

Whole Head Collection Procedure

Producers and Accredited Veterinarians

Producers and veterinarians may use the following procedures to submit whole heads from sheep or goats over 18 months of age for scrapie testing. Scrapie testing is available at APHIS-contract laboratories at no cost to the producer for up to 30 animals per year. APHIS will provide the necessary supplies (other than the Personal Protective Equipment and the boning knife) to submit your samples.

Contact your VS [Area Office](#) to request supplies or if you have questions.

Safety Precautions

If you are the collector, you are responsible for taking appropriate safety precautions. You must take measures to avoid contact with specimens and adhere to the following safety precautions to minimize your risk of exposure to pathogens.

1. Wear personal protective equipment at all times.
2. Cover cuts, abrasions, and wounds with waterproof dressing if left uncovered by PPE.
3. Take steps to avoid creating aerosols, splashes and dusts.
4. Wash hands and exposed skin following collection procedures.
5. Wash and disinfect protective clothing and instruments thoroughly after use. Use 50 ounces (6¼ cups) bleach to 78 ounces water (9¾ cups) to make 1 gallon of solution at room temperature (at least 65 °F) for 1 hour. Thoroughly rinse clothing and equipment after disinfection to minimize corrosion.

Note: Bleach is caustic and can be hazardous if swallowed, gets in the eyes, is breathed in, or is left on the skin. Bleach will discolor and damage some fabrics and materials. Further, care must be taken to prevent contamination of water from run off and to comply with any environmental regulations for use of this product. Read the material safety data sheet prior to use and use appropriate personal protective equipment.

Personal Protective Equipment

Personal protective equipment (PPE) minimizes exposure to pathogens while collecting samples. The Occupational Safety and Health Administration defines PPE as “specialized clothing or equipment worn by employees for protection against health and safety hazards. PPE is designed to protect many parts of the body, i.e., eyes, head, face, hands, feet, and ears.”

PPE is selected based on the environment, the physical hazards, and the ability to complete the task. PPE balances protection and comfort. PPE should protect you from the physical hazards of the collection environment, while allowing you to comfortably collect specimens. Even though the environment specimens are collected differ, the following PPE must be worn at all times during scrapie specimen collections.

Skin Protection

Protect your skin from contact with fluids during specimen collection. Wear waterproof coveralls, preferably disposable, or coveralls with a waterproof apron and forearm protectors.

Eye and Face Protection

Protect your eyes and face from any aerosols, splashes, or dusts that may be created while collecting specimens. Eye protection includes safety glasses, safety goggles, or a face shield.

Hand Protection: Gloves

1. Wear cut resistant metal or mesh gloves. Always wear the cut resistant glove on your off hand (left hand for right-handed person and right hand for a left-handed person). Find a cut resistant glove that fits against your skin and wear a rubber glove over it.
2. Wear latex or nitrile examination gloves or thick rubber gloves that extend halfway up the forearm. Many people prefer long, thick rubber gloves for added protection.

Foot Protection

Protect your feet from injuries that could result from spills, splashes, impact, compression, or exposure. Wear steel-toed rubber boots when collecting specimens. If steel-toed boots are unavailable, then pullover rubber boots are acceptable.

Respiratory Protection

Face masks are recommended. Though scrapie is not known to be transmissible to humans, other zoonotic diseases such as rabies, Q fever, or Listeria may be present and could be transmitted during scrapie sample collection.

Whole Head Removal and Collection

Heads should only be submitted if they are chilled within 24 hours of the animal's death. Chilled heads may be held for up to two days before shipment, such as many occur on a weekend.

Tools and Supplies

1. Sharp boning knife.
2. Two heavy duty plastic bags and ties.*
3. If shipping the head, shipping container with cooler, large heavy-duty plastic bag, absorbent material, 4 frozen cool packs and prefilled shipping labels*.

*These items are provided at no cost to producers by USDA.

Procedure

1. Complete the whole head submission worksheet that is included in each shipping box. To complete the worksheet you will need the owner's name, address, phone number, flock ID if known, and the animal's ID numbers, age, breed, sex and any clinical signs observed.
2. If the head is still attached, then remove the head from the carcass. This is done at the joint where the skull meets the first cervical vertebrae. (Located just behind the ears.) If the head has already been separated, then begin at step 3.g.
3. Position the animal lying on its back.
4. Remove the head, at the hinge joint where the skull meets the first cervical vertebrae (just behind the ears) following the steps listed below.
 - a. Locate the "hinge" area where the skull meets the first cervical vertebrae by grasping the nose and moving the head up and down to locate the joint.
 - b. Insert the knife into the neck between the first vertebrae and the throat then cut outward with blade directed away from you through the throat tissue and skin.
Note: Cutting down through the skin readily dulls the blade.
 - c. Cut down to the membrane that covers the spinal cord; cut through the membrane exposing the spinal cord. Then cut the spinal cord as far from the head as possible so that it is kept as long as you can.

- d. Cut the ligaments on either side of the skull that connects the skull to the vertebra, going from the bottom to the top direction on both sides. This is usually best accomplished with the tip of the knife directed between the skull and vertebra.
 - e. Once the two side ligaments have been severed, cut through the remaining tissue to remove the head from the carcass.
 - f. Move the head with a portion of the spinal cord protruding from the back of the skull to a comfortable height for sample collection or to package the whole head.
 - g. Skin the head, leaving the ears with the animal 'ID device(s) in place; place the head in a large heavy-duty plastic bag. (If you are presented with a skinned head such as at slaughter plants, place the animal's ID with about a quarter sized piece of ear tissue attached to each ear tag in a separate bag with the bagged head inside the second bag.)
 - h. Double bag the head.
 - i. Secure each bag in a manner preventing leakage such as by tying a knot in the bag or using twist ties, string, or cord.
 - j. Chill the head prior to placing in the cool box. Do not pack the box more than a few hours before the box is shipped.
5. Pack the cool box. Use at least 4 frozen chill packs per box and an additional chill pack for each additional head if more than 2 heads are shipped in the same cool box.
 - a. Put cool packs in the bottom.
 - b. Insert large plastic bag.
 - c. Insert absorbent material.
 - d. Insert double bagged head(s).
 - e. Seal large plastic bag.
 - f. Place cool packs on top of large plastic bag.
 - g. Close cooler top.
 - h. Insert submission form between cooler top and exterior box.
 - i. Keep the box in a cool place until shipped.
 - j. If shipping is delayed more than a few hours, repack the box with frozen chill packs.
 6. Ship the cooler overnight to the collection facility.
Inform the facility of the shipment's delivery date.

Following is the shipping address, phone number and email address for the primary VS collection facility, Remington Locker.

Shipping Address

Veterinary Services
Remington Facility
18795 S 580 W
Remington, IN 47977

(Or as directed by your VS contact)

Phone and Email

Phone: (317) 347-3100
Fax: (219) 261-2357
Remington.Locker@aphis.usda.gov

A pictorial description for preparing and packing whole heads for submission is available.