

Blood Collection for Sheep DNA Testing

DNA testing

Collection of blood using a blood card is a quick and simple procedure that can be used for genetic testing your flock. It is imperative that each blood sample is from an individual animal and free of contaminants, such as blood from other animals or humans, or foreign material. If the sample is contaminated the accuracy of the genotyping results may be compromised.

Included in this kit

- DNA testing form (to be returned with cards)
- Blood cards
- Dessicant silica gel

You will need

- Cotton wipes
- Hibitane or equivalent antiseptic
- Large box
- Rubbish bin
- Manicure Pliers (from chemist) or similar sharp implement. e.g ear notcher, side cutters or lancet.

Manicure
Pliers

Available
from
chemists



Important information

- Follow blood sample collection procedure
- Keep hands and fingers clean
- DO NOT bend the blood cards
- Avoid contamination of the cards and absorbent paper with any biological material such as dirt, faeces or blood from other animals.
- Ensure that there is sufficient blood on the blood card, however, do not flood the blood card as microscopic bacteria or fungi may grow on the blood sample.

Australian Innovation Company Ltd

(a controlled entity of Sheep CRC Ltd - ACN 125 726 847)
ABN: 36 610 827 800

DNA Processing Office
Building W48, University of New England (UNE)
Armidale NSW 2351
Phone: 02 6773 3466
Email: sheepDNA@sheepcrc.org.au

Preparation of blood cards

For parentage / poll tests

- For Sires – Please provide the 16 digit ID if available or if not provide the Year of birth & tag number.
- For Dams - Please provide the Year of Birth and tag number.
- For Progeny – Please provide the sex and tag number (M = Male or F = Female)

NOTE: If they are not the current Year Drop, please provide the Year of Birth.

TIP: If you are a Sheep Genetics member, we advise you provide the full 16 digit ID for parentage & poll tests.



Progeny

SHEEP GENOMIC TEST BLOOD CARD	
FRANK PASTORAL (Flock Name)	
(Breed) (Flock Code)	
2013 137899 (Year of Birth) (Animal ID)	
Please tick	
<input type="checkbox"/> (Sire)	<input type="checkbox"/> (Dam) <input checked="" type="checkbox"/> (Progeny)
(Visual Tag)	
MALE / FEMALE (Barcode/Comment)	



Sire

SHEEP GENOMIC TEST BLOOD CARD	
FRANK PASTORAL (Flock Name)	
507654 (Breed) (Flock Code)	
2013 130772 (Year of Birth) (Animal ID)	
Please tick	
<input checked="" type="checkbox"/> (Sire)	<input type="checkbox"/> (Dam) <input type="checkbox"/> (Progeny)
(Visual Tag)	
(Barcode/Comment)	



Dam

SHEEP GENOMIC TEST BLOOD CARD	
FRANK PASTORAL (Flock Name)	
(Breed) (Flock Code)	
2011 117744 (Year of Birth) (Animal ID)	
Please tick	
<input type="checkbox"/> (Sire)	<input checked="" type="checkbox"/> (Dam) <input type="checkbox"/> (Progeny)
(Visual Tag)	
(Barcode/Comment)	

For sheep genotyping tests

- All animals require the full Sheep Genetics **16 digit ID number**.
- Ensure all sampled animals have at least pedigree data in the LAMBPLAN / MERINOSELECT database.

SHEEP GENOMIC TEST BLOOD CARD	
FRANK PASTORAL (Flock Name)	
507654 (Breed) (Flock Code)	
2013 130772 (Year of Birth) (Animal ID)	
Please tick	
<input checked="" type="checkbox"/> (Sire)	<input type="checkbox"/> (Dam) <input type="checkbox"/> (Progeny)
(Visual Tag)	
(Barcode/Comment)	

Blood sample collection procedure

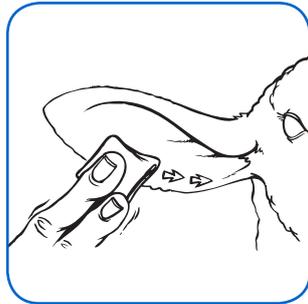
Step 1 - Wash hands

Wash hands with clean soapy water or alcohol based hand rub and put on gloves.



Step 2 - Clean ear

Choose an ear and **clean** the inside of the **ear** (near the base of the head) with a cotton wipe soaked in hibitane or equivalent antiseptic. Ensure the ear is dry and excess disinfectant removed.



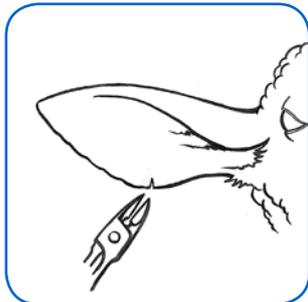
Step 3 - Recording

Record the animal tag number on the blood card (see back page - Preparation of blood cards).

Step 4 - Cut ear

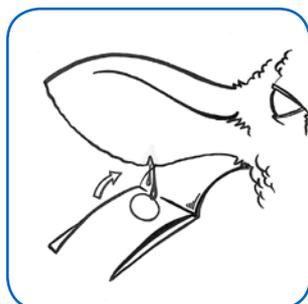
We suggest the following methods for blood collection. Please use the method suitable for your operation.

- Make a cut using the manicure pliers halfway along the bottom edge of the ear with a 3mm cut. Ensure that the cut will give sufficient blood to fill the blood card.
- Take a V-shaped snip out of tip of ear. To encourage blood flow, fold the ear, palpate & squeeze blood and direct drops onto the card.



Step 5 - Collect blood

Firmly hold the ear and place the blood card up to the blood flow and **collect** enough **blood** to fill the circle on the absorbent paper. Ensure that the blood soaks through to the backside of the absorbent paper without flooding the card.



Blood Sample Hints

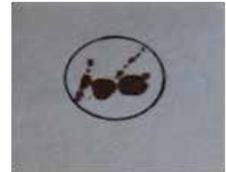
- DO NOT spot or blot blood onto the absorbent paper.
- DO NOT flood the absorbent paper.
- Avoid excessive use of hibitane
- **Try to avoid sampling in extreme weather** as hot weather can cause excessive bleeding and cold weather may reduce blood flow.



Correct amount of blood



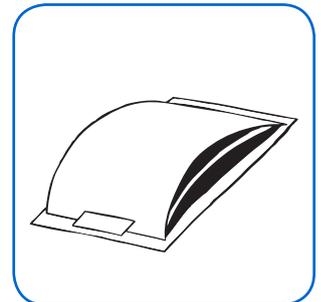
NOT acceptable



Step 6 - Dry cards

Close the card by slotting the tab into the top slit and place the cards in a large box to **dry** away from direct sunlight.

Note: *If the sample gets wet it could be compromised by contamination of microscopic mould or fungi and genotyping may fail.*



Step 7 - Flatten cards

Once dry, **flatten** the **cards** and repack back into the original boxes with a desiccant silica gel in each box. Keep each group of sires, dams, male progeny and female progeny separate (ie. bundle each group together with rubber bands and clearly labelled).

Step 8 - Pack & post

Post the blood cards with DNA testing form and payment details and send an email confirming blood cards have been shipped.

Timeframe

Please allow the following timeframe for the results of your test to be available after we receive your blood cards and payment:

- Sheep Genotyping test - **10 weeks**.
- Parentage and Poll Genomic Test - **6 weeks**

POST TO:

DNA PROCESSING OFFICE

W48, University of New England, Armidale, NSW, 2351.

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Email: sheepDNA@sheepcrc.org.au