



**COLORADO**

**Department of Agriculture**

Animal Health Division

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## Scrapie Susceptibility Genotyping Sample Submission Protocol

1. Collect blood samples in purple top (EDTA) tubes (preferably plastic).
2. Use a **new needle (and syringe)** for each animal tested. The genotyping test is sensitive enough to detect small quantities of contaminating blood that may cause an invalid test.
3. Collect > 2 cc of whole sheep blood in purple top tubes, and **mix samples by inversion 5-6 times as soon as the blood is drawn**. Number the samples in sequence with the submission form. An **APHIS VS Form 5-29** must be signed and dated by an accredited or regulatory veterinarian for National Scrapie Eradication Program (NSEP) official tests (along with official animal identification).
4. RMRAHL is approved by USDA/APHIS to perform genotyping for the sheep prion gene at codon 171. Turn-around time for testing is 5-10 days.
5. USDA recommends wiping any blood off the outside of the tubes and tops to avoid the possibility of cross contamination.
6. Samples should be shipped in an insulated container with icepacks. RMRAHL FedEx Airbills are available for shipping samples to the laboratory at a reduced cost.
7. The following are USDA's Scrapie Eradication Program genotype designations for susceptibility in sheep (from [http://www.aphis.usda.gov/animal\\_health/animal\\_diseases/scrapie/downloads/scrapie\\_genetics.pdf](http://www.aphis.usda.gov/animal_health/animal_diseases/scrapie/downloads/scrapie_genetics.pdf))

### Codon 171

Nearly resistant:	RR
Rarely/somewhat susceptible:	RQ
Susceptible (3 genotypes):	QQ