

THE USDA SCRAPIE ERADICATION PROGRAM

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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. It was first recognized as a disease of sheep in Great Britain and 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. The first case of scrapie in the United States was diagnosed in 1947 in a Michigan flock. The flock owner had imported sheep of British origin through Canada for several years. From this first case through July 2001, scrapie has been diagnosed in more than 1,000 flocks in the United States.

The scrapie agent is currently believed to be an abnormal protein (prion) that acts as the infectious and contagious agent. It is believed to be spread most commonly from infected females to offspring and to other animals through contact, primarily through oral exposure to the placenta and placental fluids.

What Are The Clinical Signs of Scrapie?

Signs of scrapie vary widely between individual animals and develop very slowly. Due to damage to nerve cells, affected animals usually show behavioral changes, tremor (especially of head and neck), itchiness, and incoordination that progresses to inability to get up and to eventual death. There is no cure for this disease.

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. An affected animal may appear normal if left undisturbed at rest. However, when stimulated by a sudden noise, excessive movement, or the stress of handling, the animal may tremble or fall down in a convulsive like state.

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.

How is Scrapie Diagnosed?

On the farm, veterinarians diagnose scrapie based on the appearance of signs combined with knowledge of the animal's history. Several other disease syndromes can cause clinical signs similar to scrapie in sheep including ovine progressive pneumonia, listeriosis, rabies, the presence of external parasites (lice and mites), pregnancy toxemia and toxins.

There is no officially recognized test for scrapie in live animals, although research is progressing in this area. Currently, a live animal test in sheep using a sample from the third eyelid and DNA testing for susceptibility to scrapie are being used, but these tests have not been validated for goats.

Scrapie can only be confirmed by microscopic examinations of brain tissue and by special staining procedures of tissues samples that detect the presence of the scrapie agent.

What are the Goals of the New USDA Scrapie Eradication Program?

The goals of this program are to eradicate scrapie from the United States in 10 years, and then to be declared scrapie free by the end of 17 years. The program is based on the following key concepts:

- * Identification of pre-clinical infected animals through live-animal testing and active slaughter surveillance.
- * Effective tracing of infected animals to their herd (which will be referred to as a flock for the purposes of this document) of origin made possible as a result of the new identification requirements.
- * Providing effective cleanup strategies that will allow producers to stay in business, preserve breeding stock, and remain economically viable. USDA APHIS will do this by providing the following to exposed and infected flocks that participate in cleanup plans:
 - + Indemnity for high risk, suspect, and scrapie positive sheep and goats (which owners agree to destroy)
 - + Scrapie live-animal testing in flocks with sheep
 - + Genetic testing
 - + Testing of exposed animals that have been sold out of infected and source flocks

What Are the Identification Requirements for Sheep and Goats Under the Scrapie Eradication Program?

- * In Oklahoma, all sexually intact sheep and goats of any age must be officially identified before being moved for any purpose.
- * Producers, licensed livestock dealers, special sale permit holders and approved markets may identify animals.
- * Unidentified animals arriving at livestock markets will be identified prior to sale.
- * Each of the following is considered official identification for sheep and goats in Oklahoma:
 - + An official USDA tag obtained from the Oklahoma State Department of Agriculture
 - + **Legible** official goat registry tattoo, only if the animal is accompanied by a registration certificate
 - + **Legible** tattoos with a premises number assigned by the Oklahoma State

- Department of Agriculture, and an individual animal number
- + Ear tags and **legible** tattoos for animals enrolled in the Scrapie Flock Certification Program

What Are the Recordkeeping Requirements for the Scrapie Eradication Program?

Anyone officially identifying sheep and goats must keep records on the following for 5 years:

- * Date that the animal(s) were tagged
- * The tag numbers that were applied
- * The breed, age and sex of the animals that were identified
- * Any other identification on the animal(s)

Anyone selling, buying or leasing sheep and goats must keep records on the following for 5 years:

- * The animal(s)' ID, and the name, address and phone number of the person involved in the transaction
- * The date of the sale, purchase or lease
- * The breed, age and sex of the animal(s)
- * Any other identification on the animal(s)

Once a sheep or goat has been tagged with an official identification, it must not be tagged with an additional official identification. For instance, if you buy and move animals from "John Doe" that already have his official identification tags, you should not retag these animals with your official flock identification tags unless the official identification tag has been lost. These animals should be listed in your records or an owner statement as having "John Doe" (and "John Doe's" official flock identification number) as the flock of origin.

The Federal Scrapie Eradication Rules require that all sexually intact sheep and goats in interstate commerce (for any purposes other than immediate slaughter) must have a health certificate issued by their veterinarian within 30 days.

Scrapie Certification or Identification - What's the Difference?

The USDA rule requiring official identification of sheep and goats crossing state lines went into effect on November 19. "*I'm confused!*" is the mantra being repeated by many producers, veterinarians, and even some USDA employees. Keeping the identification rule "simple" wasn't possible when trying to write a regulation that will apply to someone with four animals and someone else with five thousand animals.

To make matters more confusing, some producers are confusing the sheep and goat identification rule with the Scrapie Flock Certification Program. (SFCP) "*Why are we being forced into the scrapie program?*" they ask. You're not! The SFCP was developed to identify sources of low risk breeding animals. The identification rule was implemented to permit tracing of animals from infected flocks and from flocks whose scrapie risk has not been defined. Still confused? Read on.

The Scrapie Flock Certification Program was implemented in 1992. The SFCP allows producers to make risk based decisions regarding scrapie when purchasing breeding animals. *How?* The SFCP identifies flocks whose animals are at lower risk of spreading scrapie - the longer the status date, the less risk the flock has scrapie. Because of the long incubation period of the disease, flocks who

stick with the program (don't add lower status females) become certified scrapie free after five years. Animals from certified flocks represent the least risk of introducing scrapie when added to a purchasing flock. **SFCP tags** show a **map of the US and a sheep** in addition to premises and animal identification.

The identification rule went into effect November 19, 2001. This rule requires sheep and goats to have official identification (usually ear tags) to cross state lines. For the most part, these are animals from flocks whose scrapie status has not been identified. The rule was put into effect to assist USDA in eradicating scrapie from the U.S. Because the scrapie agent is shed at birth, since January 2002 all offspring must be identified to their flock of birth. This will allow USDA to trace positive animals all the way back to where they became infected - at birth. Identifying animals at birth and keeping good records will assist in developing a scrapie flock cleanup plan should your flock become infected. In Oklahoma, **official ear tags** for sheep and goats NOT in the SFCP have a **shield that says USDA** on them and have a unique serial number on the male part of the tag, and **OK** on the female part of the tag.

What Happens If My Sheep or Goats are Exposed to Scrapie?

A federal or state veterinarian will do an investigation. Based on the exposure risk of the herd, applicable regulations, and the owners situation, the veterinarian will determine the cleanup and monitoring actions to be taken. If your flock is determined to be an infected or source flock some or all of your animals will be restricted to the premises except movements to slaughter until the cleanup plan is completed.

How Do I Enroll in the Certification Program?

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

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Additionally, current information on enrolled, certified, source, and infected flocks is available online at <http://www.aphis.usda.gov/vs/scrapie/>.

The proper citation for this article is:

Roberts, N. J. 2002. The USDA Scrapie Eradication Program. Pages 32-35 in Proc. 17th Ann. Goat Field Day, Langston University, Langston, OK.