

# Board Announcement

American Angus Association Board of Directors announces policy related to the Myostatin nt821 gene deletion.

**T**oday (July 29, 2011), we are posting a policy relating to the Myostatin nt821 gene deletion. That deletion was recognized by us as a strain of the double muscling genetic defect on June 20, 2011.

This policy derives from the discretion given to the Board in Rule 307 to develop, establish and implement specific policies tailored to address a particular set of circumstances the Board may have before it. Since the rule's initial adoption in November 2008, we have had the occasion to issue three policies to address three separate defects. Today marks the fourth policy issued by the Board in this era of DNA testing.

In fashioning this policy the Board was again guided by two core beliefs:

- 1) That if a test for the defect was available, that test should be made available to our membership, and
- 2) Pedigrees should be marked to reflect the results of those tests.

We also considered the three policies we have adopted since November 2008. We concluded that the presence of the Myostatin nt821 deletion in the breed presented a markedly different set of circumstances than those associated with the defects for which we set policy in 2008, 2009 and 2010. Finally, we believe that our membership is well-informed on the nature of recessive traits and much more adept — and comfortable — at

effectively using the science and technology now available to us to manage breeding and selection decisions.

Dr. Beever has nearly completed testing of sires submitted to him by the AI organizations for the Myostatin nt821 deletion. As of this posting, the rate of incidence for this deletion will be low — in the rate of one-half of 1%. This compared to incidence rates on the same population of 8.5%, 10.5% and 3.1% for AM, NH and CA, respectively.

See below to view the M1 policy.

We will continue to keep you posted on any additional developments.

— *The Board of Directors*

## **Policy of the American Angus Association Relating to the Registration Status of Potential and Known Carriers of Myostatin nt821 gene deletion July 29, 2011**

### **Preface**

Pursuant to Rule 307 of the Rules of the American Angus Association (hereinafter “the Association”), the Board of Directors hereby adopts the following policy regarding the following genetic defect: Double muscling (Skeletal Muscle Hypertrophy), Myostatin nt821 gene deletion (hereinafter “M1”).

The Myostatin nt821 gene deletion was recognized as a strain of the double muscling genetic defect on June 20, 2011.

### **The Impacted Genetics**

For the purposes of the procedures that follow, the phrase “the impacted genetics,” as it references the M1 mutation, currently refers to all confirmed carrier animals or animals with confirmed carriers of the M1 mutation in their pedigrees. These currently identified references do not preclude other ancestors from potentially being identified as carriers at a later time.

### **Procedures**

The following procedures shall be followed in connection with the registration status of potential and known carriers of M1:

#### **I. Status of Currently Registered Females and Bulls**

A. As used herein, the word “currently” in the phrase “currently registered” shall mean that date on which laboratories approved by the Association began to provide a commercial DNA test for the mutation to the membership. Such date(s) will be published on the Association's website.

Note: With respect to M1, that date was July 1, 2011.

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B. All currently registered females and bulls with the impacted genetics in their pedigrees shall remain registered. In other words, their registrations will not be revoked, cancelled or suspended.

C. All currently registered females and bulls with the impacted genetics in their pedigrees that are tested and determined to be carriers of the mutation shall remain registered.

### II. Resulting Progeny of Carrier Females and Bulls

All resulting progeny of currently registered carrier females or carrier bulls may be registered without submitting to testing. Notwithstanding such registration, the Association shall place or electronically display a notation, as described in Section VII of this Policy, on each Performance Registration Certificate, Angus Performance Pedigree or any other pedigree displayed electronically.

### III. Currently Registered Animals Determined to be Affected by the Mutation

Any animals identified as being homozygous for the mutation, shall therefore be considered to be affected by the defect, and are not eligible for registration under Rule 103d. In the event that a registered animal is discovered to be affected by the defect, its registration shall be considered null and void, and the Certificate of Registration must be returned to the Association for cancellation.

### IV. Testing of Animals

A. Testing to determine whether an animal is a carrier of the mutation, is free of the mutation, or affected by it shall be conducted at those laboratories approved by the Association.

B. The results of such testing shall be provided to the Association and the submitting member as soon as practicable after the test results are available.

### V. Publication of Test Results by the Association

Upon receipt of a test result from an approved laboratory that determines whether an animal is a carrier of the mutation, free of the mutation, or affected by it, the Association shall list the name, registration number and test result of each such animal on its website. The Association shall also maintain an updated list of each animal determined to be a carrier or determined to be affected, as well as those who have tested free of such defect. Upon request, the Director of Member Services shall provide

such a list at no cost to the requesting member.

### VI. Right to Request a Second DNA Test

In those instances in which an animal previously registered or seeking registration is tested and determined to be a carrier of the mutation (and is identified as such on the Association's website), the member owner of record may request that an approved laboratory conduct a second DNA test on a sample from such animal. In order to process a request for a second test, the member owner of record must provide materials or samples sufficient to permit the laboratory to verify the parentage of the animal in question.

### VII. Notations on Registration and Performance Pedigree Certificates

A. Upon receipt of a test result from an approved laboratory, the Association shall place or electronically display the letter designation(s) "M1F" on the registration and performance pedigree certificates of any animal that has been determined by such a test to be free of the mutation. M1F shall mean "Myostatin nt821 mutation for Double Muscling – Free," or that an animal is free of the mutation.

B. Upon receipt of a test result from an approved laboratory, the Association shall place or electronically display the letter designation(s) "M1C" on the registration and performance pedigree certificates of any animal that has been determined by such test to be a carrier of the mutation. M1C shall mean "Myostatin nt821 mutation for Double Muscling – Carrier," or that the animal is a carrier of the mutation.

C. Upon receipt of a test result from an approved laboratory, the Association shall place or electronically display the letter designation(s) "M1A" on any animal that has been determined by such test to be an affected animal. The "M1A" letter designation shall be reflected on any registration and performance pedigree certificates where the affected animal appears as an ancestor. M1A shall mean "Myostatin nt.821 mutation for Double Muscling – Affected," or that the animal is affected by the mutation.

D. The Association shall place or electronically display the following notation on the registration and performance pedigree certificates of all registered animals that descend from an animal determined to be a carrier of the mutation, unless an intervening M1F status eliminates all genetic ties to a known carrier ancestor:

*This animal has one or more ancestors known to carry a mutation that can result in calves with a genetic defect known as Double Muscling [Myostatin nt821 (M1)]. The American Angus Association recommends DNA testing at an approved laboratory to confirm the absence or presence of the mutation.*

Such notification will remain in place until the Association receives an official determination from an approved laboratory that the particular animal tested as a carrier of the mutation or free of it, in which case its certificates will be denoted pursuant to Sections VIII.A and B of these procedures.

NOTE: These procedures apply only to Myostatin nt821 mutation.

