Registry Information

Paperwork submitted to the Canadian Angus Association is processed based on the date it is received. The amount of work to be processed fluctuates throughout the year although the normal turnaround time for work to be processed is within one week of receipt. During the busiest times, work may take up to one month to be processed. When the Registry Department is 10 days or more behind, announcements are posted on our website. The Registry Department offers Rush Service for an additional fee (see the current fee schedule for rates) to those members who urgently require paperwork.

Funds must accompany all work submitted to the Canadian Angus Association. Members can choose to keep a Visa or Mastercard number on file to be charged as work is processed, or can send a cheque or credit card number in the mail with their paperwork.

CANADIAN ANGUS ASSOCIATION Certificate of Registration CAN-ANGUS DEMO 01X Female (ET) A 124000247174534 CCIA Number January 01, 2010 DC236072 CANG OIX RED CAN-ANGUS DEMO 901B 345 5687456 MAF RED CAN-ANGUS DEMO 345L 3548961 6547821 RED CAN-ANGUS DEMO 879B RED CAN-ANGUS DEMO 8/98 RED CAN-ANGUS DEMO 364D RED CAN-ANGUS DEMO 364D RED CAN-ANGUS DEMO 214G RED CAN-ANGUS DEMO 904C 3125487 9854356 6458975 OSF 6321584 BLACK CAN-ANGUS DEMO 43E BLACK CAN-ANGUS DEMO 168M BLACK CAN-ANGUS DEMO 34K 6351225 NHF 8654236 9563211 2365888 AMF BLACK CAN-ANGUS DEMO 104.1 6365889

The Value of a Registration Certificate

It's not Angus without papers to prove it. There is no such thing as a purebred without papers.

All Angus animals registered in Canada are 100% purebred. An animal without a registration number is not considered purebred. If the animal is not intended for sale as a registered Angus, its registration certificate should be returned to the Association for cancellation and the seller must note on the bill of sale that the 'animal was sold as a commercial animal—no paper available'.

The Canadian Angus Association recommends that buyers and sellers of purebred Angus cattle use a bill of sale (see sample Bill of Sale CAAFORM5 in the forms section of this handbook) and clearly note all details of the sale and/or agreements in writing.

Under the Animal Pedigree Act, animals sold as purebred must be transferred into the name of the buyer within six months of the date of sale. A registration certificate is an animal's ancestral record. It is unique to each animal and is a valuable permanent record of its identification.

The registration certificate:

- Lists the animal's registration number, tattoo, date of birth and sex
- Identifies the owner
- Identifies the three-generation pedigree
- Indicates whether the animal has been tested for any genetic defects, and whether there are any known carriers of genetic defects in the first three generations of its pedigree as of the date of issue
- May list the Canadian Angus Rancher Endorsed Tag number
- Is a legal document
- Is a guarantee of authenticity backed by the Canadian Angus Association
- Qualifies the progeny of the named animal for Canadian Angus Rancher Endorsed Tags and participating beef programs
- Lists individual performance data and current EPDs as of the date of issue

The tattoo in the animal's ear must match the tattoo on the animal's registration paper. If the tattoo does not match the certificate, contact the Canadian Angus Association for advice on how to proceed.

If a registration certificate is lost, the Canadian Angus Association can replace the certificate for a fee. Please submit your request using Declaration to Acquire a Duplicate Certificate CAAFORM19 and the appropriate fee as per the current fee schedule.

Choosing and Registering Tattoo Letters

To register Angus cattle in Canada, you must apply for and secure the right to use a set of unique tattoo letters using Canadian Angus Association Membership Application: Application for Tattoo Letters and Herd Name—Part 3 of 4 CAAFORM1C. Tattoo letters can be any combination of two, three or four letters. Neither numbers nor the letter Q can be used. Each unique combination is registered with the Association for the exclusive use of a member. A 1–4 digit herd number and the year letter must follow the combination of tattoo letters to uniquely identify each registered animal.

Registered tattoo letters may be transferred if the registered owner or a representative makes application using Application to Transfer Tattoo Letters and/or Herd Name CAAFORM9. The executor of an estate may, for example, transfer from a deceased member to his/her heir.

Tattoo letters need only be applied for once and stay with the member as long as (s)he is an active member of the Association. If tattoo letters have not been used for seven years they may be reassigned.

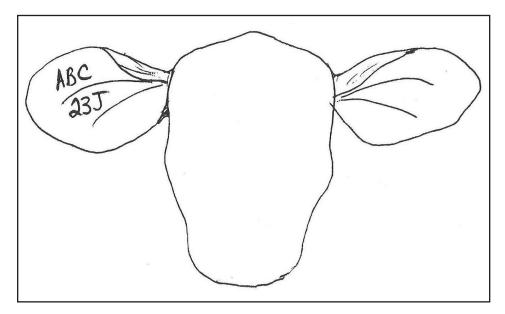
Tattooing Imported Animals

Imported cattle with tattoos from their country of origin will be assigned an administrative Canadian Angus Association tattoo for the purpose of unique identification within Canada. It will be preceded with IMP to indicate that the animal is imported. This tattoo is NOT required to be tattooed into the animal's ear; it is for administrative purposes. The physical right ear and/or left ear tattoo will also be noted on the Canadian Angus registration certificate.

Year and Corresponding Letter Chart

Year	Letter	Year	Letter	Year	Letter
1996	F	2005	R	2014	В
1997	G	2006	S	2015	С
1998	Н	2007	Т	2016	D
1999	J	2008	U	2017	Е
2000	K	2009	W	2018	F
2001	L	2010	X	2019	G
2002	M	2011	Y	2020	Н
2003	N	2012	Z	2021	J
2004	Р	2013	A	2022	K

The letters I, O, Q and V may not be used as a year letter. After Z, the next year's letter shall revert back to A.



An example of a tattoo on a Canadian Angus animal

BREEDER HOW TO

Properly Tattooing your Angus

The Canadian Angus Association bylaws state that the tattoo must be in the right ear. When you purchase animals, check the right ear tattoo and make sure it matches the certificate of registration. If the tattoo and registration certificate do not match, contact the Canadian Angus Association office for advice on how to proceed.

Proper animal identification is essential to maintaining accurate herd records. The Association requires every animal to be permanently identified before it is weaned and before it is 8 months of age in order to be eligible for registration. Tattooing can be done at any time before registration is applied for but we recommend that animals are tattooed as young as possible as tattoos grow with calves making the tattoo increasingly legible over time.

A complete tattoo consists of:

- **Herd letters** (the unique 2–4 letters you applied for and approved by the Association)
- **Herd number** (any 1–4 digit number, unique within the herd. An effective method of choosing this number is to assign the first calf born in a specific calendar year with a number 1, the second with the number 2, etc.)
- Year letter (see the chart on the previous page for the corresponding year letter)

A tattoo is a permanent identification mark. A properly applied tattoo will last the animal for life. The Canadian Angus Association recommends use of the following equipment and procedures to ensure the best quality tattoo.

Tattooing Equipment

The necessary equipment can be purchased at most livestock and veterinary supply stores and can also be ordered through the Canadian Angus Association. You will need:

- A set of Canadian Standards Association (CSA)-approved tattoo pliers
- Adequate numeric and letter tattoo digits

- Fresh green tattoo paste and toothbrush for application
- Disinfectant and a soft cloth
- A good working chute to restrain the animal
- Record book

Tattooing Procedure

- 1. Ensure you have the necessary equipment and that it is all in working order.
- 2. Sterilize the tattoo equipment with disinfectant so you don't spread viruses or diseases from one animal to another.
- 3. The animal needs to be properly restrained and unable to move its head if the tattoo is to be legible.
- 4. Be sure the ear is completely clean and free of wax and dirt which will prevent the tattoo paste from penetrating the skin. Clean the ear with a soft cloth and allow it to dry.
- 5. While the ear is drying, determine the appropriate tattoo for the calf. Check each tattoo on a piece of cardboard before applying it to the animal's ear. Check for even perforations and replace characters that are dull or broken.
- 6. Liberally apply fresh tattoo ink to the letters and/or digits using the toothbrush.
- 7. Apply the tattoo between the ribs or cords of the RIGHT EAR. (To determine right and left, stand behind the animal facing the direction the animal is facing.)
- 8. Close the jaws quickly and firmly and release quickly to avoid tearing the punctures. Use enough pressure to pierce the skin but do not use so much pressure that the ear bleeds excessively.
- 9. Use a generous amount of fresh tattoo paste, rubbing it into the holes made by the pliers. Use the toothbrush to thoroughly work the paste into the tattoo.
- 10. Record the tattoo and other relevant information in your record book.
- 11. Clean the tattoo characters with a wire brush to remove hair, dirt and excess ink.

It is important to get the ink well below the surface of the ear so that the skin will heal over it, leaving a clear, permanent tattoo. A properly administered tattoo will be legible for the entire life of the animal.



Before applying the tattoo, clean the animal's ear to help the tattoo paste fully penetrate the skin



Check each tattoo before applying it to the animal's ear to ensure it is accurate and all characters are clear

Re-tattooing

Breeders should check tattoos regularly, whenever an animal is in the chute. If at any time a tattoo mark ceases to be legible or there is a discrepancy, contact the Canadian Angus Association for advice. Once you have been advised on a course of action regarding the placement of another tattoo, submit Application to Alter an Animal's Name/Tattoo/Pedigree CAAFORM10 to the Canadian Angus Association along with the affected registration certificate so a replacement can be provided.

If an animal is marked with the same herd number as another animal born in the same year within that herd, the number "0" must be tattooed beside the number in the right ear of one of the animals to differentiate them.

If the wrong year letter is used to mark an animal, the correct year letter must be tattooed beside the incorrect letter and a full description of the mark must be reported on the application for registration (Herd Inventory and Application for Registration CAAFORM11).

Choosing and Registering a Herd Name

Although optional, the use of herd names is recommended. Herd names are used as either a prefix or suffix in naming registered cattle to identify the owner at birth. Selecting a herd name and registering it with the Association (Membership Application: Application for Tattoo Letters and Herd Name—Part 3 of 4 CAAFORM1C) ensures that only you can use it in naming your cattle.

Your herd name does not have to be the same as your membership name. For example, Joe Smith owns Twisty Creek Angus Farm and wishes to use "Twisty Creek" in naming his cattle.

There are some restrictions on the words you can use in a herd name. Words such as FARM, RANCH, RED, ANGUS, LTD., and CORP. cannot be part of a herd name. The Association has the right to refuse any name (see Section C of the Constitution).

To register a herd name for your exclusive use, submit Membership Application: Application for Tattoo Letters and Herd Name—Part 3 of 4 CAAFORM1C and pay the appropriate fee (see current fee schedule for rates) to the Association.

Herd names can be shared between members with permission (i.e. parents and children), unlike tattoo letters which cannot be shared. A herd name need only be applied for once and will stay with the member as long as (s)he is an active member of the Association. If a herd name is not used for seven years it may be reassigned.

Examples of Memberships and Herd Names

Membership	Tattoo	Herd Name	Animal Example		
Name	Letters				
Joe Smith	JS	Twisty Creek	Twisty Creek Elmo 1X		
Twisty Creek Ranch	TWST	Twisty Creek	Red Twisty Creek Ms Erica 1'10		
Applewood Stock	ASF	Applewood	Red Applewood Traveler 2X		
Farm					
Bob and Jane Wilson	BJW	Wilson	Wilson Pride 12X		

Guidelines for Naming Angus Cattle

All animals registered with the Canadian Angus Association must be named in accordance with the following rules:

- If you have a registered herd name you should use it in its entirety in naming your cattle. Do not shorten or abbreviate your herd name in the animal's name.
- Names shall not exceed 30 character spaces, including all letters, spaces, dashes and/or apostrophes. Animals that are red in colour will automatically have "RED" added to their name, leaving 26 spaces for the breeder to complete the name.
- If the name is longer than 30 character spaces, appropriate abbreviations will be made to achieve the 30 character length.
- Avoid using characters other than numbers, letters, dashes, apostrophes and spaces.
- Ensure that the name corresponds to the sex of the animal. It is recommended that females carry the same or part of their dam's name in order to preserve family connections. Naming bulls may follow any pattern; however names can be derived from the name of the sire.

- Often part of the tattoo is included in the name, in either format "Twisty Creek 14Y" or "Twisty Creek 14'11" where the letter for 2011 is Y.
- Duplicate names are not permitted and the Association reserves the right to refuse any names which may be misleading as to the origin or relationship of an animal.
- Imported animals shall be registered with the same name that appears on the foreign registration certificate. Animals which are red in colour will have the "RED" prefix added to their name.

To change the name of a registered animal, written notice must be provided to the Canadian Angus Association (use Application to Alter an Animal's Name/Tattoo/Pedigree CAAFORM10) and the registration certificate must be returned so a new one can be printed. Only the owner at birth can apply to change the name of a registered animal. The original registration certificate and the appropriate fee (see current fee schedule) must be included with the application. Name changes are only allowed if progeny have not been registered with the Canadian Angus Association.

Registering Angus Cattle

Once your membership has been processed and your tattoo letters and herd name (if desired) have been assigned, you are ready to register your animals. To register cattle, you must pay for a membership for the year in which the animal was born.

Registration Requirements

For more information on animals that are eligible and ineligible for registration, please see Section C Regulatory Bylaws of the Constitution.

Calf Registration Requirements

- Calves that are tested as carriers of causative genes of genetic defects are ineligible for registration if they are born on or after January 1 of the year after a Canadian Angus Association-approved test becomes commercially available.
- Progeny must be registered by the person owning or leasing the dam at the time of birth.

- If a change of ownership has taken place after the birth and before the registration of the calf, a transfer of ownership must be filed for the dam and the calf must be registered by the owner at the time of birth and then transferred separately.
- Multiple births must be reported to allow for multiple registrations from the dam in that calving period.
- In the event a gestation interval is questionable, a parentage test may be required.

Dam Registration Requirements

- The dam must be registered or leased in the name of the member applying for registration.
- A formal copy of all leases must be on file with the Association (use Application for Registration of Lease CAAFORM17).

Sire Registration Requirements

- All sires used for breeding must have a DNA profile on record with the Canadian Angus Association verifying sire qualification before their offspring can be registered.
- If you are not the owner of the sire at the time of breeding, please have the owner of the sire sign beside your name on the Herd Inventory and Application for Registration CAAFORM11, or have the owner fill out a Sire Authorization Form CAAFORM20.
- If the calf was a result of an AI service, then the calf can be registered provided the bull is AI approved.

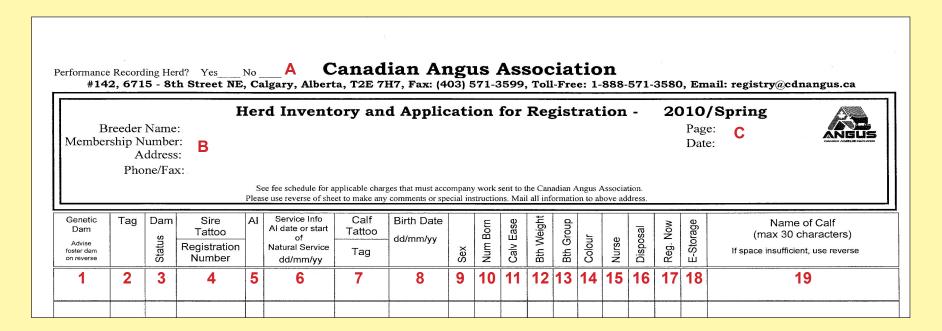
Commercial Animals

The Canadian Angus Association only issues registration papers for purebred Angus animals that the owner wishes to have registered. However, not all animals need to be registered. Breeders who participate in the Canadian Angus Performance Program record unregistered animals in the herdbook so that they can provide performance data for them. These unregistered animals will be entered into the Association's database and assigned an identification number that begins with the letters "CM" (commercial). A registration certificate will NOT be issued for a commercial animal although its performance data will be included in our genetic evaluation.

BREEDER HOW TO

How to Complete the Herd Inventory and Application for Registration CAAFORM11

There are two formats for this worksheet. Pre-printed worksheets are produced in January for Spring Calving Females and in July for Fall Calving Females and are mailed to members. Use these forms to register calves and to record data for the Canadian Angus Performance Program. The worksheet lists all the active cows in a herd that should calve as of the date that the form is produced. The dam information and service sire information on purchased bred females is already filled in. There is also a blank version of this form that can be downloaded from our website and is available in this handbook.



A. Performance Recording Herd

This is an option to indicate whether you would like to participate in the Canadian Angus Performance Program by checking yes or be removed from the program by checking no. If nothing is chosen we will default to whatever is current on your member profile.

B. Personal Information

On a pre-printed form, your name and address will appear here; please check this information carefully for any errors and make any necessary corrections here. If you are using a blank form, please fill in this information.

C. Page and Date

A pre-printed form will tell you the date the form is current and will indicate which season/year this worksheet is for. For example, Spring 2010.

1. Genetic Dam

If this is not pre-printed, please enter the Canadian registration number and tattoo for the dam of the calf that you are registering. You must be the owner or lessee of the dam on the calf's date of birth.

2. Tag

The dam's tag number appears here for your convenience on pre-printed forms. Any changes can be made here by crossing out the old tag number and entering the new number.

3. Dam Status

If the dam has a calf, leave this blank. If the dam is to be removed from your inventory, enter one of the following codes. This will deactivate her and stop her from appearing on future inventories. Acceptable codes are:

- 1 Died (disease)
- 2 Died (age)
- 3 Died (other)
- 4 Culled (physical defect)
- 5 Culled (fertility)
- 6 Culled (performance)
- 7 Culled (temperament)
- 8 Culled (age)
- 9 Sold for breeding (no paper transferred)

If the dam is still in your herd but failed to produce a calf for this year, please indicate why by using one of the following codes. Please note these codes only apply to herds that are members of the Canadian Angus Performance Program.

- 10 Sold for breeding (transfer forthcoming)
- 11 Animal on lease
- 12 Open (missed calving opportunity)
- 13 ET (donor dam)
- 14 ET (recipient dam)
- 15 Moved to next calving season (a spring calving dam will be moved to your fall inventory or vice versa)
- 16 Still to calve in current season
- 17 Aborted/premature

4. Sire Tattoo/Registration Number

Enter the Canadian registration number and tattoo for the sire of the calf that you are registering. If you are using a pre-printed worksheet and you purchased the dam bred, the earliest recorded service will appear. If you are not the owner of the service sire at the time of breeding, have the owner sign the bottom of the form as authorization for use of the bull.

5. AI

Put a Y in this box if the calf was conceived by artificial insemination.

6. Service Info

If the calf was conceived by an AI service, indicate the date of service. If the cow was turned out with a bull for a natural service, indicate the first day the bull was turned out. If the cow was inseminated or exposed to different sires within 14 days of each other, all services must be reported.

7. Calf Tattoo/Tag

List the full tattoo of the calf that you are registering. This will include the tattoo letters followed by a number of your choosing and then the year letter. It is also recommended that you list the calf's tag number. If no tag number is given we will assign the tag number as the tattoo number followed by the year letter.

8. Birth Date

This space is for the calf's date of birth. Every calf requires a date of birth. The proper format is day/month/year.

9. Sex

Indicate the calf's sex. A sex must be reported for every calf. Indicate M for male or F for female calves.

10. Num Born

Indicate the number of calves born, regardless of the number of live calves. Use 1 for a single birth, 2 for twins, etc. In the case of multiple births, the second calf needs to be listed on a blank application form. Each calf in a multiple birth must be indicated as such on the form.

11. Calv Ease

Describe the calving experience with the following codes:

- U Unassisted delivery
- E Easy hand-pulled delivery
- H Hard, hand-pulled or mechanical delivery
- M Malpresentation, assisted
- S Surgical, caesarean section

Only these codes will be accepted.

12. Bth Weight

List the calf's birth weight in pounds, taken within 24 hours of birth. The weight must be measured by a scale. Scales reporting a weight rounded to the nearest 5 pounds are not acceptable. This weight will be printed on the calf's registration certificate.

13. Bth Group

All calves that were given the same opportunity to develop and gain birth weight should be placed in the same management group. Any calf whose birth weight would have been impacted because its dam was treated differently during the gestation period should be placed in a separate management group. The birth weight management groups can be labelled 1–99 and are mandatory for performance herds.

14. Colour

A colour must be reported for all calves. Indicate R for red hided animals and B for black. Any white markings on the animal (e.g. birthmarks) must be noted on an attached note. Please refer to Section C, Article 2—Rules of Eligibility of the Constitution for rules governing the registration of animals with white markings.

15. Nurse

A nurse code is only applicable in multiple births or when a single-born calf is fostered onto another cow that is not the genetic dam. The acceptable codes are:

- 1. Single-born or twin-born calf that is fostered onto another cow and nurses alone
- 2. Twin-born calves that both nurse their genetic dam
- 3. Twin-born calf that nurses its genetic dam alone (other twin died or is fostered)

16. Disposal

A calf disposal code is used to explain the calf's removal from the herd. This only applies to performance herds as part of whole herd reporting. These calves will be recorded but not registered. All other calf information must be reported for disposed calves along with the code. Acceptable codes are:

- B Stillborn (full term)
- C Died at birth (defect)
- D Died at birth (other)
- E Born alive, died before weaning (disease)
- F Born alive, died before weaning (other)
- G Died after weaning (disease)
- H Died after weaning (other)
- I Sold (no transfer)

17. Reg. Now

This box must be filled in. Indicate Y if you want to register this calf. The registration fee will be charged at this time and the calf will have a registration certificate. Indicate N for no if you are a performance recording herd and you only wish to record this calf and account for your performance data. If N is chosen there is no charge for the recording and the calf is assigned a CM (commercial) number.

18. E-Storage

For animals for which you have selected Y in box 17, you have the option of printing a registration certificate right away or storing the registration electronically. If you put N for no, then the registration certificate will print right away. If you put Y for yes, then the certificate will remain electronically stored. You may request a registration certificate that is electronically stored to be printed at any time.

19. Name of Calf

A name must be provided for all calves that you have asked us to register. There is a maximum of 30 characters including spaces. Any calf that was indicated as red in box number 14 will have the word RED added in front of the name. There are further regulations for naming your Angus calves; please refer to the Guidelines for Naming Angus Cattle section of this handbook for additional information.

Please note that the member applying for registration must sign the bottom of the worksheet.

Registering Artificial Insemination (AI) Calves

To register a calf that results from AI, enter Y in the column marked AI on the Herd Inventory and Application for Registration CAAFORM11. If the bull being used is AI approved, the calf will be registered.

Note: If you have collected semen for in-herd use and you are an owner on record of the bull being used for AI, the calf will be registered. If you retain semen interest in a bull that you sell, please indicate that when the transfer is applied for. Your name should remain as a current owner if you have retained semen interest so that your registration will proceed when you apply to register calves from the sire.

The Canadian Angus Association does not get involved in semen ownership between buyers and sellers of semen.

Official Regulations Governing Artificial Insemination Effective January 1, 2008

These rules govern Artificial Insemination and enable registration of animals pursuant to Section C, Article 2.1 (d) of the Bylaws of the Canadian Aberdeen Angus Association.

Section 1

(a) To qualify for AI approval, all bulls from which semen is being collected for the purpose of sale must be officially DNA parentage verified at a laboratory approved by the Canadian Angus Association. Record of parentage verification to the fullest extent possible is required. If parentage verification is not possible because one or both parents is deceased and there are not enough offspring from the deceased parent to complete a reconstruction, then written certification of death must be sent to the Canadian Angus Association by the owner of the parent(s).

The Canadian Angus Association will then determine if an exception to the parentage verification rule will be granted based on the information received. The Canadian Angus Association will notify the breeder of the decision in writing.

(b) Those countries from which semen is acceptable and where the bulls are registered in the official Association's Herdbook are Argentina, Australia,

Canada, Great Britain, New Zealand, South Africa and the United States. Health regulations in some countries may prohibit importation of semen to Canada.

- (c) A calf the product of artificial insemination shall be eligible for registration provided:
 - The dam is registered in the Canadian Angus Herdbook.
 - The sire is registered (or recorded as in the case of a dam purchased bred, from another country) in the Canadian Angus Herdbook.
 - The sire in question is AI approved (or you are an owner on record of the sire).

IF A COW IS RE-BRED BY ARTIFICIAL INSEMINATION OR BY NATURAL SERVICE FROM A DIFFERENT SIRE WITHIN 14 DAYS OF THE PREVIOUS SERVICE, THE OWNER IS REQUIRED TO REPORT BOTH SERVICES TO THE CANADIAN ANGUS ASSOCIATION REGISTRY OFFICE AND A PARENTAGE TEST WILL BE REQUIRED. THESE SIRES ARE REQUIRED TO BE PARENTAGE VERIFIED TO BOTH SIRE AND DAM. IT SHALL BE THE RESPONSIBILITY OF THE BREEDER TO BEAR THE COST OF SUCH PARENTAGE TEST.

Section 2

All bulls from which semen is collected in Canada must meet the Health of Animal requirements administered by Agriculture and Agri-Food Canada (for more information visit www.inspection.gc.ca). During the period of isolation, semen may be collected but such semen shall not be distributed until the bull has met these health requirements.

Section 3

Semen from a bull owned by one breeder may be carried or shipped to another breeder for the purpose of inseminating a cow owned by the latter provided the bull is AI approved.

Section 4—IMPORTED SEMEN

The donor bull must be registered in the Canadian Angus Herdbook (use Application for Registration of an Imported (Foreign) Animal CAAFORM12).

January 2011

The Association requires a legible copy of the official foreign registration certificate, DNA parentage markers and a DNA parentage report of the bull showing parentage verification to his sire and dam.

- The importer of semen into Canada must be a current member of the Canadian Angus Association.
- The person registering the donor bull in the Canadian Angus Association Herdbook must have the authority for the transaction provided to him by a current owner of the bull as per the foreign registration certificate. Use Signing Authority Agreement on Behalf of Individuals, Partnerships, Ranches, etc. CAAFORM7 indicating the animal's name and foreign registration number.

Registering Embryo Transplant Calves

To register calves that result from embryo transplant, submit Embryo Transplant Application for Registration CAAFORM26 and we will send you a DNA parentage test kit. All calves resulting from embryo transplant require DNA parentage verification before their registration can be completed. Once successful parentage results have been reported to the Association, we will complete the registration.

If a dam is owned in partnership by two or more Canadian Angus Association members at the time of the flush, the partnership owns the embryos. The partnership could apply for a membership and tattoo letters and register the ET calves to the partnership.

If individuals involved in the partnership apply to register calves from the jointly owned dam using their own tattoo letters and ownership, then the Canadian Angus Association will accommodate the registration of the calf by applying a transfer of ownership of the embryo from the partnership ownership to the ownership of the member registering the calf. The Canadian Angus Association will assume that the partners have worked out the requirements of registering progeny from a partnership-owned dam, and that the partners would apply for calf registrations in accordance with their agreement.

If embryos are collected and subsequently sold, submit Transfer of Ownership—Frozen Embryos CAAFORM13 and the flush recovery document to the Registry Department. The flush can then be recorded and embryo(s) can be transferred. The Registry Department will produce an

Embryo Certificate that the seller can provide to the buyer. The buyer can use this Embryo Certificate to apply for the resultant calf, and in this case will not use Embryo Transplant Application for Registration CAAFORM26 because all the required information pertaining to the calf is provided on the Embryo Certificate.

Official Regulations Governing Embryo Transfer Effective January 1, 2008

These rules govern Embryo Transfers and enable registration of animals pursuant to Section C, Article 2.1 (f) of the Bylaws of the Canadian Aberdeen Angus Association.

It is recommended that all females to be used as donor females in Embryo Transfer be parentage verified.

Section 1

Calves propagated by embryo transplant will be registered on the same terms as calves propagated by natural or artificial mating except that a DNA report of the sire and donor dam must be on file with the Canadian Angus Association. All recipient dams must be clearly identified with a tattoo or ear tag. All calves propagated by embryo transplant require DNA parentage verification to both sire and dam before their registration will be completed. The expense of the test and related veterinary fees will be the responsibility of the owner.

It is recommended that the donor cow be inseminated with semen from one bull per flush. The use of multiple sires for the production of a single flush is allowed providing the breeder complies with the following rules and procedures:

- 1. The breeder must provide the Canadian Angus Association with the names and registration numbers of the donor cow and bulls to be used, prior to insemination.
- 2. The Canadian Angus Association will check with GenServe to determine if the bulls have sufficiently different DNA types to allow each calf from the multiple sire flush to be verified to the correct sire.
- 3. The laboratory will notify the Canadian Angus Association of the acceptability of the proposed multiple sire flush. The Canadian

- Angus Association will subsequently notify the breeder and, if the proposed flush is acceptable, grant permission to proceed with the flush.
- 4. Each calf from a multiple sire flush must be parentage verified, and the registration of the calf will be completed once a sire is determined. The expense of the tests and any related veterinary fees will be the responsibility of the owner.

Section 2 Application for Registration of Embryo Transfer resultant calves:

- (a) If you are the owner of the donor dam use Embryo Transplant Application for Registration CAAFORM26 to apply for the ET calf/calves.
- (b) If you have purchased embryos from an owner of the donor dam, use Embryo Transplant Application for Registration CAAFORM26, as this form has an accommodation for the flush recovery date, and name and signature from the owner of the dam on the flush recovery date. Completing this form in its entirety in the case of purchased embryos provides the Canadian Angus Association with all the information required to accommodate the embryo transfer from the seller to the buyer.

If the seller has previously provided the buyer with an Embryo Certificate (see previous page) then use the Embryo Certificate to apply for the calf registration instead of Embryo Transplant Application for Registration CAAFORM26. The Embryo Certificate indicates to the Registry Department that the embryo transfer has already been accommodated.

(c) Both the donor dam and the donor sire must be registered in the Canadian Angus Herdbook. If embryos are imported from foreign countries, please ensure that the donor parents are registered in the Canadian Angus Herdbook before application for the ET calf is applied for. Use Application for Registration of an Imported (Foreign) Animal CAAFORM12 to apply for the donor dam and/or donor sire if they are not yet registered in the Canadian Angus Herdbook.

In the case that the animal being applied for is a donor dam and is not owned by the Canadian Angus Association member submitting this application, include Signing Authority Agreement on Behalf of Individuals, Partnerships, Ranches, etc. CAAFORM7 indicating the animal's name and foreign registration number. If embryos have been purchased, include the

DNA microsatellite markers and parentage report from the country of its origin and attach the embryo recovery document pertaining to the flush,

along with Transfer of Ownership—Frozen Embryos CAAFORM13, signed by the seller or authorized representative.

If incomplete information is provided, the Canadian Angus Association will not be able to accept the registration application. Information must be provided in its entirety.

Canadian Angus Association Canadian Angus Association, 8142, 6715 - 8th Street NE, Calgary, Alberta, T2E 7H7 Ph: (403) 571-3580, Fax: (403) 571-3599, Toll-Free: 1-888-571-3590, Email: registry@cdnangus.ca												
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Sample embryo certificate

BREEDER HOW TO

How to Complete the Embryo Transplant Application for Registration CAAFORM26

Owner Nam	٨		n Street, N	NE Calgary, A	lberta	T2E 7	'H7 •	Phone: (403) 571 Dlicati	-3580 • on fo	or Regi) 571-359 strati	
Membership Address:	Number:	В	C					-	Phone/F	ax:			
Donor Dam: Tattoo: Registration	#:	ne same flush	can be s	submitted on	one t	orm. a	a diffe	- 1	Registra	tion #:	E I for each		
Recip Ident (reg # if registered Angus female)	Al or NAT? Service	Implant Date: dd/mm/yy	R/E Tattoo Tag	Birthdate dd/mm/yy	Sex	Num Born	8	BW	Bth Group	Colour	Reg Now	E Stor	Name of calf:
F	G	Н	I	J	K	L	M	N	0	P	Q	R	S
Membership	the owne	r of the dam o	of the da	m on the flus	h rec	overy				(This	will be us	sed to d	letermine the breeder of this calf)
		the owner of t donor dam o	n the flu		/ date	is no	t the	membe	er regis	tering			this signature will also authorize the transferedule)
Signature of	f Breeder t	hat all inform	ation cor	tained in this	repo	rt is tr	ue	X					

A. Owner name

Enter the name of the Canadian Angus Association member who is applying for the registration of this ET calf/calves.

B. Membership number

Enter the membership ID number of the Canadian Angus Association member who is applying for the registration of this ET calf/calves.

C. Address

Enter the mailing address of the Canadian Angus Association member who is applying for the registration of this ET calf/calves.

D. Donor dam

Identify the donor dam by using her tattoo and her Canadian Angus Association registration number. (If you have more than one calf from the same flush, you may put up to four calves on one form.) Note: All donor dams must be DNA parentage tested.

E. Donor sire

Identify the donor sire by using his tattoo and his Canadian Angus Association registration number.

Note: All bulls used for breeding must be DNA parentage tested and sire verified.

F. Recip ident

Record the tag number if the recipient is a commercial animal, or record the tattoo and Canadian Angus Association registration number if the recipient is a registered Angus female.

G. AI or Nat

Put A if the breeding was by Artificial Insemination, or put N if the breeding was by Natural Service.

H. Implant Date

This is the date the embryo was implanted into the recipient. Enter the implant date in the order day/month/year.

I. R/E Tattoo & Tag

List the full tattoo of the calf that you are registering. This will include the tattoo letters followed by a number of your choosing and then the year letter. It is also recommended that you list the calf's tag number. If no tag number is given we will assign the tag number as the tattoo number followed by the year letter.

J. Birth date

This space is for the calf's date of birth. Every calf requires a date of birth. The proper format is day/month/year.

K. Sex

Indicate the calf's sex. A sex must be reported for every calf. Indicate M for male or F for female calves.

L. Num Born

Indicate the number of calves born, regardless of the number of live calves. Use 1 for a single birth, 2 for twins, etc. In the case of multiple births, the second calf needs to be listed on a blank application form. Each calf in a multiple birth must be indicated as such on the form.

M. CE

This refers to calving ease. Describe the cow's calving experience using the following codes:

- U Unassisted delivery
- E Easy hand-pulled delivery
- H Hard, hand-pulled or mechanical delivery
- M Malpresentation, assisted
- S Surgical, caesarean section

N. BW

List the calf's birth weight in pounds, taken within 24 hours of birth. The weight must be measured by a scale. Scales reporting a weight rounded to the nearest 5 pounds are not acceptable. This weight will be printed on the calf's registration certificate.

O. Bth Group

All calves that were given the same opportunity to develop and gain birth weight should be placed in the same management group. Any calf whose birth weight would have been impacted because its dam was treated differently during the gestation period should be placed in a separate management group. The birth weight management groups can be labelled 1–99 and are mandatory for herds that are on the performance program.

P. Colour

A colour must be reported for all calves. Indicate R for red hided animals and B for black. Any white markings on the animal (e.g. birthmarks) must be noted on an attached note. Please refer to Section C, Article 2—Rules of Eligibility of the Constitution for rules governing the registration of animals with white markings.

Q. Reg now

This box must be filled in. Indicate Y if you want to register this calf. The registration fee will be charged at this time and the calf will have a registration certificate. Indicate N for no if you are a performance recording herd and you only wish to record this calf and account for your performance data. If N is chosen there is no charge for the recording and the calf is assigned a CM (commercial) number.

R. E-Stor

For animals for which you have selected Y in box R, you have the option of printing a registration certificate right away or storing the registration electronically. If you put N for no, then the registration certificate will

print right away. If you put Y for yes, then the certificate will remain electronically stored. You may request a registration certificate that is electronically stored to be printed at any time.

S. Name of Calf

A name must be provided for all calves that you have asked us to register. There is a maximum of 30 characters including spaces. Any calf that was indicated as red in box number 14 will have the word RED added in front of the name. There are further regulations for naming your Angus calves; please refer to the Guidelines for Naming Angus Cattle section of this handbook for additional information.

T. Flush Recovery date

Enter the recovery date in the order day/month/year. This date will determine who the breeder of the calf/calves is. The breeder is defined as the person who owned or leased the dam at conception (recovery). (A lease is recognized only if an Application for Registration of Lease form is submitted to the Association and is recorded in the Canadian Angus Herdbook).

- U. Signature of the owner of the dam on the flush recovery date The signature of the recorded owner or lessee of the dam on the flush recovery date is to be provided here. If the owner or lessee of the dam is not the person registering this animal(s), then this signature will also authorize the transfer of this embryo(s) at the current embryo transfer rate on the fee schedule.
- V. Membership Number of the owner of the dam on the flush recovery date Enter the membership ID number of the Canadian Angus Association member who is the owner or lessee of the dam on the flush recovery date.
- W. Membership name of the owner of the dam on the flush recovery date Print the membership name of the Canadian Angus Association member who is the owner or lessee of the dam on the flush recovery date.
- X. Signature of Breeder that all information contained in this report is true The member applying for registration must sign the bottom of this page.

It is not necessary for breeders to submit embryo recovery sheets to the Canadian Angus Association office except in cases involving purchased or sold embryos. Breeders are required to keep the sheets and must be able to produce them upon request from the Canadian Angus Association.

Official Rules Governing Cell-Cloned Transplants

The following requirements apply when registering calves resulting from cell-cloned transplants:

- 1. Only replication cell-cloned animals shall be eligible for registration. Genetically modified animals shall not be eligible for registration.
- 2. The cell-donor animal and the cell-cloned animal must be DNA parentage verified.
- 3. The breeder of the cell-donor animal must be identified as the breeder of the cell-cloned offspring.
- 4. The owner on record of the cell-cloned donor, on the date of biopsy removal, will be identified as the first owner, unless the calf is a result of a pregnant recipient, purchased embryo, fresh or frozen, in which case the producer may be identified as the first owner.
- 5. DNA parentage verification of recipient dams may be required by the Association.
- 6. Calves conceived after death of cell-donor animals shall be eligible for registration under the same conditions and provisions governing the eligibility of calves prior to the death of said animal.
- 7. Registration of cell-cloned transplants shall be made on a special form, provided by the Association, at the regular fee, plus an additional fee as determined by the Board of Directors.
- 8. Registration certificates issued for cell-cloned transplants shall be so designated. The registration number of the animal which is being cloned shall also be stated on the certificate of registration.

Nothing set forth herein should be construed as an indication that the Association takes any position as to the ownership rights, if any, of retained cell material. That is a separate matter reserved for discussion or negotiation between the buyer and seller.

Registering Foreign Animals

Angus associations have differing policies for registering animals. Thus, any animal imported into the Canadian Angus Herdbook must be eligible for registration according to our rules.

If you have purchased a foreign registered animal from a country that is recognized under the World Angus Secretariat, you would apply to register the animal in the Canadian Angus Herdbook using Application for Registration of an Imported (Foreign) Animal CAAFORM12. This form itemizes exactly what paperwork to attach to the completed form, depending on the situation of its entry into Canada.

A foreign animal that is going to be used for artificial insemination must meet the requirements for AI approval; see the section on Official Regulations Governing Artificial Insemination in this handbook for details.

A foreign animal that is going to be used as a donor dam must meet the Official Regulations Governing Embryo Transfer.

Before you submit Application for Registration of an Imported (Foreign) Animal CAAFORM12, please ensure you have done the following:

- Attach an original certificate of registration from the country of origin.
- If you are the current owner listed on the foreign registration certificate, attach the completed Application for Registration of an Imported (Foreign) Animal CAAFORM12, along with the registration certificate. This will be sufficient for entry into the Canadian Angus Herdbook.
- If the animal being applied for is for use as an AI sire or a donor dam and is not owned by the Canadian Angus Association member submitting this application, include Signing Authority Agreement on Behalf of Individuals, Partnerships, Ranches, etc. CAAFORM7 indicating the animal's name and foreign registration number.
- In the case that the animal being applied for is for use as an AI sire, include the DNA parentage microsatellite markers and parentage report from the country of its origin. AI sires require parentage verification to the fullest extent possible (on a parentage report both the sire and the dam on the pedigree must qualify) before receiving AI approved status in Canada.
- In the case that the animal being applied for is a donor dam and is not owned by the Canadian Angus Association member submitting this application, include Signing Authority Agreement on Behalf of Individuals, Partnerships, Ranches, etc. CAAFORM7 indicating the animal's name and foreign registration number. If embryos have been purchased, include the DNA parentage microsatellite markers and parentage report from the country of its origin and attach the embryo recovery document pertaining to the flush, along with

Transfer of Ownership—Frozen Embryos CAAFORM13, signed by the seller or authorized representative.

If the animal being registered in the Canadian Angus Herdbook was bought in calf, to register the progeny the recording association where the service sire is registered must verify the service information. The service sire will have to have been DNA parentage tested and have sire verification on his DNA parentage report.

An imported bull being used as a sire will have to have an acceptable DNA report on file, along with sire verification, before his progeny will be eligible for registration in Canada.

Request for Information

Sometimes a registration cannot be processed because registry staff have questions about the calves. If this happens, the calf will be assigned a ?number (question mark number) and you will receive a Request for Information (RFI) in the mail. The RFI identifies the specific information required to proceed with the registration.

You must respond to the RFI in writing. To ensure accuracy, changes cannot be accepted by telephone.

Simply make the corrections or add the necessary information on the RFI and return it to the Canadian Angus Association office by fax or mail. The fee for the registration will be held for 90 days to allow you time to respond. After 90 days the registration fee will be assessed as per the current fee schedule.

Suspension of Registration

If a DNA parentage test identifies a parentage problem on a registered animal, a temporary suspension will be applied and the Canadian Angus Association Registry Department will work with the parties involved toward a solution. Once the parentage and pedigree have been resolved, the suspension will be removed. If the parentage problem remains unsolved, the suspension will remain.

Transferring Angus Cattle

The Animal Pedigree Act requires that all animals sold as registered be officially transferred by the seller and the registration certificate presented to the purchaser within six months of the date of sale.

Any registered Angus animal that is sold must have its registration certificate transferred to the new owner within six months of the sale as per the Canadian Angus Association bylaws. If the animal is not intended for sale as a registered Angus, its registration certificate should be returned to the Association for cancellation and the seller must note on the bill of sale that the 'animal was sold as a commercial animal—no paper available'.

The Canadian Angus Association recommends that buyers and sellers of purebred Angus cattle use a bill of sale (see sample Bill of Sale CAAFORM5 in the forms section of this handbook) and clearly note all details of the sale and/or agreements in writing. If a dispute arises and the seller isn't cooperating with the transfer of the animal, please contact the Association for advice.

How to Transfer

To transfer animals, complete the Application for Transfer of Ownership located on the reverse side of the registration certificate and return it to the Canadian Angus Association with the appropriate fee as per the current fee schedule within six months of the date of sale. If the registration certificate is electronically stored, use Application for Transfer of Ownership CAAFORM16.

If a bred female is sold, the service dates and information must be provided on the transfer application. All service sires must be DNA tested and the bull must be AI approved if applicable.

If a semen interest is retained on a bull that is being transferred, put both the name of the buyer and your own name on the application for transfer so that both names appear on the registration certificate as current owners.

PLEASE NOTE: The transfer fee is the responsibility of the seller unless otherwise noted on the bill of sale. All signatures of listed owners must appear on the transfer, unless Signing Authority Agreement for Canadian Angus Association Registered Animals CAAFORM6 has been provided.

In the case where an entire herd is transferred to a new owner, one application for transfer may be completed if a list of animals to be transferred is attached. The completed transfer form and registration certificates of the listed animals must be forwarded to the Canadian Angus Association with the appropriate fees.

Non-Financial Transfers

Non-financial transfers are ownership transfers in which no money changes hands. These transfers are usually between family members, partners, company members or estate settlements. Partnerships and company members must all be recorded with the Canadian Angus Association before a non-financial transfer will be processed at the non-financial transfer fee.

Some common non-financial transfer situations are:

- Transfer from an individual to a partnership, or a partnership to an individual.
- Addition or deletion of an individual in a partnership or farm name.
- Estate transfers to another family member or beneficiary. Estate
 transfers require either a death certificate, a copy of the will or a
 letter from the lawyer of the estate, including the name(s) of the
 executors. The executor will be the signing authority for estate
 transfers.
- Transfers of herd names and tattoo letters can also be included in estate settlements.

A Canadian Angus Association membership is NOT required to transfer an animal.

Leasing Animals: What You Should Know

Angus animals may be leased to another party as long as the lessor (the person who owns the animal) completes an Application for Registration of Lease CAAFORM17 and submits it to the Association to register the lease.

Once the lease is registered with the Canadian Angus Association, the lessee (the person who is leasing the animal from the owner) can register calves sired by the bull or produced by the cows as if (s)he were the actual owner.

If the lease is for a female that has been bred by the owner, the service dates must be provided to the Association at the time the lease is applied for. At the end of the lease period, registration privileges revert back to the recorded owner.

The Application for Registration of Lease CAAFORM17 supplied by the Association contains only the information required for the Association's needs. The lease form is not to be construed as a binding agreement between the lessor and the lessee. All lease periods must include a beginning and an ending date; no open-ended leases will be accepted. Should the lessor and the lessee agree to extend the lease, we require updated documents with the new end date.

For more information on leasing, please see the Section C, Article 4—Leases of the Constitution.

Online Authorized Users

Authorized users are members who have set up a Canadian Angus Association Internet account with the Association. Authorized users can access registry information, prepared worksheets for data submission, register animals online, enter weights online, and can receive and view reports such as herd inventory, EPD reports, weaning and yearling reports electronically.

There is no fee to become an authorized user. To sign up, complete Electronic Registration Agreement CAAFORM21 and return it to the Canadian Angus Association. You will receive an email confirmation that includes your password.

We strongly recommend that new authorized users take the time to read the instructions on our website before attempting to use the online system. When you have signed in as an authorized user, the main page provides basic information about what you have access to. Step-by-step instructions are available on the Canadian Angus Association website.

HerdMaster

HerdMaster is an on-farm herd management software program endorsed by the Canadian Angus Association. HerdMaster has been customized for Canadian Angus users to communicate with the Association, allowing you to complete your paperwork quickly, easily and electronically.

HerdMaster is a herd management tool that allows you to analyze individual animal performance. As well as standard animal details (such as name, sire, dam, date of birth, tattoo, etc.), a variety of additional information can be recorded against an animal including weights, traits, health treatments, ratios, EPDs, matings, embryos, animal movements, and sale and purchase details. Any information that is recorded in the program can be retrieved in a useful report format using one of the pre-defined reports or by using the optional custom report writing tool to generate your own reports.

HerdMaster has been designed to manage breeder records. As such, it allows you to group your animals the same way that you manage them, making data entry and retrieval a quick and easy process. Through the use of powerful reporting, filtering, and worksheet tools, HerdMaster has the ability to sort the good animals to the top and the poor animals to the bottom of the pen. This enables you to make more informed decisions about what you do with your animals. You can record unlimited animal movements and general animal activities within the database, such as health treatments and cost, to assist in keeping track of individual animal performance.

HerdMaster's reporting facilities can assist in genetic selection by producing concise, informative reports about general animal performance. HerdMaster also allows reports to be exported into other applications if more detailed analysis is required. For example, you may like to export a weight summary report into Excel; this will allow you to use Excel's powerful sorting tools and apply more comprehensive formulas.

Further information and ongoing support is available from HerdMaster Canada online at www.herdmaster.ca, by email at support@herdmaster.ca or by phone at (403) 668-5251.

DNA Parentage Verification Policy

Under the Animal Pedigree Act, it is illegal for any breeder to make a false statement or representation regarding the registration of an animal. Thus, if there is any uncertainty about an animal's parentage, it is the breeder's responsibility to arrange a DNA test to determine correct parentage.

In an effort to ensure the purity of the Angus breed, the Canadian Angus Association uses DNA microsatellite testing to verify parentage of offspring to their sires and dams.

Sire Policy

- All sires used for breeding must have a DNA parentage profile on record with the Canadian Angus Association showing sire verification before their offspring can be registered.
- Sires being used for AI must be parentage verified to the fullest extent possible before they are granted AI approval status.

Dam Policy

- All dams used as donor dams must be DNA parentage tested. It is recommended that dams used as donors be parentage verified to the fullest extent possible.
- If a dam is less than 516 days of age when a calf is born, then the calf must be parentage verified to the sire and the dam; in this case the dam would require a DNA parentage test.
- A calf that is selected as a spot test calf must be parentage verified to its sire and dam before the spot test is complete; so a dam of a spot test calf will require a DNA parentage test.

Calf Policy

- If a cow is re-bred by AI or natural service from a different sire within 14 days of the previous service, the owner is required to report both services to the Canadian Angus Association and request a DNA parentage test so the calf is registered properly once the sire is determined.
- If breeding dates and birthdates are questionable, the Canadian Angus Association will ask breeders for clarification of the dates, and recommend that a DNA parentage test be performed if there is a question regarding correctness of the pedigree.

DNA Parentage Verification

Parentage testing must be done on every calf from an embryo flush, one out of every 200 animals that is registered by the Canadian Angus Association (random spot check) and any animal that is of questionable parentage.

GenServe provides parentage verification services to Canadian Angus Association members. No other laboratories are authorized to provide this service.

Spot Tests

In an effort to ensure that the parentage of registered animals is correct and to maintain breed purity, the Canadian Angus Association verifies the parentage of every 200th registered animal. When an animal is chosen, the Association will notify the owner and a DNA parentage test will be done at the Association's expense. Hair samples will be required on both the dam and the calf. If the DNA parentage markers for the sire are not already on file, they will be required as well. Test samples must be submitted within 12 months of notification or the member's account will be suspended.

DNA Coat Colour Test

If a black dam is not known to be a red carrier and she produces a red calf, a coat colour test will be required on the dam, and a parentage test will be required on the calf. In this case, the Association will send a DNA parentage test kit for the dam and her calf. The owner will be responsible for the DNA parentage test fees, and the Canadian Angus Association will pay for the coat colour test for the dam.

If a black sire is not known to be a red carrier and he produces a red calf, a coat colour test will be required on the sire and a parentage test will be required to qualify the sire to the calf. In this case, the Association will send a DNA parentage test kit for the calf. The owner will be responsible for the DNA parentage test fees, and the Canadian Angus Association will pay for the coat colour test for the sire. GenServe will often have a stored sample for the sire from his parentage test and will be able to utilize the stored sample for his coat colour test.

If both parents of a red calf are black and are not known to be red carriers, then the calf will require a DNA parentage test to qualify both parents, and the parents will both require coat colour tests. The owner will be responsible for the DNA parentage test fees and the Canadian Angus Association will pay for the coat colour test fees.

We recommend that coat colour DNA tests be done on all bulls used in artificial insemination programs.

How to DNA Test for Parentage and Coat Colour

The Association currently uses GenServe Laboratories in Saskatoon for our DNA parentage testing, coat colour testing and free-martin testing. See the current fee schedule for applicable fees for all DNA testing.

DNA kits can be requested by email, phone or fax. We require the registration number and tattoo of the animal(s) to be tested. The Association will charge you for the DNA test as per the current fee schedule, and will send you a DNA kit in the mail. The kit includes a hair collection envelope and a DNA application form that identifies the animal being tested along with the sire and dam information. Please see How to Collect Hair Samples on the next page for instructions on collecting a good hair sample. You can also use DNA Request Form CAAFORM18 to request a test kit.

If you wish to DNA parentage test a new calf for which you are unsure of the sire, please provide birth information including the dam, possible sires, calf tattoo and date of birth. The Association will send a DNA test kit, the calf will be assigned a temporary number, and the registration will be completed after the DNA results are reported and a sire is determined. If a member is uncertain of the accuracy of a pedigree, for example if there have not been 14 days between exposures, the DNA parentage test must be done before a registration number is assigned.

It usually takes approximately 10 working days from the date the sample is received by the lab for results to be provided to the Association. Rush service is available at an additional cost. Please contact the Canadian Angus Association for assistance if you are in need of a rush DNA test.

How to DNA Test for a Free-martin

It is possible for a female that is a twin to a male to be a free-martin, which means she is infertile. GenServe can perform a free-martin test on a female calf to determine her ability to reproduce, but a blood sample is required. A hair sample will not work for a free-martin test. Contact the Association to set up a free-martin test.

How to DNA Test for Coat Colour

A DNA test is available through GenServe to distinguish black cattle which carry red genes from those that are homozygous black. If you wish to coat colour test an Angus animal, contact the Association with the tattoo and registration number and we will prepare a test kit for you. Hair samples are used for coat colour testing.

The hide colour of Angus animals is determined by one loci at which three different alleles are possible. E, the dominant black gene; e, the recessive red gene; and E+, the wild type gene that can result in black or red hide colour in the absence of the dominant black gene.

Inheritance Mechanism for Coat Colour

Genes	E	E+	e
	black gene	wild type gene	red gene
E	EE	EE+	Ee
black gene	(black hide)	(black hide)	(black hide)
E+	EE+	E+E+	E+e
wild type gene	(black hide)	(red or black hide)	(red or black hide)
e	Ee	E+e	ee
red gene	(black hide)	(red or black hide)	(red hide)

A calf with unexpected coat colour should be parentage verified first. Once the pedigree is verified, the calf and parent animals can be tested for coat colour genes. The coat colour and genotype do not affect an animal's eligibility for registration.

Store Hair Samples

We recommend that breeders collect hair samples when handling their animals for future use. Using the recommended collection process (outlined next column), collect the hair sample and store it in a clean unused envelope, clearly labelled with the animal's tattoo. Collected samples can be stored in a cardboard box indefinitely. Do not freeze the samples; keep them dry and away from any moisture. The animal's age at the time of collection doesn't matter. You can collect hair samples from your newborn calves for future DNA testing.

BREEDER HOW TO

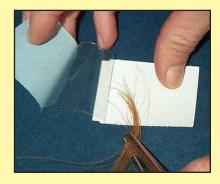
How to Collect Hair Samples

- The hair samples should be collected from the tip of the animal's tail (switch).
- Make sure that the hair is clean and free of urine and manure. Dirty samples will not be processed.
- Comb or brush the tail to remove dead hair.
- Wrap about five hair strands around your finger, approximately 2 inches (5 cm) from the base of the tail, and then give a sharp pull. Inspect the hair and make sure the follicles are attached. Pull about 20 hairs per animal.
- Secure the hair together with adhesive tape, about 1 inch (2.5 cm) from the follicles. Place the sample into the provided hair envelope. Seal the envelope immediately and identify the sample by writing the name, tattoo and registration number of the animal on the outside. Place only one sample per envelope.
- If collecting more than one sample or sampling different animals, make sure to clean your hands, combs and brushes between animals to minimize cross-contamination.
- Place the hair sample envelope and completed DNA form into a larger envelope and mail it to:

GenServe Laboratories Suite 125-15 Innovation Boulevard Saskatoon, SK S7N 2X8



When collecting hair samples for DNA testing, select clean hair from the tip of the animal's tail



Secure the hair with tape about 1 inch from the follicles