

- e. Birth year is required for registration in Category III. If exact birth date is unknown, the animal will be considered the progeny of a multiple sire group if the dam was exposed to more than one sire.
- f. The blood percentage of the lowest blood content bull in a multiple sire group will be used as the blood content for the sire of all calves in such a group.

## **7. GENETIC DEFECT POLICY (Rev 6-09)**

### **A. Animals known to exhibit any of the defects listed in RAAA Breeder's Guide (HT-Monitored Genetic Defects) are not eligible for registration or recordation in the RAAA herdbook. (Rev. 9-08)**

- This does not apply to Confirmed Carrier animals that possess one copy of the genetic defect gene.

### **B. Reporting of Animals with Possible Genetic Defects or DNA Test Results:**

1. RAAA members who become aware of a possible genetic defect that has occurred in their herd have the responsibility to immediately notify the RAAA National Office. The reporting member will be provided a document to explain the abnormality, and instructions on the proper techniques for collecting and shipping materials from the abnormal animal. Appropriate DNA samples from both the sire and dam of the calf suspected of having a genetic defect will also be required to verify parentage.
2. In the event that an RAAA approved DNA test is available to identify an animal's status for a specific genetic defect, RAAA members are required to provide test results on registered animals to the RAAA National Office within 10 business days from the date that the submitting party received written documentation from an RAAA approved testing facility. In the case of animals not yet registered with RAAA, any DNA test results of an RAAA monitored genetic defect received by the submitting party must be on file at the RAAA National Office prior to the animal achieving registered status.

### **C. Failure to comply with RAAA Rules and Regulations relative to the reporting of animals with possible genetic defects or DNA test results may subject the member to disciplinary action under provisions of *Article IX, Discipline, Suspension, or Expulsion*, of the RAAA By-laws.**

### **D. Determining if Abnormality is Genetic in Nature**

1. RAAA will have no part in determining if the abnormality is the result of a genetic defect. RAAA will only serve as the coordinator of information between the owner of the suspected animal and a genetic defect consultant. The appointed genetic defect consultant will determine if adequate evidence is present to establish a definite genetic cause of a particular abnormality. All cases of abnormal animals will be observed and

- determination made by a genetic defect consultant.
2. RAAA Board of Directors will be in charge of selecting a genetic defect consultant(s) who has the ability to determine if abnormal animals are the result of genetic defects.

#### **E. Notification to Tested Animals' Owner(s) and Breeder**

1. Once an animal registered in the RAAA has produced at least 2 progeny which are positively diagnosed with a genetic defect through visual observation, the RAAA will notify, by certified mail, the Owner(s) and Breeder of the confirmed carrier animal. This notification will contain evidence supporting the diagnosis of the genetic defect. Additionally, the Owner(s) and Breeder will be notified of RAAA's plan to designate the carrier animal as a confirmed carrier of a genetic defect. The designation will become final 30 days after mailing of the certified letter. **(Rev. 6-07)**
2. Owner(s) or Breeder of the confirmed carrier animal may contest the results of the genetic diagnosis by filing a complaint with the RAAA Executive Committee prior to the time the designation becomes final. Such contest will postpone the designation of the carrier animal until the completion of the RAAA Executive Committee's review of the particular diagnosis. In such cases, the RAAA Executive Committee has the final say in the (non)designation of the carrier animal. **(Rev. 6-07)**
3. Owner(s) and Breeder have the option to waive their right to contest the results of the genetic diagnosis. This is accomplished by completing the Waiver of the Right to Contest form that is mailed with the above described certified letter. Receipt of a completed and notarized waiver of the Right to Contest form from all recorded Owner(s) and Breeder will void the 30 day contest period. **(Rev. 6-08)**

#### **F. Diagnostic Tests for Normal Appearing Animals**

1. Upon the availability of an RAAA approved diagnostic test (ex. DNA tests) which can accurately determine the carrier or free status of an animal for a monitored genetic defect, those test results will supersede the requirement of two affected progeny (see E. above). Results of such diagnostic tests will only be accepted from RAAA approved testing facilities. Such approved testing facilities will be listed on the RAAA website or upon request.
2. In the event that positive test results (confirming that an animal is a carrier of a genetic defect) are received in the National Office that were submitted by a party other than an animal's current owner(s), breeder, previous owner, or lessee/agent on record, RAAA will notify the animal's breeder and/or current owner prior to posting that animal as a carrier, thus, giving them the opportunity to contest the test results. **(Rev. 10-09)**
3. Through submitting samples of an animal registered in the RAAA for diagnostic testing, the submitting party must agree to remove RAAA from any and all liability or responsibility for the reliability or accuracy of the sample submitted for testing, accuracy of the test, performance of the diagnostic facility, and the test results. Test

results not accompanied by such removal of liability and responsibility will not be accepted by RAAA.

4. Accepted test results will be released as public knowledge upon receipt by the RAAA. The tested animal's name, registration number, and test result will be disclosed as part of a collective list of tested free and confirmed carrier animals for the respective genetic defect on the Red Angus website or upon request.
5. An animal's owner(s) and/or breeder have the right to request a second diagnostic test. Such additional diagnostic test must be performed by an RAAA approved testing facility and at the requesting parties' expense. In addition to the second diagnostic test, the requesting owner(s) and/or breeder must provide means to verify parentage of the animal in question.
6. If at the time an offspring is submitted for registration, a parent is on hold for genetic defect requirements and an actual sample from the parent cannot be obtained, all of the following will apply:
  - offspring must be tested for the same genetic defect tests required of the parent
  - owner must submit an affidavit with the reason why the parent is not available parent will remain at an on hold registration status
  - subsequent progeny submitted will be held pending review by the Chief Executive Officer (ADD 9-17)

#### **G. Rules Pertaining to Osteopetrosis (OS)**

1. It is the responsibility of all RAAA members to be aware that animals containing an OS tested carrier animal in their pedigree without an intervening OS tested free animal have the potential to be an OS carrier animal.

Beginning July 1, 2009:

- i. Animals applying for registration whose pedigree contains an OS tested carrier within the first two generations (parents or grandparents) without an intervening OS tested free animal must be tested by an RAAA approved facility to determine if the animal is a carrier, or free of OS. Registration of such animals will be placed on hold until approved test results are received by RAAA.

Beginning January 1, 2014:

- ii. AI sires (sires with progeny applying for registration using RAAA mating code 1) and Embryo parents (dams/sires with progeny applying for registration using RAAA mating code 3) whose pedigree contains an OS carrier without an intervening OS tested free

animal must be tested by an RAAA approved facility to determine if the animal is a carrier, or free of OS. In the event that DNA is unavailable on an AI sire/Embryo donor dam then progeny will be required to be tested for OS as a requirement for registration. (Rev. 1-14)

- iii. Animals confirmed to be carriers of OS are eligible for registration.

## **H. Rules Pertaining to Arthrogyrosis Multiplex (AM)**

1. It is the responsibility of all RAAA members to be aware that animals containing an AM tested carrier animal in their pedigree without an intervening AM tested free animal have the potential to be an AM carrier animal.
2. Beginning July 1, 2009:
  - i. Animals applying for registration whose pedigree contains an AM tested carrier within the first two generations (parents or grandparents) without an intervening AM tested free animal must be tested by an RAAA approved facility to determine if the animal is a carrier, or free of AM. Registration of such animals will be placed on hold until approved test results are received by RAAA.
  - ii. AI sires (sires with progeny applying for registration using RAAA mating code 1) and Embryo parents (dams/sires with progeny applying for registration using RAAA mating code 3) whose pedigree contains an AM carrier without an intervening AM tested free animal must be tested by an RAAA approved facility to determine if the animal is a carrier, or free of AM. In the event that DNA is unavailable on an AI sire/Embryo donor dam then progeny will be required to be tested for AM as a requirement for registration. (Rev. 6-11)
  - iii. Animals confirmed to be carriers of AM are eligible for registration.

## **I. Rules Pertaining to Neuropathic Hydrocephalus (NH)**

1. It is the responsibility of all RAAA members to be aware that animals containing an NH tested carrier animal in their pedigree without an intervening NH tested free animal have the potential to be an NH carrier animal.
2. Beginning September 1, 2009:
  - i. Animals applying for registration whose pedigree contains an NH tested carrier within the first two generations (parents or grandparents) without an intervening NH tested free animal must be tested by an RAAA approved facility to determine if the animal is a carrier, or free of NH. Registration of such animals will be placed on hold until approved test results are received by RAAA.

- ii. AI sires (sires with progeny applying for registration using RAAA mating code 1) and Embryo parents (dams/sires with progeny applying for registration using RAAA mating code 3) whose pedigree contains an NH carrier without an intervening NH tested free animal must be tested by an RAAA approved facility to determine if the animal is a carrier, or free of NH. In the event that DNA is unavailable on an AI sire/Embryo donor dam then progeny will be required to be tested for NH as a requirement for registration. (Rev. 6-11)
- iii. Animals confirmed to be carriers of NH are eligible for registration.

**J. Rules Pertaining to Alpha-Mannosidosis (MA) (Add 3-10)**

- 1. It is the responsibility of all RAAA members to be aware that animals containing an MA tested carrier animal in their pedigree without an intervening MA tested free animal have the potential to be an MA carrier animal.
- 2. Beginning July 1, 2010:
  - i. Animals applying for registration whose pedigree contains an MA tested carrier within the first two generations (parents or grandparents) without an intervening MA tested free animal must be tested by an RAAA approved facility to determine if the animal is a carrier, or free of MA. Registration of such animals will be placed on hold until approved test results are received by RAAA.
  - ii. AI sires (sires with progeny applying for registration using RAAA mating code 1) and Embryo parents (dams/sires with progeny applying for registration using RAAA mating code 3) whose pedigree contains an MA carrier without an intervening MA tested free animal must be tested by an RAAA approved facility to determine if the animal is a carrier, or free of MA. In the event that DNA is unavailable on an AI sire/Embryo donor dam then progeny will be required to be tested for MA as a requirement for registration. (Rev. 6-11)
  - iii. Animals confirmed to be carriers of MA are eligible for registration.

**K. Rules Pertaining to Contractural Arachnodactyly (CA) (Add 10-10)**

- 1. It is the responsibility of all RAAA members to be aware that animals containing a CA tested carrier animal in their pedigree without an intervening CA tested free animal have the potential to be a CA carrier animal.
- 2. Beginning January 1, 2011:
  - i. Animals applying for registration whose pedigree contains a CA tested carrier within the first two generations (parents or grandparents) without an intervening CA tested free animal must be tested by an RAAA approved facility to determine if the animal

is a carrier, or free of CA. Registration of such animals will be placed on hold until approved test results are received by RAAA.

ii. AI sires (sires with progeny applying for registration using RAAA mating code 1) and Embryo parents (dams/sires with progeny applying for registration using RAAA mating code 3) whose pedigree contains a CA carrier without an intervening CA tested free animal must be tested by an RAAA approved facility to determine if the animal is a carrier, or free of CA. In the event that DNA is unavailable on an AI sire/Embryo donor dam then progeny will be required to be tested for CA as a requirement for registration. (Rev. 6-11)

iii. Animals confirmed to be carriers of CA are eligible for registration.

#### **L. Rules Pertaining to Developmental Duplication (DD) (Add 9-13)**

1. It is the responsibility of all RAAA members to be aware that animals containing an DD tested carrier animal in their pedigree without an intervening DD tested free animal have the potential to be a DD carrier animal.

2. Beginning January 1, 2014:

i. Animals applying for registration whose pedigree contains a DD tested carrier within the first two generations (parents or grandparents) without an intervening DD tested free animal must be tested by an RAAA approved facility to determine if the animal is a carrier, or free of DD. Registration of such animals will be placed on hold until approved test results are received by RAAA.

ii. AI sires (sires with progeny applying for registration using RAAA mating code 1) and Embryo parents (dams/sires with progeny applying for registration using RAAA mating code 3) whose pedigree contains a DD carrier without an intervening DD tested free animal must be tested by an RAAA approved facility to determine if the animal is a carrier, or free of DD. In the event that DNA is unavailable on an AI sire/Embryo donor dam then progeny will be required to be tested for DD as a requirement for registration.

iii. Animals confirmed to be carriers of DD are eligible for registration.

#### **M. Notification to RAAA Membership and Beef Industry**

1. Animals confirmed to be Carriers of a Genetic Defect

a. Any animal within the RAAA registry that has been confirmed through progeny or DNA test to be a carrier of an RAAA monitored genetic defect will be placed on a

CONFIRMED CARRIER list for the respective genetic defect. The CONFIRMED CARRIER list will be posted on the RAAA official website and available upon request.

- b. Confirmed carriers will be identified within all documentation generated by RAAA, including the pedigrees of descendants, with a three (3) letter notation.
  - The first two of the three letters will notate the specific genetic defect for which that animal is a confirmed carrier.
  - The third of three letters will be the letter “C” which will indicate: CONFIRMED CARRIER.
  - Example: OSC would indicate that an animal has been confirmed to be a carrier of the genetic defect Osteopetrosis.

## 2. Animals Confirmed to be Free of a Genetic Defect

- a. Any animal within the RAAA registry that has been proven through DNA testing to be free of the causal mutation for an RAAA monitored genetic defect will be placed on a TESTED FREE list for that specific genetic defect. This list will be posted on the RAAA official website and made available upon request.
- b. Animals that have been tested free of a genetic defect will be identified within all documentation generated by RAAA, including the pedigrees of descendants with a three (3) letter notation.
  - The first two of the three letters will notate the specific genetic defect for which that animal has been proven to be free.
  - The third of the three letters will be the letter “F” which will indicate: TESTED FREE.
  - Example: OSF would indicate an animal that has been tested free of the causal mutation that produces Osteopetrosis.

## 8. NAMING ANIMALS

- a. Names of animals must be limited to 28 spaces or less, including spaces between words making up the name. Names in excess of 28 spaces will be abbreviated.
- b. If the name submitted is reserved or is otherwise unacceptable, the Association office will contact the breeder for an alternate name.
- c. No name may be used that might confuse the origin or breeding of an animal, neither may another member or breeder name or designation be used with the exception of animals owned by a member which has a cooperator agreement on file in the National Office. **(Rev 6-05)**