

MEMBERSHIP TIPS

by Jerry Cassady
director of member services



DNA sample types

Angus producers continue to utilize DNA testing for parent verification, genetic defect status and genetic selection purposes by submitting DNA samples to Angus Genetics Inc.

The Angus Genetics Inc. (AGI) team receives and processes an average of 1,000-1,500 DNA samples each business day. As a result of the hard work and efforts of DNA sampling and testing from the Angus membership, the American Angus Association now has more than one million genotypes in the database, unique only to Angus within the beef industry. This robust database contributes greatly to the genetic estimates and our ability to effect desired genetic change.

With the popularity of DNA testing increasing from year to year, the Member Services team receives an increasing number of questions regarding the different sample types accepted at the Association. Let's describe each sample type in detail and discuss advantages and disadvantages of each.

As companies continue to research and develop new technologies, the American Angus Association and AGI appreciates and encourages new solutions for our beef producers. To best serve the membership, your Association and AGI are currently only accepting sample collection types in the form of Allflex TSUs as well as hair or blood samples on appropriate DNA cards.

Preferred sample types

Blood cards — Currently, blood cards (also known as FTA cards) account for approximately 43% of samples submitted to AGI. FTA cards are easy to use and easily stored, as they can be kept at room temperature, are inexpensive to purchase and have a rapid turnaround time. These FTA cards allow producers to write animal or ranch identification on the card, eliminating confusion.

In addition, FTA cards archive well, so they can provide multiple use if adequate blood is available. However, producers must allow them to dry completely (out of the sun) prior to shipment, as mold can develop quickly if sealed before they are dry. Lastly, the FTA card cannot be used for twins.

Tissue sampling unit — The tissue sampling unit (TSU) is gaining popularity quickly as this newest technology is accounting for approximately half of the samples submitted to AGI. This technology is quicker and faster to collect, easing the burden on the producer and can be used for bovine viral diarrhea (BVD) testing. This technology can also be used on twins.

Although there is added cost for the applicator and collection vials, many producers like the simplicity

at collection and have moved to the TSU sample. If you choose to utilize this technology, know details are especially important, and you must be able to submit the necessary spreadsheet required by AGI to track each sample correctly.

Also keep in mind if additional testing is needed, a new sample may be required as these have limited ability for additional testing. Shipping and storage issues are also a concern, as these must be shipped in protected envelopes or boxes and kept cold for extended use. It is important producers visually inspect each sample at collection to see if the DNA has been collected properly within the vial prior to submission.

Accepted sample types

Hair cards — Some producers appreciate the ease of collection and flexibility of storage as hair cards can be kept at room temperature. Like FTA cards, hair cards are inexpensive and allow for identification to be written directly on the card, which aids in more accurate sample identification. Another unique advantage includes how well these work in the colder climates, as some sample types are more difficult to collect in freezing temperatures. Hair cards also work on twins.

Producers must include 20-30

strands of hair with intact root balls for an acceptable sample. Wait until the animal is at least 4 months of age prior to collection.

Semen — For male calves that have reached maturity, semen is a viable option for DNA submission.

This is especially useful for those older artificial insemination (AI) sires that had semen in storage and testing was necessary for parentage or condition status. Although the semen does not need to be frozen when it arrives at AGI, it does need to be sent in a protected envelope or container, as mail sorting machines will crush a straw of semen, rendering the sample useless.

Other sample types

From time to time, we do receive


other sample types such as whole blood and animal tissue, frozen ear tips, frozen organs and frozen whole muscle. These types of samples are not recommended due to overnight shipping issues and failure rates, but they can be utilized as a last resort.

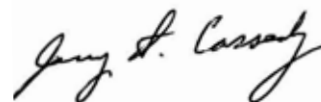
Summary

Technology in the beef industry continues to evolve, and protocols unavailable a decade ago are now considered standard practice.

Angus breeders across the country continue to embrace technology such as DNA testing, again proving to be leaders within the beef industry. The opportunities for future advancements within this technology are seemingly endless.

Our AGI team works with a variety

of sample types to accommodate the needs of our membership. The type of DNA sample you decide to collect and submit is a personal choice, with advantages and disadvantages of each to know and comprehend. A wealth of information regarding DNA samples and submission instructions can be found on the AGI website at www.angus.org/AGI. 



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Editor's note: For more information regarding DNA sample types, contact the Member Services department, any of the AGI representatives at (816) 383-5100 or email me directly at jcassady@angus.org.



Hilltop Angus FARM
Bowdle, South Dakota

44th Annual Production Sale
Wednesday, FEBRUARY 16, 2022
At the Ranch, Bowdle, SD

Selling 84 Reg. Yearling Bulls & 40 Purebred Heifers

AI Sires

Musgrave 316 Exclusive • RBM Spur F157
 Sitz Resilient 10208 • Linz Exemplify 71124
 Koupals B&B Pathfinder 8106
 Hilltops Charged Up 44T



Lot 1

HILLTOPS LINEAGE 41H
 AAA: 20199772 BD: 1-22-21 Adj. WW: 826/109
 Sire: Musgrave 316 Exclusive

BW	WW	YW	Milk
-0.1	+64	+111	+26



Lot 19

HILLTOPS EXEMPLIFY 84H
 AAA: 20199734 BD: 2-19-21 Adj. WW: 774/104
 Sire: Linz Exemplify 71124

BW	WW	YW	Milk
+0.6	+76	+130	+34



Lot 48

HILLTOPS PATHFINDER 67H
 AAA: 20203572 BD: 2-4-21 Adj. WW: 856/118
 Sire: Koupals B&B Pathfinder 8106

BW	WW	YW	Milk
+3.9	+94	+165	+30

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