

SORTING GATE

Level 2: Unlocking the genetic game plan

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During the last several months, the topic of conversation has been how to create a genetic game plan for an operation. The five steps include:

- ▶ purchasing a registered Angus bull;
- ▶ unlocking the value of the herd sire;
- ▶ selecting replacement females;
- ▶ benchmarking your herd; and
- ▶ getting paid for your investment.

In the last “Sorting Gate” column (see October *Angus Beef Bulletin*, page 38), we discussed the value of purchasing a registered Angus bull. The data, information and tools that are *Powered By AngusSM* and used to create additional value in that purchase are key in that first step. Yet, even after the stud is purchased, how can an operation continue to unlock the value of that herd sire?

Level 2: Unlocking his value

In addition to pedigree verification, using sire verification tools provides many other unique benefits to support management decisions on a commercial cattle operation.

One purpose is to understand which bulls are siring the best progeny. Many commercial operations manage multiple sires in one pasture to increase the rate of pregnant females come fall or spring. However, when using multiple sires in a single pasture, it becomes difficult to differentiate which bulls sired the best progeny or the sires that created calving difficulty the year prior.

Expected progeny differences

(EPDs) are available to guide the purchase of a registered Angus bull. However, even though the seedstock producer does their absolute best to provide as much information as possible on sale day, some differences from those EPDs can occur. They are predictions, after all. Thus, a bull pen may be made up of sires that all have acceptable calving ease direct (CED) EPDs; however, some calving difficulty may still occur. Being able to identify if a single sire was the culprit of that calving difficulty would allow the operation to make the appropriate decisions, whether that be to only use that bull on mature cows or to replace that bull with another.

Sire verification can also help commercial operations understand which bulls covered the most females. It is a known fact dominance patterns are present in multi-sire pastures. There will be a “king of the hill.” Or, perhaps, a bull was injured during some point of the breeding season and is no longer a viable breeder.

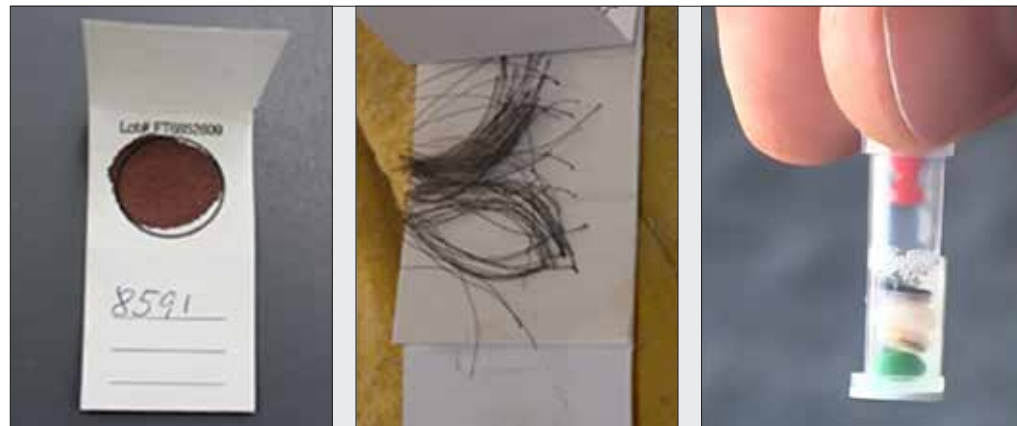
Having this type of information could enable producers to separate

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bulls more effectively for the next season or pinpoint issues in their bull pen. Having calves with known sire identity would provide producers a better picture of how many bulls they need to replace during bull-buying season.

Sire identification (ID) can help

Fig. 1: Sample types accepted by AGI include (from left) a blood card, hair card and tissue sampling unit



identify other successful strategies on the ranch. For instance, those who are managing an artificial insemination (AI) program on their heifers each year could investigate the success rates for that AI program, especially if a herd bull is turned out to pasture right after breeding. Even when bulls are held out for a period, calves born early or late based on their AI due date can cause a source of confusion, and selection decisions on whether a female is kept based solely on if she is an AI female could be misguided. In addition to that, having females with known parentage could avoid mating closely related animals.

The process

How does the process work?

Individual DNA samples need to be collected on each calf you would like to parent-verify. If purchased herd sires have already been tested through Angus Genetics Inc. (AGI), test results will be on file at

the Association, so no further testing is necessary on the herd sires that have been tested and ownership transferred.

For bulls that do not have DNA tests on file with the Association, a sample must be collected. If someone is unsure if a bull has DNA

on file, contact the AGI customer service team. They will be able to give advice. It is essential that all possible sires are genotyped to provide good test results.

Multiple DNA sample types — including a hair card, blood card or tissue sampling unit (TSU) — can be used for DNA collection (see Fig. 1). If an operation is new to DNA testing, utilizing TSUs may be the easiest for DNA collection, but ensuring that each sample ID (barcode) is matched to the visual tag ID is crucial for success.

Once collected, an order can be placed with AGI for sire/parentage verification. Cost of this DNA test is \$18 per animal.

Targeted parentage testing, like on replacement heifer candidates, may be a good strategy as producers consider the advantages of DNA testing for sire verification.

For more information on DNA testing, email agiusers@angus.org or call 816-383-5100 and ask for AGI customer service. |

Editor's note: Authored by staff of Angus Genetics Inc. (AGI), “Sorting Gate” is a regular *Angus Beef Bulletin* column featuring herd improvement topics for commercial producers using Angus genetics. For additional information on performance programs available through the American Angus Association and AGI, visit www.angus.org and select topics under the “Management” tab.