GeneMark[®]

A GUIDE TO THE GENEMARK

TISSUE SAMPLING SYSTEM

- HOW TO LOAD THE ALLFLEX TISSUE
 APPLICATOR
- TAKING A SAMPLE
- RECORDING SAMPLING DATA



Equipment needed

To take a tissue sample using the Allflex Tissue Sampling Unit, the following tools are needed:

- 1. An Allflex tissue applicator
- 2. Sample detail card
- 3. Allflex tissue punches
- Animals should be restrained during sampling (for example, by packing tightly into a race or using a head bail).
- Somewhere sheltered to stand for the person writing down animal IDs is also needed.

HOW TO USE THE ALLFLEX TISSUE APPLICATOR

LOADING THE ALLFLEX TISSUE APPLICATOR

3.

- Remove a punch from the box supplied. Punches should be assembled as one piece; if they have come apart, reassemble.
- 2. Ensure the tube retainer at the base of the applicator gun is open. Twist the retainer base until the retainer is open.
 - Insert the punch into the tissue applicator as shown below. Twist the tube retainer to lock the punch into the device.







- Carefully squeeze the applicator handles together, guiding the punch tip into place if necessary. When fully seated the gun bolt will rest flush against the red plastic clip.
- 5. Release the handles.







 The applicator is now loaded and ready to take a sample. All parts are for one-off use only; do not re-use metal cutters.

TAKING A SAMPLE

Check the tissue applicator is loaded with an unused tissue punch (the green stopper & red plunger is visible in used punches).





Un-used punch

Used punch

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 Slide the gun over the ear, and position the cutter at least 1cm to 2cm from the edge of the ear, taking care to avoid any obvious veins and ridges.



 Squeeze handles together to take a sample and then release to free the ear. Do this in one swift, fluid, motion.



10. Remove the punch from the device and check that sampling has been successful. If not, discard the punch and re-sample with a new punch.



11. Remove the used cutter from the applicator by pulling the handles apart. This will loosen the cutter. Discard safely. CAUTION: THE CUTTER IS VERY SHARP, MIND YOUR FINGERS.

RECORDING SAMPLING DATA

- 1. Be sure to record the following information:
- 2. Name and participant (PTPT) code.
- Sample date. Important because cow IDs may be reused if an animal leaves the herd.
- Cow numbers/birth IDs. Circle one. Samples cannot be processed unless clearly identified.
- You will notice each punch has a unique ID and barcode written on the base of the tube. The last five digits are written in larger font on the side of the tube. This is to allow you to match the tissue punch number to the card number.



- Full birth IDs should be recorded.
- Make sure animals with different years and PTPT codes are clearly noted.
- If used, make sure cow numbers are clearly noted.
- Make sure sires/males are clearly noted.

As each box of 10 samples is completed and the submission card is filled out, the card can be taken out of the box and kept, discard the rest of the box.

Please be sure to send the insert inside the box only- the entire box will not fit in the FREEPOST bags provided by GeneMark.



Be sure to assign the correct animals to the correct sample number.

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- After sampling is complete, samples should be placed into a ziplock bag and into the fridge until you are ready to courier them to GeneMark (140 Riverlea Rd, Hamilton).
- Note: The samples are biological biopsies. They will survive several days in the post but should be treated with care prior to postage.
- DURING SAMPLING KEEP THE SAMPLES OUT OF THE SUN & DO NOT STORE SAMPLES AT ROOM TEMPERATURE AFTER SAMPLING.

Storage Conditions

Tissue sampling unit	Storage conditions
Wet TSU	Fridae
Dry TSU	Freezer

For more sampling instruction and troubleshooting please go to the LIC website https://www.lic.co.nz/productsand-services/animal-health-and-dna-testing/send-samples-lic/