SCRAPIE AND THE VOLUNTARY SCRAPIE FLOCK CERTIFICATION PROGRAM

Nancy J. Roberts, DVM, MPH
Area Epidemiologist

USDA, APHIS, Veterinary Services
4020 N. Lincoln Blvd., Suite 101
Oklahoma City, Oklahoma  73105

What is Scrapie?

Scrapie is a fatal, degenerative disease classified as a transmissible spongiform encephalopathy (TSE) affecting the central nervous system of sheep and goats. The agent responsible for scrapie is thought to spread most commonly from ewes/does to offspring and to other lambs/kids through contact with the placenta and placental fluids. Signs of scrapie vary widely between individual animals and develop very slowly. Early signs include subtle changes in behavior or temperament, these changes may be followed by scratching and rubbing against fixed objects such as fence posts; apparently to relieve itching. Other signs are incoordination, weight loss despite having a normal appetite, biting of feet and legs, lip smacking, head tremors, gait abnormalities, including high-stepping of the front legs, hopping like a rabbit, and swaying of the back end. Signs or effects of the disease usually do not appear until 2 to 5 years after the animal is infected. Animals may live 1 to 6 months or longer after the onset of clinical signs, but death is inevitable. It was first recognized as a disease of sheep in Great Britain and other countries of Western Europe more than 250 years ago, and has since been reported throughout the world. Only two countries are recognized by the United States as being free of scrapie: Australia and New Zealand.

On the farm, veterinarians diagnose scrapie based on the appearance of signs combined with knowledge of the animal's history. There is no officially recognized test for scrapie in live animals, although research is progressing in this area. At this time, scrapie can only be confirmed by microscopic examinations of brain tissue and by procedures that detect the presence of the scrapie agent. Scrapie has had a significant impact on the sheep industry and has caused financial losses to sheep producers across the country. In the United states, scrapie primarily has been reported in the black-faced breeds, but other breeds and crossbreeds are affected. Through August 1999, seven cases of scrapie have been reported in goats in the United States.

The first case of scrapie in the United states was diagnosed in 1947 in a Michigan sheep flock. The flock owner had imported sheep of British origin through Canada for several years. From this first case through August 1999, scrapie has been diagnosed in more than 950 flocks in the U.S.

Since 1952, the U.S. Department of Agriculture (USDA) and the sheep and goat industries have made numerous attempts to eradicate scrapie through various programs. The purpose of all previous USDA programs was to identify scrapie and eradicate it. That approach changed with the implementation of the Voluntary Scrapie Flock Certification Program (VSFCP) on October 1, 1992.
This program is a voluntary, cooperative effort among producers, allied industry representatives, accredited veterinarians, State animal health officials, and USDA’s Animal and Plant Health Inspection Service (APHIS), and consists of two categories for enrolled producers - complete monitored category and selective monitored category. In the complete monitored category, flocks/herds have either enrolled or certified status. The program provides participating sheep and goat producers with the opportunity to protect their animals from scrapie and to enhance their marketability through certifying their origin in scrapie-free flocks/herds. In addition, APHIS regulations restrict the interstate movement of animals from scrapie-infected and source flocks/herds.

The program was modified in July 1999 to make it more practical for producers. The following is information which describes the new Voluntary Scrapie Flock Certification Program.

**Program Changes**

Changes have been made to make the program more producer-friendly and simplified. One of these changes involved going from a system based on four classes to a system based on the amount of time a flock/herd is in compliance with the standards. After 5 years of continuous compliance with the program, a flock or herd is certified free of scrapie.

Another change in the program standards allows enrolled producers to obtain rams/bucks from nonparticipating or lower status flocks/herds without losing their status in the program. Certified flocks/herds purchasing rams/bucks from a nonparticipant will only lose one year of status.

In addition to these changes, producers can now use a tamper-resistant ear tag instead of a tattoo or electronic implant for identification. Producers have found the tags to be easier to use.

**How Can the Program Benefit You?**

The intent of the program is to monitor flocks/herds over a period of 5 years or more to identify flocks/herds that are free of scrapie. Because there is not yet a validated live-animal test for this disease and scrapie has a long incubation period, a flock/herd is considered free of the disease if no sheep/goats have been diagnosed with scrapie and there is no clinical evidence of it over a period of time. The longer a flock/herd is enrolled and following the requirements of the program, the more likely the animals are free of scrapie.

The economic value of animals in enrolled flocks/herds increases the longer they are in the program, especially once they are certified. Animals from certified flocks/herds are a valuable source for replacement of breeding animals in other flocks/herds. Additionally, international trade requirements may demand that animals be in a disease certification program before they are accepted into certain countries; currently Mexico will only accept sheep if they are from a flock enrolled in the VSFCP for at least a year.

The program receives producer input at the national and state levels through the National
Oversight Committee and the State Certification Board. These groups include producers, accredited veterinarians, allied industry representatives, State animal health officials, and APHIS officials.

How to Enroll

All flock/herd owners may apply to enter the Voluntary Scrapie Flock Certification Program by contacting the Oklahoma APHIS Veterinary Services (VS) office. An information package will be provided which includes an order form for tamper-resistant eartags. If the owner chooses eartags as their form of identification, he/she completes the order form, mails it to the VS office with payment, and gets their record keeping in order. When the owner receives their eartags, they schedule an initial inspection with the VS office. A Federal or State Veterinary Medical Officer will come out to the farm and personally inspect each animal, and may assist in applying eartags. During the initial inspection, a complete inventory of the flock/herd is made. The State Certification Board reviews all applications and approves or disapproves admission to the program based on compliance or noncompliance with program standards. The completed application package for enrollment includes:

- A list of animals in the flock/herd, including breed, gender, and official program identification (flank or ear tattoo, microchip, or APHIS-approved, tamper-resistant ear tag);
- A statement by the flock or herd’s accredited veterinarian declaring the flock/herd free of scrapie;
- An inspection report authorized by a State or Federal regulatory official verifying official identification and other application information.

Program Requirements

When participating in the program, flock/herd owners must:

- Agree to immediately report scrapie-suspect animals to the proper animal health official.
- Officially identify all animals within a flock/herd that are 1 year of age or older. Animals less than 1 year old must be identified whenever a change of ownership occurs, except for those in slaughter channels.
- Maintain required records as specified by the program. Owners must account for all additions, departures, births, and deaths. Records must be retained for a minimum of 5 years after an animal dies or is removed from the flock/herd.
- Allow breed associations and registries, livestock markets, and packers to disclose records to APHIS and/or State animal health officials and State Scrapie Certification Board members.
• Provide necessary facilities and personnel to assist in inspections, including:
  ▷ checking animals for official identification and signs of scrapie
  ▷ checking records for completeness and accuracy.

• Submit to an official laboratory tissues from scrapie-suspect animals and from animals suspected of having other neurologic or chronic, debilitating illnesses.

• Report to the State Certification Board additions of animals from flocks/herds with lower status or from flocks/herds not participating in the program.

Program Categories

Complete Monitored Category

This category means that a flock/herd is approved to participate in the program. Flocks/herds in this category have either enrolled or certified status.

Complete Monitored Enrolled Flock. When a flock/herd enters the program, it is assigned enrolled status, becoming a “complete monitored enrolled flock/herd.” These flocks/herds are assigned an enrollment date (the date the State Certification Board approves admission to the program) and a status date. The status date is the best risk indicator for scrapie in an enrolled flock/herd. Initially, the status date is the same as the enrollment date and will be maintained if a flock/herd continues to meet program requirements. However, if a flock/herd obtains animals or commingles with animals that do not meet the program standards, the status date changes to reflect the date of this occurrence. The older the date, the longer the flock/herd has been meeting program standards.

Rams/bucks may be acquired from any flock/herd (other than source or infected flocks/herds), including those not enrolled in the program. Presently, there is no scientific evidence that supports rams/bucks as a risk for spreading scrapie. However, producers increase the risk that scrapie will be diagnosed in their flock/herd when purchasing males from nonenrolled flocks/herds.

Ewes/does have been found to spread the disease. Therefore, to maintain scrapie-free status, flock/herd owners may obtain females only from other enrollees with an equal or older status date. Owners acquiring females from flocks/herds not participating in the program or from flocks/herds of lower scrapie status will have their status date adjusted to reflect the addition of the lowest category animal.

Complete Monitored Certified Flock. When an enrolled flock/herd has met program standards for 5 consecutive years, it advances to certified status. Sheep/goats from these flocks/herds are unlikely to be infected with scrapie. Flocks/herds in this status may be increased with males from other certified or enrolled flocks/herds. However, APHIS recommends that producers consider the risk of scrapie infection when purchasing males from lesser status flocks/herds. Females may be
purchased only from other certified flocks/herds.

Both enrolled and certified flocks/herds are inspected annually by State or Federal regulatory personnel. Flocks/herds of both statuses also may loan out rams/bucks for breeding without jeopardizing their status date. The ram/buck must reside in the program flock/herd other than for breeding purposes and cannot be with ewes/does 30 days prior to and 60 days following lambing.

Selective Monitored Category. Selective Monitored Category is open to any flock and was designed for slaughter lamb producers to allow for scrapie surveillance in large production flocks. Only male animals over 1 year of age must be officially identified. Producers agree to submit for scrapie diagnosis animals that are culled from the flock or that die. (The number of animals to submit per year depends on the flock size.) Additionally, an accredited veterinarian must inspect all cull ewes for clinical signs of scrapie prior to slaughter. Selective status is maintained indefinitely, as long as the flock meets the category requirements.

Epidemiologic Investigations

If scrapie is diagnosed in a flock/herd in any program category, animal health officials will conduct an epidemiologic investigation. The investigation will identify and trace back the source of the disease and identify exposed animals. These officials will work with the flock/herd owner to develop and implement a flock/herd plan. This plan will include depopulation of high-risk animals, reduction of risk associated with spread of infection, and facility cleanup and disinfection.

Exhibition and Transportation Guidelines

The program standards also give guidelines for reducing the risk of scrapie exposure when sheep/goats are at shows or are being transported. Guidelines include separating enrolled sheep/goats from nonenrolled animals by a vacant pen, barn alley, or solid barrier sufficient to prevent physical contact. Limited contact in show rings minimizes the risk of disease transmission. Enrolled sheep/goats should not commingle with lambing or kidding animals at exhibits or sales.

Further Information

For more information about the Voluntary Scrapie Flock Certification Program, you may contact:

USDA, APHIS, Veterinary Services
4020 N. Lincoln Boulevard
Suite 101
Oklahoma City, OK 73105

or by telephone (405) 427-9413 or Fax (405) 427-9451.
Additionally, current information on enrolled, certified, source, and infected flocks is available 24 hours a day every day through a toll-free automated telephone voice response service at (800) 545–USDA (8732). To reach APHIS’ scrapie information on the World Wide Web, point your Web browser to http://www.aphis.usda.gov and type the word “scrapie” (minus the quotation marks) in the search engine.
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