

PROCEDURES FOR SKIN SAMPLING OF ALPACAS

By Cameron Holt (copyright 2011)

RATIONALE

This procedure is designed to ensure that a safe and hygienic approach is taken when taking skin biopsies for follicle measurements. This procedure has been developed based on the work of T. Nay (Techniques for examining in the skin of sheep), and consultation with veterinarian Dr Richard Dixon.

Note –sampling should not be taken until the alpaca has matured (2-yr minimum). This is to avoid skin stretching (balloon effect) which takes place during the maturing stage.

It is highly recommended that a veterinarian be engaged to carry out this procedure. Surgical work is carried out on the alpaca (biopsies) which need the use of local anaesthetic and suturing of the sampled area.

EQUIPMENT REQUIRED

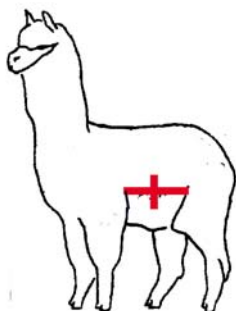
Veterinarian should supply:

- Biopsy **punch 1 cm** diameter
- Sample bottles or jars containing 10% formalin fixative
- Surgical clippers
- Suture needles and material for suturing the skin
- Curved scissors
- Forceps (fine transverse teeth)
- Local anaesthetic, syringes and needles
- Swabs
- Skin antiseptic
- Surgical gloves

Breeder should supply:

- Labels for sample bottles or jars
- Plastic bags for wool samples
- Recording book

SAMPLING



The midside of the alpaca should be clearly identified and used as the target area.

The area of sampling has an area of approximately 2" x 2" (50mm x 50mm) clipped to the skin. (The wool taken can be used to have micron etc measured independently to the biopsy).

Note – if only S/P ratio and follicle density measurements are required then 2 samples (biopsy) from each animal are required. If a follicle depth and bending score is required as well then a third sample is required.

- The biopsy **1 cm punch** is placed vertically on the skin surface. Make sure there is no wrinkle below the punch and make sure that the skin is not stretched whilst taking the biopsy. It is recommended that a 1-cm gap be left between each biopsy taken. This is to minimise delay in the healing process.

- With a rotating action the punch is pressed into the skin until it has pierced the skin. The connective tissues still adhering to the sample are then cut with curved scissors. The punch must penetrate through the tough skin deep enough to reach the connective tissue and muscle layer. At no time should the skin samples be squashed. When cutting connective tissue the sample should be held and lifted on the edge only.



- The sample is then placed in the bottle of formalin. Repeat the procedure until the desired number of samples is obtained. Make sure the animal identification tag matches the number on the bottle.

- The areas are now sutured and normal infection prevention techniques are carried out **as directed by your veterinarian.**

Note – it may be wise to carry out this procedure when there is limited blow fly presence.

- The biopsy samples should be packaged along with written information and sent to your Testing Lab. **(Labs must be capable of reading skin biopsies)**

- Please notify that samples are on their way.

- Please keep copy of all written information collected.

- The biopsy samples will then be forwarded to an agreed testing venue.

FLEECE CHARACTERISTICS

The following fleece information can be supplied to enable further assessment. An example form is attached below.

A FLEECE SAMPLE SHOULD ALSO BE RETAINED BY THE BREEDER , FOR COMPARISON WITH SKIN BIOPSY RESULTS.

EXAMPLE

NUMBER / NAME.....sir cameron

AGE AT TIME OF SKIN SECTION.....3yrs

GROWTH TIME.....12mts

STAPLE LENGTH (apparent).....100mm

(true).....110mm

% INCREASE.....10mm

ADJUSTED LENGTH (12mts).....100mm

CRIMPS PER INCH.....8 cpi

CURRENT MICRON.....22.2

CURVATURE..... 48

S/P RATIO.....12.5

DENSITY72

MICRON PRIMARY.....31.3

SECONDARY.....21.7

AVERAGE.....22.5

COMMENTS.....
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PHOTO



DISCLAIMER

The above procedure is a guide only and the responsibility of the health of your animal belongs with you and advice from your veterinarian. The advice from your veterinarian replaces any or all of this procedure.

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