

Bovine hair samples for DNA analysis

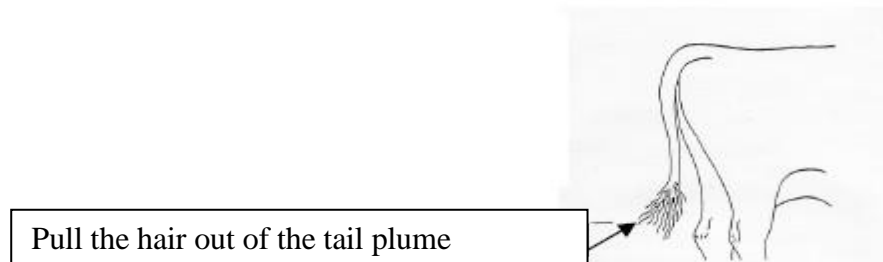
Introduction:

DNA can be isolated from the roots of hairs and not from the hairs itself.

Short fine hairs have too small hair roots and therefore provide too little DNA for the reliable analysis. It is therefore important that there are sufficient hair roots. The best results are achieved with hairs from the plume of the tail. If that is not possible, hair from the crown or the long hair from the ears can also be used.

Execution:

1. The hairs should preferably be pulled from the plume of the tail, do not cut them off. It is important that the hair is dry and as clean as possible. If the tail is very dirty, it must first be cleaned and dried.
2. Take a bunch of hair to the thickness of a pencil or pen (about 100 hairs) of the tail feather and wrap it around your finger. Then pull it out of the tail of the animal with a firm jerk. See figure below.



3. If the tail is dirty or the hair has been shaved, hair can also be pulled out of the crown or out of the ears. Again, it is important to pull enough hair (a bunch of about 100) hairs.



Protocol for collection of bovine hair samples for DNA analysis: OPTIBOV SOP version 01-01-2019

4. Packing of the hair sample

Place the hair on the cardboard as shown in the photo below and fix them with a piece of band aid on the cardboard. The hair roots should protrude approximately ½ to 1 cm above the cardboard. Cut off the excess hair if needed, on the side without the hair roots!

5. Write **breed name** and **animal id** of the cow on the label of the bag **and** on the cardboard.

Put the cardboard in a plastic zip bag (10cm x 17cm) or in a paper envelope with the hair roots at the top, and seal the bag (see photo below). The hair roots should not protrude from the bag! The plastic bag or envelope can be stored at room temperature.

