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## Scrapie

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## Scrapie

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### WHAT IS SCRAPIE?

Scrapie is a disease of sheep and goats caused by a very small infectious agent. The agent is smaller than a virus and its exact identity is still unknown. The agent infects the central nervous system (brain) and, after a long incubation period (years), affected animals show clinical signs of itching, incoordination, stumbling in the hind legs, head tremor, and weight loss. Although not all clinical signs are seen in every affected animal, the disease is ultimately fatal.

### IS IT A COMMON DISEASE?

The first case of scrapie in the United States was diagnosed in 1947. Since that time, more than 600 flocks have been diagnosed with scrapie. Current U.S. figures indicate that there are approximately 108 identified scrapie-infected flocks representing 7430 sheep. The prevalence of scrapie may be higher, but the disease may go undiagnosed in a flock because of variable clinical signs.

### HOW IS THE DISEASE DIAGNOSED?

Currently, there is NO live animal test (e.g., blood test) to determine if an animal has scrapie.

Diagnosis is made by examining brain tissue under the microscope. Research is ongoing to develop more sensitive testing methods. However, the new techniques being investigated also require that the animal be killed for testing.

### WHAT IS BEING DONE IN THE U.S. TO CONTROL THE SPREAD OF SCRAPIE?

A Voluntary Scrapie Flock Certification Program was started in late 1992. Information on that program is outlined in the USDA Fact Sheet "Scrapie, Voluntary Scrapie Flock Certification Program" (attached).

Also, a one-time federal indemnification program is currently ongoing. The indemnification program will end July 7, 1993.

For information on either of these programs, contact your local veterinarian or the state or federal veterinarian in your state.



## Voluntary Scrapie Flock Certification Program

### History

Since 1952, there have been numerous attempts to eradicate scrapie through the implementation of various programs. All of these efforts have been less than successful. A 1985 United States Animal Health Association resolution prompted a review of the scrapie bloodline eradication and surveillance program. This was accomplished by a series of meetings involving the Animal and Plant Health Inspection Service (APHIS), State animal health officials, industry groups, and researchers.

At this review, it was decided that (1) the scrapie bloodline eradication and surveillance program should be abolished due to inadequate scientific knowledge; (2) the most effective program to control scrapie would be the depopulation of all affected and exposed sheep at a cost of many millions of dollars, which would not be acceptable to industry or the U.S. Department of Agriculture (USDA); and (3) USDA should redirect its efforts and funding towards education and research.

The outcome of these meetings was an advance notice of proposed rulemaking that solicited comments on removing regulations for destroying animals because of scrapie and discontinuing the Scrapie Eradication Program, while considering alternative programs for controlling the disease. The majority of comments requested APHIS to continue the bloodline/surveillance program until new options have been explored. It also was suggested that it would be highly desirable to involve all interested parties in developing an effective, uniform program that could be implemented through cooperative State, Federal, and industry efforts.

The Voluntary Scrapie Flock Certification Program, a result of negotiated rulemaking, is a cooperative effort between producers, allied industry representatives, accredited veterinarians, State animal health officials, and APHIS.

The intent of the voluntary program is to monitor flocks over a period of 5 years or more and to identify flocks that are free of scrapie. Since there is no live-animal test and scrapie has a long incubation period, a flock is considered free of the disease if no sheep have been diagnosed with scrapie and there is no clinical evidence over a period of time.

The program provides participating owners with the opportunity not only to protect their sheep from scrapie but to enhance the marketability of their animals. The control effort focuses on risk reduction and sound husbandry practices. Since each advancing phase represents a lower risk of scrapie in the flock, the economic value of the animals is increased, especially after completing the 5-year program and attaining implications for exporting breeding stock to other countries.

The National Oversight Committee and State Certification Board are composed of producers, accredited veterinarians, allied industry representatives, State animal health officials, and APHIS officials.

### Flock Certification

Any owner of a flock may apply to enter the Voluntary Scrapie Flock Certification Program by sending a written request to the State Certification Board.

When participating in the program, the owner must:

- Agree to report scrapie-suspect animals to the proper animal health official immediately. Such animals must not be sold for breeding or slaughter.
- Officially identify all animals within a flock 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. Records must be kept a minimum of 5 years after an animal dies or is removed from the flock.
- 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; and
  - checking records for completeness and accuracy.
 Owners must account for all acquisitions, departures, births, and deaths.
- Submit to an official laboratory tissue from scrapie-suspect animals and from animals suspected of other neurologic and chronic debilitating illnesses.

If a flock is identified as a trace or exposed flock, participants must agree to submit for testing tissues from all animals 18 months of age or older at the time of death. This rate of submission is continued for 3 years after a flock is identified as a trace or exposed flock.

The following requirements also must be met:

### **Phase 1—Certifiable Class C**

*Minimum time requirement 1 year*

Flock has annual inspections.

Each animal must have a record containing:

- Official identification number and any secondary identification.
- Sex
- Breed
- Date of acquisition and source (if animal was not born in the flock)
- Disposition —the date and cause of death if known; date of removal and destination.

### **Phase 2—Certifiable Class B**

*Minimum time requirement 2 years*

The flock has:

- Inspections every 6 months
- No evidence of scrapie for 1 year
- Not found to be a source flock in the last year
- Records that also include sire, dam, and progeny of each animal

The flock owner has:

- Met requirements of Certifiable Class C
- Agreed to provisions of Certifiable Class B

### **Phase 3—Certifiable Class A**

Minimum time requirement 2 years

Records the same as Certifiable Class B

The flock has:

- Inspections every 6 months
- No evidence of scrapie in the last 3 years
- Not been found to be a source flock in the last three years

The flock owner has:

- Met requirements of Certifiable Class B
- Agreed to provisions of Certifiable Class A

### **Phase 4—Certified**

Records same as Certifiable Class A

The flock has:

- Annual inspections
- No evidence of scrapie in the last 5 years
- Not been found to be a source flock in the last 5 years

The flock owner has:

- Met the requirements of Certifiable Class A
- Agreed to provisions of Certified status

All animal acquisitions must be from the same or higher class status, or the flock will return to the status of the lowest status animal required. Flock status will be jeopardized if animals commingle with animals from a flock in a lower phase.

If infection is found in a flock, an epidemiological investigation will be conducted. This investigation will identify trace and source flocks and exposed animals. A flock plan will be developed and implemented.

The flock plan may include depopulation of high-risk animals, reduction of risk associated with spread of infection, and facility cleanup and disinfection.

If one or more animals in a flock is diagnosed with scrapie or identified as a source flock, the flock status in the program will be "pending." After the flock plan is developed and implemented, the flock will return to certifiable Class C.