



ADCA Collecting Tail Hairs

DNA material is contained in the root bulbs (follicles) of the hairs. Make sure to PULL out the hairs in order to include the follicles. Do NOT cut the hair off of the animal or you won't have the follicle needed for testing.

- Use a separate paper envelope or resealable plastic baggie for each animal's sample. Before collecting the samples, label each bag with the complete name of the animal so that you have no mixups later.
- Thoroughly wash your hands and assemble all your tools: pliers, rubbing alcohol, paper towels, prepared envelopes, etc. Use rubbing alcohol to clean the business end of the pliers in between each animal you are collecting.
- Use clean (no manure) coarse hairs from the switch at the end of the tail for your sample. Pull hairs from the switch using a sharp, jerking motion (using the cleaned pliers) and make sure that the root bulbs or follicles are attached to most of them. It is best to pull about 10-15 hairs at a time, so you will need several pulls to obtain the 30-50 hairs required for a sample. It is often easier to twist the hairs around your tool before you jerk the hairs out as it seems to keep them from slipping through and gives you a better hold on them for pulling. Collect them on a clean paper towel or piece of paper – aligning the root ends as you lay them down.
- Using scotch tape, tape the hairs into a bundle – about 4 inches from the root ends. Then, using your clean scissors, trim the excess ends off and dispose of them – being sure to keep the bundle that includes the root ends.
- Place the bundle of root ends/hairs into your labeled envelope (if using Texas A&M) or tape on to your submission form (if using UC Davis).
- Clean your hands and the instruments before taking the next sample and before each successive sample. Use rubbing alcohol for this sterilization process. The goal is to keep each animal's DNA sample untainted by another animal's or by your DNA. It is MOST important that you do not touch the actual root bulbs or follicles as this is the target area for the lab to extract the DNA.
- It's a good idea to pull extra hairs for your files at home. It's always better to have too many tail hairs than not enough. Store the extras (prepared as though you were sending them for testing) in a paper envelope labeled with your Dexter's name and registration number.
- Age does matter. Samples from young calves do not have large root bulbs. Baby hair is fine and the follicles are tiny. The bigger the follicle, the better the DNA sample. If you are sending tail hairs from a very young calf, be sure you send plenty.



In this photo, you can see the hair follicles or root bulbs on the end of the tail hairs.