BAA RULES & REGULATIONS SECTION X – GENETICS DEFECTS

In an effort to assist BAA members in producing the most useful and productive animals possible, the BAA has implemented the following rules regarding the reporting and monitoring of the occurrence of genetic defects affecting the BAA herdbook.

A. Defect Classifications

Genetic defects affecting the BAA herdbook are to be classified as follows:

- 1. Class I Genetic defects causing premature death of the affected animal in any circumstance of environment.
- 2. Class II Genetic defects permitting survival of the affected animal provided special environment is furnished.
- Class III Genetic defects associated with type characteristics only that do not affect the survivability of the affected animal.

B. Affected Animals

Animals known to exhibit any of the defects listed as BAA Monitored Genetic Defects (list available upon request or through the BAA website) are not eligible for registration or recordation in the BAA herdbook. This does not apply to confirmed carrier animals that possess one copy of the genetic defect gene and do not exhibit the characteristics of the defect.

C. Reporting Requirements

- 1. BAA members who become aware of a possible genetic defect that has occurred in their herd have the responsibility to immediately notify the BAA 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 a BAA approved DNA test is available to identify an animal's status for a specific monitored genetic defect, BAA members are required to provide test results on BAA registered animals to the BAA office within 10 business days from the date that the submitting party received written documentation from a BAA approved testing facility. In the case of animals not yet registered with the BAA, any DNA test results received by the submitting party of any genetic defect, whether or not the defect is included in the list of BAA Monitored Genetic Defects, must be on file at the BAA office prior to the animal achieving registered status.
- 3. BAA members who become aware that any sire or dam that they have introduced into the BAA herdbook from outside the BAA has been diagnosed as a carrier of any genetic defect, whether or not the defect is included in the list of BAA Monitored Genetic Defects, have the responsibility to immediately notify the BAA office of the diagnosis.
- 4. BAA members who become aware that any sire or dam that they have introduced into the BAA herdbook from outside the BAA have the potential to be a carrier of any genetic defect, whether or not the defect is included in the list of BAA Monitored Genetic Defects, have the responsibility to immediately notify the BAA office of the potential threat.
- Failure to comply with BAA Rules and Regulations relative to the reporting of animals with possible genetic
 defects or DNA test results may subject the member to disciplinary action, including possible censure,
 suspension, or expulsion from membership, under provisions of Article XIV, Hearings and Procedures, of the
 BAA By-Laws.

D. Determining Cause of Abnormality

1. BAA will have no part in determining if the abnormality is the result of a genetic defect. BAA 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. BAA Board of Directors will be responsible for selecting and compensating, if required, a genetic defect consultant(s) who has the ability to determine if abnormal animals are the result of genetic defects.
- 3. The BAA Board of Directors, upon the advice of genetic defect consultant(s), will determine whether or not the genetic defect will be added to the BAA Monitored Genetic Defect list, and if listed, determine the defect classification; Class I, Class II, or Class III.

E. Notification to Owner(s) and Breeder

- Once an animal registered in the BAA has produced at least 2 progeny, which are positively diagnosed with a
 genetic defect through visual observation, the BAA 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 BAA'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.
- Owner(s) or Breeder of the confirmed carrier animal may contest the results of the genetic diagnosis by filing a
 complaint with the BAA 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 BAA Executive Committee's review of
 the particular diagnosis. In such cases, the BAA Executive Committee has the final say in the designation of the
 carrier animal.
- 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.

F. Diagnostic Tests

- 1. Upon the availability of a BAA 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. Results of such diagnostic tests will only be accepted from BAA approved testing facilities. Such approved testing facilities will be listed on the BAA website or upon request.
- 2. BAA will only accept test results on samples of an animal that were submitted to the approved testing facility by the animal's owner(s), breeder, or lessee/agent on record, hereinafter referred to as the submitting party.
- 3. Through submitting samples of an animal registered in the BAA for diagnostic testing, the submitting party must agree to remove BAA 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 not accompanied by such removal of liability and responsibility will not be accepted by BAA.
- 4. Accepted test results will be released as public knowledge upon receipt by the BAA. 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 BAA 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 a BAA 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. When Diagnostic Testing is Available:
 - a. It is the responsibility of all BAA members to be aware that animals containing a defect tested carrier animal in their pedigree without an intervening defect tested free animal have the potential to be a defect carrier animal.

b. Class I Genetic Defects

i. Animals applying for registration whose pedigree contains a Class I monitored genetic defect tested or confirmed carrier within the first three generations (parents, grandparents, great grandparents) without

an intervening defect tested free animal may be registered with a "Suspected Carrier" designation placed on the animal's record, unless tested by a BAA approved facility to determine if the animal is a carrier, or free of the defect. Once test results are made available to the BAA the animal's record will be amended to identify the animal as either "Carrier" or "Free" for the defect.

- ii. All registered Braunvieh Al sires and all Braunvieh embryo donor dams must be tested by a BAA approved facility to determine if the animal is a carrier, or free of all BAA Monitored Class I defects, unless the animal is the progeny of two parents proven to be free of the defect. In the event that DNA is unavailable on an Al sire/embryo donor dam then progeny will be required to be tested for the defect as a requirement for registration. The addition of new Class I defects to the list of BAA Monitored Genetic Defects will subject Al sires and embryo donor dams to additional testing prior to the registration of additional progeny.
- iii. Animals confirmed to be carriers of Class I genetic defects are eligible for registration.

c. Class II Genetic Defects

- i. Animals applying for registration whose pedigree contains a Class II monitored genetic defect tested or confirmed carrier within the first three generations (parents, grandparents, great grandparents) without an intervening defect tested free animal may be registered with a "Suspected Carrier" designation placed on the animal's record, unless tested by a BAA approved facility to determine if the animal is a carrier, or free of the defect. Once test results are made available to the BAA the animal's record will be amended to identify the animal as either "Carrier" or "Free" for the defect.
- ii. All registered Braunvieh Al sires and all Braunvieh embryo donor dams must be tested by a BAA approved facility to determine if the animal is a carrier, or free of all BAA Monitored Class II defects, unless the animal is the progeny of two parents proven to be free of the defect. In the event that DNA is unavailable on an Al sire/embryo donor dam then progeny will be required to be tested for the defect as a requirement for registration. The addition of new Class II defects to the list of BAA Monitored Genetic Defects will subject Al sires and embryo donor dams to additional testing prior to the registration of additional progeny.
- iii. Animals confirmed to be carriers of Class II genetic defects are eligible for registration.

d. Class III Genetic Defects

- i. Animals applying for registration whose pedigree contains a Class III monitored genetic defect tested or confirmed carrier within the first three generations (parents, grandparents, great grandparents) without an intervening defect tested free animal may be registered with a "Suspected Carrier" designation placed on the animal's record, unless tested by a BAA approved facility to determine if the animal is a carrier, or free of the defect. Once test results are made available to the BAA the animal's record will be amended to identify the animal as either "Carrier" or "Free" for the defect.
- ii. Animals confirmed to be carriers of Class III genetic defects are eligible for registration.

G. Notification to Public

- 1. Animals Confirmed to be Carriers of a Genetic Defect
 - a. Any animal within the BAA registry that has been confirmed through progeny or DNA test to be a carrier of the causal mutation for a BAA 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 BAA official website and available upon request.
 - b. Confirmed carriers will appear within the pedigrees of descendants with a three (3) letter notation behind their registration number. The first two of the three letters will notate the specific genetic defect for which that animal is a confirmed carrier. The third of the three letters will be the letter "C" which will indicate: CONFIRMED CARRIER.
- 2. Animals Confirmed to be Free of a Genetic Defect

- a. Any animal within the BAA registry that has been proven through DNA testing to be free of the causal mutation for a BAA monitored genetic defect will be placed on a TESTED FREE list for that specific genetic defect. This list will be posted on the BAA official website and made available upon request.
- b. Animals that have been tested free of a genetic defect will appear within the pedigrees of descendants with a three (3) letter notation behind their registration number. 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.
- 3. Animals Suspected as being Carriers of a Genetic Defect
 - a. Any animal within the BAA registry that is the progeny, grand progeny, or great grand progeny of an animal that has been confirmed through progeny or DNA test to be a carrier of the causal mutation for a BAA monitored genetic defect will be placed on a SUSPECTED CARRIER list for the respective genetic defect. This list will be posted on the BAA official website and made available upon request.
 - b. Animals that have been identified as a suspected carrier of a genetic defect will appear within the pedigrees of descendants with a three (3) letter notation behind their registration number. The first two of the three letters will notate the specific genetic defect for which that animal has been identified as a suspected carrier. The third of the three letters will be the letter "S" which will indicate: SUSPECTED CARRIER.
 - c. The SUSPECTED CARRIER designation can be removed from an animal's record only through the use of diagnostic testing for the defect, if available. Once test results are made available to the BAA the animal's record will be amended to identify the animal as either TESTED FREE or CONFIRMED CARRIER for the defect.