Testing for Arthrogryposis Multiplex in your herd

Arthrogryposis Multiplex (AM), also known as "Curly Calf Syndrome," is a lethal genetic defect caused by a simple recessive gene. 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 mutation responsible for AM. He has tested 736 A.I. sires and identified 58 AM carriers used in Angus and Angus-influenced breeding programs. Of these 58 carriers, 29 were in use in Australia.

The presence of the recessive form of the gene can negatively influence your herd's genetic progress. Identifying AM-carrier (AMC) animals provides critical information for your future breeding decisions and for your bull buyers.

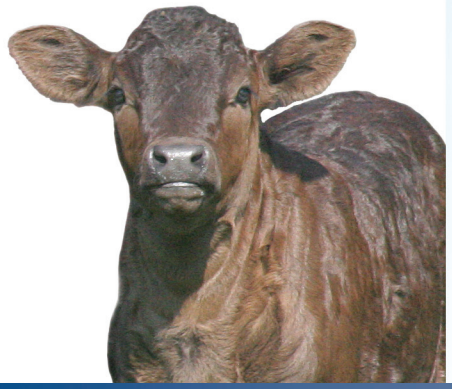
Testing for AM

Pfizer Animal Genetics, a business unit of Pfizer Animal Health, has produced a validated commercial version of the test originally developed by Dr Beever. If test results for registered Angus animals will be required by Angus Australia, samples need to be submitted to Angus Australia nominating Pfizer Animal Genetics as the testing laboratory. For animals not requiring results submission to Angus Australia, samples can be submitted directly to Pfizer Animal Genetics.

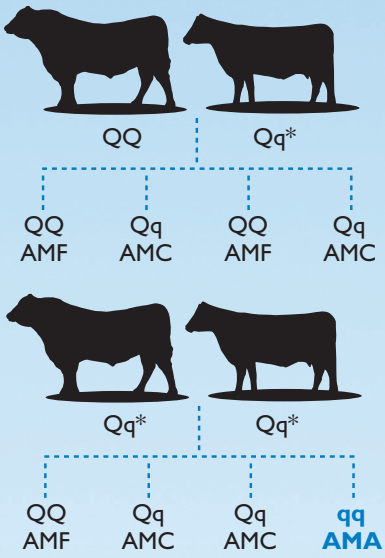
Samples may be submitted in one of the following forms:

- **Hair follicles (preferred sample type)** 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**

Please contact Pfizer Animal Genetics or Angus Australia to order more sample collectors.



Chances of an AM Calf



*q denotes the recessive form of the AM gene.

Importance of AM Testing

Testing of suspect animals is essential to help identify carrier animals.

As the illustrations shows:

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

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.
- Prove AMF Status to bull buyers.

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