

SCRAPIE: ERADICATE IT

The sheep industry's scrapie eradication efforts.



American Sheep
Industry Association

March 2019

The goal of the American Sheep Industry Association and the American sheep industry is to eradicate scrapie from our borders. In addition, it is ASI's objective to have the United States recognized as scrapie free in accordance with the World Organization for Animal Health. This publication is created specifically for those of you in the field who are also working to achieve this goal.

This newsletter brings together, into one spot, current information from all 50 states, as well as from the U.S. Department of Agriculture and any other organization providing scrapie news, and reports it back to the field. If you have first-hand accounts that you believe would be relevant for others to read or have information that you would like included in this newsletter, please email kyle@sheepusa.org.

Scrapie Infected Sheep & Goat Flock in Pennsylvania

The flock of origin of the RSSS scrapie positive goat confirmed in August 2018 is nearing completion of a genetic based flock plan and is under a five-year Post Exposure Monitoring and Management Plan.

The index case was a dairy goat sampled at a New Jersey slaughter establishment through regulatory scrapie slaughter surveillance program and confirmed at NVSL in August 2018. Initial tracing to the flock of origin was difficult because the livestock hauler that picked up the animal from the Pennsylvania premises placed his personal flock ear tag in the goat and did not maintain the required records. Once the flock of origin was found, the remaining animals on the premises were quarantined and placed on a genetic based flock plan.

The flock consisted of 58 Dorset sheep and 10 goats (three dairy and seven recently purchased Boer yearlings). The premises had sheep for years and the positive goat's dam, which was no longer alive, had been purchased from another premises in Pennsylvania. The flock owner reported selling sheep and goats only for slaughter. This was verified by USDA Veterinary Services via examination of auction records.

All animals were genotyped and, as the flock had a high prevalence of V (valine) at Codon 136 sheep (45 percent of sheep were AV or VV), the valine strain of scrapie was suspected and was later confirmed. Genotyping on the original positive goat was not possible

as sample DNA had degraded due to a delay in sample submission.

Depopulation of all QQ and AV QR sheep and the three adult dairy goats was completed on Oct. 31, 2018.

Five sheep and one goat had scrapie detected on necropsy tissues for an apparent flock prevalence of 16 percent in the depopulated animals and 12 percent overall. Of the five positive sheep, three were AV QR and two were VV QQ at codons 136 and 171, respectively. Since all the positive sheep had a V at codon 136, including three AVQRs, it was concluded that this was a valine strain of scrapie. The positive depopulated goat was of a susceptible genotype NN at codon 146 and QQ at codon 222. No clinical signs of scrapie were noted at the time of genotyping or depopulation.

Cleaning and disinfection of the premises was challenging as animals gave birth in a large field and the small ruminant barn contained a buildup of several years' manure. Manure was removed from the barn along with carcass remnants from the field and will be composted on site within a fenced in area away from the remaining animals in order to reduce the prion load. The finished compost will be spread on fields without sheep or goats and tilled into the soil verified under regulatory supervision.

To view the National Scrapie Eradication Program current Monthly Report, prepared by the U.S. Department of Agriculture's Animal and Plant Health Inspection Service's Veterinary Services, go to https://www.aphis.usda.gov/animal_health/animal_diseases/scrapie/downloads/monthly_scrapie_report.pdf

Animals Sampled for Scrapie Testing Sheep and Goats

In Fiscal Year 2019, as of Jan. 31, 2019

10,555 animals have been sampled for scrapie testing: 10,080 RSSS and 475 on-farm samples
7,910 sheep and 2,645 goats.

5 sheep and 1 goat have tested positive for classical scrapie

Regulatory Scrapie Slaughter Surveillance (RSSS) Statistics

Since April 1, 2003

611,806 samples collected

486 NVSL* confirmed positives

*National Veterinary Services Laboratories

In FY 2019 (as of Jan. 31, 2019)

10,080 samples collected (2,451 from goats)

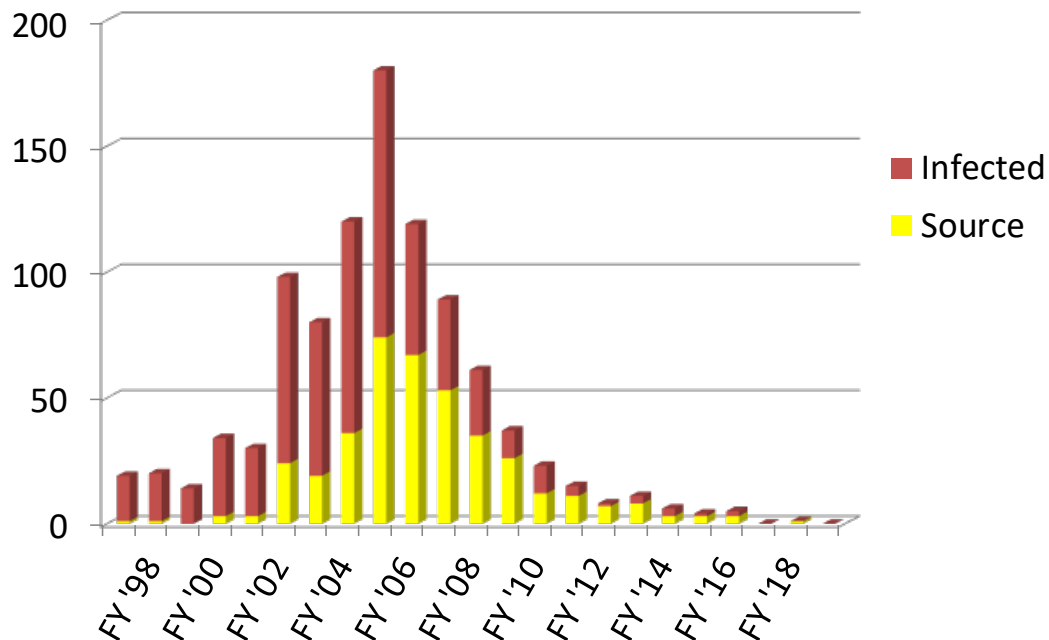
0 NVSL confirmed positive

On-Farm Surveillance

In Fiscal Year 2019, as of Jan. 31, 2019

475 animals have been tested on farm – 281 sheep and 194 goats

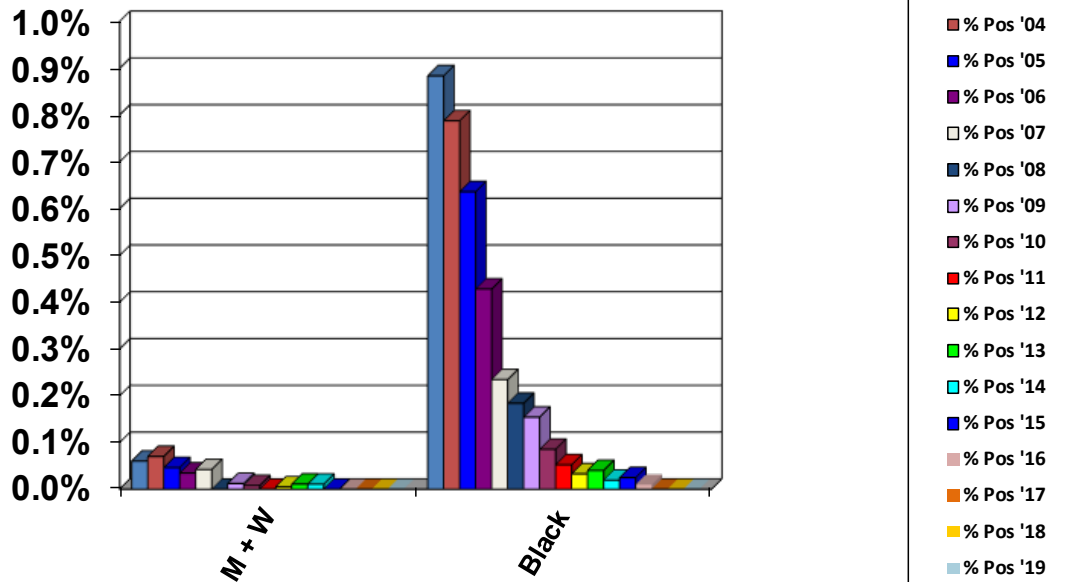
Infected and Source Flocks New Statuses by Year – Fiscal Years 1997 to 2019*



* As of January 31, 2019

Percent of RSSS Sheep Samples that Tested Positive for Classical Scrapie - By Face Color

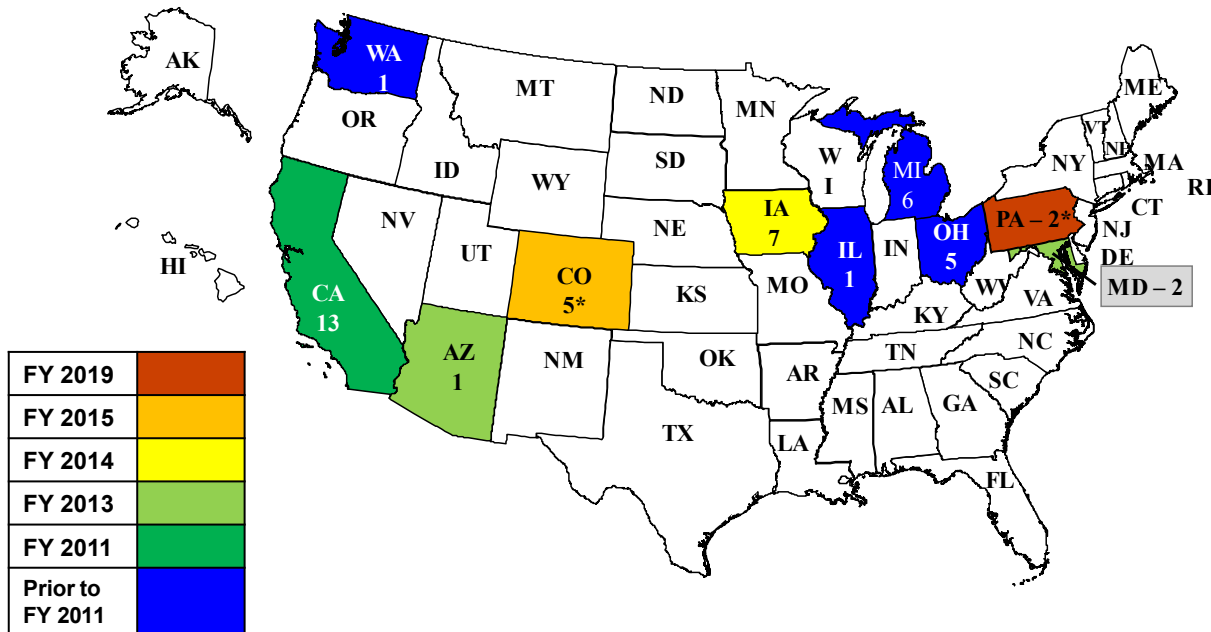
FY 2003 – FY 2019*



* As of January 31, 2019. Adjusted to exclude multiple positive animals from same flock. Mottled- and white-faced combined. Does not include Nor98-like scrapie cases found through RSSS.

Scrapie Cases in Goats

FY 2002 – FY 2019

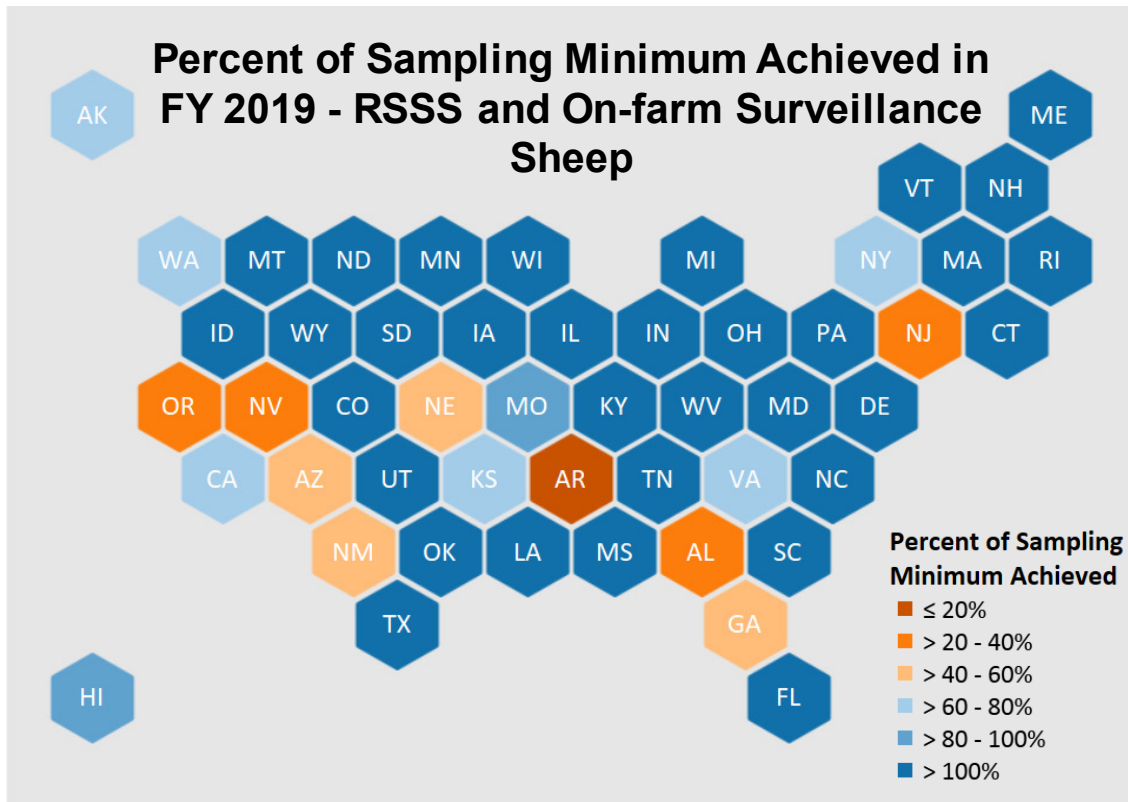


Color code indicates fiscal year of last case by State. 43 NVSL confirmed cases.

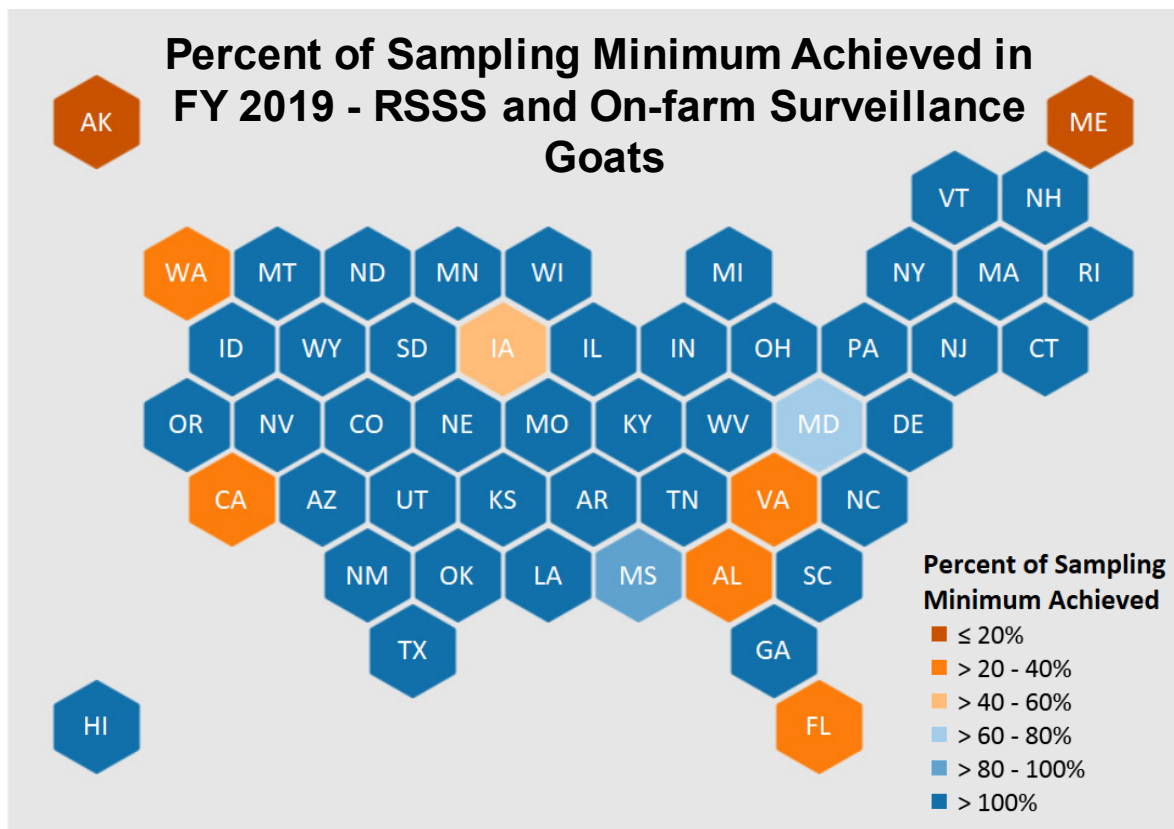
* States with 1 RSSS positive goat; samples collected November 2014 and July 2018

State Sampling Minimums

The National Scrapie Eradication Program establishes annual sheep and goat sampling minimums for each state, and tracks the states' level of compliance with meeting these minimums. These state minimums help ensure adequate geographical representation, so that APHIS can find the last remaining cases and document freedom from scrapie. State sampling minimums are established based on the population demographics of mature sheep in each state. The calculations used to derive the sampling minimums are described in the National Scrapie Surveillance Plan. Progress toward meeting these minimums in FY 2019 is shown in the following two slides.



* As of January 31, 2019. Percentage of sampling minimum achieved is based on 28% of the annual sampling minimum.



* As of January 31, 2019. Percentage of sampling minimum achieved is based on 31% of the annual sampling minimum. AK and RI have a sampling minimum of 1, and DE has a sampling minimum of 2.

RSSS and On-Farm Surveillance Testing by Species

FY 2019*

Species	Type	Age Group			Grand Total
		< 2 Yrs	2 to < 6 Yrs	6+ Yrs	
Goats	Dairy	6	705	22	733
	Fiber	1	3		4
	Meat	77	928	57	1,062
	Multipurpose	51	640	37	728
	Unknown	2	114	2	118
	Total		137	2,390	118
Sheep	Black Face	243	1,917	537	2,697
	Mottled <1% Black	2	562	1	565
	Mottled >1% Black	71	891	13	975
	White Face	96	2,898	43	3,037
	Other Sheep	53	516	50	619
	Unknown Sheep	1	16		17
	Total		466	6,800	644
Grand Total		603	9,190	762	10,555

* As of January 31, 2019. Darker shading represents greater number of animals tested that met targeting criteria.

Submitting Mature Heads

APHIS provides shipping boxes and labels for the submission of heads for scrapie testing at no cost to producers. Many veterinary diagnostic laboratories also accept heads for scrapie testing. To request a box or more information on sample submission, contact the veterinary services field office for your state. State contact information is available at www.aphis.usda.gov/animal_health/downloads/sprs_contact/field_office_contact_info.pdf. VS field offices can also be reached through the toll free number, 866-873-2824.

Free ID For Producers

The National Scrapie Eradication Program provides up to 80 plastic tags free of charge to producers who have not received the free tags in the past (call 866-USDA-TAG to get tags). Producers who have not received free tags since 8/31/17 may still get 100 free metal tags through 8/31/19. Contact your state or local VS office for more information.

Websites Dedicated to the Eradication of Scrapie

Animal and Plant Health Inspection Service: <http://www.aphis.usda.gov/animal-health/scrapie>

Maryland Small Ruminant Page: <http://www.sheepandgoat.com/updatescrapie>

National Institute of Animal Agriculture: <http://www.eradicatescrapie.org/>

Scrapie SharePoint: <https://share.aphis.usda.gov/sites/vs-sgh/>

(Federal and State employees can access this password-protected site by emailing Diane.L.Sutton@aphis.usda.gov if you need assistance.)

