

BOVINE BREED ASSOCIATIONS - DAIRY
Procedure for Registering ET Calves & Submitting DNA Samples

BOVINE BREED ASSOCIATION	PROCEDURE FOR REGISTERING ET CALVES	PROCEDURE FOR SUBMITTING DNA SAMPLES
<p>Ayrshire Canada 4865, boul., Laurier Blvd., St-Hyacinthe, QC Canada J2S 3V4 Tel: 450-778-3535 Fax: 450-778-3531 Email: info@ayrshire-canada.com Web Site: www.ayrshire-canada.com</p>	<p style="text-align: center;"><i>Please contact the breed association for information.</i></p>	<p style="text-align: center;"><i>Please contact the breed association for information.</i></p>
<p>Canadian Brown Swiss & Braunvieh Association R.R. # 5, Guelph, ON Canada N1H 6J2 Tel: 519-821-2811 Fax: 519-763-6582 Email: brownswiss@gencor.ca Web Site: www.rkde.com/browncow</p>	<p><u>Brown Swiss</u> Embryo Transplant Progeny</p> <ol style="list-style-type: none"> a. Offspring propagated by embryo transplant shall be registered on the same basis as offspring propagated by natural or artificial mating, except a blood type or DNA record of the sire and donor dam must be on file with Canadian Livestock Records Corporation. b. A certified Breeding Report and Embryo Transplant verification form shall be submitted with application for registration, all as required by the Association. c. An embryo certificate of registration will be issued for each embryo transplant upon submission of the application for registration and report of transplant to Canadian Livestock Records Corporation. d. A Standard Embryo Transplant Form shall be used, and it shall be produced in four copies. The original to be submitted to Canadian Livestock Records Corporation. The second copy remains with the transplant centre. The remaining two copies go with the recipient dam, with one copy being submitted to Canadian Livestock Records Corporation with the application for registration, and the owner of the calf retains the last copy. e. An embryo certificate of registration will be issued for each flush upon submission of the application for registration and report of flush to Canadian Livestock Records Corporation. The procedure to follow is the same as for an individual embryo. One offspring per flush has to undergo a Blood Type or DNA profile. <p><u>Braunvieh</u> Embryo Transplant Progeny</p> <ol style="list-style-type: none"> a. Offspring propagated by embryo transplant shall be registered on the same basis as offspring propagated by natural or artificial mating except a blood type or DNA profile record of the sire, donor dam and calf must be on file with Canadian Livestock Records Corporation. b. A certified Breeding Report and Embryo Transplant verification form shall be submitted with application for registration, all as required by the Association. c. An Embryo Registration Certificate will be issued for each embryo transplant upon submission of the application for registration and report of transplant to Canadian Livestock Records Corporation. d. A Standard Embryo Transplant Form shall be used, and it shall be produced in four copies. The original to be submitted to Canadian Livestock Records Corporation. The second copy remains with the transplant centre. The remaining two copies go with the recipient dam, with one copy being submitted to Canadian Livestock Records Corporation with the application for registration, and the owner of the calf retains the last copy. e. An embryo certificate of registration will be issued for each flush, upon submission of the application for registration and report of flush to Canadian Livestock Records Corporation. The procedure to follow is the same as for an individual embryo. 	<p>The first calf from every dairy (Brown Swiss) flush must be parentage tested before registration; every calf from a beef (Braunvieh) flush must be parentage tested before registration.</p> <p>DNA kits are ordered through CLRC because the pertinent information is then electronically transmitted to the lab before the sample even gets there.</p>

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<p>Canadian Guernsey Association R.R. # 5, Guelph, ON Canada N1H 6J2 Tel: 519-836-2141 Fax: 519-763-6582 Email: guernsey@gencor.ca Web Site: www.guernseycanada.ca</p>	<p>Eligible for registration</p> <p>a) calves propagated by embryo transplant will be registered on application to the Registrar on the same terms as calves propagated by natural or artificial mating provided the sire and dam have genetic identification prior to making application for registration, and further provided that all male calves and one female calf out of the flush be parentage tested, and further provided that the interpretation of the percentage identification report does not exclude either the sire, dam or both as parents of the calf.</p> <p>b) embryo transplant certificates must be submitted with the application for registrations</p> <p>c) the dam must be properly identified and registered in the Canadian Guernsey Herd Book in the name of the owner at birth (except for ET calves acquired in the form of embryos previously transferred to the new owner before their birth) Refer to Article 13 of the Canadian Guernsey Constitution.</p> <p>d) the sire must be properly identified and registered in the name of the owner certifying the service, or be subject to the regulation governing Artificial Insemination. Refer to the Article 13 of the Canadian Guernsey Constitution. Use of more than one sire per flush is prohibited.</p> <p>(Please click here for a copy of the registration form)</p> <p><i>Note: The Canadian Guernsey Constitution Article 13 and registration of embryos is listed on the CLRC web site: www.clrc.ca</i></p>	<p>DNA testing is done through Saskatchewan Research Council Bova-Can Laboratories visit their web site: www.src.sk.ca Direct Link: http://www.src.sk.ca/html/research_technology/ag_bio/bovacan_lab/index.cfm</p>
<p>Holstein Association of Canada Box 610, Brantford, ON Canada N3T 5R4 Tel: 519-756-8300 Fax: 519-756-3502 Email: general@holstein.ca Web Site: www.holstein.ca</p>	<p style="text-align: center;">REGULATIONS AND SEQUENCE OF STEPS LEADING TO REGISTRATION OF AN EMBRYO TRANSFER CALF</p> <p>These regulations envisage a donor dam delivering one or more embryos at one time from one service, the transfer of these embryos to recipient dams of any sort and carried by them through a normal gestation cycle to parturition. They also envisage that embryos may be frozen, shipped anywhere, and transplanted at any time. They further envisage that an individual embryo might be “split” (divided) or “cloned” (nuclear transfer) and thereby produce several calves developed from one embryo.</p> <p>To ensure correct registration of such calves, the CDB has developed the following safeguards and procedures to overcome possible problems and risks, etc.</p> <ol style="list-style-type: none"> Form ET is used by the business as an application to CDB for accreditation as an Embryo Transfer Business. (Requires annual renewal – Fee \$26.50 - \$25.00 + \$1.50 GST). An accredited ET business is supplied with the CETA certified Embryo Transfer Rules and Regulations Pertaining to Purebred Dairy Cattle. Form ETN is used by the Embryo Transfer Business or owner to apply and receive approval to recover embryos from a particular donor dam. On receipt of an intent to flush a prospective donor dam, the respective Breed Registry Office will forward to the applicant materials to conduct a DNA genotype test with identification forms. Each donor dam must be genotyped, and each donor dam must be parentage tested insofar as the necessary information is obtainable, prior to the recovery of embryos. Owners and/or practitioners are encouraged to alert one of the Association's <i>parentage verification</i> staff before sending any samples to Bova-Can Laboratories. A kit will be sent to you containing specific animal data and instructions on securing the DNA material--most likely hair roots. Holstein Canada will then electronically forward all required information to Bova-Can. Each donor dam may be bred to only one bull within any fourteen day period, except for the Holstein breed which provides for the use of a maximum of two bulls to inseminate a donor dam for the specific purpose of Embryo Transfer only after pre-clearance from the Association, as to the real possibility of distinguishing offspring of the two bulls with a particular dam on ... 	<p>Guidelines for collecting hair samples for DNA testing can be found on our web site at: http://www.holstein.ca/English/Services/hairsamples/index.htm</p> <p>Hair roots can be collected from the tail switch. (Use withers, topline, or ears if there is no tail.) Please comb or brush the tail switch to remove any foreign material. If needed, wash and rinse with water and wait for the tail to dry before taking samples. (Dirty samples cannot be processed.)</p> <p>Wrap approximately five strands of hair around a finger, about two inches away from the hide, and give a sharp pull. Repeat until you have about 15 to 20 hair roots/follicles. Pliers can be used if hair is too short. Inspect the hair to ensure the follicles are attached. They look like glass beads. Unfortunately, hair strands without follicles do not contain DNA and cannot be analyzed.</p> <p>Place all of the hair roots/follicles at one end. Secure the hairs together with adhesive tape wrapped around the shaft approximately one inch (2.5 cm) away from the roots/follicles. Place the taped hair samples in the small envelope and seal...</p>

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<p>Holstein Association of Canada <i>continued...</i></p>	<p>... the basis of genotypes. Each pre-clearance will be limited to a maximum of three comparisons with consideration according to order of preference indicated. Association policy requires payment in advance of the release of a verbal or written confirmation report to the client/applicant.</p> <p>The Association reserves the right to refuse registration of any or all resulting calves should pre-clearance not be obtained from the Association and/or should the genotype not clearly exclude one of the alleged service sires.</p> <p>A pre-clearance of a pair of bulls is valid only for the named donor cow, not necessarily for any other donor dam.</p> <p>4. Certificate of Embryo Recovery is issued by the Embryo Transfer Business to report the recovery of embryos from a donor dam.</p> <p>5. Certificate of Freezing is issued by the Embryo Transfer Business if they freeze embryos described in Certificate of Embryo Recovery.</p> <p>6. Certificate of Embryo Transplant is issued by the Embryo Transfer Business to report the transplanting of embryos described in Certificate of Embryo Recovery and Certificate of Freezing, if applicable.</p> <p>7. Individual Embryo Certificate as issued by the Embryo Transfer Business, for domestic purposes only, provides for the unique identification, transplanting and transferring of frozen embryos. This certificate provides an embryo movement trail (agents included) and only need to be filed with the Breed Registry Office when applying for a change in ownership at time of actual registration of the resulting calf. The breeder and the original owner of the embryo is deemed to be the owner(s) of the donor dam as recorded on her registration certificate at the time of the respective breeding.</p> <p>8. Embryo Transfer Businesses and Breed Registry Offices create an Individual Embryo Certificate for domestic purposes, for each frozen embryo reported which moves with the corresponding embryo. The embryo certificate identifies the embryo, provides for subsequent embryo movement and identifies the final buyer in order that the resulting calf can be properly registered.</p> <p>Embryo manipulations (split or nuclear transfer) should be reported/filed on regular forms and must contain reference to the parent embryo and recipient dam if transplanted.</p> <p>9. A change in ownership (domestic only) of an embryo, frozen or transplanted, shall be reported to Breed Registry Offices by submitting an Individual Embryo Certificate or a regular application for transfer and the regular breed transfer fee. A regular transfer application if used, must include the identity of the embryo, donor dam, recipient dam, the date of recovery and the date of transplant. An Individual Embryo Certificate will be issued by the Breed Registry Office to reflect the current ownership.</p> <p>Domestic transfer(s) of ownership for an embryo should be filed together <u>with</u> the application for registration within 3 months of the date of birth of the resulting calf/calves. Unless an application for an ownership change of the embryo is received direct from the seller or agent, the buyer (first owner of calf) must be held responsible for the transfer of ownership fee as well as the registration fee for the calf. Regular registration and transfer fees apply.</p> <p>Application for Embryo Movement is used to record a shipment of fresh or frozen embryos to an ownership in any foreign country. The application is to be filed with the Breed Registry Office with the regular breed transfer of ownership fee per embryo up to a maximum of \$30.00 per certificate (same recovery and common purchaser). The Registry office provides to the Foreign Herd Book Society certified copies of the relevant documentation with the genotype of the donor dam and service sire(s) to support the registration of resulting calves. No change in paper flow exports.</p> <p style="text-align: right;"><i>continued...</i></p>	<p>... Please insert the <i>parentage verification request</i> form along with the sealed hair sample envelope into the larger self-addressed envelope provided, and send by regular mail to:</p> <p>Bova-Can Laboratories c/o Saskatchewan Research Council 125-15 Innovation Blvd. Saskatoon, SK S7N 2X8</p>

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<p>Holstein Association of Canada <i>continued...</i></p>	<p>10. Positive identification of embryos is always important and particularly so with electronic transmission of data and automated processing of forms (activity) and animal registrations. Frozen embryos are referenced by their individual identification. Transplanted embryos are referenced by the recipient dam's identification individual identification, if previously frozen. Manipulated embryos are referenced by the parent embryo, recipient dam identification and individual identification, if previously frozen. It is essential that embryos (frozen and/or manipulated) are cross-referenced with their own individual identification and that of the recipient dam (when transplanted) and the parent embryo if manipulated in any way.</p> <p>11. This reporting procedure and supporting fee structure was developed in order to streamline the paper flow for embryo transfer activity and ET registrations. CDB has a single filing fee rather than multi-activity charges. The system encourages complete and early filing of all embryo activity by ET practitioners/businesses. This aim is provided for by having a single fee and one submission form that provides for the processing of all activity (recovery, transplanting and freezing) pertaining to the same flush. Reporting forms to be filed within 3 months of the date of recovery.</p> <p>Subsequent transplants of frozen embryos reported on original recovery/transplant freezing certificates will be included in the original processing fee providing an Individual Embryo Certificate is filed with the corresponding calf application at the time of registration. Otherwise an administration fee may be assessed in addition to the base registration fee and transfer fee, if any.</p> <p><u>SINGLE FILING FEE UP FRONT</u></p> <p>Manual or Hard Copy \$15.00 – PLUS GST</p> <p style="text-align: center;">OR</p> <p>Electronic Filing \$00.00 – NO GST</p> <ul style="list-style-type: none"> - Filed by electronic means in accordance with the Canadian Date Dictionary file layout - Automated processing <p>12. An application for registry is prepared by the rightful owner of the calf when born, using the regular form and at the prescribed fees of the respective breed association. This application must also include the identity of the recipient dam that delivered the calf. The Registry Office forwards the material to the owner to conduct the test. The application is held in abeyance while requesting a genetic (hair/blood) sample from the calf.</p> <p>Copies of the regulations are available from the Canadian Dairy Breeds, Box 610, Brantford, Ontario, N3T 5R4. Supplies of the various forms are available from the Canadian Embryo Transfer Association (CETA/ACTE), Box 2000, Kemptville Ontario, K0G 1J0.</p>	

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<p>Jersey Canada 9-350 Speedvale Ave. West, Guelph, ON Canada N1H 7M7 Tel: 519-821-1020 Fax: 519-821-2723 Email: info@jerseycanada.com Web Site: www.jerseycanada.com</p>	<p>To register a Jersey ET calf, the Dam of the flush must have DNA on file. If an ET registration is submitted in which there is no DNA on file for the Dam, Jersey Canada will mail a DNA kit to the breeder and the registration will not be processed until DNA is completed.</p> <p>If a jersey breeder wishes to complete DNA on any animal, call the Jersey Canada office and request a “DNA Kit” (which includes instructions on how to take the sample, where to mail it to, the hair sample envelope etc.) The breeder will mail the hair sample(s) to the lab (Bova Can lab). The lab will process it and send the results to Jersey Canada. Once the results are received at Jersey Canada, the appropriate farm is invoiced by Jersey Canada and a copy of the DNA is mailed to the farm. If there are any calves waiting to be registered from this cow, they will be processed once Jersey Canada receives a copy of the DNA results and it will be mailed out with the DNA.</p> <p>For further information regarding sampling technique or registration, please visit: www.jerseycanada.com</p>	<p>If a jersey breeder wishes to complete DNA on any animal, call the Jersey Canada office and request a “DNA Kit” (which includes instructions on how to take the sample, where to mail it to, the hair sample envelope etc.) The breeder will mail the hair sample(s) to the lab (Bova Can lab). The lab will process it and send the results to Jersey Canada. Once the results are received at Jersey Canada, the appropriate farm is invoiced by Jersey Canada and a copy of the DNA is mailed to the farm. If there are any calves waiting to be registered from this cow, they will be processed once Jersey Canada receives a copy of the DNA results and it will be mailed out with the DNA.</p> <p>For further information regarding sampling technique or registration, please visit: www.jerseycanada.com</p>
<p>Canadian Milking Shorthorn Society 202-8 Speedvale Ave. W., Guelph, ON Canada N1H 1J4 Tel: 519-824-2119 Fax: 519-824-2566 Email: milking.shorthorn@gmail.com Web Site: www.cmss.on.ca</p>	<p>The following is required for registration of ET progeny:</p> <ul style="list-style-type: none"> - DNA should be on file for both sire and dam of the flush - The first progeny registered from each flush should also be parentage verified via DNA <p>There is no differential cost for registration of ET progeny by the Canadian Milking Shorthorn Society (CMSS).</p> <p>All registrations and DNA requests are performed on behalf of the CMSS by Canadian Livestock Records Corp. in Ottawa.</p> <p>At time of registration, breeders should also be sure to present copies of flush reports, and in the case of implantation from frozen embryos, frozen embryo inventory reports.</p> <p>In the case of imported embryos, pedigree information on both the sire and dam of the embryos should be presented at the time of registration.</p>	<p><i>Please contact the breed association for information.</i></p>