



CETA/ACTE CERTIFICATION STANDARDS

REVISED OCTOBER 15, 2025

Deadline for Application is May 01

(Late applications for Initial Certification will be accepted up to June 30 and levied a \$250.00 penalty.)

CETA/ACTE Certification has been established to ensure the knowledge, technical, and ethical excellence of its members and for confidence in, and the integrity of, the embryo transfer industry in Canada. The CETA/ACTE Certification program is a process to certify veterinarians practicing embryo transfer in Canada. Normally, veterinarians will be fully licensed to practice in a Canadian province; however, veterinarians with limited licensure for reproductive practice may also qualify for certification. Similarly, veterinarians practicing in other jurisdictions, but licensed to practice in a Canadian province, may also qualify for CETA/ACTE Certification.

CETA/ACTE Certification is administered by the Certification Committee which is a standing committee of CETA/ACTE. Certification Committee decisions must be approved by the CETA/ACTE Board of Directors before becoming final.

PART I – THE APPLICATION PROCESS:

1. The applicant must be a graduate in veterinary medicine (i.e., DVM, MV) and licensed to practice veterinary medicine within Canada.
2. CETA/ACTE Certification is for the Embryo Transfer Practitioner. It is acknowledged that the Embryo Transfer Practitioner is responsible for the performance and conduct of their Embryo Transfer Team and its members.
3. CETA/ACTE Certification is both technique and species-specific. Certification can be obtained for i) in vivo embryo collection and processing **and/or** ii) ovum pick-up (OPU) and oocyte processing **or** iii) IVF lab supervision (*for a practitioner in charge of an IVF lab*). Ovine, caprine, and cervine species are classified as one species and called small ruminants. The applicant must indicate the techniques and species for which they wish to be certified. Site visits are required.
4. Applicant must be a member of CETA/ACTE. (Non-CETA/ACTE members may apply under Part XI.)
5. **References:**
 - a) The applicant must have registrars in all provinces they conduct embryo transfer services in write a letter to CETA/ACTE stating that the applicant is a member in good standing with the Provincial Veterinary Medical Association and that they are not under disciplinary action by the Provincial Veterinary Medical Association. Furthermore, the applicant must not be under disciplinary action by the Canadian Food Inspection Agency (CFIA).
 - b) The applicant shall list five clients for each species and technique for which they wish to be certified. These clients will be contacted by the Certification Committee for a letter of recommendation outlining specific information regarding the quantity and quality of work done and the professionalism with which it was performed. Questions for such a letter will originate from the Certification Committee. Normally, three responses for each species and/or technique will be considered adequate to evaluate a candidate. In the absence of the minimum number of clients (5), the Certification Committee will determine suitable peer letters.
6. **Statistical Information:**
 - a) Number of years of embryo transfer experience
 - b) Embryo transfer services provided; in vivo embryo collection and processing, OPU and oocyte processing and/or in vitro embryo production
 - c) Species involvement
 - d) Data for the past two years, as per the Application for Certification/Data form for species/technique



- e) If applying for certification for in vivo embryo collection and processing and/or OPU, must provide IETS freeze code or team IETS freeze code

7. Minimum Qualifications for Application for Certification:

a) TRAINING:

i) **IN VIVO:** The applicant must provide proof of at least 15 hours of training in a training program recognized by the Certification Committee or with a Certified Embryo Transfer Practitioner, who will provide a signed letter with details of the training delivered, within the past five years.

NOTE:

- ▶ *The training requirement may be waived for in vivo applicants if the applicant has completed an embryo transfer training program previously and has processed a minimum number of viable embryos per year for the past three years (Bovine: 100 viable embryos; Equine: 8 viable embryos).*
- ▶ *Normally, an applicant who was previously certified will not need to fulfill the training requirement. This does not apply if applying for certification for a different technique or species.*

ii) **OPU:** The applicant must provide proof of at least 15 hours of training in a training program recognized by the Certification Committee or with a Certified OPU Practitioner, who will provide a signed letter with details of the training delivered, within the past five years.

NOTE:

- ▶ *The training requirement may be waived for OPU applicants if the applicant has completed an OPU training program previously and has collected a minimum number of COC per year for the past three years (Bovine: 200 COC; Equine: 40 COC).*
- ▶ *Normally, an applicant who was previously certified will not need to fulfill the training requirement. This does not apply if applying for certification for a different technique or species.*

iii) **IVF LAB SUPERVISION:** Training as outlined in Appendix II.

NOTE:

- ▶ *Training for IVF lab supervision must be done by a CETA-certified IVF lab supervisor or through a formal training course (i.e., offered by private companies or universities) or informally through a university. Refer to Appendix II for recommended topics and procedures to be covered in a training program. All training submitted for IVF supervision must include an outline of the training topics/skills to be reviewed by the Certification Committee as part of the application process. Training provided by someone with a conflict of interest will not be considered.*

b) EXPERIENCE:

- ▶ The applicant must have no less than one year experience prior to May 01 of the year of application, and must have met the following collection/embryo requirements:

| TYPE OF CERTIFICATION / SPECIES / REQUIRED NUMBERS | SPECIAL NOTES |
|---|--|
| <p>IN VIVO EMBRYO COLLECTION AND PROCESSING</p> <p><i>Bovine species:</i> 40 embryo collections and 200 viable embryos in the past two years.</p> <p><i>Alternative species: (small ruminants, porcine, bison)</i> 20 embryo collections and 100 viable embryos in the past two years.</p> <p><i>Equine species:</i> 20 embryo collections and 15 viable embryos in the past two years.</p> | <ul style="list-style-type: none"> • For Practitioners already certified for in vivo and applying for additional in vivo species, only 50% of the minimum embryo collection/embryo numbers are required for the additional species. |



Experience (continued)...

| TYPE OF CERTIFICATION / SPECIES / REQUIRED NUMBERS | SPECIAL NOTES |
|---|---|
| <p>OPU AND OOCYTE PROCESSING</p> <p>Bovine species: 40 OPU collections and 400 COC in the past two years.</p> <p>Alternative species: (small ruminants, porcine, bison) 20 OPU collections and 200 COC in the past two years.</p> <p>Equine species: 20 OPU collections and 80 COC in the past two (2) years.</p> | <ul style="list-style-type: none"> • For Practitioners already certified for bovine species (in vivo) and applying for OPU, only 50% of the minimum number of OPU and number of COC are required. • For Practitioners already certified for equine species (in vivo) and applying for equine OPU, only 50% of the minimum number of OPU and number of COC are required. |
| <p>IVF LAB SUPERVISION</p> <p>Bovine species: 400 viable IVP embryos produced in the applicant’s lab in the past two years.</p> <p>Equine species: 40 viable IVP embryos produced in the applicant’s lab in the past two years.</p> | <ul style="list-style-type: none"> • Embryos must be produced in the lab applying for certification. |
| <p>▶ NOTE: Applicants applying for both in vivo embryo production and OPU at the same time must meet all of the minimum requirements (except for CE) for each technique, including one year experience, collection/embryo numbers, training, and client references. A site visit is required for each technique.</p> | |

c) **CONTINUING EDUCATION:** The applicant must provide proof of attendance at one or more scientific meetings focusing on embryo transfer and/or OPU technology with a minimum of 10 CE credit hours in the past two years i.e., CETA/ACTE, IETS, AETA, AETE, or SBTE conferences or embryo transfer workshops, etc. See Part IV #3a below for further explanation. Training programs listed in 7(a) above cannot be used for CE requirements in 7(c). Continuing education involving reproduction/embryo transfer technology is acceptable, provided the title of the presentation is clearly indicative of such.

8. **The Secretary-Manager will ensure that all applicant information is complete prior to submission to the Certification Committee. The Certification Committee shall recommend the approval or denial of the application to the Board or Directors, so decisions are given to the applicant within 45 days of receiving a completed application. The Board of Directors’ response shall be in writing and it shall be emailed to the applicant. In the case of denial, the reason or reasons for denial will be included in the response sent to the applicant.**
9. **Appeals of the decision can be made in writing to the Board of Directors as outlined in Part IX - “Appeals Process”.**

PART II – THE CERTIFICATION EXAM:

Normally, the Certification examination will be held at the time and place of CETA/ACTE Annual Conference, but exceptions can be made. The examination will be comprised of:

- a) **A written component – requiring an overall mark of 70%.** Exam questions consist of a variety of formats including multiple choice, short answer, fill in the blank, true/false, and matching. See **Appendix I (EXAMINATION CONTENT AND STUDY GUIDELINES)** for recommended reading material. Examination material will be weighted as follows.

| PARTS | DESCRIPTION | PERCENTAGE OF EXAM | PASSING GRADE |
|--------------|---|--------------------|---------------|
| PART A | Questions regarding the evaluation of various stages and grades of embryos and/or cumulus oocyte complexes | 20% | 70% |
| | Questions regarding records that pertain to embryo transfer and the labeling of straws, goblets, canes, and tabs | 10% | 70% |
| PART B | Questions that pertain to the sanitary and regulatory aspects of embryo transfer technology | 20% | 50% |
| PART C | Questions that test the candidate’s general knowledge of reproductive physiology/technology and embryo transfer technology. Specific questions on species/techniques for which the applicant is applying for certification will be included | 50% | 50% |
| TOTAL | OVERALL COMBINED MARK <i>NOTE: Applicants must meet the passing grade in each section to pass the exam.</i> | | 70% |

PLEASE NOTE: Failure of the Certification Examination will require a supplemental examination (see Part XII).

NOTE: Generally, if a Practitioner is certified for a species/technique, an examination is not required to add additional species or techniques. The basic examination, designed primarily for practitioners involved with the in vivo production of bovine embryos, will be written by all applicants regardless of species or techniques applied for, including IVF lab supervision. However, Part C may be modified to accommodate differences with species/techniques.

The examination will be practical, covering important technical and problem-solving components the applicant faces in their daily embryo transfer work (see Appendix I: EXAMINATION CONTENT AND STUDY GUIDELINES).

- b) **On-site evaluation (Site Visit) Part III. All candidates applying for certification for the first time will require a site visit for each species and each technique. All applicants that are already certified for a species and/or technique and are applying for the addition of subsequent species and/or techniques will require a site visit for each additional species and each technique.**

If certification is voluntarily terminated, and application for recertification occurs outside of the member’s three-year cycle, or if certification is terminated by the action of the Board of Directors, a site visit will be required in addition to the examination process for recertification.

PART III – THE SITE VISIT:

Site visits are required for:

- i. All first-time applicants for each species/technique.
- ii. All applicants already certified for a species and/or technique and are applying for additional species and/or techniques.
- iii. Those applying for recertification who have not processed the required number of viable embryos/COC over the past three years.

The site visit will normally take place within three months of passing the Certification Examination and is held within the applicant's embryo transfer practice. All costs associated with the site visit, in addition to the examination fee, will be paid by the applicant.

NOTE:

- ▶ Applicants will be sent a copy of the site visit report once it is reviewed by the Certification Committee, regardless of whether the outcome is satisfactory or unsatisfactory.
- ▶ Five CETA/ACTE CE credits will be awarded to the certified practitioner who conducts the site visit (one visit available per three-year cycle) and to the successful applicant.

PART IIIA – IN VIVO SITE VISIT:

The applicant will be asked to demonstrate their facilities, equipment, and technical proficiency in the following applicable areas for the chosen species, and may include any of the following:

- 1) General working knowledge of reproductive physiology
- 2) Donor and recipient management
- 3) Superovulation and estrus synchronization
- 4) Embryo collection and transfer procedures
- 5) Embryo handling, necessary microscopic expertise in embryo searching, and identification; evaluation and classification of embryos; embryo washing and treatments; the acceptable method of labeling containers, goblets, and canes; acceptable record keeping systems
- 6) Embryo freezing and thawing methodology
- 7) Specialized techniques such as biopsy, splitting, etc.
- 8) Specific techniques as applied to alternative species (as required)
- 9) Biosecurity measures
- 10) Record keeping – Detailed records on dates of donor and recipient arrivals and departures, estrus synchronization, superovulation, embryo collection, and transfer, as indicated in the CFIA Embryo Export Approval Program (EEAP), which must be maintained for a period of not less than seven years.

PART IIIB – OPU SITE VISIT:

The applicant will be asked to demonstrate their facilities, equipment, and technical proficiency in the following applicable areas for the chosen species, and may include any of the following:

- 1) General working knowledge of reproductive physiology
- 2) Donor and recipient management
- 3) Superovulation, estrus synchronization, and follicular wave control
- 4) Embryo transfer procedures
- 5) Embryo handling and fresh IVF embryo staging/grading, necessary microscopic expertise in embryo searching, and identification; evaluation and classification of ova and embryos; embryo washing and treatments; the acceptable method of labeling containers, goblets, and canes; acceptable record keeping systems



- 6) OPU techniques to indicate a solid understanding of the required equipment and its specifications, including ultrasound machines with needle guides, aspiration needles, pumps, and warmed collection tubes.
 - i. Applicants should be able to correctly assemble and calibrate the system, ensuring proper connections, sterility, and temperature control
 - ii. Knowledge of aseptic techniques and sanitation is essential to prevent contamination, alongside the ability to apply appropriate aspiration pressures that balance efficient retrieval with protection of the oocytes
 - iii. Skill in ultrasound-guided aspiration techniques, including precise needle placement, systematic follicle puncture, and flushing, when necessary, is critical to maximize yield while minimizing patient risk
 - iv. Applicants must demonstrate familiarity with patient preparation, anesthesia protocols, and emergency management, as well as effective coordination with the embryology team to ensure the immediate and safe transfer of oocytes for further processing
- 7) COC handling, necessary microscopic expertise in searching, identification, evaluation, classification, shipping, labeling of ova containers, and record keeping systems
- 8) Embryo freezing and thawing methodology
- 9) Specialized techniques such as biopsy and splitting, etc.
- 10) Specific techniques as applied to alternative species (as required)
- 11) Biosecurity measures
- 12) Record keeping – Detailed records on dates of donor and recipient arrivals and departures, estrus synchronization, superovulation, OPU, embryo collection, and transfer, as indicated in the CFIA Embryo Export Approval Program (EEAP), which must be maintained for a period of not less than seven years.

PART IIIC – IVF LAB SUPERVISOR SITE VISIT:

The applicant will be asked to demonstrate their facilities, equipment, and technical proficiency in the following applicable areas for the chosen species, and may include any of the following:

- 1) General working knowledge of reproductive physiology
- 2) Donor and recipient management
- 3) Superovulation, estrus synchronization, and follicular wave control
- 4) Embryo transfer procedures
- 5) Embryo handling, necessary microscopic expertise in embryo searching, and identification; evaluation and classification of ova and embryos; embryo washing and treatments; the acceptable method of labeling containers, goblets, and canes; acceptable record keeping systems
- 6) OPU techniques to indicate a solid understanding of the required equipment and its specifications, including ultrasound machines with needle guides, aspiration needles, pumps, and warmed collection tubes.
 - i. Applicants should be able to correctly assemble and calibrate the system, ensuring proper connections, sterility, and temperature control
 - ii. Knowledge of aseptic techniques and sanitation is essential to prevent contamination, alongside the ability to apply appropriate aspiration pressures that balance efficient retrieval with protection of the oocytes
 - iii. Skill in ultrasound-guided aspiration techniques, including precise needle placement, systematic follicle puncture, and flushing, when necessary, is critical to maximize yield while minimizing patient risk
 - iv. Applicants must demonstrate familiarity with patient preparation, anesthesia protocols, and emergency management, as well as effective coordination with the embryology team to ensure the immediate and safe transfer of oocytes for further processing
- 7) COC handling, necessary microscopic expertise in searching, identification, evaluation, classification, shipping, labeling of ova containers, and record keeping systems

- 8) Embryo freezing and thawing methodology
- 9) Specialized techniques such as biopsy and splitting, etc
- 10) Specialized technique in semen thawing and handling
- 11) Specific techniques as applied to alternative species (as required)
- 12) Biosecurity measures
- 13) **Specific techniques as applied to an IVF lab (see Appendix II)**

PART IIID – SITE RE-VISIT:

In the event the outcome of the site visit is unsatisfactory, the following procedures may be followed:

- 1) After a one month waiting period, the applicant can apply for a site re-visit in writing to the Certification Committee through the Secretary-Manager.
- 2) If the applicant is approved for a site re-visit, the Certification Committee will appoint someone to administer the site re-visit. Normally, the same person who did the previous site visit will do the site re-visit.
- 3) All costs associated with the site re-visit will be paid by the applicant directly to the person conducting the site re-visit. Refer to Part X – Fees.

PART IV – RECERTIFICATION:

The period of Certification shall be for three years with an annual review (see below) by the Certification Committee. For re certification, the following will be required:

- 1) **Complete and submit an Application for Re-certification**
- 2) **The applicant must indicate all species and techniques they are applying for Re-certification. The Certification Committee will review embryo production statistics for each species/technique indicated to determine if site visits are required.**

NOTE: Practitioners who wish to be certified for additional techniques or species (for which they are not currently certified) must complete and submit an application (See Appendix IV, V and VI) along with the required information. A site visit will be required regardless of past certification.

- 3) **The applicant must meet the following criteria:**
 - a) **CE Requirements: *The CE requirement must be met for recertification; practitioners not meeting CE requirements will be de-certified and required to re-apply for Certification.***

The CE requirement can be fulfilled in one of two ways:

- i) Must attend at least two CETA/ACTE meetings in the three (3) years prior to recertification.

OR

- ii) Must have a minimum of 30 CE credits over the past three years, 10 of which must be a CETA/ACTE meeting. The CETA/ACTE, AETA, IETS, AETE, and SBTE meetings will normally equal 10 CE credits. All other scientific meetings will be evaluated based on materials submitted to the Certification Committee. In such cases, the applicant must provide the full program outline, including confirmation of attendance and which sessions they are claiming credit for, and the duration of each session. The Certification Committee will assign CE credits on a case-by-case basis, and the applicant will be informed if the total is insufficient. Continuing education involving reproduction/embryo technology is acceptable provided the title of the presentation is clearly indicative of such. The maximum CE credits given for each submitted program will be five. CE credits are not transferable to the next three-year term. Presentations given by the applicant will be accepted as CE on the same basis as for CE attended, provided the program has been CE approved (i.e., RACE or equivalent). Peer-reviewed publications as first or corresponding author will be accepted as CE and will be assigned 5 CE credits per publication. The total number of CE credits based on presentations and/or peer-reviewed publications accepted over a three-year term will be five.

b) Embryo Transfer Experience:

| RE-CERTIFICATION: SPECIES / TECHNIQUE / REQUIRED NUMBERS | SPECIAL NOTES |
|---|---|
| <p>IN VIVO EMBRYO COLLECTION AND PROCESSING</p> <p>Bovine species: A total of 300 viable embryos or 60 in vivo embryo collections over the past three calendar years (January 1 through December 31).</p> <p>Alternative species: (<i>small ruminant, porcine, and bison</i>) A total of 150 viable embryos or 30 in vivo embryo collections over the past three calendar years (January 1 through December 31).</p> <p>Equine species: A total of 23 viable embryos or 30 in vivo embryo collections over the past three calendar years (January 1 through December 31).</p> | <ul style="list-style-type: none"> Practitioners certified in a specific species and technique will require only 50% of the numbers for certification in additional species for in vivo or OPU techniques. IVF lab supervision is excluded from this provision. The Certification Committee may request additional details or documentation based on the collections and/or embryos reported. |
| <p>OPU AND OOCYTE PROCESSING</p> <p>Bovine species: A total of 600 COC or 60 OPU collections over the past three calendar years (January 1 through December 31).</p> <p>Alternative species (<i>small ruminants, porcine, bison</i>) A total of 300 COC or 30 OPU collections over the past three calendar years (January 1 through December 31).</p> <p>Equine species: A total of 120 COC or 30 OPU collections over the past three calendar years (January 1 through December 31).</p> | <ul style="list-style-type: none"> Practitioners certified for only OPU may use up to 50% of in vivo bovine embryo production to reach their minimum COC or OPU requirements. |
| <p>IVF LAB SUPERVISION</p> <p>A total of 600 IVP transferrable embryos produced in a lab under the applicant’s supervision over the past three calendar years (January 1 through December 31).</p> | <ul style="list-style-type: none"> Embryos must be produced in a lab while under the direct supervision of the practitioner applying for recertification. |
| <ul style="list-style-type: none"> ▶ Applicants who have processed less than the required numbers, but more than half, as described in the above table, in their 3-year term, will require a site visit (Part III). ▶ Applicants who have completed less than half of the required numbers, as described in the above table, in their 3-year term may: <ul style="list-style-type: none"> • Lose their certification and have to reapply, subject to the discretion of the Board of Directors • Be required to rewrite the certification exam and/or complete a site visit, subject to the discretion of the Board of Directors • Note: Applicants with embryos in storage for export may apply for limited certification to maintain export approved status, subject to the discretion of the Board of Directors | |

4. **LIMITED CERTIFICATION:** A certified practitioner may apply for limited certification for the purpose of maintaining an export inventory after the practitioner no longer qualifies for full certification. The period will extend for 3 years after the end of the last cycle of full certification. The practitioner must maintain their veterinary license, CFIA accreditation, and be a full member of CETA/ACTE, subject to annual review by the Certification Committee. Embryo and OPU numbers and CE hours do not need to be maintained.

NOTE: Practitioners holding Limited Certification are not eligible to collect/process new embryos for export.

To apply for Limited Certification please write to the CETA/ACTE office explaining the specific circumstances for doing so.

PART V – ANNUAL REVIEW:

The Annual Review will include the following, which must be submitted to the Secretary-Manager of CETA/ACTE by May 01 each year.

- 1) Proof of CETA/ACTE membership.
- 2) Statistical information for the past calendar year (January 1 through December 31).
- 3) Continuing Education – Submit CE credits as indicated under Part IV Re-Certification 3(a).
- 4) The Secretary-Manager will have registrars in all provinces where the certified practitioner conducts embryo transfer services write a letter to CETA/ACTE stating that the certified practitioner is a member in good standing and that they are not under disciplinary action by the Provincial Veterinary Medical Association. Furthermore, the certified practitioner must not be under disciplinary action by the Canadian Food Inspection Agency (CFIA).

5) **Certification for Additional Species or Techniques:** *(please refer to Appendices IV, V & VI)*

Practitioners applying for additional species and/or techniques must apply by June 30. A site visit will be required. To apply, complete and submit an application along with the required information. If the application must be considered at other times in the year, an extra fee will be charged (see Part X – Fees).

NOTE: *If applying for Certification for OPU, Additional species, or IVF Lab Supervision before the completion of the three-year term, the certification dates (three-year term) will not change. Therefore, the applicant will be certified for the additional species or technique only until the completion of their present term, at which time the applicant will need to apply for recertification for all applicable species and/or techniques.*

PART VI – LEAVE OF ABSENCE:

Upon written request, a Certified Practitioner who is a full member of CETA/ACTE, may request a Leave of Absence from Certification for a time period of one year without any penalty, providing the Practitioner maintains their membership with CETA/ACTE, and all other requirements for Certification other than COC/ embryo numbers.

NOTE: *Normally, a ‘Leave of Absence’ will be for one year; requests for extensions will be dealt with on a case-by-case basis.*

The procedure is as follows:

1. A written request (letter) is received from a Certified Practitioner requesting a ‘Leave of Absence’ from Certification.
2. The letter is forwarded to the Certification Committee for review and recommendation to the Board of Directors. The Certified Practitioner will be contacted with the Board of Directors’ decision and if approved:
 - a) The CETA/ACTE Board of Directors will send a letter to confirm Leave of Absence of a Certified Practitioner to the National Program Coordinator of the CFIA.

PART VII – COMPLAINTS:

CETA/ACTE Certified Practitioners are required to meet the standard of care, skill, knowledge, and conduct expected of a competent and ethical professional in every aspect of their practice.

Complaints against a CETA/ACTE Certified Practitioner must be brought to the attention of the Board of Directors in writing. The Board of Directors will consider the complaint and may take one or more of the following actions:

1. Recommend immediately that the complainant direct the complaint to the relevant Provincial Veterinary Medical Association or College of Veterinarians where it is to believe that the complaint might represent:
 - a) a possible contravention of a Veterinary Act;
 - b) professional misconduct;
 - c) conduct unbecoming a registrant;
 - d) an indictable offence;

- e) an offence relating to the care or treatment of animals;
 - f) competence to practice veterinary medicine;
 - g) a physical or mental ailment, an emotional disturbance or an addiction that may impair a registrant's ability to practise veterinary medicine.
2. Recommend that the complainant direct the complaint as stated in 1 (above) and to the Canadian Food Inspection Agency in the following situations:
- a) Concerns regarding the accuracy and integrity of export documentation;
 - b) Concerns regarding the accuracy and integrity of COC/embryo donor and or sire identification;
 - c) Concerns regarding possible violations of the Health of Animals Act.
3. Where a complaint does not, in the consideration of the Board of Directors, fall under 1 or 2 (above) the following procedures will be followed:
- a) A letter from the President of CETA/ACTE will be sent to the Certified Practitioner (by registered mail) informing him/her of the complaint and seeking further information or suggesting remedial action;
 - b) A written response to the complaint by the Certified Practitioner will be requested;
 - c) The practitioner's written response must be received at the CETA/ACTE office within 30 days from receipt of the registered letter.

*****Failure of the practitioner to respond as requested will result in immediate decertification. Re-certification will require successful completion of the certification exam and a successful site visit.***

The Board of Directors will consider the practitioner's response and make recommendations in the form of a registered letter:

- Require from the Certified Practitioner an undertaking to make change(s) to their practice consistent with the standards expected of a CETA/ACTE Certified Practitioner and/or
- Require the Certified Practitioner to successfully complete a site visit or
- Advise the Certified Practitioner that the matter will not be pursued further, or take any other decision available to the Certification Committee

PART VIII – DE-CERTIFICATION:

Certification may be withdrawn at any time by CETA/ACTE if the Certified Practitioner breaches any of the Certification requirements.

Practitioners who do not have a completed application for renewal (annual review or recertification and associated fees) in the CETA/ACTE office by May 01 will be assessed a \$250.00 penalty, and sent a reminder on May 15. Failure to complete the renewal by June 01 will result in automatic decertification. Such notice will be sent to CFIA for consideration relative to accreditation/approval. Decertification means that an Embryo Transfer Practitioner must reapply for Certification and complete the required processes.

PART IX – APPEALS PROCESS:

An Embryo Transfer Practitioner may appeal a decision made by the CETA/ACTE Board of Directors. A letter of appeal, stating the practitioner's case, must be delivered to the Secretary-Manager within thirty days of receiving notification of the Board of Directors' decision. The Secretary-Manager will submit copies of the letter of appeal and all information on which the Certification Committee's decision was based to the Board of Directors. The Board of Directors will review the application for appeal and all associated documentation and will respond to the applicant with a decision within thirty days.



PART X – FEES:

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|--|---|
| a) Initial certification Fee (CETA/ACTE members) | \$1000 per exam plus site visit costs |
| b) Recertification Fee (CETA/ACTE members) | \$200 +/- site visit costs |
| c) Certification Maintenance Fee (CETA/ACTE members) | \$500 per year |
| d) Site Visit or Site Re-Visit (CETA/ACTE members) | \$1000 per day honorarium plus expenses (travel & accommodations). Should the site visit include an additional technique on the same day, the honorarium will be increased by \$500. Should the site visit require an additional day, the honorarium will be increased by \$1000 per each additional day. |
| e) Cancellation Policy | If notification of cancellation is made more than 30 days before the scheduled written examination, the exam fee will be refunded; if less than 30 days, there will be no refund. |
| f) Certification for Additional Species and/or Technique (CETA/ACTE members) | No charge: If the application can be considered at the annual Certification Committee meeting (Application Deadline: June 30). \$ 350 per application: If the application must be considered at other times in the year. |
| g) Late Fee | \$250 per late submission Late submission of application for certification, recertification and certification annual review. |
| h) Supplemental Examination | \$300 plus expenses. |

Applications for Certification and Re-Certification will be processed on an annual basis. The CETA/ACTE Certification examination date will coincide with the Annual CETA/ACTE Meeting with applications to be received **no later than May 01** of that year. Late applications for Certification will be accepted up to June 30 and levied a \$250.00 penalty.

All fees must be paid before certification or recertification is granted to the applicant.

PART XI – NON CETA/ACTE MEMBERS:

Practitioners wishing to apply for certification and/or recertification as non-CETA/ACTE members may do so. All requirements that apply to CETA/ACTE members will apply to non-CETA/ACTE members. All applicable fees (initial certification, recertification, and certification maintenance) apply at double the fee charged to CETA/ACTE members.

PART XII – SUPPLEMENTAL EXAMINATION:

In the event the applicant fails the certification examination, the following procedures may be followed:

- 1) After a one month waiting period, the applicant can apply for a supplemental examination in writing to the Certification Committee through the Secretary-Manager.
- 2) Once approved by the Certification Committee, a mutually acceptable location and date for the re-examination will be set;
- 3) Two members of the Certification Committee will set and mark the exam. One member or designated CETA/ACTE Certified Practitioner will supervise;
- 4) All costs associated with the re-examination process will be paid by the applicant. Normally, the cost of the supplemental examination will be \$300.00 plus expenses;
- 5) The applicant must complete the supplemental examination within two months after the one month waiting period.

PART XIII – CANADIAN FOOD INSPECTION AGENCY (CFIA):

Once the initial certification process has been completed successfully, CFIA will be informed by CETA/ACTE that all certification requirements have been met, and technique and/or species-specific certification has been granted. Each practitioner will be instructed to contact CFIA to set a time for inspection and approval by CFIA. Once approved by CFIA, the Certified Practitioner is entitled to export embryos.

NOTE: *Once certified and approved, it is mandatory to contact CFIA (and CETA/ACTE) of any changes that occur, e.g., change of address, telephone/fax, change of practice/job, change of IETS code, etc.*

PART XIV – DROPPING CERTIFICATION:

The CETA/ACTE Certified Practitioner must notify the CETA/ACTE office by letter or email, stating that they wish to drop their certification. The letter must include which techniques/species the practitioner wishes to drop certification for. The request will then be forwarded to the Certification Committee for review.

Once reviewed, a letter will be sent to the Certified Practitioner noting that the request has been approved and submitted to CFIA, and that their certification for the technique/species will be invalid as of May 01 of that year. If the certified practitioner notifies the CETA/ACTE office after May 01 but before June 01, certification will be invalid as of that date. Failure to pay certification fees by June 01 will result in automatic invalidation of certification. All decisions will be at the discretion of the Board of Directors.

NOTE:

- ▶ *Certification fees follow the CETA/ACTE fiscal year (May 01 to April 30), so that fees are paid for the upcoming year. Therefore, if a certified practitioner drops their certification, no certification fees are owed/refunded as the Certified Practitioner has paid fees for up to only April 30 of that year.*
- ▶ *Certification Certificate dates follow the calendar year (January 1 through December 31 of the year following payment of fees) to ensure that the Certified Practitioner always has a valid certification certificate available when visited by CFIA. However, if a Certified Practitioner drops their certification, the ending date on the certificate becomes invalid once CFIA is notified.*

"GRANDFATHER" CLAUSES:

- As of September 09, 1997 all Certified Practitioners are on a three-year term.
- As of July 01, 2004 CETA/ACTE Certification became species-specific and all Certified Practitioners were classified for individual species.
- As of February 09, 2018 CETA/ACTE Certification became technique-specific (in vivo-derived and OPU).
- Technique 'IVF Lab Supervision' was added on February 08, 2019.

IN CASE OF AN AMBIGUITY BETWEEN THE ENGLISH VERSION OF THE "CETA/ACTE CERTIFICATION STANDARDS" AND THE FRENCH TRANSLATION, THE ENGLISH VERSION SHALL GOVERN.

APPENDIX I: EXAMINATION CONTENT AND STUDY GUIDELINES

EXAMINATION CONTENT:

Part A

- ▶ **Embryo/COC Evaluation (20%):** The applicant must be knowledgeable in the areas of COC and/or embryo evaluation (embryo development, morphology, and classification). Embryo/COC evaluation will be based on the system outlined in the IETS Manual, 5th Edition.
- ▶ **Records and Labeling (10%):** Forms/certificates and labeling of straws, goblets, and canes will be according to guidelines set out in the IETS Manual, 5th Edition.

Part B

- ▶ **Regulatory (20%):** These questions will cover general sanitary procedures and health regulations for domestic and export embryo production and transfer.

Part C

- ▶ **General Knowledge (50%):** These questions will cover a working knowledge of reproductive physiology and endocrinology, folliculogenesis, superstimulation, donor and recipient management (including nutrition), estrus synchronization, factors affecting results, quality control procedures, embryo recovery, holding and freezing media, principles of embryo freezing and the present and future applications of new technologies in embryo transfer. General knowledge of OPU and IVF can be expected and may include basic techniques and lab procedures, including the principles behind them, and an understanding of the differences between in vivo-derived and in vitro-produced embryos.

STUDY GUIDELINES (Revised Dec 19, 2022)

Although the candidate is responsible for their own study plan, the following sources of information will be useful for the successful completion of the certification examination. However, candidates must understand that this is not an exhaustive list, and is not intended to suggest that other resources will not also be useful. Generally, recent proceedings from AETA & CETA/ACTE Joint Conventions, IETS, and other similar conferences are excellent sources of up-to-date information.

Part A

Embryo/COC Evaluation (20%)

- 1) CETA/ACTE 2013 Joint Convention – PowerPoint Presentation: “Practitioner’s forum: Embryo evaluation results”.
- 2) IETS Manual 5th Edition (on IETS web-site, 2023). Appendices 1, 2 and 3 – Photographic illustrations of embryo developmental stages and quality codes and COC evaluation.
- 3) CETA Session 2023 – Recording of Jennifer Barfield’s presentation: Updates to IVF Embryo Staging.

Records and Labeling (10%)

- 1) IETS Manual 5th Edition (on IETS web-site, 2023). Chapter 9 – Certification and identification of embryos.
- 2) CETA website – CETA Labeling guidelines and codes.

Part B

Regulatory (20%):

- 1) IETS Manual 5th Edition (on IETS web-site, 2023)
 - a. Chapter 3 – Potential for disease control or transmission by transfer of embryos produced in vitro: A review.
 - b. Volume 2; Chapter 1a – General sanitary procedures and considerations associated with in vivo-derived embryos.
 - c. Volume 2; Chapter 1b – General sanitary procedures associated with in vitro production of embryos.
 - d. Chapter 5 – Recommendations for the sanitary handling of oocytes and embryos.
- 2) CETA/ACTE Proceedings, 2007 – Cleaning and sterilization of equipment in ET and IVF. Techniques, times and recommendations.
- 3) CFIA Embryo Export Approval Program *implemented on June 1, 2013.*

Part C

General Knowledge (50%):

General references for these topics include embryo transfer workshop manuals, CETA/ACTE proceedings, IETS preconference seminars, Current Therapy in Large Animal Theriogenology (2007), and statistics of embryo production and transfer in domestic farm animals (IETS website). **It must be re-emphasized that the following list is not exclusive nor exhaustive.**

General

- 1) CETA/ACTE Proceedings, 2018. Embryo transfer 101 – A 2018 update.
- 2) CETA/ACTE Proceedings, 2022. Tips and tricks for a successful bovine embryo collection and transfer: Troubleshooting when things don't go as planned.
- 3) CETA/ACTE Proceedings, 2022. Sex-sorted semen: Use in AI, ET, and IVF.

Principles of Embryo Freezing

- 1) CETA/ACTE Proceedings, 2007. Embryo freezing 101 – The science and the methods.
- 2) CETA/ACTE Proceedings, 2010. Vitrification: Fundamental principles and its application for cryopreservation of reproductive biomaterial.
- 3) CETA/ACTE Proceedings, 2011. Principles of cryopreservation of mammalian embryos.

Reproductive Physiology and Endocrinology

- 1) CETA/ACTE Proceedings, 2011. Does size matter in females? An overview of the impact of the high variation in the ovarian reserve on ovarian function and fertility, utility of AMH as a diagnostic marker for fertility, and causes of variation in the ovarian reserve in cattle.
- 2) CETA/ACTE Proceedings, 2013. Role of progesterone in conceptus development and the establishment of pregnancy in cattle.
- 3) CETA/ACTE Proceedings, 2017. Timing and causes of physiological (non-disease related) pregnancy loss in lactating dairy cows and embryo recipients.

Donor and Recipient Management, Superovulation and Estrus Synchronization

- 1) CETA/ACTE Proceedings, 2008. Donor synchronization and superovulation protocols.
- 2) CETA/ACTE Proceedings, 2009. Superovulation programs in cattle.
- 3) CETA/ACTE Proceedings, 2011. Embryo transfer recipients: What works and what doesn't work?
- 4) CETA/ACTE Proceedings, 2013. Strategies for donor and recipient selection, treatment, and management.

Nutrition

- 1) CETA/ACTE Proceedings, 2012. The effect of nutrition on reproduction: Applications for ET donors and recipients.
- 2) CETA/ACTE Proceedings, 2015. Nutrition-reproduction interactions and developmental programming in recipient beef cattle.

OPU/IVF

- 1) CETA/ACTE Proceedings, 2019. The influence of embryo and recipient selection on bovine IVF embryo pregnancy outcome.
- 2) CETA/ACTE Proceedings, 2021. Strategies to simplify in vivo and in vitro embryo production in beef donors: Competing or complementary techniques?
- 3) CETA/ACTE Proceedings, 2021. OPU considerations in providing IVF services.
- 4) CETA/ACTE Proceedings, 2022. Evaluation of cumulus oocyte complexes and in vitro produced bovine embryos.
- 5) CETA/ACTE Proceedings 2023. Abnormal Calf Syndrome

APPENDIX II: IVP LAB SUPERVISOR – TRAINING AND KNOWLEDGE REQUIREMENTS

List of topics to demonstrate theoretical and technical proficiency:

- Design/layout of the IVF laboratory
- Choice of construction materials for the general laboratory and culture room
- Acquisition and maintenance of lab equipment, including freezers, incubators, laminar flow hoods, microscopes, and maintenance of associated records
- Staff: responsibilities, training, sustaining skills, and associated record keeping
- Storage room requirements for storing semen and embryos
- Quality control: Laboratory hygiene (environment and cleanliness, air quality, equipment, personnel) and embryo hygiene
- Quality assurance
- Recovery of COC from the aspiration medium
- Handling cumulus oocyte complexes
 - Tools, media, skills, labelling
- Evaluating the quality of cumulus oocyte complexes.
 - Grading COC based on the appearance of ooplasm and layers of cumulus cells
- In vitro maturation
 - Theory and practice of COC maturation, media, incubation conditions, evaluation of success rate, and troubleshooting
- Selection of viable spermatozoa
 - Methods (Percoll, Swim-up), media, cell count, calculation of fertilization dosage
- In vitro fertilization
 - Theory and practice of IVF, media, incubation conditions, evaluation of success rate, and troubleshooting
- In vitro culture
 - Theory and practice of IVC, media, incubation conditions, evaluation of cleavage, evaluation of embryo development, stage, quality, and troubleshooting
- Evaluation and cryopreservation of in vitro-produced embryos and labeling
- Principles of media preparation
 - Composition, osmolarity, filtering, stock solution, and dilutions
- Sample tracking (sperm and oocytes) data records and reporting
- Basics of microscopy
- Infectious disease control in an IVP system, biosecurity measures, risk factors, and how they might be mitigated, and diseases of concern in Canada
- Essential supplies for IVP
- Cleaning, sterilization (hot, cold, gas), and disposal of supplies

APPENDIX III: ACRONYMS, TERMS and DEFINITIONS

ACRONYMS:

| | |
|-----------|--|
| AABP | American Association of Bovine Practitioners |
| AETA | American Embryo Transfer Association |
| AETE | Association of Embryo Technology in Europe |
| CETA/ACTE | Canadian Embryo Transfer Association |
| IETS | International Embryo Technology Society |
| SATE | Argentine Embryo Technology Society |
| SBTE | Brazilian Embryo Technology Society |

TERMS & DEFINITIONS:

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|---|--|
| Annual review: | Certified embryo transfer practitioners must submit a record of their activities annually, including statistical information, to maintain their certification. |
| Breeder: | The person or firm that is the owner of record, on the records of the respective breed association, of a donor at the time of breeding for embryo transfer. Such person or firm will be identified as the "breeder" of the animal resulting from the transferred embryo. |
| Breed Registry Organization: | A breed association that maintains a herd book for recording genealogical records. Certificates of registration or certificates of identification are issued for animals that meet their respective requirements. |
| Canadian Food Inspection Agency (CFIA): | The Canadian government regulatory body responsible for health status and the import and export of semen and embryos. |
| CFIA Embryo Export Approval Program (EEAP): | Once the initial Certification process has been completed successfully, CFIA will be informed for approval. CFIA Approved Practitioners are subject to a minimum of two supervisory visits (audits) per year. |
| CETA/ACTE Certification Standards: | This document provides information and requirements for the certification of embryo transfer practitioners by CETA/ACTE. |
| Certified Embryo Transfer Practitioner: | A veterinarian practicing embryo transfer who has met each of the requirements set forth in the CETA/ACTE Certification Standards. |
| Certification Examination: | To acquire certification status, an embryo transfer practitioner must meet minimum standards and pass a written examination. |
| Continuing Education (CE): | Proof of attendance at one or more scientific meetings focusing on embryo transfer and/or reproduction. |
| CE Credits: | Normally, CE hours are referred to as CE Credits; 10 CE Credits are assigned for each CETA/ACTE meeting. A minimum of 30 CE Credits over a 3-year period or 20 CE Credits from CETA/ACTE meetings is required for recertification. |
| Cryopreservation: | The preservation of semen, gametes, or embryos to sub-zero temperatures using deep freezing protocols. |
| Cryoprotectant (Cryoprotective additive): | Permeating and nonpermeating chemical additives that are used to help abrogate the harmful effects of cryopreservation on biological specimens. |
| Cumulus-oocyte complex (COC): | The mass collected during oocyte collection for in vitro fertilization. Normally includes an immature oocyte and a surrounding mass of cumulus cells. |
| Decertification: | The loss of certification by a Certified Embryo Transfer Practitioner for the contravention of Certification standards. |



TERMS & DEFINITIONS:

| | |
|-----------------------------------|---|
| Direct Transfer: | The transfer of frozen-thawed embryos directly into the uterus of a recipient without the need to remove cryoprotective additives. |
| Divided Embryo: | An embryo that has been separated "in vitro" into two or more groups of cells. |
| Donor: | A female from which an embryo or gametes (male; sperm) are collected. |
| Embryo: | The earliest stages in the development of an individual; the stage begins at fertilization and ends with the development of organ systems. |
| Embryo Transfer: | The collection of embryos from a donor and transfer of embryos to a synchronous recipient; may include synchronization, superovulation, and cryopreservation. May be referred to as in vivo-derived embryos. |
| Embryo Transfer Practice: | An entity headed by a veterinarian, that processes, evaluates stage and quality, freezes, stores, thaws, transfers, and/or distributes embryos or oocytes as its principle business. |
| Embryo Transfer Practitioner: | A veterinarian, who collects oocytes or embryos from donors, processes, evaluates stage and quality, freezes, stores, thaws, and/or transfers embryos into recipients. |
| Embryo Transfer Team: | Members of a group who work together in the practice of embryo transfer. The embryo transfer practitioner is responsible for the conduct of the team members. |
| Experience: | Experience would be expected to involve the superovulation, collection, and processing of embryos/COC, which must include the evaluation and appropriate handling of COC for in vitro maturation or embryos for immediate transfer, or the evaluation of embryos and steps involved in the cryopreservation of embryos, in the species for which application is being made. The Direct Transfer of embryos previously evaluated would not contribute to the number of embryos that must be processed for purposes of certification. |
| In vitro Embryo Production (IVP): | The production of embryos utilizing in vitro techniques which may include OPU, IVM, IVF, or IVM followed by transfer or cryopreservation followed by transfer. |
| IVF Lab Supervisor: | A veterinarian with overall responsibility for all functions of an IVF lab, including but not limited to creating protocols, ensuring staff are trained, regular review of outcomes, maintaining an appropriate lab environment, and quality control. |
| Leave of Absence: | Certified Embryo Transfer Practitioners may take a 1-year leave, without penalty, providing specific criteria are met. |
| Limited Certification: | Certified embryo transfer practitioners may apply for limited certification for the purpose of maintaining an export inventory after the practitioner no longer qualifies for full certification. |
| Oocyte or Ovum: | The female gamete prior to fertilization. |
| Ovum Pick-up (OPU) | Transvaginal oocyte aspiration. |
| Provincial VMA: | The provincial regulatory body that administers the provincial veterinary act. |
| Recertification: | Certification is normally for 3 years, after which, a practitioner may apply for recertification provided they meet specified minimum criteria, including CE and numbers of collections and transfers. |
| Recipient: | A female into which an embryo is transferred and which is the host to the developing embryo and subsequent fetus during gestation. |
| Secretary-Manager: | An individual appointed by the Board of Directors who manages the CETA/ACTE office. |
| Site Visit: | A preplanned visit by a peer, upon the instructions of the Certification Committee, to evaluate the skills and knowledge of the practitioner in a practical setting. All practitioners acquiring certification and certified practitioners not performing sufficient numbers of collections and transfers to maintain certification require a site visit. |
| Species-specific Certification: | Normally, Certification of Embryo Transfer Practitioners is for the bovine species. However, practitioners may become certified for other species as well, provided they meet minimum requirements. |
| Superovulation: | The release of two or more oocytes from the ovaries of a monotocous female that was treated with hormones to induce multiple ovulations. |



APPENDIX IV: APPLICATION FOR CERTIFICATION FOR ADDITIONAL SPECIES

« FORM 6 »

APPLICATION for CERTIFICATION for ADDITIONAL SPECIES for IN VIVO EMBRYO COLLECTION AND PROCESSING

(For Practitioners who are currently certified for a species/technique.)

PRINT OR TYPE

NAME: FIRST MIDDLE INITIAL LAST DEGREES: COMPANY NAME: IETS Freeze Code: ADDRESS: TOWN: PROVINCE: POSTAL CODE: TELEPHONE: FAX: E-MAIL:

A. INDIVIDUAL DATA:

- 1. a) Please list all species that you are currently working with: b) Of the above list, please indicate the additional species for which you wish to be certified: 2. a) Number of years of embryo transfer experience for each additional species: b) Embryo transfer services provided: 3. Applicants' INDIVIDUAL DATA for the past three years. Please submit a completed form for each additional species for which you are applying for certification. NOTE: Please contact the CETA/ACTE office for the required data form(s).

B: REFERENCES

Please submit a list of five clients for each species for which you are applying for certification. Please include the following information: name, full address, telephone & fax number, email address, and species involvement. [See Certification Standards Part I, #5b].

I hereby apply for Certification for In Vivo Embryo Collection and Processing for (indicate species) by the Canadian Embryo Transfer Association (CETA/ACTE).

Date

Signature of Applicant



APPENDIX V: APPLICATION FOR CERTIFICATION FOR ADDITIONAL TECHNIQUE (OPU)

« FORM 7 »

APPLICATION for CERTIFICATION for OPU

(For Practitioners who are currently certified for a species/technique.)

PRINT OR TYPE

NAME: FIRST MIDDLE INITIAL LAST DEGREES:

COMPANY NAME: IETS Freeze Code:

ADDRESS:

TOWN: PROVINCE: POSTAL CODE:

TELEPHONE: FAX: E-MAIL:

A. INDIVIDUAL DATA:

1. a) Please list all species that you are currently working with:

2. a) Number of years of OPU experience:

b) Embryo transfer services provided:

3. Applicants INDIVIDUAL DATA for the past three years.

NOTE: Please contact the CETA/ACTE office for the required data form(s).

4. Please submit proof of OPU training.

B: REFERENCES

Please submit a list of five clients for each species for which you are applying for OPU certification. Please include the following information: name, full address, telephone & fax number, email address, and species involvement. [See Certification Standards Part I, #5b].

I hereby apply for Certification for OPU for (indicate species) _____ by the Canadian Embryo Transfer Association (CETA/ACTE).

Date

Signature of Applicant



APPENDIX VI: APPLICATION FOR CERTIFICATION FOR ADDITIONAL TECHNIQUE (IVF LAB SUPERVISION)

« FORM 8 »

APPLICATION for CERTIFICATION for IVF LAB SUPERVISION

(For Practitioners who are currently certified for a species/technique.)

PRINT OR TYPE

NAME: FIRST MIDDLE INITIAL LAST DEGREES:
COMPANY NAME: IETS Freeze Code:
ADDRESS:
TOWN: PROVINCE: POSTAL CODE:
TELEPHONE: FAX: E-MAIL:

A. INDIVIDUAL DATA:

1. a) Please list all techniques and species that you are currently working with:

Two horizontal lines for listing techniques and species.

2. a) Number of years of IVF LAB experience:

Two horizontal lines for entering years of experience.

b) Embryo transfer services provided:

Two horizontal lines for describing embryo transfer services.

3. Applicants INDIVIDUAL IVF DATA (produced in applicants lab) for the past three years.

NOTE: Please contact the CETA/ACTE office for the required data form(s).

4. Please submit proof of IVF LAB training, including the credentials/experience of the person providing training, declaration of any potential conflict of interest, and an outline of the topics/skills covered in the training (refer to Appendix II for a recommended list).

I hereby apply for Certification for IVF LAB SUPERVISION for (indicate species) _____ by the Canadian Embryo Transfer Association (CETA/ACTE).

Date

Signature of Applicant