## **Sending DNA samples**

There are many reasons to take DNA samples and send them in to the American Angus Association. Samples for genomic tests help increase the accuracy in genomically enhanced expected progeny differences (GE-EPDs). However, even with the best records and management, mistakes can be made.

Parentage and genetic-condition questions can arise, but the sire or dam gets hurt or dies prematurely without any DNA stored. Records can't be found or can't be interpreted. A neighbor's bull gets out in your pasture, and you don't know which calves are sired by him. Plus, the new trend is multiple-sire pastures. If parentage questions come up — say some calves show up with abnormalities — what do you do then?

## **Benefits of taking blood samples**

Don Laughlin, director of member services at the American Angus Association, says that taking a blood sample on a DNA card to obtain DNA markers can serve as affordable risk insurance against these

Cards are 50¢, and samples can be taken by a veterinarian or ranchers themselves. Taking samples can easily be inserted into the normal production routine when

**GOOD SAMPLES** 

working cattle, Laughlin points out.

With the higher price of bulls now, customers expect more, and having DNA on file makes solving potential issues simpler

and less dramatic. If abnormal calves result, a DNA test can pinpoint the issues or who the sire may be.

In the multiple-sire pasture scenario, calves must be DNA-marker typed to be eligible to register, says Laughlin, so it is a good idea to get samples on all bulls before they are turned out.

"It is prudent for every registered breeder to parent-qualify and get DNA markers on all of their herd bulls," he says. That's especially true if a bull will not parentally qualify to his parents, then his pedigree is temporarily suspended. This also affects the bull's progeny as they cannot be registered.

If cost is an issue for performing DNA tests, he says, samples should last for many years, so it is better to have the sample and

> store it if needed. When working with your cattle, he recommends taking a blood sample on a DNA card. Then you can let it dry, put it in storage and keep it for peace of mind.

DNA markers are required for semen on artificial insemination (AI) bulls and for females flushed for embryo transfer.

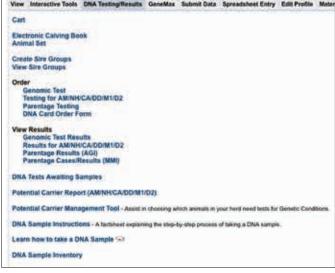
You can order DNA cards from AAA Login. Click on the DNA Testing/ Results tab, then click DNA Card Order

Form, the last option in the Order section (see. Fig. 1). From this Order section, you can also order genomic tests, genetic condition tests and parentage tests.

The DNA Sample Inventory, the last option of the DNA Testing/Results page, allows you to search for animals by birth date, tattoo, animal set or registration number. This will bring up a list of every animal with a genetic test (see Fig. 2, page 90). It will also tell you whether the sample is at the lab or available at the American Angus Association.

AAA Login also has resources to help

Fig. 1: Options within the DNA Testing/Results tab





Contaminated



not trimmed



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take good blood samples. Unfortunately, many samples sent in are unusable because

the samples are contaminated, there is too much or too little blood, there isn't enough

hair, the hair is too long, or the hair is sent without the root bulb, among other reasons. Check out the DNA Sample Instructions link and the Learn How to Take a Blood Sample video link.

## Fig. 2: DNA Sample Inventory

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Editor's Note: This column is written by Associate Editor Kasey Brown. She can be reached at kbrown@angusjournal.com or 816-383-5277.