

Over the years, as a Devon breeder, I have been asked many, many times about the DNA testing and registration process. As our group grows, new breeders join us, and changes are made in the protocols, I felt like maybe it was time to put together a little 101 on the subject.

DNA Testing/Registration 101

The first step in the process for registering a new calf is the DNA testing to confirm the sire. (Instructions found below). The RDUSA protocols state that the calf must be sire verified. This is done by pulling tail hairs and sending them in to the Veterinary Genetics Lab at UC Davis. You will receive a DNA profile number for that calf which will then need to be put in the permanent record at the registry service, CLRC (Canadian Livestock Records Corp).

Instructions for Obtaining DNA Samples (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 sealable 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 mix-ups later.
- Use clean (no manure) coarse hairs from the switch at the end of the tail for your sample. Pull hairs from the switch using an upward, jerking motion and make sure that the root bulbs or follicles are attached to most of them. You will need to obtain 30-50 hairs required for a sample. Place them in a clean zip-lock bag.
- When you are ready to send in your sample, tape the hairs into a bundle – about 4 inches from the root ends. Then, using clean scissors, trim the excess ends off and dispose of them – being sure to keep the bundle that includes the root ends.
- Tape the bundle of root ends/hairs on to your submission form.
- 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 Devon'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.



There are two ways to obtain the DNA submission form. The first is to print out the “Request for Genetic Marker Kit” form from the CLRC website, fill it out and send it back to them. They will then mail or email you the submission form that you will attach the tail hairs to.

The second way is to set up your own account at the VGL at UC Davis. This saves time in that you can immediately complete the submission forms online, print them out, attach the tail hairs and mail them directly to the lab.

VGL at UC Davis Account Set-up and Usage

- Go to the www.vgl.ucdavis.edu homepage and click "login".
- Click "create an account"
- Enter your information to begin
- When ready to submit DNA samples go to "order tests", then "cattle tests"
- Complete one form for each animal being tested. *The name that you give the calf should be in compliance with the RDUSA protocols.
- After entering the calf information, scroll down and select "Parent Verification", then "verify sire to this animal" and add the information requested. *You will need the Name, Registration number and DNA profile number for each sire that you are testing against.
- Check the "agree to terms" box and then "save test"
- You have the option to pay online or to send payment with sample and receiving results via email or snail mail
- Attach the tail hairs to the form, place the folded form in an envelope and seal.
- Mail to the VGL at UC Davis

After you receive your DNA results you are ready to register the calf. You will need to print out the "Application for Registration" form from the CLRC website. This form will need to be completed for every animal you wish to register.

Instructions on Obtaining Registration Papers

- Go to <http://www.clrc.ca>
- On the left side bar, click "Associations"
- "Listing of Associations"
- "Cattle"
- "Red Devon USA"
- Under "Printables", select "Registration Application"
- Print this form out, complete and return it to CLRC along with the DNA test result form received from VGL. *The name on this form must match the name on the DNA test result form.

Information Needed to Complete Registration Application

- Name of animal (must include farm name or herd code)
- Date of Birth, Sex, Horn Status, Tag Number and Tattoo (must include herd code)
- Sire and Dam name and registration number
- Breeder name, Member ID number and Your Signature
- Be sure to include DNA test result form

The process may seem complicated at first, but will come more easily after doing it a time or two. And with all the paperwork taken care of, you can set your mind to raising the best Devon cattle around!

Blessings,
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