The Advantage of Tissue Sampling Units (TSUs)

Allflex Tissue Sampling Units (TSU) are a rapidly growing sample type for DNA testing in livestock. This technology, while highly advanced, makes it easy to take DNA samples during routine cattle-handling processes while providing high-quality samples for genomic testing. NEOGEN® has worked closely with Allflex to enhance the convenience and reliability of DNA testing in the field.

Why TSUs?

- Faster, easier, and cleaner
- Less hassle, more weather proof
- Sample at any age, even a day-old calf
- Uniquely barcoded, preserves high-quality DNA

One simple step opens a whole world of insightful predictions

FAST Loading the applicator, taking the sample and recording the animal ID can take as little as ten seconds per head.

EASY With one squeeze, a DNA sample is taken, sealed and preserved in a uniquely barcoded vial.

CLEAN Unlike blood or hair, TSUs have little chance for cross-contamination. The vial protects the sample from weather and grime.

FLEXIBLE Take DNA while handling young calves or during routine animal-health protocols.

More benefits with TSUs:

More data from one sample

- Tissue in the vial can be used for multiple tests
- Screen samples for BVD PI and run genomic tests
- Store at the lab or breed association for future testing

Integration with animal ID

- Match with visual tags and/or EID tags using the same identifier
- Integrate with other record keeping or data collection
- RFID readers and downloadable CSV files are available from Allflex
- A new handheld device from Allflex combines a barcode scanner and EID reader for chute-use. (See more at AllflexUSA.com)
- As export markets look to U.S. beef producers, the needs of ID change. Your ID and TSU system can meet your needs both in marketing and DNA testing

Call 07 3736 2134 or email naa@neogen.com to order.

The Do's and Don'ts of TSU Sampling

The Do's

- Sample calves as soon as possible for the earliest results
- Wipe off any excess dirt with water and towel
- Position cutter approximately 1 inch from the edge of the ear, avoiding veins
- Squeeze handles together in one swift, fluid, motion with enough force to pierce the ear
- Check to ensure sample is present and submerged in buffer and that excess hair isn't protruding from the top
- Remove cutter by pulling handles apart
- Store samples in dark, temperature controlled room for up to 12 months
- For long term storage (over 12 months), place samples in deep freezer without auto-defrost capability

The Don'ts

- Sample "wet" calves – the placenta and fluid could cause a failed sample
- Use chemicals to clean off the ear – bleach degrades DNA
- Position cutter over any tattoo ink
- Squeeze handles together with excess force (shouldn't take as much as ear tagging) that would damage the TSU
- Place TSU in box without ensuring sample is present
- Use pliers to remove cutter
- Place samples in direct sunlight or heat
- Store samples in auto-defrost freezers – such as the one in your kitchen

IGENITY® TISSUE SAMPLE INSTRUCTIONS

PLEASE READ KIT INSTRUCTIONS COMPLETELY BEFORE PERFORMING TEST.

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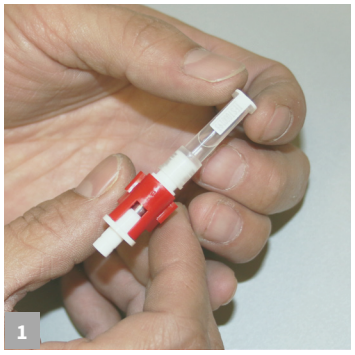
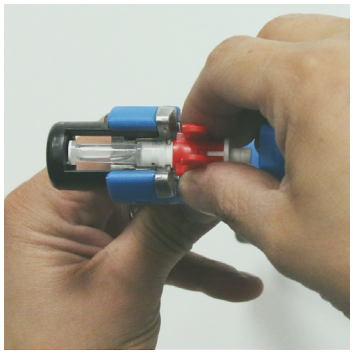
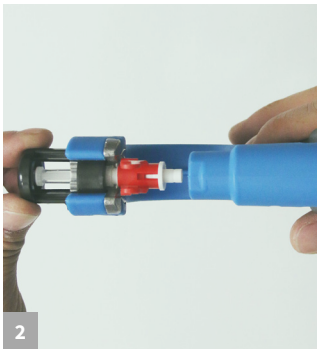




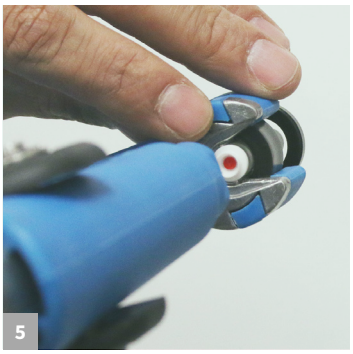
Remove TSU punch from the packaging. Punches should be assembled as one piece; if they have come apart, reassemble. Align the groove of the punch with the chamber at the base of the applicator.



Rotate the black chamber to lock the punch into the device. Carefully squeeze the applicator handles together, guiding the punch tip into place if necessary. When the gun bolt rests flush against the red plastic clip, release the handle.

Remove the red plastic clip by pulling it outward. Be careful as the metal cutter above the clip is very sharp. Ensure the applicator is loaded with an unused green punch (if the red plunger is visible, the punch is used and should be replaced with one that is unused).

Slide the applicator over the animal's ear and position the metal cutter one inch from the edge of the ear, making sure to avoid any obvious veins or ridges. Squeeze handles together to take a sample and then release to free the ear. Try to do this in one swift, fluid, motion.



Reopen the chamber and remove the punch from the applicator. Check that sampling has been successful (red plunger is visible, sample is in fluid in punch). Remove the used cutter from the applicator by pulling the handles apart. Discard carefully as the cutter is very sharp.