monitored Category, removing the inspection requirement from the Selective Monitored Category, and making minor changes to the Export Monitored Category.

#### **USDA-ARS Scrapie Research**

Dr. Massaro Ueti from USDA, Agriculture Research Service (ARS), Animal Disease Research Unit (ADRU) presented an update for Katherine O'Rourke (USDA-ARS). The USDA-ARS unit in Pullman, Washington, conducts an integrated research program involving studies on scrapie transmission, diagnosis and susceptibility genetics in domestic sheep and goats. A study on Nor98-like scrapie in breeding ewes is now in its 4<sup>th</sup> year. Ewes were experimentally inoculated via the intracerebral route with brain homogenate from a Nor98-affected sheep and bred annually to examine the placenta for evidence of a transmissible agent. Placentas shed in 2009 and 2010 were negative for the abnormal form of the prion protein; placentas shed in 2011 are being analyzed.

Another investigation underway involves transmission of scrapie in goats. Prions are scarce in the placenta of scrapie-infected goats, so current studies are being performed to analyze milk from infected goats to determine if milk may play a role in transmission. Improvements in the tissue-based (rectal biopsy) live animal test for scrapie are also in progress. In addition, a long term study examining the effect of genotype on susceptibility to goat scrapie and the effect of genetic changes on accuracy of live animal testing are in their third year. Following oral inoculation at birth with scrapie positive goat placenta, goats with the highly susceptible genotype all developed clinical disease within 24 months. Goats with the less susceptible or long incubation genetics (S146 or K222) are clinically normal with no evidence of prions in rectal biopsy tissues. These goats will be monitored for 7 years.

#### **Committee Business**

The Committee discussed the proposed changes to the Scrapie Flock Certification Program and the pros and cons of the four change options described by Dr. Diane Sutton. The majority of members supported option 4: Eliminating the Complete Monitored Category, removing the inspection requirement from the Selective Monitored Category, and making minor changes to the Export Monitored Category. Further discussion of possible changes to the select monitored category supported some level of continued inspections in this category.

The final response from the Committee's 2010 resolution was read and discussed. This resolution requested that USDA, Food Safety Inspection Service (FSIS) and United States Department of Health and Human Services, Food and Drug Administration work with USDA-APHIS-VS, the Scrapie Program staff, and industry to identify and approve appropriate sites for radio-frequency identification implants for goats and sheep. Dr. Sutton has been in contact with USDA-FSIS and two options appear to be possible assuming the implant site selected is the tail: 1) the entire tail would be removed at slaughter, or 2) the industry would have to prove that the implant was successfully removed when the hide is removed. Dr. Sutton will follow-up with FSIS and industry groups to move this process forward.

Committee members discussed USDA's proposed changes to the line item funding for FY12. Concern was expressed that inclusion of other species along with sheep and goats would impact the funding, and ultimately the success, of the scrapie eradication program. A resolution was discussed and passed that urged USDA-APHIS-VS to establish a separate species line item for Sheep & Goat Health.

The other concern the Committee discussed was the critical importance of continued scrapie surveillance in both sheep and goats to the success of the eradication program. The Committee discussed and passed a resolution that urged USDA-APHIS-VS to maintain or increase scrapie surveillance levels for sheep and increase surveillance levels for goats.