

MEMBERSHIP TIPS

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TSUs: Is this for me?

The American Angus Association began accepting DNA submissions by tissue-sampling units (TSU) in July 2017. The new DNA collection method is easier and faster compared to traditional hair or blood sampling.

A TSU collects an ear punch from an animal, providing a sample that can replace the tail hair, blood or semen used for DNA sampling. It is a quick and cost-effective way of collecting DNA to be used for parentage verification, testing for genetic conditions, genomic profiling and even bovine viral diarrhea (BVD) diagnostics. TSUs are also an effective and accepted sample method for twins.

A special applicator gun is used to punch a small bit of ear into a specialized container. With a single squeeze, the tissue is collected in seconds with minimal stress on the animal.

Is it really that simple? Not really. As TSU sampling gains popularity, AGI representatives have noticed a few common problems that need to be addressed. Below are some

dos and don'ts for successful TSU sampling:

Do

- Order tests through AAA Login.
- When uploading the sample spreadsheet, include the entire barcode.
- Email the spreadsheet to agiusers@angus.org.
- Only fill in the tag number and barcode in the spreadsheet.
- Double-check that the tag on the spreadsheet matches the animal.
- Make certain the tissue sample and preservative fluid are sealed in the vial.

Don't

- Don't send in an empty vial. Make sure there is liquid in the submission.

- Don't add your own columns in the spreadsheet.
- Don't put spaces in barcodes.
- Don't write over the QR code (the barcode on the end of the sample). The barcode must be legible to scan the sample.
- Don't put dashes and the dam's tag after the calf's tag number.
- Don't tape the animal's ID to the vial. Include the information in the spreadsheet instead.

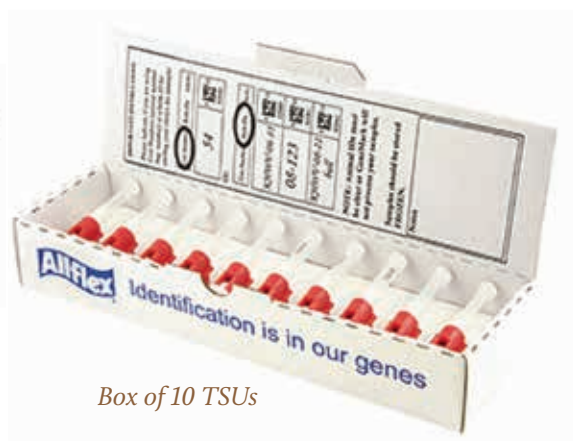
For your samples to be tested, they need to be collected and submitted correctly. To order TSU tests, visit AAA Login and find the *DNA* tab in the menu. Navigate to the *Order Tests* in the small menu, and then click the bolded *Order Tests*. Follow instructions carefully to ensure your



Tissue sampling applicator



Tissue sampling unit



Box of 10 TSUs

Fig. 1: You can order both methods of DNA tests through the AAA Login

DNA ORDER TESTS - GETTING STARTED

1. Order DNA cards or tissue sampling units (TSU) to collect DNA samples.

[Click here to place a DNA card order.](#)

[Click here to place an Allflex tissue sample \(TSU\) order.](#)

if using Allflex tissue sample units (TSU) for your DNA tests you will be required to submit a data file containing your TSU sample barcodes to animal tag / herd IDs. **This is not required for DNA or Hair cards.** [Click here for a template data file.](#) Please email the file to agiusers@angus.org.

2. Collect Blood Samples - (blood, hair or tissue)

The preferred method of collection and submission is the DNA blood card or TSU. The DNA card should be thoroughly saturated. Allow samples to dry thoroughly before mailing. Do not enclose damp samples in a sealed bag. Hair samples are required on twins. Samples can be collected at any age.

[DNA Sample Instructions](#) - A factsheet explaining the step-by-step process of taking a DNA sample.

[Allflex Tissue Instructions](#) - A factsheet explaining the step-by-step process of using the Allflex Tissue Sampling Unit (TSU).

[Learn how to take DNA Samples](#)

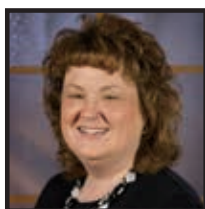
[Tissue Sample Collection](#)

DNA sample is collected properly, and then submitted correctly on the spreadsheet. Double-check that tag numbers match the submission before uploading.

Remember, if you are using Allflex TSUs for your DNA tests, you

will be required to submit a data file containing your TSU sample barcodes matched to animal tag/ herd IDs. This is not required for DNA or hair cards. Once completed, please email the file to agiusers@angus.org.

Once you have submitted your samples successfully, test results will take three to four weeks to arrive at AGI. Results are posted when available via AAA Login under *DNA > Test Results > View Results.*



For more information regarding TSU sampling techniques, visit www.angus.org and click on Member Services > DNA Testing > Order Tissue (TSU) Samples, and please check out the following helpful links.

- www.angus.org/AGI/DNASamplesBrochure.pdf
- www.angus.org/AGI/TSU-Application-Guide-R5-LR.pdf

You can also watch the tutorials available at www.angus.org.

— Gayla Fuston, customer service representative