

Testing for Arthrogryposis Multiplex in your herd

Arthrogryposis Multiplex (AM), previously known in the U.S. as “Curly Calf Syndrome,” is a lethal genetic defect caused by a simple recessive gene that results in a deletion on two separate genes in Angus and Angus-influenced cattle. AM-affected calves are born dead with a twisted spine and extended and contracted limbs, and calving difficulties are common.

The Impact of AM

Dr. Jon Beever at the University of Illinois has recently identified the gene deletion responsible for AM. His initial testing of 736 A.I. sires used in Angus and Angus-influenced breeding programs identified 58 of these sires to be AM carriers.

Identifying AM-carrier animals provides critical information for your future breeding decisions that can impact short- and long-term profitability. Carriers may be managed so the gene mutation can be eliminated from the current Angus population over time.

Testing for AM

Pfizer Animal Genetics, a business unit of Pfizer Animal Health, has produced a commercial version of the test originally developed by Dr. Beever. Pfizer will provide test results to the American Angus Association at the request of the breeder providing the DNA sample.

Samples may be submitted in one of the following forms:

- **Hair follicles.**

When submitting hair samples, please make sure at least 25 follicles (bulb intact) are included to ensure an adequate volume of DNA to complete the test.

- **Blood FTA® cards.**

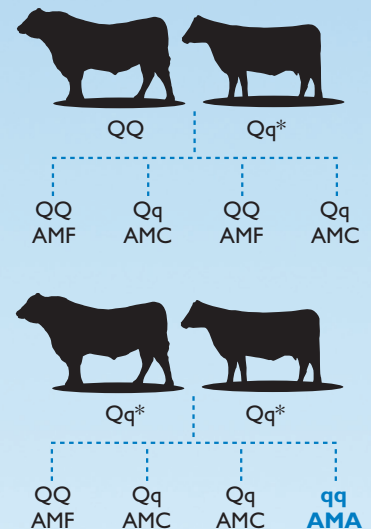
- **Semen samples.**

- **Whole blood tubes.**

To download test order forms and a DNA-sample collection guide, please visit www.pfizeranimalgenetics.com or contact a customer service representative at 1-877-BEEF DNA.



Chances of an AM Calf



*q denotes the recessive gene for the AM trait.

Importance of AM Testing

Testing of suspect animals is essential to identifying carrier animals.

As the illustrations show:

- Crossing an AM-free (AMF) animal with an AM-carrier (AMC) animal results in no affected animals. Half of the animals will be AM-free and half will be carriers
- Crossing two AMC animals results in a 25 percent chance of an AM-affected calf (AMA) and a 50 percent chance of an AMC.

For breeders of Angus and Angus-influenced cattle, test results on suspect animals can:

- Advance breeding decisions, eliminating the recessive gene over time.
- Confirm carriers or syndrome-free animals.
- Facilitate winter and spring sale decisions.