Eradicating Scrapie FAQs

What Everyone in the Sheep Industry Needs to Know

NSEP
NATIONAL SCRAPIE ERADICATION PROGRAM

WHAT IS SCRAPIE?

Scrapie is a degenerative and eventually fatal disease affecting the central nervous systems of sheep and goats. It was first described in sheep almost 300 years ago in Europe. Animals may appear incoordinated and weak, display gait abnormalities, become thin, be highly sensitive to noise and sudden movements, have tremors, press their heads against solid objects, star-gaze and repeatedly rub, leading to bare spots – therefore the disease commonly became called "scrapie."

Scrapie belongs to the family of diseases referred to as transmissible spongiform encephalopathies (TSEs). These neurological diseases are thought to be caused by prions. Prions are infectious proteins that cause damage to the brain. There is no known link between scrapie and other TSEs such as bovine spongiform encephalopathy (BSE or "Mad Cow Disease") in cattle, chronic wasting disease (CWD) in deer and elk, and in humans Creutzfeldt-Jakob disease (CJD) and variant Creutzfeldt-Jakob (vCJD).

WHY IS SCRAPIE SUCH A CONCERN?

The sheep industry annually faces millions of dollars from scrapie-related economic losses due to international trade restrictions, rendering and carcass disposal problems, plus other related issues. From a sheep production standpoint, eradication will improve the overall health of the national flock and scrapie-related economic losses. Everyone who raises sheep and goats, facilitates their sale and provides transportation is key to eradicating scrapie and having our U.S. flock declared free of this disease.

There is no evidence that scrapie transmits to humans, however, public health concerns related to BSE have resulted in efforts to eradicate all TSEs in food-producing animals.

ARE THERE ANY TYPES OF SHEEP THAT ARE MORE LIKELY TO BE MORE SUSCEPTIBLE TO SCRAPIE?

Scrapie is not a genetic disease; however, certain genotypes help protect sheep from classical scrapie. Genetically susceptible sheep exposed to the infectious prion are at the highest risk for contracting scrapie. There is no evidence that one breed is more susceptible to scrapie; however, some producers have elected to introduce the more resistant genetics into their flocks. Those sheep with the amino acid arginine (R) found at codon 171 of the prion protein gene are more resistant to developing classical scrapie.

WHY ISN'T SCRAPIE ALREADY ERADICATED?

When scrapie entered the U.S. in 1947, a poor understanding of the disease hindered eradication efforts for decades. We've since learned that scrapie has a 2- to 5-year incubation period. Infected ewes can appear normal but still spread the disease, primarily through exposure of lambs to their placenta and birth fluids.

In addition, the ability to diagnose the disease was limited by the lack of robust tests. We now have better tests for scrapie including a live animal test. Also, certain genotypes have been identified that are resistant to scrapie and commercial tests are now available. These tools have assisted the sheep and goat industries and state and federal governments to substantially reduce scrapie prevalence making eradication of the disease from the United States this decade possible, if we remain vigilant.

Goats are critical to scrapie eradication. Because goats are also susceptible to scrapie, both industries must work together to eradicate the disease.

IS IT REALISTIC TO ERADICATE SCRAPIE IN THE U.S.?

The U.S. flock is within reach of scrapie-free status and reducing burdens of international trade restrictions, consumer perceptions and other issues. The World Organization for Animal Health (WOAH) establishes guidelines for declaring scrapie-freedom. No scrapie cases can be found in sheep or goats for seven years, and an ongoing surveillance and control program must be in place.

The last case of scrapie in the U.S. was found in January 2021, which means that if we don't have another case by 2028, the U.S. can declare freedom from scrapie. It's time to Finish the Fight!

As of 2024, 47 states have not had a case of scrapie or a traceback in sheep in more than 7 years.

WHAT IS THE U.S. DOING TO BE SCRAPIE-FREE?

Programs to control scrapie have been in place since 1952. The National Scrapie Eradication Program (NSEP) was modernized in 2001. It is a cooperative program between the federal government, state governments and industry groups. NSEP conducts surveillance for scrapie in the U.S., intending to rid the U.S. of scrapie and achieve scrapie-free status as defined by WOAH. The modernization of the NSEP incorporated scientific advancements into the program to make it more effective. Since 2002, the prevalence of scrapie in the U.S. has decreased significantly, primarily due to effective testing and traceback, including the Regulatory Scrapie Slaughter Surveillance Program (RSSS).

HOW CAN I PROTECT MY FLOCK FROM SCRAPIE AND IS TESTING THE ONLY PATH TO ERADICATION?

One protection method sheep producers may consider is developing a genetically resistant flock. For example, genetic testing of rams to identify sires with scrapie resistance (171 RR) thus passing on resistance to their offspring. In 2019, USDA updated its regulations to accept genetic testing to exempt resistant sheep from destruction and to qualify for interstate movement.

Participation in the Scrapie Flock Certification Program (SFCP) provides sheep and goat producers the opportunity to increase the marketability of their animals through demonstrating scrapie freedom in their flock or herd. Additionally, the SFCP contributes to APHIS' scrapie surveillance strategy, testing sheep and goats from flocks and herds that otherwise might not be sampled through traditional slaughter surveillance.

Maintaining a closed flock, introducing genetically resistant animals or introducing animals from an SFCP flock are also ways to protect your flock.

Be vigilant about observing your entire flock. Contact your state veterinarian or the USDA Veterinary Services office for your state if your sheep older than 12 months show signs of scrapie such as incoordination, tremors and/or frequent rubbing. Testing suspect animals is the most cost-effective way to find scrapie infected animals.

ARE THERE ANY ACTIONS I SHOULD TAKE WHEN A SHEEP DIES ON MY PROPERTY?

Test all mature sheep for scrapie, even if they don't have any symptoms. Accredited veterinarians or regulatory personnel can collect samples for on-farm surveillance, aiding in achieving scrapie-free status. If a sheep shows signs of scrapie, it is important to report this to your private veterinarian or a state or federal veterinarian.

This on-farm surveillance counts toward helping us achieve scrapie-free status from WOAH.

WHAT IS A SCRAPIE "TAG" AND WHAT ANIMALS MUST HAVE IT?

The National Scrapie Eradication Program has an identification component to allow traceability in the event scrapie is identified. The regulation requires most sheep to be identified to their flock of birth when they leave your property for sale, shows, events or are commingled with other sheep. The most common and easiest method is by using official scrapie program sheep and goat ear tags, and maintaining tagging and movement records. Auction markets, dealers and veterinarians also have access to scrapie program tags for animals that arrive without official ID. Your state or USDA-APHIS veterinarian can provide accurate information and alert you to any additional state requirements. Call 1-866 USDA-TAG to order tags, request a flock ID and learn about the types of tags available.

Lambs (<18 months of age) in slaughter channels may move without official ear tags but must be accompanied by an owner/hauler statement that includes a group/lot ID and the information needed to trace the animals. Wether lambs under 18 months of age do not require official ID or an owner/hauler statement.

It is the shared responsibility of producers, auction markets, buyer or seller agents, transporters and harvesters to verify necessary identification and records requirements. All states require certain sheep to be officially identified when they change ownership. States may have other requirements, so contact the state veterinarian for information. It is the producer's responsibility to know and adhere to both state and federal requirements.

WHAT OPTIONS ARE THERE FOR SHEEP THAT AREN'T INDIVIDUALLY IDENTIFIED AND WON'T BE COMMINGLED?

According to federal requirements, animals in slaughter channels at 18 months and older do not need individual identification if the animals were kept as a group on the same premises on which they were born and have not been maintained in the same enclosure with unidentified animals from another flock at any time, including throughout the feeding, marketing and slaughter process. These animals must be accompanied by an owner/hauler statement or an interstate certificate of veterinary inspection (ICVI). There are different requirements for what these statements must contain depending upon the circumstances. States may have additional scrapie requirements, so it is always best for sheep producers check with their state veterinarian's office for specifics.

Animals moved from one premises owned by the producer across state lines to another premises owned or leased by the producer – such as for grazing – can use an owner/hauler statement unless a state has additional requirements.

WHAT IS THE SCRAPIE-FREE FLOCK CERTIFICATION PROGRAM?

The Scrapie-free Flock Certification Program (SFCP) is a voluntary program that monitors participating flocks for evidence of scrapie. Flocks that have been free of scrapie for specified time periods have the opportunity for enhanced marketability.

WHAT IS NOR98-LIKE (NONCLASSICAL) SCRAPIE?

Nor98-like (nonclassical) scrapie is also a prion disease. However, it is distinct from classical scrapie. Testing can distinguish the two different diseases. In the U.S., flocks found to have an animal with Nor98 scrapie are not required to be depopulated or have movement restrictions.

Nor98-like scrapie has likely existed for a long time. However, it was first identified in Norway in 1998, hence the name Nor98. This type of scrapie is referred to as "atypical scrapie," "Nor98 scrapie," "Nor98-like scrapie" or "nonclassical scrapie."

Since 1998, similar cases have been found in most European countries, the Falkland Islands, Australia, New Zealand, Canada and the United States. The first cases in the United States were identified in 2007.

Under natural conditions, Nor98-like scrapie is either not transmitted or is poorly transmitted. Many scientists believe that Nor98-like scrapie is not an infectious disease under natural conditions; instead, it is caused by a random conversion of the normal prion protein into the abnormal form (often referred to as "sporadic").

In the U.S. and other countries, most cases of Nor98-like scrapie are found by testing apparently healthy sheep and goats at slaughter. Hence, they have not been reported as showing signs. The cases of Nor98 scrapie where the animals have been clinically affected have shown many signs seen with classical scrapie such as incoordination and tremors, however frequent rubbing is absent. Finding Nor98 in more than one animal in a flock is unusual, while classical scrapie usually affects multiple animals.

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