SOP No: ATT 069

SUBJECT: Collect hair samples from cattle for DNA testing

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POLICY: Demonstrator: experience in this procedure
               Students: competence in handling animals.

PRECAUTIONS: Wear sturdy footwear, and use sun protection if required
               Animals should be handled quietly before, during and after the procedure
               Understand the flight zone of animals
               Wash hands and exposed body parts thoroughly with soap and water after handling animals.

EQUIPMENT: DNA collection kit (available from the UQ Animal Genetics laboratory, surgical gloves, scissors, veterinary or other suitable crush.

PROCEDURE:

1. Restrain the animal in the crush.
2. Have the sample storage equipment ready. Put on surgical gloves.
3. Select long, thick hairs from the tail switch – note that short fine hairs are not suitable for DNA analysis. The hairs should be dry and free from faeces because the DNA may degrade in hairs that are wet or have faecal contamination.
4. Select 10 to 20 tail hairs and pluck with a rapid, sharp, upward motion. Repeat the procedure to obtain 20 to 30 hairs, or at least 10 follicles for each test that is required.
5. The hooked or bulbous hair roots plucked from under the skin should be clearly visible (it is the cells in the follicle bulb which contain DNA, not those in the hair shaft).
6. If the samples are contaminated with faeces, trim the contaminated pieces from the hairs.
7. Pack the sample to send to the lab. How you do this depends on each lab’s requirements; the UQ Animal Genetics Lab asks you to “place the hair sample on the collection card provided and stick the sticker across the middle of the sample, taking care to allow enough hair above it so that the follicles may be identified and cut in the lab”.
8. Clearly label the sticker or container with the unique identity of the subject from which the sample was collected. Note that labs may have very large databases and that it is essential to provide a unique identifier for each of your sampled animals. The information should provide at least the name of property or owner, and the animal’s sex, date of birth and breed.
9. When a suitable sample has been collected release the animal from the crush.

RECOMMENDATIONS:

REVISED: 

REFERENCES