

Instructions for Hair Sample Collection from Cattle

Hair samples should be collected and placed in the GeneSeek sample collection device.

1. Hair samples should be collected from the tail switch (end of tail) of a restrained animal. The hair follicles found at the tail switch region are ideal for DNA extraction.

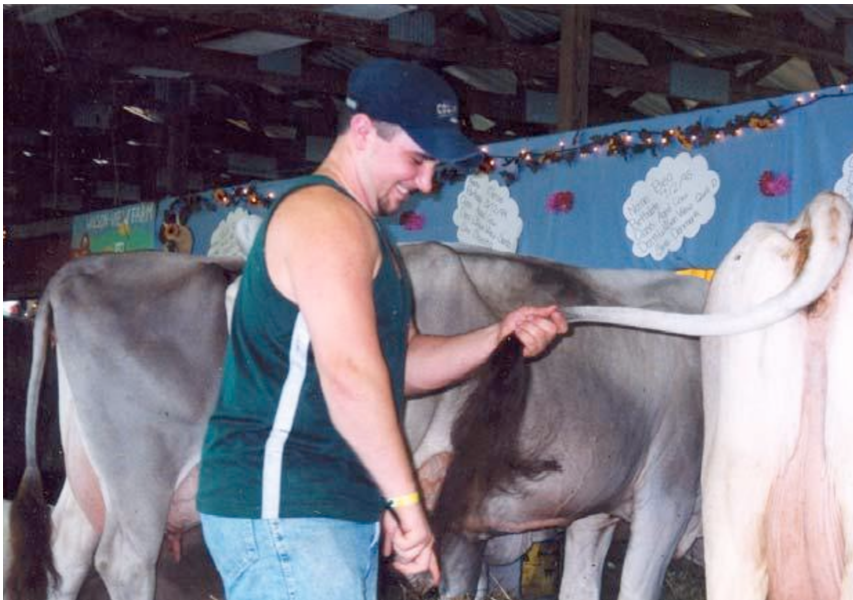


Photo courtesy of Randy Taber, <http://wilsonviewfarm.homestead.com>

2. Clean the tail area using a comb or brush (see picture above) so as to remove any extraneous matter such as manure or straw. Sometimes it may be necessary to wash the hair prior to collection.
3. Grasp a clump of hair (as thick as a ball point pen) using your hand or a pair of pliers. Pull the hair samples out with a sudden movement so as to get a clean tuft of hair with follicles. The hair follicles are found at the end of the hair that is embedded in the tissue.
4. Examine the hair closely. Make sure the hair follicles are present on 20 to 40 strands. Note that DNA is found only in the hair follicles and not in the hair itself. If sufficient follicles are not available, make a second attempt at pulling hair.
5. Place pulling hair in the GeneSeek hair collection device (see instructions that come with the device).



Instructions for Using Hair Sample Collection Device

It is very important to accurately link the sample that is collected to the correct animal. Make sure that the ID of the animal is clearly noted on the collection device used for that animal.

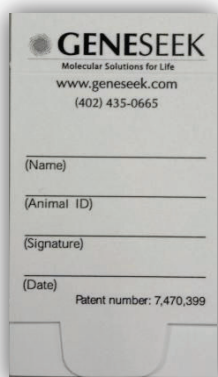


Figure 1

1. Check that the ID written on the collection device perfectly matches the ID of the animal (see Figure 1).
2. The GeneSeek hair collection device has an outer cover (paper) and an internal plastic sheath (see Figure 3). The plastic sheath is made of low-tack glue that allows the two sheets to be separated and resealed easily. Open the paper cover by holding the collection device at the folded end. With thumb and index finger, open plastic sheath by pulling notched front piece away from the white back piece. It is not necessary to separate the two sheets completely.



Figure 2

3. Collect hair samples (as described in the Instructions for Hair Sample Collection). Make sure that hair samples have follicles, i.e. the end of the hair that is embedded in the skin of the animal and has the appearance of a pouch. We will need 20 to 30 good follicles for each sample. (see Figure 3b).
4. Place hair samples in the center of the white back piece and cover with the clear plastic front piece, taking care to avoid any air bubbles. This is illustrated on the inside of the collection device itself.
5. Seal the plastic cover smoothly over the hair follicles, leaving hair extended from one side of the collector. If possible, avoid re-opening the plastic sheath.

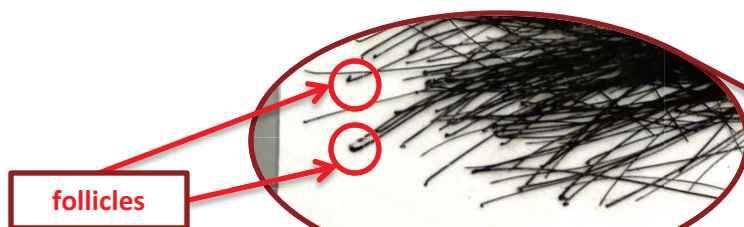


Figure 3b



Figure 3a

3. Close the collection device and insert the tab into the slot at the end of the device.
4. Carefully trim excess hair from the sides of the collector using a pair of sharp scissors.
5. Place hair sample collection device in re-sealable plastic bag for shipping to GeneSeek.