

COMMON REASONS FOR SAMPLE FAILURES

General Issues

1. Biological Contamination
 - a) Cross contamination between animals/samples
 - b) Mouldy, wet or dirty samples will cause genotyping failures.
2. Chemical Contamination
 - a) Dye/Pigment from animal markers or veterinary/animal health management products
 - b) Insect repellent
 - c) Cleaning agents
3. Improper Storage
 - a) Heat exposure (example leaving samples in a vehicle or in direct sunlight)
 - b) Exposure to foreign material including mould
 - c) Improper frozen storage – the freeze/thaw cycle of a self-defrosting unit will degrade DNA
 - d) Extended sample storage – DNA degrades over time

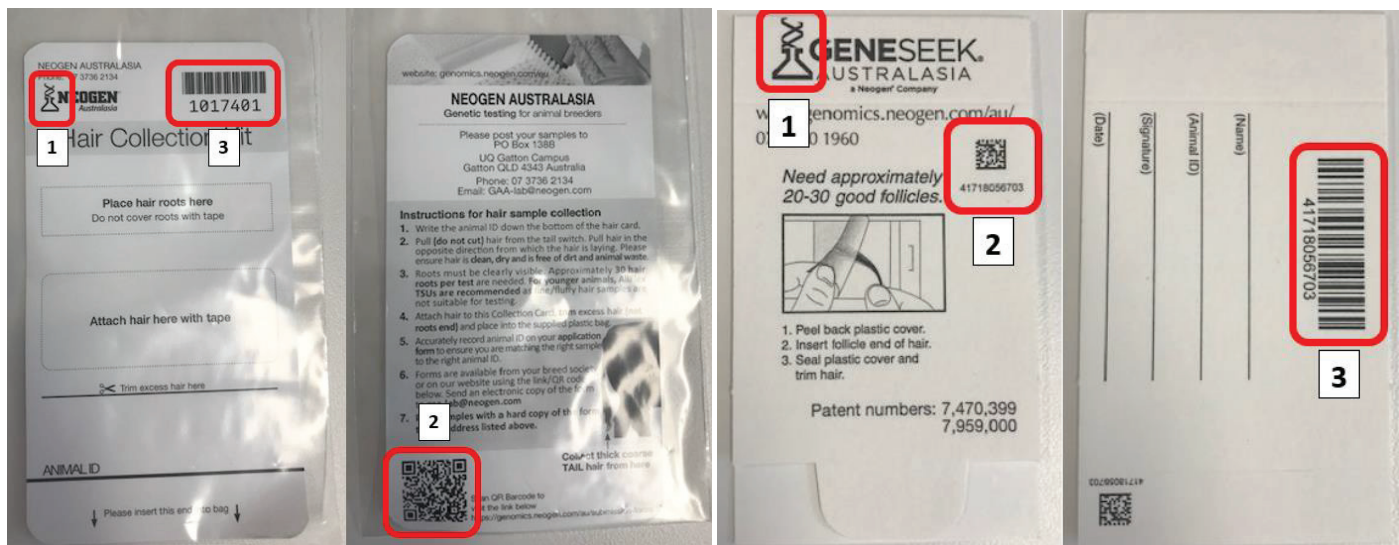
ALLFLEX TSUs – Tissue Sampling Unit

- No sample in tube
- Sample is trapped in cap/does not enter tube – sample needs to be sitting in the buffer (liquid) in order to remain viable.
- AllFlex tubes should be kept at room temperature to prevent DNA degradation
- Long term storage
 - › AllFlex recommend testing within 12 months of collection
- Incorrect collection can cause the sample to fail.
 - › Instructions are available from <https://www.pbbnz.com/services/genomics/faqs/>
- Hair sticking out of the TSU means the TSU hasn't sealed therefore the buffer can leak and samples will dry out.
- Red cap needs to be flush/pushed down
- Tube needs to be sealed; sample sitting in buffer.
- Best practice is to send TSUs in racks, please see NAA for details.

AllFlex TSUs can be ordered from PBB – dna@pbbnz.com or call the office on 06 323 4484.

Hair Cards

- Hair cut off
 - › DNA is only present in the root of the hair; the hair shaft does not contain DNA.
- Too few or no follicles (<30 per test)
 - › Due to the increased complexity of SNP genotyping, more hair follicles are required per test.
- Small follicles taken from young calves – For calves younger than 6 months of age, Allflex Tags are the preferred sample type.
- Packaging surcharges will apply if hair is received without being in an approved Neogen Hair Card.
 - › There is a three-part checklist for determining whether it is an approved Neogen kit:
 - Neogen Flask,
 - Barcode,
 - Linear Barcode.



For hair card orders please email PBB – dna@pbbnz.com or call the office on 06 323 4484.

Semen Straws

1. Store any semen samples for DNA testing at room temperature or a refrigerator
2. Semen straws must be full and unused to be eligible for testing
3. Semen straw can easily be damaged in shipping. Proper packaging is especially important.
 - a) NAA recommends sending straws in pen cases, travel tooth brush holders, between two sheets of robust cardboard or individual ziplock bags with bubble wrap.

Blood Cards – Sheep Only

1. Insufficient blood spotted on card – ensure the circle is filled and the blood is visible on both sides of the paper.
2. When spotting cards from stored blood, make sure to invert the tubes 4-5 times before spotting – blood settles/separates over time.
3. DO NOT speed dry the card using a hair dryer as heat may damage the DNA.

Whole Blood – Beef Only

1. Neogen Australasia will only accept purple top EDTA tubes. This process will need to be carried out by a vet.
2. Please call NAA office for further details before samples are collected.

Please call the PBB office for further enquiries.