POLICY OF THE AMERICAN ANGUS ASSOCIATION RELATING TO THE REGISTRATION STATUS OF POTENTIAL AND KNOWN CARRIERS OF ARTHROGRYPOSIS MULTIPLEX ("AM") AND NEUROPATHIC HYDROCEPHALUS ("NH")

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 two separate genetic defects: Arthrogryposis Multiplex (hereinafter "AM") and Neuropathic Hydrocephalus (hereinafter "NH").

AM was recognized as a genetic defect on November 15, 2008, the same date on which the Board adopted its initial policy related to that abnormality. NH was recognized as a genetic defect on June 12, 2009. On that same date, the Board revised the initial AM policy (1) to amend Section II of that initial policy as it related to AM and (2) to make the procedures that follow, unless stated otherwise, applicable to both AM and NH.

The Impacted Genetics

For the purposes of the procedures that follow, the phrase "the impacted genetics", as it references the AM mutation, currently refers to all animals with Rito 9J9 of B1567T26, Registration No. 9682589, in their pedigrees. As it refers to the NH mutation, the phrase currently refers to all animals with GAR Precision 1680, Registration No. 11520398, in their pedigrees. These currently identified references do not preclude other ancestors of these bulls 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 AM and NH:

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 shall begin 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 AM, that date was January 1, 2009.*

With respect to NH, that date was June 15, 2009.

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

A. Heifer Calves

1. All resulting heifer calves of currently registered carrier females or carrier bulls, born within three years of the date on which an Association approved commercialized test is available, must be DNA tested for the mutation recognized under this policy at a laboratory authorized by the Association in order to be eligible for registration. The results of such test (reflecting whether the heifer calf so tested is a carrier of the mutation or free of it) shall be denoted on that animal's registration and performance certificates in the manner prescribed below.

Note: *With respect to AM, that date is December 31, 2011.*

With respect to NH, that date is June 14, 2012.

2. All resulting heifer calves of registered carrier females or carrier bulls, born after three years of the date on which an Association approved commercialized test is available, must be DNA tested for the mutation recognized under this policy at a laboratory authorized by the Association and found to be free of that mutation in order to be eligible for registration.

Note: *With respect to AM, that date is January 1, 2012.*

With respect to NH, that date is June 15, 2012.

B. Bull Calves

1. All resulting bull calves of currently registered carrier females or carrier bulls, born within one year of the date on which an Association approved commercialized test is available, must be DNA tested for the mutation recognized under this policy at a laboratory authorized by the Association in order to be eligible for registration. The results of such test (reflecting whether the bull calf tested is a carrier of the mutation or free of it) shall be denoted on that animal's registration and performance certificates in the manner prescribed below.

Note: *With respect to AM, that date is December 31, 2009.*

With respect to NH, that date is June 14, 2010.

2. All resulting bull calves of registered carrier females or carrier bulls, born after one year of the date on which an Association approved commercialized test is available, must be DNA tested for the mutation recognized under this policy at a laboratory authorized by the Association and found to be free of that mutation in order to be eligible for registration.

Note: *With respect to AM, that date is January 1, 2010.*

With respect to NH, that date is June 15, 2010.

C. Steer Calves

1. All resulting steer calves of currently registered carrier females or carrier bulls may be registered without submitting to testing.

III. Currently Registered A.I. Sires Determined to be Carriers of the Mutation

A. All calves sired artificially by non-owned bulls (calves that would require an AI service certificate) shall be ineligible for registration if conceived after sixty (60) days following the date on which that sire is listed on the Association's website as a carrier of the mutation. Calves resulting from embryos conceived artificially by non-owned bulls with embryo removal dates after 67 days following the date on which that sire is listed on the Association's website as a carrier of the mutation shall be ineligible for registration.

B. The Association will publish the names and registration numbers of such sires on its website only upon receipt of a test determination from an approved laboratory.

IV. Registration of Clones With Impacted Genetics

Clones of any animal determined to be a carrier of the mutation shall be ineligible for registration. Clones of untested animals with the impacted genetics shall also be ineligible for registration.

V. Testing of Animals

A. Testing to determine whether an animal is a carrier of the mutation or is free of 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.

VI. 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 or free of 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 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.

VII. 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.

VIII. 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) "AMF" or "NHF" on the registration and performance pedigree certificates of any animal that has been determined by such a test to be free of the mutation. **AMF** shall mean **"Arthrogryposis Multiplex – Free"**, or that an animal is free of the mutation. **NHF** shall mean **"Neuropathic Hydrocephalus – Free"**.

B. Upon receipt of a test result from an approved laboratory, the Association shall place or electronically display the letter designation(s) "AMC" or "NHC" on the registration and performance pedigree certificates of any animal that has been determined by such test to be a carrier of the mutation. **AMC** shall mean **"Arthrogryposis Multiplex – Carrier"**, or that the animal is a carrier of the mutation. **NHC** shall mean **"Neuropathic Hydrocephalus – Carrier"**.

C. Seven months following the availability of a commercial test for the mutation (at commercial laboratories approved by the Association), 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 AMF or NHF 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 Arthrogryposis Multiplex (AM), or if applicable, Neuropathic Hydrocephalus (NH). 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 Arthrogryposis Multiplex and Neuropathic Hydrocephalus.