

Section I BAA RULES & REGULATIONS

SECTION I – MEMBERSHIP IN THE BAA

A. Membership Categories

There are three types of membership in the Braunvieh Association of America:

1. Active Member

Any person (individual, partnership, or corporation) who is at least 21 years of age and wishes to register cattle with the BAA should apply to be an Active member. Only Active members have full voting privileges subject to the provisions and limitations set forth in the BAA By-Laws. Membership fees are annual as set by the BAA Board.

2. Associate Member

Any individual or organization interested in the advancement of Braunvieh cattle or the purposes of the BAA who does not intend to register cattle should apply to be an Associate member. Associate members do not have voting privileges.

3. Junior Member

Persons under 21 years of age who wish to register cattle with the BAA should apply to be a Junior member. Junior members do not have voting privileges in the BAA. BAA Junior members also become members of the Junior Braunvieh Association of America (JBAA) and have voting privileges in the JBAA subject to the provisions and limitations set forth in the JBAA By-Laws. Junior membership fees are annual as set by the BAA Board. Juniors may continue as a junior member and participate and receive all junior membership privileges as long as their annual membership fee is paid, through Dec. 31, of the year they turn 21. (Please refer to the BAA By-Laws and JBAA By-Laws for additional membership information)

B. Becoming a Member

1. An application form for new Membership can be obtained from the BAA office or through www.braunvieh.org. Membership forms for Adult and Junior memberships must be filled in completely and sent to the BAA office with payment of annual dues for acceptance as a member of the BAA through the end of that year. Adult and Junior memberships are renewable annually. Each membership will be given a separate account number or membership number. All new members must join as a THR Breeder after January 1, 2022. Annual membership dues must be paid by March 31st of each year. Any membership not paid by this date will be considered a non-member and must rejoin the BAA as a new member and will automatically become a THR Breeder after January 1, 2022.
 - a. A Membership Name must be designated at the time of application for membership. Cattle owned by any corporation, partnership or firm can be registered only in the name of the BAA membership as issued. A membership name may be changed later upon written request and by payment of a Membership Name Change Fee.
 - b. Anyone wishing to register a Braunvieh in the Braunvieh Association of America must be a paid member of the association and abide by the by-laws and all rules and regulations.

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- c. All members are required to choose a herd prefix or herd code for their membership. The prefix or herd code is not to exceed 4 characters. If the prefix or herd code is already being used, they may choose one that is not being used or one will be assigned to them. The Herd prefix or herd code is required to be tattooed in either the left or right ear as part of the permanent identification of the animal. It is recommended to put the prefix or herd code tattoo in the right ear and the identification of the animal in the left ear.
 - d. By signing the application, a membership applicant agrees to abide by the By-Laws, rules, regulations, and policies of the BAA and to release all animal data collected by the BAA for use in breed related programs. All parties constituting the partnership, or at least two officers if a corporation, must sign the application.
 - e. Only junior members are required to include their date of birth.
2. Herd codes are only available to BAA members. A herd code or prefix is a maximum 4 digits or 4 letter code the member may select as long as it has not been used by another member. If the member does not choose a herd code or Prefix at the time of new membership then the BAA office will assign one that is unique for the BAA. Herd codes can be transferred to other family members and/or permission may be granted for other family members to use a herd code. If a herd code is transferred by a member to another member then the member transferring the herd code gives up all rights to the herd code from that time forward. If a member or breeder does not use a herd code for 5 years, the code becomes null and void.

C. Member Financial Obligations

1. It is the policy of the BAA to invoice members for services at the time services are requested and no work will be released until payment for such services are paid in full.
2. It is the policy of the BAA to send monthly account statements to members listing services invoiced to their account during that statement period.
3. Any member and or account with an overdue account aged 90 days will have their account put on hold until the account is paid in full. All rights and activities will be suspended until the account is paid in full.
4. At the discretion of the Board of Directors, any account aged 91 days may be turned over to a third party for collection.

Approved by the BAA Board of Directors July 2021

Section II BAA RULES & REGULATIONS

SECTION II – BAA HERDBOOK

A. BAA Obligations

The BAA Board of Directors is responsible to provide the means to maintain the integrity of the Braunvieh Association Herdbook (the “BAA Herdbook”). This would include all performance records and ancestral relationships.

B. Breeder Obligations

Each Active Member of the BAA, and/or any individual submitting applications for registry as defined by the BAA By-Laws, is expected to keep thorough and accurate records pertaining to the identification of each animal and its ancestral history along with any performance records of all animals submitted by that member or individual for entry into the BAA Herdbook. It is understood that any person or member of the BAA maintain the integrity of the Herdbook of the Braunvieh breed and when any information is submitted to the registry, it is accurate and accepted as being accurate from that individual. If it is proven that any person knowingly submits wrongful data or information to the registry that person or member is subject to the disciplinary actions as described in the bylaws of the Braunvieh Association of America.

C. Registration Classifications

The BAA recognizes only the following defined classifications of animals for entry into the BAA Herdbook:

1. Fullblood Braunvieh (OB)

Fullblood Braunvieh cattle are defined as the progeny of parents that are either registered with the BAA as Fullblood Braunvieh or parents that are traceable by each branch of their pedigree through a BAA recognized foreign Braunvieh herdbook to ancestors registered as (SW) Swiss Original Braunvieh in the official herdbook of the Swiss Braunvieh Federation. The Braunvieh blood percentage of a Fullblood Braunvieh is assumed to be 100% for the purposes of determining the Braunvieh blood of the offspring of a Fullblood Braunvieh parent animal.

2. Purebred Braunvieh (PB)

Braunvieh cattle mated to other breeds of cattle and/or an unknown breed(s) of cattle have been identified as Purebred when they have reached 93.75% Braunvieh for males and 87.5% for females. The Braunvieh males (bulls) with Purebred status have been treated as 100% when figuring the percentage of their progeny. The Braunvieh females that have PB status use the classified actual Braunvieh percentage of that female toward the progeny percentage. Thus, allowing Purebred Braunvieh (PB) animals to decline in actual Braunvieh percentage over the years.

- A.** On January 1, 2022, all percentages from this date forward in the Braunvieh breed will be tabulated from the Actual Genetic Makeup (AGM) of the individual, male and female. Each individual (male and female) will need to be at least 82% Braunvieh

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- from their AGM to be considered a Purebred Braunvieh (PB). The process of figuring progeny at 100% to reach Purebred status on animals that do not have an AGM 100% will be discontinued. The only number used to figure percentages on the individual animal and/or the progeny from the individual will be the Actual Genetic Makeup (AGM).
- B. It is understood that all animals in the registry that are declared a PB as of January 1, 2022, will be grandfathered in and have PB status until they are disposed of.
 - C. It is further understood that any Braunvieh animal that would have qualified as a Purebred under the rules previous to January 1, 2022, on the old Braunvieh classified percentage will be eligible for registry as a PB till Dec. 31, 2022. (This allows for any animals that do not make the AGM 82% to be a PB but would qualify under previous rules and was conceived before the new AGM rule was put in place on January 1, 2022, may be registered as a PB.) Member will need to call the office to get these types of animals registered.
 - D. January 1, 2028, all Purebred Braunvieh animals (male and female) must be 86% Braunvieh for the AGM (Actual Genetic Makeup). All animals labeled as a PB on Dec 31, 2027, will be grandfathered in and continue as a PB Braunvieh until they are disposed of.

3. Percentage Braunvieh (Beef Builder) (BB)

Beef Builder Braunvieh cattle are defined as individuals identified by BAA pedigree records as at least 20% Braunvieh blood by their AGM and have not reached Purebred status (PB) listed above in 2A through D. On January 1, 2022, the minimum percentage to be registered as a Braunvieh (BB) will change to 20% AGM. It is further understood that any Braunvieh animal that would have qualified as a Percentage Beef Builder under the rules previous to January 1, 2022 will be eligible for registry as a BB till Dec. 31, 2022. (This allows for any animals that do not make the 20% AGM to be a BB but would qualify under previous rules and was conceived before the new rule was put in place on January 1, 2022, may be registered as a BB.) Member will need to call the office to get these types of animals registered.

4. Certified Beef Builder Braunvieh (BC)

Certified Beef Builder Braunvieh are defined the same as 3 above with the exception that both sire and dam must be registered either with the BAA or another recognized breed registry. To be qualified as a BC the registration number of the other breed (non-Braunvieh) must be given to the association and recorded in the pedigree. On January 1, 2022, the minimum percentage to be registered as a Braunvieh (BC) will change to 20% AGM. It is further understood that any Braunvieh animal that would have qualified as a Certified Beef Builder under the rules previous to January 1, 2022 will be eligible for registry as a BC till Dec. 31, 2022. (This allows for any animals that do not make the 20% AGM to be a BC but would qualify under previous rules and was conceived before the new rule was put in place

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on January 1, 2022, may be registered as a BC.) Member will need to call the office to get these types of animals registered.

5. Mini Braunvieh (Z) and (S)

Mini Braunvieh cattle will be registered in the Braunvieh herdbook with a Z prefix on the registration number. To be registered as a Mini Braunvieh, one parent must already be registered as a Mini Braunvieh or as a Mini in another breed registry. Mini Braunvieh that do not qualify for a Z before registration number will receive an S which stands for small. Once an animal who has received S before registration number, that animal will no longer be able to mate to a full size animal if registering it's progeny in the BAA Herdbook. The performance records from Mini Braunvieh could have an effect on the performance of normal sized cattle from the same bloodlines. It is imperative to make sure any performance data turned in is kept in a separate contemporary group of mini type Braunviehs as per the member/breeder. For an animal to be shown as a Mini Braunvieh, it cannot measure over 43" in height at the hip.

D. Foreign Braunvieh

Foreign Braunvieh cattle must come from a recognized foreign Braunvieh Herdbook. When the foreign cattle are entered into the BAA registry, they must be given a BAA registration number and maintain their international ID number. A copy of the foreign registration paper must be submitted to BAA in the same ownership and name of the animal on that paper will be placed on the BAA registration paper. The owner will be charged foreign registration fees as set by the BAA Board of Directors and any additional cost will be the responsibility of the owner for the foreign animal being registered in the BAA. The status or percentages of the animal must follow all BAA rules to be eligible for registration in BAA Herdbook.

E. Pedigree

An extended pedigree of a BAA registered animal shall contain only ancestral and performance data on file in the BAA office. The extended pedigree and the information therein shall be considered to be part of the BAA files. This information shall be available on request to any BAA member or other Braunvieh Registry Association.

F. Representations and Warranties

Calculation and recording of breed blood percentages is limited to information provided from breeders and other sources. The BAA makes no representations as to the accuracy of such information, nor to the actual genetic makeup of any animal entered into the BAA Herdbook.

Approved by the BAA Board of Directors July 2021

Section III BAA RULES & REGULATIONS

SECTION III – Total Herd Reporting

A. Introduction to Total Herd Reporting (THR)

Current members previous to January 1, 2022 should understand that they need to choose the type of breeder they wish to be, either a Total Herd Reporting Breeder (THR Breeder) or Traditional Concept Breeder (TC Breeder). Each member must make that distinction by January 1, 2022. As of January 1, 2022, all new members joining BAA will automatically be a THR breeder. Only TC breeders that are grandfathered in will be allowed to maintain TC status.

1. **THR Breeder:** this type of breeder will receive EPDs and will be required to do pay an assessment on each cow in their herd each year to continue to have EPDs issued. They will also receive discount fee on registrations and first-time transfers on all progeny from cows that are assessed for that calendar year. The assessment fee will be determined by the BAA Board of Directors.
 - a. Only BAA members will be allowed to be THR breeders.
 - b. THR breeders and annual assessment are in place to help cover the cost of producing the EPD genetic evaluation.
 - c. THR breeders should understand the importance of providing the performance data on each cow's calf that year, in the herd. This is the only way to get a true picture of which genetics are the top producers and provide a true and accurate EPD on all animals in the breed.
 - d. THR assessments will be mailed around the 1st of December each year to the BAA member.
 - i. Bulls are not assessed as part of an inventory, only females of producing age.
 - e. THR breeder will be required to turn in an inventory of all females each year by April 30. They will then be invoiced for each cow in that inventory; the THR fee determined by the BAA Board.
 - i. THR breeders will not be able to register or record a calf for that calendar year until they have submitted and paid their THR fees for that calendar year.
 - ii. THR Breeders need to understand the importance of assessing 100% of their cows that will be of calving age in that calendar year. By recording the performance records on every cow's calf in that calendar year the breed and breeder get a complete picture and high accuracy when the EPDs are calculated.
 - iii. If a THR breeder makes a cow inactive in their submitted inventory for any reason, and they need her activated at a later date. They must pay a reactivation fee as set by the BAA Board in order to get that cow's calf registered.
 - iv. THR Breeders must understand that they will be assessed a late fee per cow assessed for any cows assessed after April 30th of each calendar year.
 - v. THR breeders may include unregistered cows (performance only) in their inventory for the same fees as registered females. It is not mandatory to enroll unregistered cows in THR, only at the breeder's or owner's discretion.
 1. Unregistered females must have a unique identification (tattoo) to be enrolled in THR.
 2. The progeny of females that have not been enrolled in THR will not receive EPDS.
 3. Only calves resulting from females that have been enrolled in THR will receive EPDs.
 - vi. THR breeders will no longer be able to assess the cow when registering a calf. They must submit the entire herd by the due dates listed for each fee schedule in order to register or record any calves from that calendar year.
 - f. THR Breeder fees and assessment due dates.
 - i. THR breeders will receive a \$3.00 discount per cow for inventories and assessments paid by January 31 of each year. (Normal fee of \$10.00 minus \$3.00 discount=\$7.00 is the discounted fee as of January 1, 2022. This fee may change at any time at the discretion of the BAA Board of Directors. Members should check the updated fee schedule for fees at any given time.)
 - ii. THR Breeders that turn in their assessments and pay their assessments between Feb 1 and April 30 of each calendar year will pay the normal THR

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assessment fee for each cow assessed. (\$10.00 is the normal fee as of January 1, 2022. This fee may change at any time at the discretion of the BAA Board of Directors. Members should check the updated fee schedule for fees at any given time.)

- iii. THR breeder that turn in their inventory and pay the fees on or after May 1 of each year will pay the penalty fee of \$5.00 per cow. (Normal fee of \$10.00 plus \$5.00 penalty fee=\$15.00 for the penalty as of January 1, 2022. This fee may change at any time at the discretion of the BAA Board of Directors. Members should check the updated fee schedule for fees at any given time.)
- iv. THR breeders that purchase an animal and need to get it assessed throughout the year will pay the same fee they paid for the total herd assessment.
- v. New THR Breeders will have a 60-day period to turn in their annual assessment to get the discount of \$3.00 off the normal assessment fee. If the New THR breeder fails to turn in their inventory in 60 days their THR fee will be the same as the fees are for the month in the calendar year they are doing their assessment.
- vi. THR Breeders that do not do their assessments or pay their assessment fees will only be allowed to register calves by paying a penalty of 3 times the normal registration fee for a THR Breeder.

2. Traditional Concept Breeder (TC Breeder)

TC Breeders are only registering their cattle in the BAA herd book and will have the genetic heritage only on the registration paper with no performance information.

- a. This type of TC Breeder will not receive EPDs.
- b. TC breeders will have a separate fee schedule
- c. TC breeders that do not get their membership paid by April 30 of each year are considered non-members and will have to re-join the BAA as a THR breeder

B. Unregistered females

1. Unregistered females will not have any pedigree entered into the BAA Herdbook.

C. Embryo transfer and cloned calves

1. Embryo transfer and cloned calves will fall under the fees and rules of either a THR breeder or TC breeder.

D. Multiple-sire calves

1. Multiple Sire calves recorded that have not had the actual sire identified through DNA will not be able to have EPDs published until the actual sire has been identified.

E. Annual Reporting Recommendations for THR

An assessment must be paid on each cow in the herd that will be of age to calve during that calendar year the assessment is paid. The purpose of THR, *TOTAL HERD REPORTING* is just as it says. The total herd needs to have a report or activity turned in on each cow in the herd each year, the calving information or loss of calf, the weaning weight of the calf resulting from the birth in the calendar year. Yearling weights on those animals that are kept for replacements or for sale. This information is needed to build accurate EPDs. The system is designed to need every cow's progeny in the herd recorded each year to get a complete record of all the activity and how they performed compared to their contemporaries.

1. The activities for each cow should include.
 - a. Calving Ease Score
 - b. Birth Weight
 - c. Weaning Weight
 - d. Yearling Weight

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- f. Recording of why any calf or cow was disposed of during the calendar year.
 - a. Disposal Codes would be as follows. (Reason for selling or disposing of animal)
 1. sold for commercial production
 2. died of sickness or disease
 3. died from injury
 4. died from calving difficulty
 5. died or culled for old age
 6. culled for lack of quality
 7. culled for having poor performance
 8. culled for lack of fertility
 9. culled for disposition (wild or crazy)
 10. culled for showing genetic defect
 11. culled for not having structural soundness (bad feet and legs)
 12. culled for poor udder quality (big teats and or broken-down bag)
 13. culled for prolapse
 14. reason for not having natural calf – used as recipient
 15. sold as registered animal for breeding purposes
 - b. Disposal codes may change from time to time to fit the definitions as required by the firm doing the genetic evaluation.

F. Removing a Female from Enrollment

1. When a cow is removed from the breeder's inventory or enrollment in THR the breeder is required to use the disposal codes provided for this purpose. Cows removed from the THR inventories that are needed to become activated again will be subject to a separate re-activation fee on top of the normal THR assessment fee. THR breeders must enroll all females of calving age in that calendar year, or they must dispose of her before they are eligible to register any calves born in the calendar year the assessment was paid for. There are codes to use for non-exposed heifers and Donor type females.
2. Upon the failure of a member to meet his/her financial obligations to the BAA, all THR females of the member will be removed from enrollment. Such females may be re-enrolled in THR later by the same member by paying the re-enrollment fee.
3. Once a female is removed from enrollment for any reason, and the next annual renewal date passes, that female can only be re-enrolled in THR by the owner of record at the time the female was removed from enrollment. The original owner at the time of removing the female must pay the penalty fees to re-enroll the cow. A new owner can re-enroll the same cow by paying the current year's assessment.

G. Leased Females

1. When a lease agreement is on file with the BAA, lessee is responsible for any THR fees and reporting resulting calves during the lease period.
2. When no lease agreement is on file with the BAA, the owner of record remains responsible for any THR fees and THR reporting of calf and or performance information.

Approved by the Braunvieh Board of Directors July 2021

Section IV BAA RULES & REGULATIONS

SECTION IV – Registration Information

To register a calf, the following information must be provided using a registration form on the BAA website or may mail same form into the BAA Office. Members can register calves online directly into the registry using the Digital Beef software, logging in from the BAA website. To register an animal, you must be a member of the Braunvieh Association of America.

A. Animal Name

1. The name of any animal may not be more than 35 letters, numbers, and spaces, including prefixes and characters such as dashes or slashes.
2. The member is required to use their prefix or herd code at the beginning of the name. The registry will automatically fill in the prefix or herd code.
3. Once registered, the name of an animal can only be changed upon the written authorization of the same entity submitting the original name of the animal and only if no progeny of the animal have been registered. A name change fee is required.

B. Animal Sex

The birth sex of the animal.

1. Male = B
2. Female = C
3. Steer = S

C. Animal Birth Date

1. The month, day, and year of the animal's birth are required.

D. Animal Identification

Each animal must be permanently tattooed with an individual identification number "Private Herd Number" (Prefix or Herd Code preferred in right ear)

1. The registration application must indicate the member Herd Code tattooed in the animal's ear (recommended in right ear) and also indicate the location of the identifying tattoo in which ear.
2. There can be NO duplicate Private Herd Number (Prefix or Herd Code) used in a herd in any given year.

E. Sire Identification

One of the following must be provided:

1. If registered with the BAA, the BAA registration number.
2. If registered with another breed association, the name of the breed association, the animal's registration number and name of the animal.
3. If not registered, a breed description of the sire, birthdate and animal identification of the sire.

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F. Type of Service

1. Natural Service = NS (default, if nothing entered)
2. Artificial Insemination = AI
3. Embryo Transfer = ET

G. Dam Identification

One of the following must be provided:

1. If registered with the BAA, the BAA registration number.
Note: A Braunvieh dam must be active on the submitting member's THR inventory, if the member is a THR breeder.
2. If registered with another breed association, the name of the breed association, the animal's registration number and name of the animal must also be provided.
3. If not registered, a breed description of the female, birthdate and animal ID of the dam are required.

H. Twin Code

1. Single animal birth = 1 (default, if nothing entered)
2. Twin to a bull calf = 2
3. Twin to a heifer calf = 3
4. Multiple, if more than two calves = 4
5. Clone = 5

I. Horned/Polled Status

1. Horned = H
"Horned" is defined as an animal with horn growth affixed to the skull that has or has not been removed.
2. Polled = P
"Polled" is defined as an animal which, as a result of its genetics, exhibits no horn or scur growth and does not develop scurs later in life.
3. Scurred = S
"Scurred" is defined as an animal with rudimentary horn growth that will not develop into a horn. The rudimentary horn growth may or may not become firmly attached to the skull at an older age. Scurred animals are genetically polled.
4. De-Horned will = horned on the paper and be recorded as a horned animal.
5. If a calf is reported to be polled or scurred when both parents are recorded as horned, the calf will be identified with a lower case "s" as a Sport. Which means it is a mutation polled from two horned parents. It is recommended that the parents be DNA parent verified at this time because a mutation is very rare.

J. Breeder

1. The Breeder shall be defined as the owner of the dam at the time of conception.
2. In the case of Embryo Transfer calves, the breeder is the owner or lessee of the

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dam at the time the donor cow is bred.

3. The lessee shall be considered the breeder of any calves which result from a breeding that takes place on a leased cow during the time periods covered by the lease. Proper documentation of the lease is required.

K. Leased Animals

1. An animal registered in the BAA Herdbook may be leased to another member for breeding purposes. The lessee shall be considered the breeder of any calves which result from a breeding that takes place on a leased cow during the time periods covered by the lease, provided that the lessor has previously notified the BAA of the lease, including the effective inception and termination dates of the lease.
2. Fees on leased animals will be charged to the lessee unless instructions to the contrary are on file with the BAA.

L. Authorization

The signature of the owner of the animal, or the owner's authorized representative, is required at the time of registration if submitted on paper or via fax. Signatures are not required when submitting registration information via www.braunvieh.org. By submitting registration information in any form to the BAA, the submitting individual or entity is verifying that all of the information is true and correct to the best of his or her knowledge.

Approved by BAA Board July 2021

Section V BAA RULES & REGULATIONS

SECTION V – TRANSFERS OF REGISTRATIONS

A. Authorization

1. A transfer of ownership on the certificate of registration must be submitted or approved by the listed owner on the registration paper in the registry at the time of transfer.
 - a. The transfer information may be submitted on the registration certificate to the BAA office.
 - b. The Transfer may be done in the registry on the online portal if you are a member.
 - i. All information requested must be provided to be eligible for transfer.
 - c. Any transfers processed must be submitted in writing with all the information required for transfer of the animal and proper authorization by the listed owner in the registry. (Unless the registration is done online in the registry by members only)
2. Sale managers are authorized as an agent of the listed owner in the registry to provide appropriate transfer information and signature as acting agent for owner listed on the registration certificate. To only transfer cattle that were in a sale they managed on behalf of the listed owner.
 - a. Sale managers must fill out the complete information on the paper and submit it for transfer to the BAA Office or have access to an online system to do the transfers digitally.

B. General Information for Transfers

1. Each transfer must have signature of authorized person representing the owner at the time of transfer unless process online in the registry by the owner at time of transfer.
2. The registration number of the animal being transferred if it is not submitted on the registration paper.
3. The date of sale must be provided with each animal transferred.
4. The name and complete address of the buyer as they wish to be listed on the registration paper or the BAA member number must be provided for each animal transferred.
5. If the animal being transferred is a female she must be identified as open or bred.
 - a. If bred the service date and registration number of the service sire.
 - b. If AI bred and then pasture exposed all exposure dates and AI breeding dates must be provided at time of transfer.
6. There is a special reduced transfer fee for in family transfers as set by the BAA Board.
 - a. Definition of in family is immediate family and/or family partnership.
7. Appropriate transfer fees will apply to all transfers including special fees received for THR assessed cows and or non-members as determined by the BAA Board of Directors.

C. Bull Breeding Interests and Donor Cows

1. Bull registration Transfers
 - a. May have up to four names on the pedigree with four member or breeder BAA account numbers.
 - b. The percentage transferred, or ownership rights are between the seller and the buyer. They should have a separate signed document describing those ownership details.
 - c. The seller may declare these details on a transfer, but the BAA will not have any responsibility to either the seller or the buyer pertaining to their personal agreement of ownership details. The BAA does not have any responsibility to either seller or buyer for ownership details other than to provide the names and dates of ownership for the bull to give those names right to register resulting progeny of said bull.
 - d. The seller and or buyers shall understand that the names on the pedigree are for the purpose of registering progeny only. That ownership listed on a pedigree does not have any legal monetary value or legal title as a document. Monetary value or legal title of ownership needs to be

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described between seller and owner. Make reference to G below in Section V Rules and Regulations.

- e. The seller needs to have all owners sign any transfer or percentage of the animal's transfer. All owners listed on the pedigree at the time of sale needs to sign as agreeing that the sale is approved by all parties.
- f. Terms such as semen rights, possession only and or retaining income rights on semen sales, can be interpreted in many different definitions. For that reason, all such terms need to be in writing and agreed to by both the seller and the buyer. A copy may be sent to BAA to be attached to that animals' records.
 - i. If semen rights are retained for in herd use, the name of the party retaining the in-herd use rights must be on the registration certificate to allow them to register any resulting progeny.

D. Breeding Information

1. Any registration transfer application for a female must identify whether the female is bred, exposed or open and must include the date(s) of service and/or exposure and the BAA registration number (or other required identification information) of the service sire(s).
2. If the female is bred or AI'd to a non-owned bull it is the responsibility of the seller to make sure all the documentation and/or requirements are met by the service sire so the resulting calf can be registered without any additional testing.

E. Calf at Side of Dam

1. It is understood that if a female is sold with a calf at side or as a pair, it is the responsibility of the seller to register the calf and provide the new owner a registration certificate on the calf at side.

F. New Certificates

If a new certificate is to be printed and mailed by the BAA, the registration transfer application must request the new certificate, and indicate whether the certificate is to be mailed to the previous owner or the new owner.

G. Legal Title

A transfer of registration entered on the records of the BAA in any form shall not be construed as the conveyance of legal title by the BAA. The BAA shall in no way be involved in or assume liability for the purchase, sale or terms of a sale of registered animals or the passage of legal title thereto.

Approved by BAA Board October, 2021

Section VI BAA RULES & REGULATIONS

SECTION VI – ARTIFICIAL INSEMINATION (AI)

A. General

It is the policy of the BAA to support and encourage the use of AI as a tool for breed improvement.

1. A breeder does not have to own any interest in a bull to register AI progeny from the bull. 1a, 1b and 1c are in reference to being AI qualified only.

Bulls registered with the BAA between March 1, 1997 and January 1, 2022 must have a DNA profile on file with the BAA. After January 1, 2022, all bulls registered must have SNP DNA markers on file and verify to their parentage if there are markers on their sire and/or dam.

- a. In the event the AI sire (bull) is no longer available for testing and there are AI calves needing to be registered, the resulting AI sired progeny wishing to be registered must provide DNA testing for genomics, parentage and/or any genetic defect testing required for the AI sire (bull) in order to be registered.
 - b. Braunvieh AI Sires (Semen is used from a non-owned bull to breed an owned cow) must be tested for any class 1 and/or class II genetic defect, if that genetic defect is found in the first three generations of the pedigree, to be eligible to be an AI sire and register AI conceived calves.
 - i. In the event that DNA is unavailable on an AI sire then progeny will be required to be tested for any genetic defects as a requirement for registration.
2. The BAA shall in no way be construed as guaranteeing conception by using AI, or if a calf results from such service, that it shall be eligible for registration. The sale of semen and or any guarantees are between the seller and buyer of any such semen.
 3. Calves conceived after the death of a bull shall be eligible for registration under the same conditions and provisions governing the eligibility of calves conceived by artificial insemination prior to the death of said bull.
 4. Except as otherwise provided in these rules, the BAA shall not act as an arbiter or judge in matters involving representations made between sellers and purchasers of semen.

Approved by the BAA Board December 2021

Section VII BAA RULES & REGULATIONS

SECTION VII – EMBRYO TRANSFER (ET)

A. Registration

1. ET registration requirements are provided for in SECTION III and SECTION IV of these rules.
2. The suffix “ET” will be automatically generated by the BAA to the end of the name of each ET animal. The name of any animal may not be more than 35 letters, numbers, and spaces, including prefixes and characters such as dashes or slashes.

B. DNA Requirements

1. The DNA profile of the donor dam registered before January 1, 2022, must be on file in the BAA office prior to registration. After January 1, 2022, all Donor dams registered must have SNP DNA markers on file and verify to their parentage if there are makers on their sire and/or dam available.
 - a. In the event the donor dam is no longer available for testing and there are ET calves needing to be registered, the resulting ET progeny wishing to be registered must provide DNA testing for genomics, parentage and/or any genetic defect testing required to be a donor dam in order to be registered.
2. Braunvieh embryo donor dams must be tested for any class 1 and/or class II genetic defect, if that genetic defect is found in the first three generations of the pedigree, to be eligible to be a donor dam and register resulting embryo calves
 - a. In the event that DNA is unavailable on an embryo donor dam then progeny will be required to be tested for the defect as a requirement for registration.
 - b. The addition of new Class I defects to the list of BAA Monitored Genetic Defects will subject embryo donor dams to additional testing prior to the registration of additional progeny.
3. The DNA profile and requirements for an AI sire must be on file for the sire of ET progeny, in the BAA office prior to registration.
4. ET animals are subject to random parentage verification through DNA testing at the expense of the owner of the animal. Registrations of animals selected for random parent verification will be placed on hold until such verification is completed.

C. Breeder of ET Calves

1. The owner or lessee of the dam at the time the donor cow is bred for embryo transfer purposes is listed as the breeder of any offspring as a result of the collection. Proper documentation of any lease arrangement is required in order to list lessee as the breeder. In the absence of documentation to the contrary, the current (or last) owner of record of the donor female will be listed as the breeder of any ET calf from the donor female.
2. The owner of the transplanted embryo at the time of the birth of the resulting calf shall be eligible to register it using their Herd Code, but shall not be listed as breeder for the calf without proper supporting documentation.

Approved by the BAA Board December 2021

Section VIII BAA RULES & REGULATIONS

SECTION VIII – DNA PARENT VERIFICATION

A. Manner of Testing

All DNA testing required by the BAA pursuant to these Rules must be performed in the manner specified by the BAA and at a BAA approved testing facility.

B. Investigation

The BAA Executive Committee may, with cause, investigate or cause to be investigated, through DNA testing, any animal or herd of Braunvieh cattle and may examine the breeding and herd records of any person or entity registering animals with the BAA in order to verify the applications for registry and parent verification and/or records on file in the BAA office or for the purpose of investigating other matters in which the BAA has an interest.

C. Required Testing

DNA testing will be required in the following circumstances:

1. Bulls registered with the BAA after March 1, 1997, must have a DNA profile and parent verification (if the DNA is available for verification) on file with the BAA prior to the non-owner utilization of semen for the production of calves to be registered with the BAA.
2. Embryo donor dams placed in embryo transplant for the first time must have a DNA profile on file with the BAA prior to the registration of any progeny produced through embryo transfer. The DNA profile report shall remain on file with the BAA for future use in parent verification as necessary. (If parents are on file then the Donor Cow being tested must verify to those parents)

D. Cost of Testing

The cost of all DNA testing imposed by these Rules shall be the responsibility of the owner(s) of the animal(s) tested.

E. Parental Exclusions

If one or more of the listed parents of an animal subject to DNA parent verification are excluded by the DNA test results:

1. At the animal owner's request and expense, the BAA approved testing facility may retest the excluded parent(s) and/or investigate whether an alternate parent verifies as the sire or dam.
 - a. If the appropriate sire and/or dam cannot be proven, then the animal being tested would be eligible for registration as a BB or Commercial animal in the registration depending on the amount of Braunvieh percentage that can be documented.
2. When either the sire or dam of an animal subject to DNA parent verification is unavailable for testing, and the requirements for registering progeny require parentage verification and/or genetic defect testing. Then the resulting calf or progeny wishing to be registered must provide DNA testing for genomics, parentage and/or any genetic defect testing required in order to be registered. (This only applies to individuals or progeny from a sire and/or dam that are disposed of and are not available to be tested themselves)
3. When the SNP markers for a parentage test are missing due to the to the testing process or lack thereof (Poor DNA Sample) This is to be used when an animal's parent was tested at Quantum, and while it technically may qualify, there just aren't enough markers to officially prove that. The animals SNP test under DNA in Digital Beef will have an asterisk attached (SNP*). This indicates subject animals resulting parentage SNP markers are less than recommended but has enough to allow progeny to qualify to them if there are no exclusions.
 - a. When parentage testing to an animal with the SNP*. That animal can only qualify as progeny of said parent if there are no exclusions. The subject animal or progeny from a SNP* will be identified as qualified with an asterisk (Qualified*)
 - i. Qualified* = Animal has been accepted as the parent with No Contest, but due to the lack of markers/data, parentage cannot be confirmed unless further markers on said parent are obtained. *It should be understood that this resulting animal's DNA does not reflect a "Not Qualifying" result on either parent, rather, there are just too few markers to be confirmed.*

BAA RULES & REGULATIONS

SECTION IX CLONED ANIMALS

A. Eligible Tissue Donors

1. Any active animal currently registered in good standing with the BAA, or any deceased animal that was registered in good standing with the BAA at the time of its death may serve as a tissue donor for the production of cloned animals to be registered with the BAA, provided that the DNA profile of the tissue donor animal is on record with the BAA.
2. There shall be no limit to the number of cloned animals that may be produced and registered from any such tissue donor.

B. Clone Verification

A DNA profile of the cloned animal matching that of the tissue donor is required to be on record with the BAA prior to the registration of the cloned animal.

C. Breeder

The owner of the tissue donor at the time of sample collection will be identified as the breeder.

D. Clone Registration

1. A Clone Registration Fee will be charged to each clone registered.
2. The owner of the cloned animal will be responsible for submitting the application for registration, DNA verification of the animal, and the Clone Registration Fee.
3. Because all tissue donors have been duly registered with the BAA, cloned animals may be registered without meeting any additional reporting requirements.

E. Clone Identification

The suffix "C" will be appended by the BAA to the end of the name of each cloned animal. The name of any animal may not be more than 28 letters, numbers, and spaces, including prefixes and characters such as dashes or slashes.

F. Genetic Prediction

All progeny performance of the tissue donor and all progeny performance of all clones of the tissue donor will contribute equally to genetic prediction estimates generated for the tissue donor and each clone thereof.

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.
3. 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.
5. 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

1. 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.
2. 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. 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 AI 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 AI 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 AI 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 AI 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 AI 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 AI 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.

BAA RULES & REGULATIONS

SECTION XI – CORRECTION OF ANIMAL RECORDS

A. Investigation of Records

If, after registry of an animal in the BAA Herdbook, anything shall be learned which raises a doubt as to the propriety of such registration, the Executive Committee may cause the matter to be investigated and shall have power to suspend such registration pending the outcome of the investigation. If, upon due hearing by the Executive Committee, it shall be found that an animal has been improperly registered, the Executive Committee shall cause the registry, and if necessary, entries that may have been made of descendants of such animal, to be corrected or expunged and take such other steps or measures as the nature of the case in their judgement may require, subject, however, to an appeal to the Board of Directors either by the owner of said animal or by any person financially interested in maintaining its registry or by any two (2) members of the Board itself under procedures identified in the BAA By-laws.

B. Intentional Misrepresentation

When as a result of the investigation and hearing by the Executive Committee, it is determined that a registration and/or registration transfer was entered into the BAA Herdbook through intentional misrepresentation or fraud, the Executive Committee may direct the Executive Secretary to refuse to record any subsequent entry dependant upon the signature of any person implicated in such fraudulent entry.

C. Correction of Records

When a registration is issued by the BAA, the recipient shall examine the registration immediately to determine if all information in the animal record is recorded correctly. The BAA must be notified of any error and the necessary correction before any Application for Registration Transfer is submitted for the animal. If such error and necessary correction is reported after an Application for Registration Transfer has been processed for the animal, a Record Correction Fee will be required to make the correction.

D. Temporary Registrations

Temporary Registrations may be requested from the BAA for animals less than 205 days of age. The registration number of any such animal shall include the prefix “?” until such time as all registration requirements have been met for the animal. An Application for Registration Transfer for an animal with a Temporary Registration status may only be completed for animals transferred at the side of their dam.

E. BAA Responsibility

Notwithstanding anything herein contained, the BAA assumes no responsibility, financial or otherwise, for any loss or damage that may be sustained by any individual, partnership, or corporation by reason of the suspension, cancellation or correction of any registration, transfer or other documents or by reason of the rejection of application for membership in the BAA.

BAA RULES & REGULATIONS

SECTION XII – PERFORMANCE TESTING

A. General

1. BAA Core Policy – The Braunvieh Association of America works to continually improve the relevance and reliability of the performance database for Braunvieh and Braunvieh influence cattle by using only the best available science for genetic prediction and breed improvement programs.
2. In the absence of procedures developed through research specifically for the Braunvieh breed, the BAA adheres to the Guidelines for Uniform Beef Improvement Programs as developed by the Beef Improvement Federation (BIF) for all performance testing and reporting.
3. BAA performance data is collected only from cattle enrolled in the Performance Option Program. BAA performance calculations are computed only for cattle enrolled in the Performance Option Program.

B. Expected Progeny Differences (EPDs)

EPD = The expected difference in performance of a bull's progeny when those progeny are compared to progeny of a sire with an EPD of zero for the trait in question. EPD values are relative; they do not indicate absolute levels of performance. Rather, they can be used to predict differences in the performance of progeny sired by different bulls. EPDs are generally reported in units of measurement for the trait or as probabilities for threshold traits.

1. Growth EPDs

- a. Calving Ease Direct (CED)
CED EPD predicts the probability of calves being born unassisted out of two year-old heifers. Calving Ease Scores and Birth Weights are used in the calculation of CED. Higher values indicate greater calving ease.
- b. Birth Weight (BW)
BW EPD predicts the difference, in pounds, for birth weight, and is also used in the calculation of CED.
- c. Weaning Weight (WW)
WW EPD predicts the difference, in pounds, for weaning weight (adjusted to age of dam and a standard 205 days of age). This is an indicator of growth from birth to weaning.
- d. Yearling Weight (YW)
YW EPD predicts the expected difference, in pounds, for yearling weight (adjusted to a standard 365 days of age). This is an indicator of growth from birth through a year of age.

2. Maternal EPDs

- a. Calving Ease Total Maternal (CEM)
CEM EPD predicts the probability of a given animal's daughters calving unassisted at two years of age. Replacements heifers should be able to calve on their own. CEM EPD includes not only the predisposition for a female to calve unassisted, but also her contribution to her calf's traits (birth weight, calf shape, etc.) that make it more likely to be born unassisted. Higher values indicate greater calving ease.
- b. Milk (MILK)
MILK EPD predicts the difference in maternal production of an individual animal's daughters as expressed by the weaning weight of their calves.
- c. Total Maternal (MAT)
MAT EPD predicts the difference in weaning weights of calves raised by an animal's daughters. MAT includes the daughters MILK EPD plus half of her genetic contribution to her calf's WW EPD. The formula for MAT EPD is: $\text{MAT EPD} = \text{MILK EPD} + 1/2 (\text{WW EPD})$

- d. Stayability (STAY)*
STAY EPD quantifies expected differences among individuals in the probability of their daughters staying in the herd to at least six years of age. The primary reason for culling a cow before six years of age is her failure to become pregnant. Consequently, STAY EPD is primarily a prediction of sustained female fertility.
- e. Heifer Pregnancy (HP)*
HP EPD predicts the probability of heifers conceiving to calve at two years of age.
- f. Maintenance Energy (ME)*
The ME EPD predicts differences in energy requirements of mature daughters of an individual and is expressed in Mega-calories per month. Differences in Maintenance Energy requirements can easily translate into differences in feed required to maintain body weight. * EPD still is in developmental stages.

3. Carcass EPDs

- a. Carcass Weight (CW)
CW EPD predicts differences in carcass weight.
- b. Rib Eye Area (REA)
Rib Eye Area (REA) predicts differences of carcass rib eye area between the 12th and 13th rib. Rib eye area is an indicator of muscling and is positively correlated with carcass yield grade.
- c. Back Fat Thickness (FAT)
FAT EPD predicts differences for carcass fat depth over the 12th rib, as expressed in inches. FAT EPD is negatively correlated with carcass yield grade, however, FAT is positively related to a cow's ability to store energy for reproduction.
- d. Marbling (MARB)
MARB EPD predicts differences for carcass marbling score as expressed in marbling score units. Higher marbling scores are positively correlated with higher carcass quality grades.

C. Data Collection and Reporting

The value differences in seedstock animals for the beef industry are directly linked to the genetic differences in those animals for traits of economic importance. The accurate evaluation of genetic differences in traits of economic importance is entirely dependent upon the collection and reporting of quality performance measures by breed association members.

1. All weights must be determined using a scale. These weights may be determined either by the owner or a manager, foreman etc. designated by the owner.
2. Calving Performance
 - a. Actual birth weights should be reported to help evaluate differences in calving ease and future growth potential of calves. Actual birth weights will be adjusted for age of dam by using additive factors derived from the latest available research results. An estimated birth weight is not acceptable. When an actual birth weight is not reported, the following Standard Birth Weights will be used for calculating Adjusted 205 Day Weights:
Males Females
89 lbs. 81 lbs.
 - b. Calving Ease Scores should be reported to help evaluate differences in direct and maternal calving ease:
1 = No Assistance
2 = Easy or Hand Pull
3 = Difficult or Mechanical Pull
4 = Caesarean Section
5 = Abnormal Presentation.

3. Pre-Weaning Performance

Measurement of Weaning Weight is used to evaluate differences in mothering ability of cows and differences in growth potential of calves.

- a. Acceptable Weaning Weights are those collected in the age range of 160 to 250 days of age. Weights taken outside this age range will not be adjusted and will not be used in performance ratio or EPD calculations.
- b. All calves within a weaning group should be weighed on the same day, when the average age of the group is as close to 205 days as possible.

4. Post-Weaning Performance

Measurement of Yearling Weight is used to compare animals for post weaning gain performance. Yearling Weight is also an indicator of the ultimate mature size of the animal.

- a. The period between weaning weight and final weight should be at least 160 days. The acceptable age range for adjusted 365-day yearling weight is 320 to 410 days. Weights taken outside this age range will not be adjusted and will not be used in performance ratio or EPD calculations.
- b. All calves within a yearling group should be weighed on the same day, when the average age of the group is as close to 365 days as possible.
- c. Yearling Weights are not mandatory but are an important component of proper bull development practices.

5. Carcass Performance

a. Carcass measures may be collected on harvested progeny or through the use of ultrasound measures on live animals.

i. Only certified, highly skilled technicians should be retained for the collection and interpretation of ultrasound images.

ii. Image results must be reported directly to the BAA by the technician or lab responsible for the interpretation of the images.

III. The acceptable age range for collection of ultrasound measures of carcass composition is 320 to 410 days (the same window as yearling weight). Measures taken outside this age range will not be adjusted and will not be used in performance ratio or EPD calculations.

b. Requirements for submission of carcass harvest data can be obtained from the BAA office.

6. Other Performance Measures

The BAA offers BAA members, participating in the performance option, the opportunity to collect performance information for tracking multiple other traits of importance to beef seedstock production through www.braunvieh.org. For more information on any of the performance measures found on www.braunvieh.org, please contact the BAA office.

D. Contemporary Grouping

In the calculations of any weight ratios, only Braunvieh blood animals will be compared with other Braunvieh blood animals, no matter what other breeds are involved. The most effective contemporary groups include progeny from two or more sires. All simple weight ratios will be calculated within the following groups:

1. Within age groups of (90) days.
2. Based on percentage of Braunvieh blood:
 - a. Fullblood and Purebred Braunvieh cattle will be grouped together, separate from all Braunvieh Percentage animals
 - b. All Braunvieh Percentage animals, regardless of breed makeup, will be grouped together.

3. Within each sex group, with no adjustments made for sex: B = bull, C = heifer, S = steer
- 4.. Within Feed Code groups: 1 = Own Dam Only, 2 = Own Dam Plus Creep, 3 = Bucket Fed or Foster
5. Based on weigh dates:
 - a. Take weaning weights and measurements on all calves on the same day (when a majority of the calves are between 160 and 250 days of age), including as many calves in each contemporary group as legitimately possible.
 - b. Weigh all animals in a group before separating them, especially before separating show calves or bulls for a test station.
 - c. If the age spread of calves is greater than 90 days, choose two or more weigh dates, using as few as possible.
 - d. When calves are within an appropriate age range for each trait, record yearling weight, height, scrotal circumference, pelvic area, and ultrasound measurements on the same day.
 - e. If carcass data are to be collected on cull bulls, heifers, or steers, report weaning weights on all animals. These data allow selection of replacement females and bulls to be accounted for in genetic evaluations and help prevent bias in the predictions.
 - f. Do not weigh each calf individually as it reaches 205 days of age. Rather weigh each calf individually when calves in a group average approximately 205 days of age.
6. Within breeder assigned management groups:
 - a. Use management codes to put a sick or injured calf into a single animal contemporary group if the illness or injury affected the calf's performance.
 - b. Use management codes to ensure calves receiving special treatment (show, bull test, and sale) are not included in the same group with those that did not receive an equal opportunity to perform.
7. Within membership groups: On an optional basis, cattle owned by two or more members may be calculated together as contemporaries if they are raised together from birth within the same equal opportunity group, are so indicated at the time of application for registration and meet all other requirements to be considered contemporaries.

E. Adjustment and Ratio Calculations

1. Age of Dam Adjustments

A cow's age can have a negative effect on the expressed performance of her calf. To compare performance of all calves within a contemporary group on a mature dam equivalent basis, additive Age of Dam adjustments are used. Age of Dam adjustments are not made for calves reported as multiple births including twins and embryo transplants. Each multiple-birth calf is considered a single animal contemporary group.

Age of Dam	Birth	Birth	205 Day	205 Day
	Adjustments	Adjustments	Adjustment	Adjustment
	Male	Female	Male	Female
Up to 2 yrs, 9 mos.	7 lb.	6 lb.	63 lb.	53 lb.
2 yrs, 9 mos. to 3 yrs, 9 mos.	3 lb.	3 lb.	37 lb.	32 lb.
3 yrs, 9 mos. to 4 yrs, 9 mos.	2 lb.	1 lb.	22 lb.	16 lb.
4 yrs, 9 mos. to 10 yrs, 9 mos.	No adjustment	No adjustment	No adjustment	No adjustment
over 10 yrs, 9 mos.	2 lb.	1 lb.	22 lb.	16 lb.

2. Performance Ratios

Ratios refer to the performance of an individual relative to the average of all animals in the same group. A ratio of 100 means the animal is exactly average in its group. A ratio of 110 means it is 10% above average; a ratio of 90 means it is 10% below average. Official performance ratios for Braunvieh animals are computed by the BAA. Performance ratios are only valid within contemporary groups and are calculated as follows:

$$\frac{\text{Adjusted Measure of the Individual}}{\text{Average of the Adjusted Measures of the Group}} \times 100 = \text{Performance Ratio}$$

3. Birth Weight

Birth weights must be adjusted for age of dam influence for comparison.

$$\text{Actual Birth Weight} + \text{Birth Age of Dam Adjustment} = \text{Adjusted Birth Weight}$$

4. Weaning Weight

Weaning weights must be adjusted to a constant age of 205 days and for age of dam for comparison.

$$\left(\frac{\text{Actual Weaning Weight} - \text{Actual Birth Weight}}{\text{Weaning Age in Days}} \times 205 \right) + \text{Actual Birth Weight} = 205 \text{ Day Weight}$$

$$205 \text{ Day Weight} + \text{Age of Dam Adjustment} = \text{Adjusted 205 Day Weight}$$

5. Yearling Weight

Yearling weights must be adjusted to an age constant basis for comparison.

a. Adjusted 365 Day Yearling Weight

$$\left(\frac{\text{Actual Yearling Wt} - \text{Actual Weaning Wt}}{\text{Number of Days Between Weights}} \times 160 \right) + \text{Adjusted 205 Day Wt} = \text{Adj 365 Day Yearling Wt}$$

b. Corrected Adjusted 365 Day Yearling Weight Ratio

Frequently in on farm testing, only the heavier calves in a weaning sex-management contemporary group are retained for a post-weaning gain test. When this occurs, the yearling weight ratios of the calves in the post-weaning contemporary group can be biased downwards, compared to what they would have been if the entire (unselected) weaning contemporary group had been tested. The following formula is used for calculating the corrected adjusted yearling weight ratio of on-farm tested animals to eliminate the bias due to culling of lower weight calves at weaning:

$$\frac{W + P}{W_u + P_s} \times 100 = \text{Corrected Adjusted 365 Day Yearling Weight Ratio}$$

Where:

W = adjusted 205-day weight of the calf

P = the post-weaning gain of the calf, calculated as 160 x post-weaning average daily gain

W_u = the average 205-day adjusted weaning weight of all calves in the calf's weaning contemporary group

P_s = the average post-weaning gain of all calves in the calf's post-weaning contemporary group.