

# Scrapie Disease in Sheep and Goats

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# Transmission of Scrapie

Scrapie is a degenerative disease that affects the nervous system in sheep and goats. It is considered a transmissible spongiform encephalopathy (TSE). While it is not completely understood how Scrapie is spread, most often lambs and kids are infected.

It takes 2-5 years for clinical signs of scrapie to appear. The most vulnerable time for transmission is during lambing and kidding. After exposure to birthing fluids is the highest risk period.

# National Scrapie Eradication Program

- **Educate:** yourself on the signs of scrapie
  - **Report:** to your state vet or USDA veterinary services office if your sheep or goat, older than 12 months, shows signs of scrapie
  - **Submit:** samples from sheep or goats over 18 months of age that die or are euthanized on your farm.
- **ID:** Goats and sheep moving across state lines must be identified with the Scrapie program. Castrated males and animals not for breeding are exempt along with meat and fiber animals.

# Scrapie Symptoms

- Scratching and excessive rubbing
- Loss of coordination
- Losing weight while eating normally
- Head pressing and star gazing
- Gait abnormalities
- Trembling and convulsions
- Lip smacking
- Biting at feet and legs
- Premature kidding
- Displaying signs of pica (eating substances not normally eaten)

# Types of Identification

- Ear tags, either plastic or metal.
- Tattoos, either registered with an acceptable registry or with APHIS.
- Approved RFID device, either microchip or electronic ear tag.



Picture credit: [extension.umd.edu/news/ordering-scrapie-tags](https://extension.umd.edu/news/ordering-scrapie-tags)



Picture credit: [today.agrilife.org/2018/04/04/expert-misplaced-metal-scrapie-ear-tags-pose-risk-sheep-shearer-sheep/](https://today.agrilife.org/2018/04/04/expert-misplaced-metal-scrapie-ear-tags-pose-risk-sheep-shearer-sheep/)



Picture credit: [www.uaex.edu/publications/pdf/FSA-4015.pdf](https://www.uaex.edu/publications/pdf/FSA-4015.pdf)

# Recordkeeping

It is required to keep records of animals bought or sold for 5 years.

- Sex
- ID Number and date
- Date sold and acquired
- Information of previous owner
- Information of current owner

Animals can be traced back to original herd through identification and records.

# Submitting samples

- APHIS will cover all shipping and testing costs for up to 30 animals from a herd.
- Samples need to be either brain or lymphoid tissue.
- Samples can be collected by the producer, an accredited vet, or APHIS/State employees.
- A producer can send a whole head, or a vet can submit specified samples for testing.

# Keeping Scrapie out of your herd

- Keep a closed herd. If you do not have scrapie in your herd currently, it is unlikely your animals will get it unless new animals are added.
- Purchase animals from herds that are scrapie free and are certified from the National Scrapie Flock Certification Program.
- Quarantine new animals. Although scrapie may take years to show signs, it is still highly recommended to observe and separate new animals.
- Use genetic resistant sheep. A ram with RR genotype is the most resistant to scrapie and will always pass on one "R" to his offspring.

# References

National Scrapie Eradication Program, [www.aphis.usda.gov/animal\\_health/animal\\_diseases/scrapie/downloads/nsep-program-standards-final-rule.pdf](http://www.aphis.usda.gov/animal_health/animal_diseases/scrapie/downloads/nsep-program-standards-final-rule.pdf)

National Scrapie Eradication Program, ID Factsheet [www.aphis.usda.gov/animal\\_health/animal\\_diseases/scrapie/downloads/fs-scrapie-recordkeeping.pdf](http://www.aphis.usda.gov/animal_health/animal_diseases/scrapie/downloads/fs-scrapie-recordkeeping.pdf)

Scrapie and You

[http://www.eradicatescrapie.org/Additional%20Resources/Scrapie%20and%20You%20Brochure%20\(ASI\).pdf](http://www.eradicatescrapie.org/Additional%20Resources/Scrapie%20and%20You%20Brochure%20(ASI).pdf)

Genetics of Scrapie, June 2002

[www.sites.ext.vt.edu/newsletter-archive/livestock/aps-02\\_06/aps-112.html](http://www.sites.ext.vt.edu/newsletter-archive/livestock/aps-02_06/aps-112.html)

Q&A Testing for Scrapie

[www.aphis.usda.gov/animal\\_health/animal\\_diseases/scrapie/downloads/q%26a\\_testingscrapie.pdf](http://www.aphis.usda.gov/animal_health/animal_diseases/scrapie/downloads/q%26a_testingscrapie.pdf)