
Alberta Agriculture and Forestry

**The Canada and Alberta Bovine
Spongiform Encephalopathy
Surveillance Program
(CABSESP)**

Manual for Interpretation and Guidelines for Certified
Veterinarians

Version 10.2*

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List of Abbreviations and Definitions

ABBREVIATIONS

AHAB	Animal Health and Assurance Branch
ABVMA	Alberta Veterinary Medical Association
ADRI	Animal Disease Research Institute, Lethbridge, AB
AF	Alberta Agriculture and Forestry
BSE	Bovine Spongiform Encephalopathy
CABSESP	Canada and Alberta BSE Surveillance Pilot Program
CFIA	Canadian Food Inspection Agency
IIS	Inspection and Investigation Section
OCPV	Office of the Chief Provincial Veterinarian
OIE	World Organization for Animal Health (Office International des Épizooties)
PM	Postmortem

DEFINITIONS

Application Form	The <i>General Information Form</i> and/or the <i>Non Submission Form</i>
Business Associates	Other veterinarians within the same practice or company
Close relatives	Spouse, children, brothers, sisters, parents
Certified Veterinarian	A veterinarian certified by AF for participating in the CABSESP
Eligible Applicant	An Applicant who meets the requirements of 3.1., as set in Schedule B, who has completed both the Canada and Alberta <i>General Information Form</i> and the <i>Agreement Form</i>
Eligible Cattle	Animals that meet the requirements of 3.2. of Schedule B of the Revised CABSESP Program Conditions
Eligible Sample	Eligible samples as set out in section 3.3. of Schedule B
General Information Form	Form used to submit Eligible Samples for BSE testing
Non-Submission Form	Form used to submit information from Non Eligible Samples
Schedule B	Section that defines the CABSESP Program Conditions
TSE Unit	Transmissible Spongiform Encephalopathy Unit. Unit that is in charge of receiving and processing the Application Forms in Edmonton

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Background

Since its start in 2004, the CABSESP has been a dynamic program that meets the international requirements for BSE surveillance and has been successfully delivered in conjunction with CFIA at the provincial level. In 2007, the OIE adopted a new point system to assess the risk of different countries on BSE. The CABSESP has been modified to reflect this point system and to maximize the number of points received from tested cattle.

The OIE point system rates cattle by age, clinical history, and risk category. Canada tests three of the four OIE surveillance streams: Fallen Stock (dead), Casualty Slaughter (diseased, distressed and downers) and Clinical Suspects (neurological cases). The age that provides the highest number of points ranges from 4 to 7 years, with lower points produced from 30 months to 4 years of age, and from 7 to 9 years of age. This because, based on the OIE risk analysis for BSE, animals 4 to 7 years of age are more likely to test positive and to develop clinical signs of BSE. On a per category basis, Fallen Stock (dead) provides the least number of points within the mentioned age ranges. Currently, the CABSESP is accepting animals 30 months or older (no upper limit in age), which fit in any of the five risk categories.

The CABSESP was re-designed to reflect international requirements and to make it more efficient and auditable. The CFIA and AF agreed to use the CABSESP as a Pilot Program in Alberta with continuous revisions. The changes to the CABSESP will ensure that the data collected satisfies the OIE requirements and ensures that the program can be effectively audited.

Applicants in Alberta need to meet requirements described in the national Schedule A for BSE surveillance, as well as those described in Schedule B CABSESP “Program Conditions”.

Objectives of this Manual

The intent of this document is to clarify roles and responsibilities of veterinarians participating in the CABSESP and to highlight the changes or updates in the program. Also, this manual describes processes and administrative procedures in the CABSESP.

This manual is a reference document to assist practitioners to correctly interpret and implement the Program Conditions of the CABSESP.

CABSESP guidelines

1) Certified Veterinarians: Roles and responsibilities

The Veterinary Certification Program was developed to ensure that all veterinarians participating in the program understand the Program Conditions and these are applied uniformly across the province.

- a) A veterinarian must be licensed in Alberta and attend a Certification Session to become certified under the CABSESP. To maintain an active certification status, veterinarians must attend periodic scheduled updates.
- b) The Certified Veterinarian represents both, the governments of Canada and Alberta when participating in the CABSESP.
- c) The Certified Veterinarian must attempt to determine the likelihood of the animal's eligibility BEFORE visiting the farm.
- d) When a physical examination is required to determine eligibility, the Certified Veterinarian should observe the overall condition of the herd to confirm whether the animal is eligible or not, and to rule out animal welfare and neglect.
- e) When assessing live animals for eligibility, the Certified Veterinarian determines the history, performs a clinical examination and provides a presumptive diagnosis prior to euthanizing the animal in a humane manner.
- f) In the case of dead animals, the Certified Veterinarian should obtain the history, perform a gross PM and provide a PM diagnosis, with the exceptions described in 4.I. of this Manual.
- g) The Certified Veterinarian verifies the age of the animal primarily reviewing farm records, tags and tattoos; or in absence of records, by dentition.
- h) The Certified Veterinarian must not assess or sample his own cattle, or cattle owned by the spouse, independently of the form of ownership (sole proprietorship, partnership or corporations in which one or both of them are shareholders). Certified veterinarians are allowed to assess and collect eligible cattle from relatives and business associates (see Definitions).

- i) By signing a BSE Application Form, a Certified Veterinarian becomes responsible *for the full content of that Application* and is responsible for the accuracy of the data collected and the criteria used to assess the animal's eligibility.
- j) By signing a BSE Application Form, the Certified Veterinarian fully acknowledges that he/she is bound by the Program Conditions for the CABSESP, and will follow the guidelines presented in this manual.
- k) In order to use funds efficiently, Certified Veterinarians are required to obtain approval from the CABSESP **before driving more than 100 km** (one way) to collect a sample. If more than this distance is claimed without approval, the payment will be adjusted.
 - i) If there is another certified veterinarian in the area, the collecting veterinarian is allowed to claim only up to 100 km for one way mileage.
 - ii) If there is no other certified veterinarian in the area, the collecting veterinarian must get pre-approval and will be paid for the total one-way mileage driven.
 - (1) If the sample is to be collected during a weekend, the collecting veterinarian may proceed and get approved on the next working day.
 - (2) Once approved the first time, subsequent visits to the same producer for purposes of the CABSESP will not require pre-approval.
- l) Regular audits may be conducted by the CABSESP to verify the information provided in the BSE Application Form.
- m) If a Certified Veterinarian is found guilty of breaching the Program Conditions, or his/her actions contravene this manual, the Minister may temporarily or permanently disqualify the Certified Veterinarian from participating in the CABSESP.
- n) The Certified Veterinarian and the clinic that employs him/her must permit complete disclosure of their files, records and other documents when required by CABSESP investigators.
- o) A Certified Veterinarian may be disqualified from the CABSESP if,
 - i) He/she collects ineligible samples and declares them as Eligible.
 - ii) He/she collects samples from cattle owned by him/her or owned by the spouse.
 - iii) He/she repeatedly makes professional mistakes and errors, and,

- iv) He/she repeatedly collects and submits potentially Eligible Samples without clinical information and/or a PM.
- v) He/she repeatedly submits ineligible samples, or samples collected from ineligible cattle and/or from cattle owned by ineligible producers.
- vi) If he/she claims false mileage and/or shipping fees
- vii) He/she breaches the Program Conditions in any manner.

2) Eligible Applicant

- a) The Eligible Applicant must be in lawful possession of Eligible Cattle. To confirm the lawful possession, veterinarians may request documents to support it, such as proof of sale, lease agreement, etc.
- b) An Eligible Applicant must not contravene the *Animal Protection Act* (APA) in terms of proper animal care, shelter and nutrition. The current Program Conditions give high priority to animal welfare to the point that, producers contravening the conditions of the APA or being investigated for animal welfare issues are not eligible. In general, when a producer directly or indirectly influences the death of an animal, then the producer and the animal are not eligible. An exception to this rule applies to cases when the producer euthanizes the animal without veterinary supervision in order to reduce suffering and pain, and the certified veterinarian has confidence that the animal is eligible under the Program Conditions.
- c) If an Applicant is suspect of/or is under investigation for animal welfare issues, then the CABSESP may request a farm visit by the Inspection and Investigation Section (IIS), or by an animal welfare organization. They will assess the situation and produce a series of recommendations to improve the situation. Following visits, either by AF through the IIS or by the animal welfare organizations, will monitor producer's compliance. If compliance is satisfactory then, he/she may regain eligibility for the program.
- d) If the Applicant fails to properly dispose of the carcass after receiving the test result, then he/she becomes ineligible for payment because of contravention of the Destruction and Disposal of Dead Animals Regulation (Alberta).

- e) Applicants who salvage a carcass for human consumption are not eligible for payment, but the sample may still be eligible for testing, if the animal meets one of the eligibility criteria.
- f) If in partnership, the Eligible Applicant must disclose to the CABSESP the name of the partner receiving the reimbursement for Eligible Samples collected from his cattle BEFORE submitting samples to the CABSESP. Only ONE name should be in the application.
- g) Regular audits may be conducted by the CABSESP to confirm the eligibility of producers and the accuracy of the data provided on the General Information Form and on the Non Submission Form.
- h) If an Eligible Applicant is found guilty of breaching the Program Conditions, the Minister may temporarily or permanently disqualify this producer from participating in the CABSESP. In general, an Applicant providing false statements on the *General Application Form* or on the *Non Submission Form* will become ineligible and may be subject to further disciplinary actions.

3) Eligible Cattle

A) Age Limit

- a) Animals must be 30 months of age and older to be eligible for BSE testing under the CABSESP. There is no upper age limit.
- b) Age verification: Cattle age must be verified using one of the following:
 - i) **Farm Records:** Individual animal identification (ear tags and tattoos), consistent with the rest of the herd and confirmed by farm records. Farm records that may be requested are: birth or calving records, purchase documents, or other records to verify the age of the animal, or ownership of the animal.
 - ii) **Dentition:** In the absence of farm records, ear tags, or tattoos to determine the age of an animal, age verification by dentition will be accepted for Eligible Cattle older than 30 months of age (See Appendix I).
 - (1) **Younger cattle:** Cattle must have at least three permanent incisors erupted (at least 30 months of age) and at least one permanent incisor still erupting

and not in contact with the upper dental pad (no more than five years of age). A *Full Mouth* (all eight permanent incisors) is complete at about 48 months. For the CABSESP, when both lateral (canine) incisors are in wear, the animal is to be considered 5 years of age, or older.

- (2) **Middle age cattle:** In animals 5 to 9 years old, age is determined by the leveling of permanent incisors, which starts with I₁ at about 6 years of age, followed by I₂, I₃ and I₄ at 7, 8 and 9 years of age respectively. In this age group, animals that don't have verifiable records of birth should still have all eight incisor teeth present, with at least a portion of the crown still visible on all eight teeth, to be considered younger than 107 months.
- (3) **Older Cattle:** Age determination in animals older than 107 months will be left at the veterinarian's discretion; dentition could be used as a reference. Animals with incomplete dentition, worn-to-the gum and separated teeth, or missing teeth could be considered as "*older than 107 months*". Other historical or anecdotal information could be used to have a closer estimate of the age.

- c) In questionable cases, it is recommended that the Certified Veterinarian take digital pictures for audit purposes. These pictures should remain in the clinic, identified with the corresponding ABSURV number.
- d) Ear tags, tattoos and year brands, which clearly define the year of birth, will be accepted.
- e) Veterinarians must use their judgment to determine if tags and tattoos are accurate enough to determine age, if they are consistent with those present in the rest of the herd and with the information provided by the producer. Professional judgment should also be used when dentition is incomplete due to trauma or to old age.

B) Target Animal Categories

The CABSESP tests 5 animal categories: Neurological, and 4-D: Diseased, Distressed, Down, and Dead. The following are descriptions of each category.

- a) **A neurological** animal for the CABSESP is a bovine animal older than 30 months displaying neurological signs in *at least one* of the three areas: locomotion, sensation, or mentation that a Certified Veterinarian could directly attribute to a Central Nervous System (CNS) cause.

- b) For an animal to qualify in the **Diseased** category, at least one of the following conditions must be met:
- i) The animal is considered unfit for human consumption and/or unfit for transportation. If an animal would likely pass the ante-mortem and post-mortem inspections, then it is not eligible for the program
 - ii) The animal is chronically ill and with progressive disturbance in at least one: locomotion, sensation, or mentation.
 - iii) The animals has not responded or is not likely to respond to therapy.
- c) Animals in the **Distressed** category are those acutely ill or injured that will not likely respond to therapy and require on-farm emergency slaughter
- d) **Downers:** The intent of the program is to accept all downers that have not responded or are not likely to respond to therapy, and that are not excluded from the CABSESP for any other reason. There is no waiting period after being down or post-calving for a cow to qualify for the program
- e) Cattle found **Dead** by any cause are eligible, unless made ineligible by 3.2.3. of the Program Conditions (Schedule B).

Specifics on cattle eligibility:

- i) **Cattle euthanized by the owner** will be accepted at the certified veterinarian's discretion. Owners may euthanize cattle for animal welfare reasons without prior veterinary inspection and the sample will be accepted if the veterinarian has confidence that the animal is eligible under the Program Conditions.
- ii) **Obstetrical conditions** are eligible for the CABSESP if they are not likely to respond to therapy and/or if the certified veterinarian recommends euthanasia of the animal.
- iii) **Post-surgical cases:** There is no waiting period for cattle that become sick, down or dead after surgery. They are eligible as long as they are not excluded for any reason under the CABSESP.
- iv) **Fractures, mastitis, bloat** on individual animals may qualify, unless made ineligible by 3.2.3 of the Program Conditions.
- v) Disease conditions, such as **ocular squamous cell carcinoma, infectious pododermatitis, actinomycosis** are eligible conditions, if the animal would be

deemed unfit for human consumption by the certified veterinarian and if the sample meets the eligibility criteria of the Program Conditions.

Ineligible conditions

- i) A restriction on eligibility has been placed on those herds in which the majority of cattle are undergoing loss of body condition as a result of direct or indirect human intervention, such as mismanagement, malnutrition, starvation or animal welfare issues. The entire herd and owner are not eligible under these circumstances. When an animal welfare case is suspected, veterinarians have the ethical obligation to report the situation to the Alberta SPCA. If a veterinarian thinks this may affect his/her client-veterinarian relationship, then he/she may report that case to the CABSESP manager, and the CABSESP will report it directly to the animal welfare authorities. The CABSESP will rely on the reports from the proper animal welfare organizations before deciding if that herd is eligible for the program (Appendix III).
- ii) Groups or numerous cattle (three or more animals) dying of obvious causes (e.g. electrocution, transport accident, drowning, etc.) or due to management-associated reasons in a particular herd over the course of a 30-day period (e.g. bloat, intoxications, etc.) are not eligible for the program.

A postmortem of dead cases is required unless the carcass is severely scavenged, decomposed and/or frozen. In these cases, the history of that animal should be documented and the sample must meet the eligibility criteria of the Program Conditions.

C. Rabies suspects and BSE suspects

Rabies Suspects are eligible to be considered under the CABSESP. If after performing an assessment the certified veterinarian is concerned that the clinical picture suggests rabies, the following steps are to be followed:

- a) The certified veterinarian must contact the Public Health Veterinarian (PHV) with Alberta Agriculture and Forestry (1-844-427-6847) to report the rabies suspect case as required by the provincial Animal Health Act and Regulations and to discuss further steps.
- b) If the PHV determines through his/her assessment that the animal is in fact a rabies suspect, the PHV will direct the private veterinarian on how to collect, package and submit brain samples (entire head or brain, including the obex), to the CFIA-Rabies

Laboratory in Lethbridge for rabies testing. Also, the PHV will conduct a risk assessment for possible rabies exposure in the farm.

- i) The PHV is responsible for filling in the rabies form that needs to be included with the sample.
 - ii) If BSE is also a rule-out under the CABSESP, the certified veterinarian may also request BSE testing through the CABSESP and communicate this to the PHV for inclusion with the brain for rabies testing.
 - iii) The Certified veterinarian must fill out the CABSESP General Information Form supporting BSE testing, and provide it for inclusion with the fresh rabies suspect sample. The sample won't be tested for BSE under the CABSESP without this form.
 - iv) The local CFIA district office must be contacted as well and they will complete an internal CFIA lab submission form for BSE sampling that must accompany the specimen as well.
- c) The CFIA Rabies Laboratory in Lethbridge will test for rabies first and, if negative, will test for BSE under the CABSESP program, using the CABSESP submission form.
 - d) The CABSESP will reimburse the producer for his/her participation in the program.
 - e) The certified veterinarian will be paid by the CABSESP as if the sample was collected by him/her, excluding any shipping fees.
 - f) In the event of not being determined a Rabies suspect:
 - i) The certified veterinarian will proceed with sample collection (brainstem) and submission as usual.
 - ii) The CABSESP will reimburse the producer for his/her participation in the program.

BSE suspects, as defined by the CFIA, are bovines of 24 months of age or older exhibiting at least three (3) of the following signs upon clinical examination:

- Nervous, aggressive or apprehensive behaviour
- Abnormal head carriage and/or abnormal posture
- Lack of coordination (ataxic) or difficulty in turning or rising from a lying position
- Poor body condition and/or showing a decrease in production
- Hesitation at doors, gates, or barriers
- Increased sensitivity to touch, sounds or light stimuli (Hyperesthesia)
- Muscle tremors or trembling.

All BSE suspects must be reported to the CFIA.

- a) BSE suspects must be reported to the nearest CFIA District Veterinarian.
- b) If the CFIA District Veterinarian determines through his/her assessment that the animal is in fact a BSE suspect, CFIA will collect, package and submit samples (obex), to the CFIA-BSE Laboratory in Lethbridge for BSE testing under the national BSE surveillance program.
- c) Certified Veterinarians will be paid by the CABSESP for the farm visit plus mileage using a Non-Submission form.

4) Eligible samples

An eligible sample is the brainstem of Eligible Cattle that:

- a) Is collected by a Certified Veterinarian using a collection kit provided by the Minister and is properly identified, and
- b) at collection and delivery, maintains its morphology, and does not exhibit an advanced degree of decomposition.

The Certified Veterinarian must make an effort to collect the right tissue (brainstem including the obex), in the best condition avoiding tissue damage and before decomposition makes the sample unfit for testing (See Appendix II). The Certified Veterinarian at the farm determines the eligibility of a sample: Is the brainstem identifiable and the obex recognized? If not, the sample is not eligible and the producer should be informed. Do not send this sample to the lab. It must be discarded. A Non Submission Form should be filled out and sent to AF to reimburse the veterinarian.

- a) Autolyzed samples with no morphological landmarks arriving at the lab will be declared unfit for testing and the Applicant will not be reimbursed. Repeated situations involving the same veterinarian will be investigated.
- b) Moderately damaged or autolyzed samples with the obex missing/not identifiable/intact will be tested depending on the clinical information recorded on the submission form (e.g. presence of neurological signs?)
- c) Samples delayed by the courier will qualify payments to both, the Certified Veterinarian and the Applicant.

- d) The Certified Veterinarian must submit samples to the laboratory within two (2) days of collection during spring/summer/fall and within seven (7) days during winter.
- e) The Certified Veterinarian must communicate the BSE test results to the Applicant within 24 hours of receiving the negative test results from the laboratory.

5) CFIA Inspectors and Animal Health Technologists

As of July 1st, 2008, only Certified Veterinarians are allowed to assess and collect on farm samples for the CABSESP. This step was taken as a result of the new requirements for a clinical exam and a postmortem, which restrict unlicensed individuals from participating in the program. Starting May 2012, CFIA Inspectors are collecting samples at rendering sites.

- a) If for some reason, a Certified Veterinarian is not available for a farm visit, he/she should delegate, in a timely manner, the case to an available Certified Veterinarian.
- b) If emergency slaughter is required, it should be performed on farm.
- c) Licensed Animal Health Technologists (AHT) are allowed to collect BSE samples only AFTER the Certified Veterinarian supervising them has assessed the animal and found it eligible.
- d) Starting April 2016, AHT working under the supervision of a Certified Veterinarian are allowed to collect samples without prior veterinary assessment from **dead animals only**. The AHT must perform the postmortem dissection, fill out the submission form and collect pertinent information (including digital pictures) to allow the Certified Veterinarian to make a PM diagnosis.

The Certified Veterinarian will sign the Application Form and accept all responsibility associated with the submission. Digital pictures must be retained by the Certified Veterinarian and added to the clinical records.

6) Program Conditions: Schedule A (Federal) and Schedule B (Provincial)

The CABSESP conditions are compiled in a major document called the "Schedule B: Program Conditions". This document is revised and updated periodically. Schedule A corresponds to the conditions for the National BSE surveillance program, as directed by CFIA.

To become eligible for payment an Applicant must meet the requirements for both schedules, but will be paid based on the conditions described on Schedule B (CABSESP) only. This is captured in point # 5 of the Declaration of the Applicant within the Agreement Form section of the General Information Form.

7) Application Forms

The CABSESP conditions as presented in Schedule B “Program Conditions” are reflected on the BSE Application Form:

- a) Application Form: This form is used when the Certified Veterinarian has determined that an Eligible Applicant presents an Eligible Animal and an Eligible Sample has been collected. This form has two components:
 - i) The *General Information Form* (2 pages) collects information from the Applicant, Certified Veterinarian and clinic, Submission, and Eligible Cattle. This section also captures the clinical information, which has been classified in three parts:
 - (1) Clinical History, with checkboxes for affected body systems to facilitate recording, and a Herd Observations section to collect the information at the herd level.
 - (2) Live cattle, for the clinical examination results and the Presumptive Clinical Diagnosis, and,
 - (3) Dead cattle, where a description of the postmortem findings and a postmortem diagnosis are required (see exceptions 4. I.).
 - ii) The Agreement Form (2 pages) contains
 - (1) The legal disclaimers and the signatures of both: the Applicant and the Certified Veterinarian.
 - (2) Two detachable invoice stubs: one for each the Certified Veterinarian and the Applicant.
- b) *Non Submission Form*: This form has been specifically designed to be used by the Certified Veterinarian who visits a farm and finds the animal or the sample ineligible for testing. This form will have a unique number. Also, this form will NOT trigger a payment for the Applicant, but requires their signature to verify that the Certified Veterinarian visited the farm. The Certified Veterinarian will be paid when this form is provided to the TSE Unit.

To trigger a payment to either the Applicant, or to the Certified Veterinarian, the Application must be fully and accurately completed and signed.

8) Payments/Ordering BSE kits/Shipping Samples

One of the major changes after July 1st, 2008 was the **elimination of the invoicing process** by veterinary clinics. The system now triggers payment directly from the BSE Application Form. Reimbursements to both the Applicant and the Certified Veterinarian **will be withheld until the signatures or missing information is provided** to the TSE Unit in Edmonton.

Payment to veterinarians proceeds as follows:

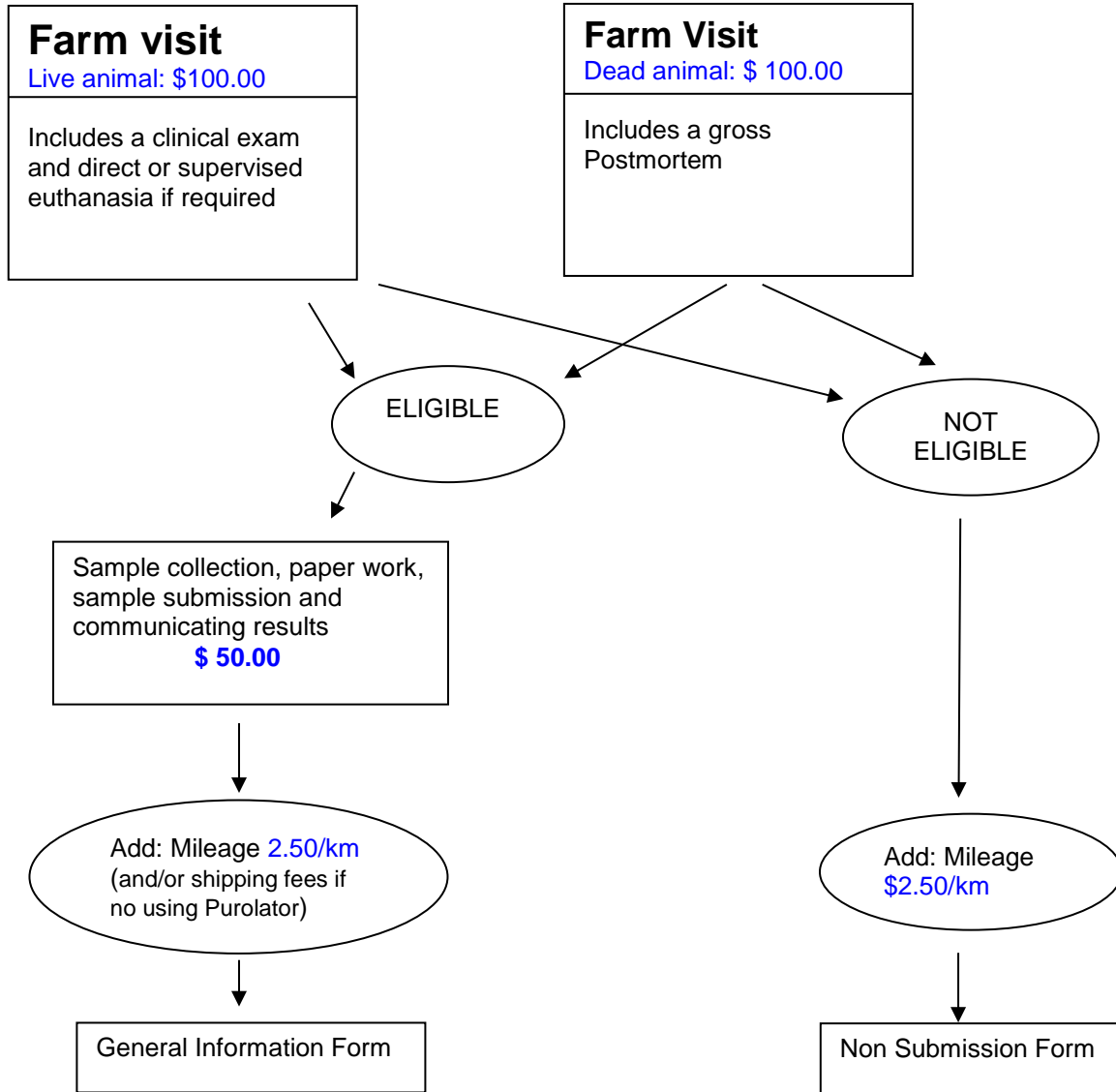
- a) Payment for a farm visit, including a clinical exam and a postmortem: \$100.00, whether a sample was collected or not.
- b) Payment for sample collection and paperwork: \$50.00
- c) Mileage: \$2.50/km (one way). Mileage claims of over 100 km will not be reimbursed without prior approval by the CABSESP.

Ordering BSE kits and shipping BSE samples:

- a) The Western Drug Distribution Centre (WDDC) distributes the BSE collection kits.
- b) Purolator picks-up and delivers samples from the clinic to the TSE laboratory. The BSE collection kits contain two (2) Purolator shipping labels to be used to ship the kits back to the appropriate TSE laboratory in Alberta (See: Collection / Packaging / Shipping section of this manual).
- c) Veterinary clinics having a timely and reliable Purolator service should not include shipping fees on the application form.
- d) Those veterinary clinics not consistently serviced by Purolator, or wishing to use other courier service please contact the TSE Administration Unit at 780-427-8236.
- e) If you intend to send multiple samples at the same time, please consolidate the shipment and apply only one label to the outside of the shipment.

Payment for both the Applicant and the Certified Veterinarian depends on completeness of the Application Form and on the correct interpretation of the Schedule B “Program Conditions” and the Manual for Interpretation and Guidelines for Veterinarians

Payment to Certified Veterinarians



Flow diagram to illustrate payments to Certified Veterinarians

9) Payment to Eligible Applicants

Eligible Applicants are reimbursed for allowing the examination and sampling of an eligible animal, for providing clinical history, supplying records for verification of information, maintaining the security of the carcass and all portions, and for maintaining the CABSESP identification tags affixed to it, until notified by the Certified Veterinarian of a negative test result.

The reimbursement to Applicants (producers) is \$75.00 per sample to compensate for the costs associated with participating in the program.

Situations where payment may or may not proceed

The following are scenarios that may be encountered:

- a) A Certified Veterinarian visits the farm, assesses the animal for eligibility, collects and submits an Eligible Sample:
 - i) The Certified Veterinarian is eligible for full payment (visit + sample collection + mileage)
 - ii) The Applicant is eligible for payment
- b) A Certified Veterinarian visits the farm, examines the animal (when alive), determines that the animal is likely to respond to therapy and therapy is initiated.
 - i) This *First visit* is paid by the producer.
 - ii) If therapy fails, the animal becomes eligible and the Second visit, together with sample collection is paid by the CABSESP.
- c) A Certified Veterinarian visits the farm, assesses the animal (dead or alive) and/or sample for eligibility, finds it not eligible, and does not collect any sample.
 - i) The Certified Veterinarian is paid for the farm visit + mileage (must submit a Non Submission Form).
 - ii) The Applicant is not eligible for payment
- d) A Certified Veterinarian visits the farm, wrongly assesses for eligibility, collects a sample and provides wrong or false mileage and shipping fees.
 - i) These cases will be analyzed on a case-by-case basis by the CABSESP
 - ii) Partial or total fees may not be paid to the Certified Veterinarian and/or to the Applicant
 - iii) Other corrective actions may be taken

- e) Situations when the eligibility of the animal, producer or sample is under investigation will result in a hold on payments to the Applicant and/or the Certified Veterinarian pending the outcome.
 - i) The producer will not be paid if the animal/producer/sample, are not eligible
 - ii) In the case of repeated infractions by a particular veterinarian, payment for those samples may be partially or totally rejected, as per decision of the CABSESP
- f) Mileage and shipping fees
 - i) If the sample is delivered via a different courier service than the one approved by the CABSESP, then a maximum of \$25 will be paid to the clinic for delivery of that particular sample.
 - ii) Veterinarians charging more than 100 km without prior approval may only be paid up to a maximum of 100 km.

Eligibility of samples and payments

Samples are to be stored in the clinic no longer than 3 days during spring, summer, fall, and no longer than one week (7 days) during wintertime.

The following are the scenarios that may occur in terms of eligibility of the samples

- a) Samples stored for periods longer than those recommended
 - i) Certified Veterinarian and Applicant may not be paid
- b) Eligible samples that are lost on the farm for any reason
 - i) The Applicant is not eligible for payment
 - ii) The Certified Veterinarian may be eligible for visit + mileage on a case by case basis
- c) Eligible samples that are lost while being stored in the veterinary clinic before delivery to the TSE laboratory
 - i) The Applicant may be eligible for payment
 - ii) The Certified Veterinarian may be eligible for visit + mileage on a case by case basis
- d) Eligible samples that are lost after being delivered to the TSE laboratory
 - i) The Applicant is eligible for payment
 - ii) The Certified Veterinarian is eligible for visit + mileage

- e) Eligible samples that were in good morphological condition at collection, but arrive in complete state of autolysis to the laboratory, or are non-testable for any reasons (See Appendix II)
- i) Will be considered on a case-by-case basis
 - ii) First time occurrence: payment will proceed to producer
 - iii) First time occurrence: veterinarian will be paid in full
 - iv) Repeated occurrences associated with a particular clinic/veterinarian: Payment may be restricted to
 - (1) Certified Veterinarian's visit + mileage
 - (2) No payments to the Certified Veterinarian and other corrective actions

The Role of the Inspection and Investigation Section of Alberta Agriculture and Forestry on the CABSESP

The Inspection and Investigation Section (IIS) is part of the Animal Health and Assurance Branch and is responsible for inspection activities as required pursuant to the legislation. The OCPV and the administration of the CABSESP authorize IIS to investigate as required to ensure compliance with the CABSESP Program Conditions, and to ensure that Certified Veterinarians follow the requirements described in the Manual for Interpretation and Guidelines for Veterinarians.

The CABSESP, working through IIS investigators, may at its discretion conduct quality control audits or investigations to ensure adherence to the CABSESP Program Conditions. These investigations may include, but are not limited to situations identified in:

- **Eligibility of the Applicant, cattle and samples**
- **Roles and Responsibilities of Veterinarians**
- **Animal welfare investigations affecting Applicant's eligibility**
- **Situations where payment may or may not proceed**

By signing the Application Form, the Certified Veterinarian consents to the Minister, through IIS investigators, to release any information contained in the Application Form, or related to it, and obtained by the Minister in the course of verifying or auditing the Application to any other government department, agency or other body for the purposes of verifying the Application,

determining the Applicant's eligibility for other related programs, or both. The Certified Veterinarian expressly authorizes the Minister to obtain information from any government department, agency or other body to verify the contents of the Application.

The Certified Veterinarian shall make available to the Minister all business or professional records, books of account and income tax returns necessary to audit or verify any information provided in an Application.

The Certified Veterinarian shall provide additional information related to the Eligible Applicant, Eligible Cattle, or any other matters contemplated by the Program that the Minister might require for the purpose of administering the Program. The Certified Veterinarian shall release any information to the Minister relating to the Certified Veterinarian's business or professional operation from and to any government department, agency or corporation, for the purpose of verifying information submitted under the CABSESP, or other provincial or federal programs.

The Role of the Animal Welfare Organizations of Alberta in the CABSESP

When animal welfare infractions are suspected, the Certified Veterinarian should contact the Alberta Society for the Prevention of Cruelty to Animals (SPCA). If the Certified Veterinarian believes this will jeopardize his/her veterinary-client relationship, he/she should communicate suspected cases of animal welfare to the CABSESP. We will require a field investigation and the eligibility of the Applicant and/or the samples collected will depend on the resulting reports.

Please do not hesitate to contact the Alberta SPCA at 1-800-455-9003

APPENDIX I

Guidelines for Age Verification in Cattle¹

The CABSESP accepts eligible cattle from 30 months of age and older. The preferred method of determining age is by farm records, ear tags (farm tags, CCIA² tags, RFID³ tags), tattoos, or other verifiable means. However, since this is not possible in all herds, in Alberta the CABSESP allows veterinarians more flexibility in determining the age of cattle presented for sampling by using dentition as an estimate for cattle reported to be between the ages of 30 and 107 months. Animals with incomplete, worn to the gum and spaces between dentition are to be considered as older than 107 months.

Age determination by examination of the permanent erupted incisors is a fairly reliable indication of age from 30 up to 48-60 months, when the permanent dentition is complete (Fig 1). After this period, the rate of wear provides a more useful criterion for age estimation.

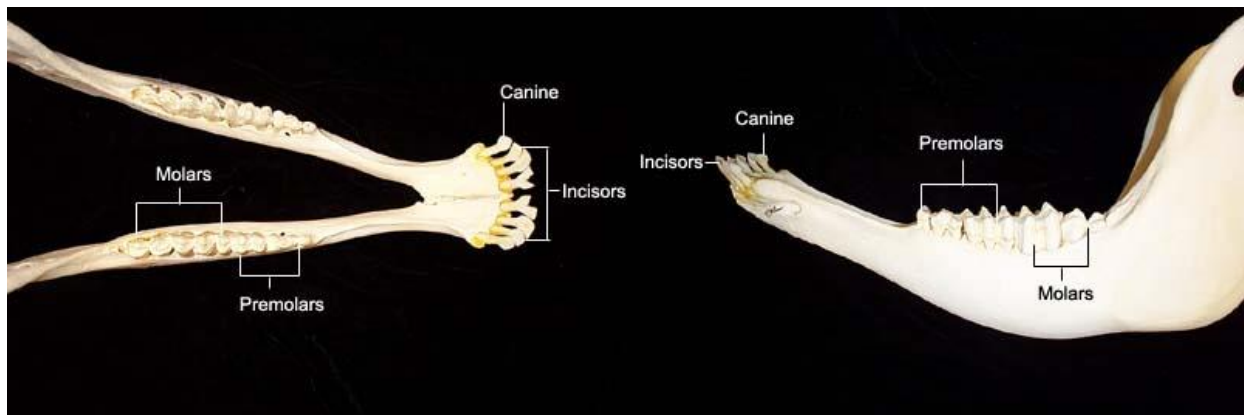


Fig 1. Dorsal and lateral views of the lower mandible of a bovine showing the permanent dentition of an adult (Taken with permission from vetmedicine.about.com).

The rate of wear depends on genetics, diet, soil conditions, and other factors such as the presence or absence of minerals in the diet. Wear converts the cutting edge into a gradually broadening flat surface. The lingual edge of this surface originally has a sharply uneven surface that becomes smooth when the tooth is worn down. Exposure of the root coincides with this flattening of the crown.

In all cases, age determination by dentition provides an approximation of the real age of an animal.

¹ Produced by Dr. Hernan Ortegon, Alberta Agriculture and Forestry, Edmonton, Last review: February 2013.

² Canadian Cattle Identification Agency

³ Radio frequency identification

Tooth anatomy

In ruminants the tooth is comprised of two different parts: the *crown*, which is the exposed part of the tooth, and the *root*, which is inserted in the alveolus and represents proportionally most of the body of the tooth. The outer layer of the root is covered by cementum, while the crown is covered by enamel, which provides extra strength and resistance to the tooth. The enamel covers the dentin, a bone-like material, and makes up most of the tooth. The pulp is the most internal structure and is a complex organ composed of connective tissue, blood vessels, and nerve axons (Fig 2). There are three different surfaces in the tooth: the lingual (medial), the labial (lateral) and the occlusal, or the cutting edge surface.

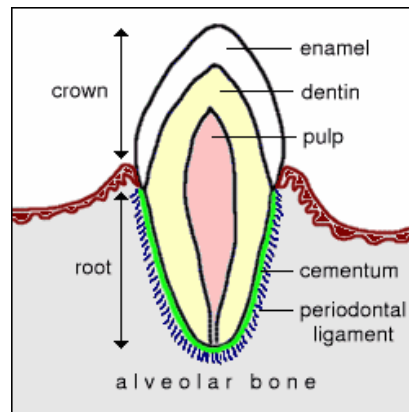


Fig 2. Anatomy of a tooth (Taken with permission from vetmedicine.about.com)

Calves

At birth, calves have their two deciduous (temporary) medial incisors. By two weeks of age, all eight deciduous incisors have erupted. By one year of age, all the deciduous incisors are in place and will show evidence of wear (Fig 3 and 4).

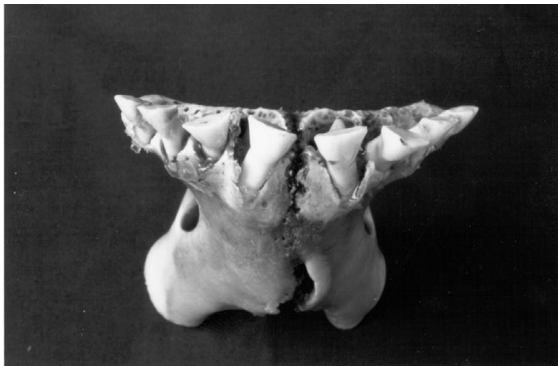


Fig 3. Deciduous incisors teeth (frontal view)



Fig 4. Complete set of deciduous incisors at one year of age (caudo-dorsal view).

(Taken from "A comparison of the USDA ossification-based maturity system..." T. E. Lawrence et al, 2001).

Steers and Heifers from one (1) to two (2) years

After one year of age, cattle are aged according to whether or not, their permanent incisors have erupted and, whether or not, they have come into wear. The eruption of the two medial permanent incisors (I_1), when the third permanent incisor is NOT above the gum line (not erupted), is an indication that the animal is between one and two years of age (or less than 30 months). By two years of age, they are in full wear (Figures 5 and 6).

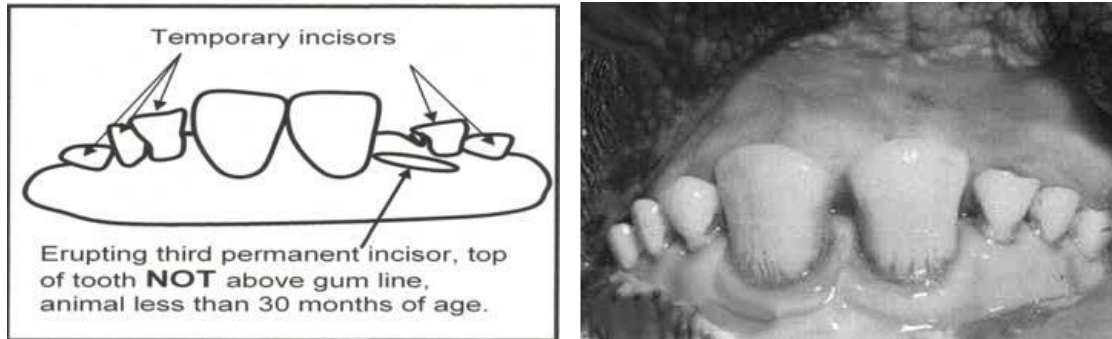


Fig 5 and 6. The two permanent medial incisors have erupted indicating that the animal is younger than 30 months old (or between one and two years of age).

Other parameters:

- 15 months - Medial permanent incisors appear.
- 18 months - Medial permanent incisors showing some wear.

Pre-calving from two (2) to three (3) years

By two years, the second set of permanent incisors (I_2) has started to erupt. For the purposes of the CABSESP, **cattle are considered to be over 30 months of age, if at least one of the second set of permanent incisors has erupted and is halfway** (Fig 7 and 8).

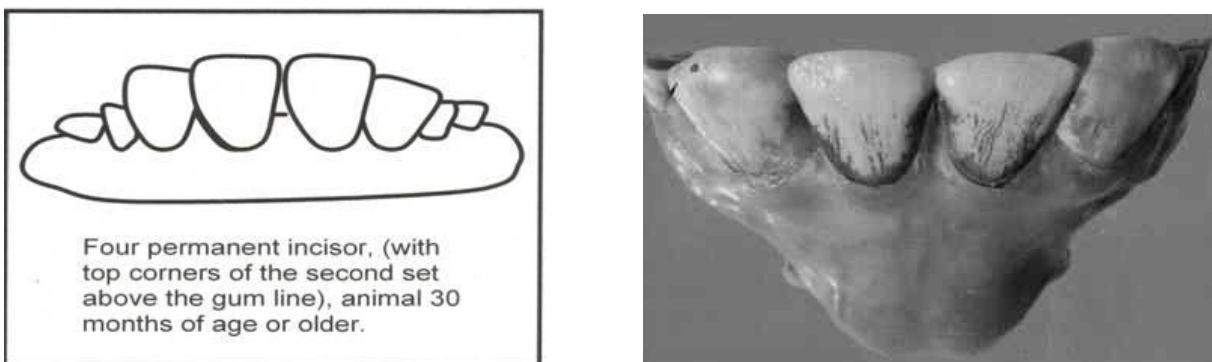


Fig 7 and 8. Frontal view of the four permanent incisors in bovine 30 months or older.

Adult cattle from three (3) to four (4) years

From 36 to 39 months, the lateral permanent incisors (I_3) erupt and by 42-48 months, the corner incisors (I_4) (also called canine teeth) erupt presenting a total of eight permanent incisors (Fig 9 and 10). The guidelines for the CABSESP specify that, when both corner incisors (canines) are in wear, the animal is considered to be five (5) years of age, or older.

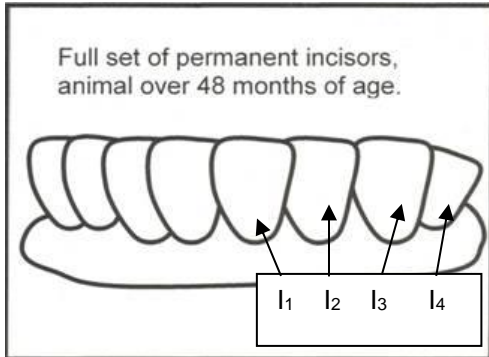


Fig 9. A "full mouth": complete set of permanent incisors indicating that the age of the animal is over 48 months.

Fig 10. Caudo-dorsal view showing wear of the eight permanent incisors, indicating that the animal is considered to be over 5 years of age. (Taken from "A comparison of the USDA ossification-based maturity system..." T. E. Lawrence et al, 2001).

Adult cattle from five (5) to six (6) years

Teeth development is quite complete from five to six years. At that time, the border of the incisors has been worn away, a little below the level of the grinders (molars). The occlusal surface of incisor one (I_1) begins to level (Fig 11).



Fig 11. Dentition of five to six year old cattle. The occlusal surface of I_1 begins to level.

Adult cattle from six (6) to seven (7) years

At six years, the first molars are beginning to wear, and are on a level with the incisors. The lingual surface and the cutting edge of the I_1 level making a broad masticatory surface (Fig 12 and 13).

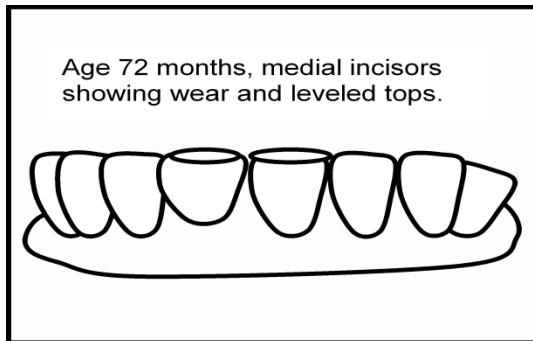


Fig 12 and 13. Dentition on six to seven year old cattle: I_1 is leveled and gum retraction becomes apparent.

Adult cattle from seven (7) to (8) years

From seven to eight years, the lingual surface and cutting edge of the I_2 broaden and level with I_1 (Fig 14).

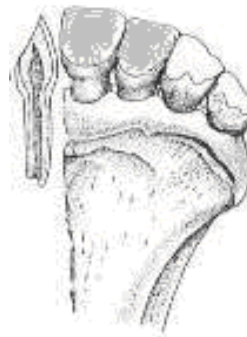
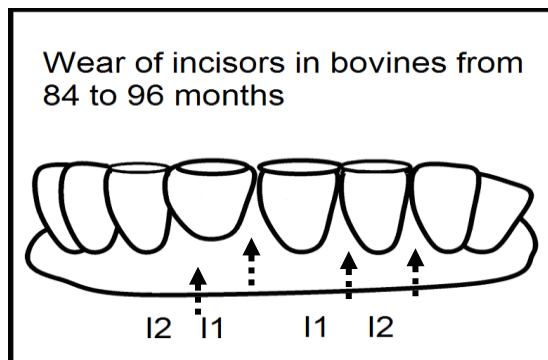


Fig 14. Illustrations (left, frontal view; right, caudo-dorsal view of half lower mandible) of a seven to eight year old bovine showing that the masticatory surfaces of I_1 and I_2 are flat, broaden and "level". (Right figure taken with permission from "Textbook of Veterinary Anatomy" by Dyce, Sack and Wensing, 2002)

Adult cattle from eight (8) to nine (9) years

At eight years, the lingual surface and cutting edge of I_3 broaden and becomes leveled with I_1 and I_2 . At this age, the wear of the first grinders is very apparent, and the neck of I_1 is clearly visible (Fig 15). The retraction of the gum initially exposes the roots of the medial incisors (I_1).

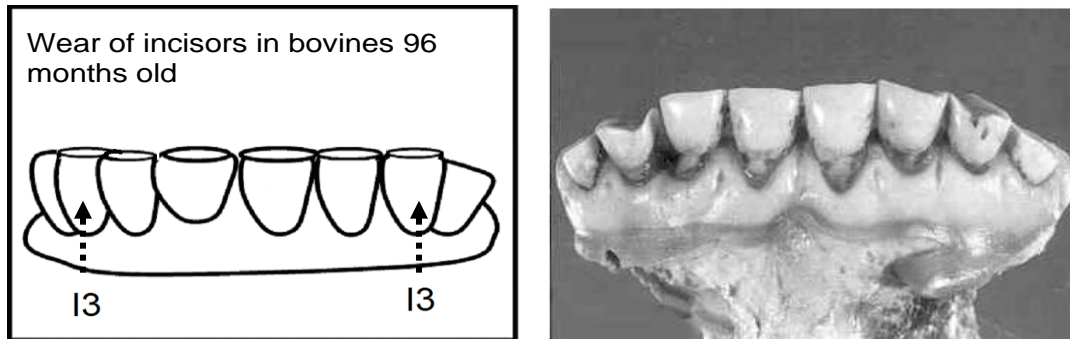


Fig 15. Frontal view of the dentition of an approximately eight-year old bovine. The illustration on the left shows that I_3 becomes leveled, while the picture in the right shows that, at this age, an increased retraction of the gums is observed.

At nine years, the lingual surface and cutting edge of I_4 (canine) broaden and becomes leveled with the incisors (I_1 , I_2 and I_3). More retraction of the gum exposes even more the roots of the medial and intermediate incisors, creating space between the teeth (Fig 16).

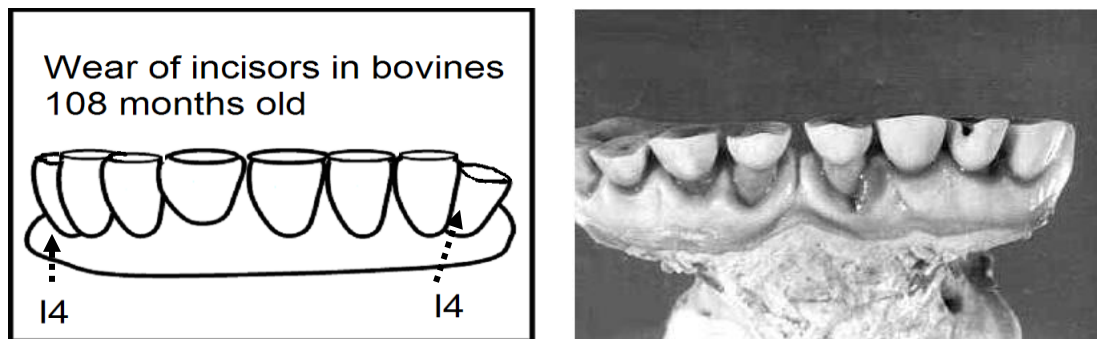


Fig 16. Frontal view of the incisors of an approximately nine to ten year old bovine. Notice the reduced proportion of visible crown, the exposed roots and broadened and leveled surfaces of all incisors, including the canine teeth (I_4).

Adult cattle ten (10) year old or more

At ten, or eleven years, there is increased space between the teeth, which are mostly exposed roots, with a small portion of visible crown, if any (Fig 17-19). Some teeth loosen and fall. Used surfaces of the teeth begin to bear a square mark surrounded by a white line. This is pronounced on all the teeth by the twelfth year; between the twelfth and the fourteenth year this mark takes a round form.

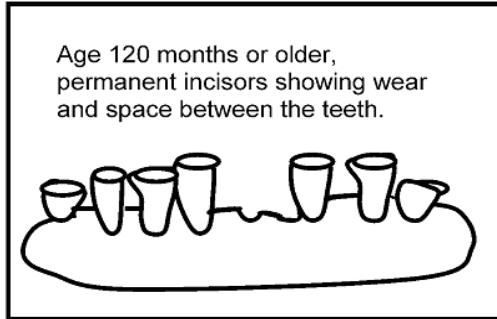


Fig 17. Illustration of dentition of bovines 10 years or older with a loose tooth. The root becomes the largest proportion of visible teeth.

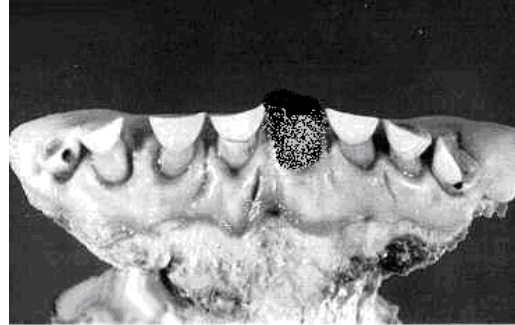


Fig 18. Frontal view of incisors in cattle 10 years old. Re-edited picture to show that at this age, some teeth may loosen and fall out.

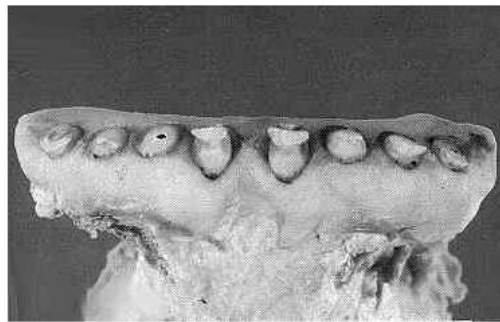




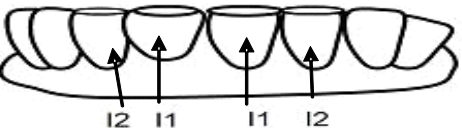
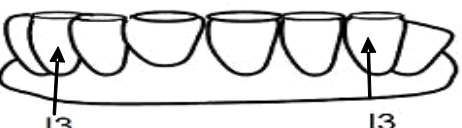
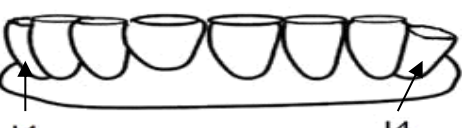

Fig 19. Frontal view of a bovine 10 to 15-year old, as cattle continue to age, the teeth wear shorter, and more neck becomes visible; the crown disappears in most teeth, and they loosen in the sockets and eventually drop out.

As a guideline for the CABSESP, animals that don't have verifiable records of birth should still have all eight incisor teeth present with at least a portion of all tooth crowns visible to be considered younger than 107 months. Animals with incomplete, worn to the gum and spaces between dentition are to be consider older than 107 months.

References

1. Meat Inspection Manual. Alberta Agriculture and Rural Development, Regulatory Services Division, Edmonton 2002.
2. A comparison of the USDA ossification-based maturity system to a system based on dentition, T. E. Lawrence et al., 2001.
3. Textbook of veterinary anatomy. Saunders edits, 3rd edit., Dyce et al., 2002.
4. The Merck Veterinary Manual. Whitehouse Station: Merck and Company, 8th edit, 1998.
5. Methods of Determining Age of Cattle. Cattle Producer's Library. Toell et al., 2003.

The Canada and Alberta BSE Surveillance Program (CABSESP)
GUIDELINES FOR AGE DETERMINATION IN BOVINES OLDER THAN 5 YEARS

<p>Full set of permanent incisors of an animal over 48 months of age</p> 	<p>Five to six year old bovines</p> <p>The teeth development is quite complete from five to six years. At that time, the border of the incisors has been worn away a little below the level of the grinders (molars). The occlusal surface of incisor one begins to level</p>
<p>Age 72 months, medial incisors showing wear and leveled tops.</p> 	<p>Six to seven year old bovines</p> <p>The lingual surface and the cutting edge of the L₁ level making a broad masticatory surface</p>
<p>Wear of incisors in bovines from 84 to 96 months</p> 	<p>Seven to eight year old bovines</p> <p>The lingual surface and cutting edge of the L₂ broaden and level with L₁. The root of L₁ becomes increasingly exposed</p>
<p>Wear of incisors in bovines 96 months old</p> 	<p>Eight to nine year old bovines</p> <p>At eight years, the lingual surface and cutting edge of L₃ broaden and become leveled with L₁ and L₂. The neck and part of the root of L₁ and L₂ are clearly exposed</p>
<p>Wear of incisors in bovines 108 months old</p> 	<p>Nine to ten year old bovines</p> <p>At nine years, the lingual surface and cutting edge of L₄ (canine) broaden, and becomes leveled with the incisors (L₁, L₂ and L₃). More retraction of the gum exposes, even more, the medial and intermediate incisors.</p>
<p>Age 120 months or older, permanent incisors showing wear and space between the teeth.</p> 	<p>Ten year old bovines, or older</p> <p>As cattle continue to age, the teeth wear shorter and more neck becomes visible; the crown disappears in most teeth, and they loosen in the sockets and eventually drop out</p>

APPENDIX II

Sample Quality Requirements for BSE Surveillance

Stephany Czub, C. Graham⁴

Depending on the incubation time, the distribution of the pathological prion protein in cases of BSE can be very restricted to certain areas of the brainstem at the level of the obex (Figure 1). Therefore, in cases which have limited disease information, or no known clinical history, it is imperative that the sample be taken at the obex level. It is also important that the sample has sufficient tissue for the BSE rapid test performance and to allow the lab staff for a confident identification of the region being tested.

An ideal specimen for testing would include an undamaged brainstem where the obex can be clearly identified and a submission form which includes clinical history of disease.

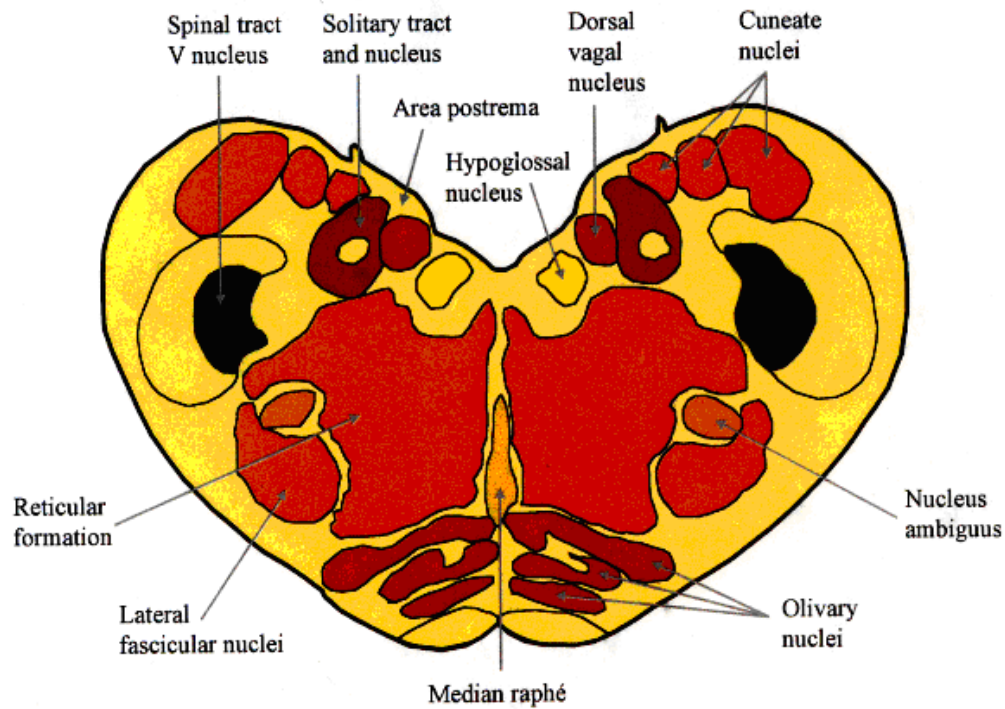
The following conditions may cause the tissue to be **unfit for testing**:

- Damage to lateral or dorsal portions of the sample so that target nuclei are absent including the spinal tract nucleus of the 5th cranial nerve, the solitary tract and nucleus, and the dorsal vagal nucleus.
- Severe damage to the tissue during sampling, or samples received in multiple pieces which make identification of anatomical landmarks impossible.
- Autolysis which makes the visual identification of anatomical landmarks impossible on sample receipt at the testing laboratory including the v-shaped structure of the floor of the 4th ventricle.
- Severe freeze/thaw artifacts, most evident in autolyzed tissues so that anatomical landmarks cannot be identified.

Brainstem regions other than the brainstem at the level of the obex may in some cases be fit for testing, including the cerebellar peduncle or the colliculus/rostral medulla. If this is the case and the clinical history received with the sample indicates neurological disease or other clinical signs which may be consistent with BSE (e.g. down), then the sample is tested. If no clinical history is received and a (near) complete cross section of the brainstem at the level of the obex is not present, samples may be unfit for testing.

⁴ Canadian and OIE reference Laboratories for BSE-Lethbridge, June 2008.

Cross Section of Brainstem at Medulla (Obex)



Relative severity of vacuolar changes represented by colour: Darkest colours represent most severely affected areas

Diagram reproduced with kind permission from: *The Neuropathology and Epidemiology of Bovine Spongiform Encephalopathy*, GAH Wells, JW Wilesmith, *Brain Pathology* 5: 91-103 (1995)

Figure 1. Cross section of brainstem at Medulla (Obex). Diagram reproduced with kind permission from : *the Neuropathology and Epidemiology of Bovine Spongiform Encephalopathy*, GAH Wells, JW Wilesmith, *Brain Pathology* 5:91-102 (1995).

APPENDIX III

Animal Welfare and Ethical Considerations

Starvation

The program conditions clearly specify that animal welfare situations, such as the producer purposely starving animals to death, are unacceptable situations. Samples collected from herds undergoing these situations will not be accepted by the CABSESP. Veterinarians are bound by the *Veterinary Profession Act* and by ethical reasons to report this situation to the Alberta Society for Prevention of Cruelty to Animals (SPCA). However, if the client-veterinarian relationship may be compromised, the veterinarian should communicate this situation to the CABSESP and we will proceed accordingly, maintaining the veterinarian's confidentiality.

Declaring animals as eligible when they are clearly not, is considered fraud against the Program Conditions and is a severe breach in ethics. These samples will not be paid, veterinarians may be reported to the Alberta Veterinary Medical Association for investigation and their certification may be cancelled.

Overall Herd Conditions

Veterinarians visiting a farm to determine cattle eligibility for the CABSESP should support their assessment by observing what the general management, nutritional and health conditions of the herd are. This doesn't mean a very deep investigation, other than observing the type and adequacy of the facilities, quality and availability of pastures, feed and mineral supplements and overall herd health as the practitioner drives into the farm and sees other animals in the herd.

This assessment certainly helps to understand the clinical and/or PM findings, facilitates a diagnosis and provides with strong elements to determine/support the decision on eligibility of an animal.

This assessment is also helpful to determine if certain events (such as starvation) are occurring, and through questions addressed to the producer the veterinarian will have a better understanding of the case and a better perception of the producer's attitude and response to these situations. It is with this process that the veterinarian first evaluates if starvation occurred as a result of:

- The producer's unconscious mismanagement and/or, as a result of the erroneous application of certain procedures, or techniques. OR,
- As a result of the producer's misbehavior by voluntarily and consciously starving his/her animals to death, possibly to trigger a payment under the CABSESP.

In either situation, when starvation is the main element affecting herd health the herd becomes ineligible for the program. However, in the first case, given that the producer is not voluntarily starving his/her animals, exceptions can be made if the veterinarian identifies eligible animals under the CABSESP target animal categories; these animals can be sampled. If this is not the case, the veterinarian should refrain from collecting samples, should alert the producer on the condition of the herd and advise to seek full professional advice to improve nutritional / management conditions and herd health. No subsequent samples are to be collected from this herd until overall herd condition improves and the risk of starvation disappears.

In the second case, the practitioner should not consider at all collecting samples from these animals. In both cases, the situation must be reported to the CABSESP and/or to one of the animal welfare organizations of Alberta (SPCA, AFAC).

APPENDIX IV

Frequently Asked Questions

The following list has been collected from the various certification sessions conducted in the province since May 2008 and has been updated to reflect current Program conditions:

- 1) **Is the Certified Veterinarian required to trim the obex?**
 - No, he/she **must not trim the sample**. The entire brainstem must be delivered in an acceptable condition to the lab.
- 2) **If the animal is found dead and the producer says that there was nothing wrong with the animal the day before, is this enough information?**
 - Found dead is a category but there are other things to consider. We recommend veterinarians to get as much history as possible for any category.
- 3) **Can someone sign for an animal they do not own?**
 - Yes, as long as they're older than 18 years and have been designated using the "Letter of Authorization for Designates" form provided by the CABSESP. This form is downloadable from ARD's website www.agriculture.alberta.ca/bse.
- 4) **What happens when a Certified Veterinarian finds an animal whose identification tag is missing?**
 - If the animal is eligible within a target animal category, the Certified Veterinarian should try to confirm its age either by proper farm records, other animal identification (branding) or by dentition.
- 5) **Is an age brand accepted as an age determinant?**
 - Yes, as long as the brand is consistent with the rest of the herd
- 6) **Does the eligible animal need a CCIA tag?**
 - A CCIA tag is the preferred identification method. Farm records, ear tags or tattoos that confirm the age of the animal, and that are consistent with the rest of the herd are also accepted.
- 7) **If the owner lives in a different location from where the animal is grazing and the records are not available, does the animal qualify?**
 - If the animal is eligible within a target animal category, the Certified Veterinarian needs to identify the Legal Land Description of where the animal is located at the moment of sampling, record all identification tags, and determine its age by dentition.
- 8) **Should the Certified Veterinarian get a copy of the documentation in case of an audit?**
 - It's not necessary. However, the Certified Veterinarian may take digital pictures as proof. The Applicant (owner) must keep records for 10 years.
- 9) **If there is no history of Johne's disease in a herd and one suspect animal is found, does it qualify for BSE sampling?**
 - Yes, as long as it meets the eligibility criteria. However, future cases from the same herd will not qualify unless they are showing neurological signs.
- 10) **Why would an animal with a fracture qualify?**
 - Epidemiological studies in the European Union have shown that animals with BSE are more susceptible to falls and fractures due to abnormalities in behavior, sensation and locomotion.
- 11) **If the animal is displaying neurological signs of BSE, but the producer does not want the animal to be tested and instead he/she wants to use the carcass, is it their choice?**
 - No, as a licensed veterinarian you have the legal and ethical responsibility to report this case to the CFIA.

- 12) What about a BSE suspect case during a weekend, who do we call?**
- Report it to the CFIA using their emergency contact number (1-866-400-4244).
- 13) Do live animals require a postmortem?**
- No, they require a *complete* physical exam and detailed clinical history.
- 14) What prevents a Certified Veterinarian from calling an animal eligible after it was turned down by another Certified Veterinarian?**
- The Canadian Veterinary Oath. You are bound to practice your profession with dignity and in keeping with the principles of veterinary medical ethics. If the CABSESP suspects that a veterinarian is willfully sampling non-eligible animals for his/her own financial profit, the CABSESP will involve the Investigations and Inspections Section who will conduct a full investigation of the case. If you know or suspect that this is happening, please report to the CABSESP.
- 15) Does the CABSESP pay for mileage when a Certified Veterinarian visits a farm for herd health activities?**
- If the veterinarian visits a farm to collect a sample from an eligible animal, the CABSESP will pay for mileage. Performing other veterinary work on a farm does not preclude a Certified Veterinarian from this payment.
- 16) Can an AHT remove the brainstem if a veterinarian completes the diagnosis?**
- Only in cases where the Certified Veterinarian has already assessed the animal or on animals found dead. The AHT must open the animal, take digital pictures, and collect pertinent information, so the Certified Veterinarian can assess the case, provide a presumptive diagnosis, fill in the form, and sign it.
- 17) Can an animal exhibiting neurological signs in more than one category be considered as neurological?**
- Yes, a neurological animal may exhibit abnormalities in locomotion, sensation or mentation that could be directly attributable to a Central Nervous System cause.
- 18) If the information that the producer provides on the phone suggests eligibility, but upon examination on farm the Certified Veterinarian deems the animal ineligible, who gets paid?**
- The Certified Veterinarian needs to fill out a Non Submission form; he/she gets paid for farm visit plus mileage. The Producer will not be compensated.
- 19) Are digital pictures mandatory?**
- They are an option for veterinarians who want to back up their judgments.
- 20) For how long should digital pictures be kept?**
- As part of the clinical records, digital pictures should be maintained for the same period (6 years).
- 21) Is a cow with obturator nerve paralysis as a result of dystocia eligible?**
- Yes, Post calving complications are eligible.
- 22) Does grass tetany qualify?**
- Up to two consecutive individual cases qualify if they do not, or are not likely to respond to therapy. Group cases (3 or more animals) are not eligible
- 23) What about downers as a result of milk fever?**
- If they are likely to respond to therapy then institute a treatment. If the treatment fails, or, if at first examination, the animal is not likely to respond to therapy, then it becomes eligible immediately, assuming that it meets the other criteria.
- 24) If a producer is undergoing an animal welfare investigation, but he/she has an animal with strong neurological signs (3 or more), does the animal qualify?**
- The producer does not qualify for the CABSESP; however, the animal must be reported to CFIA.
- 25) If a sample is lost, are both the client and Certified Veterinarian compensated?**
- That will be dealt with on a case by case basis. Please contact the CABSESP.

26) Why does the lab not test liquefied / autolyzed samples?

- Prions are resistant to many conditions, including autolysis. However, to increase the sensitivity and specificity of the test the lab staff must be able identify the obex and collect the sample directly from the obex.
- An autolyzed sample does not provide any evidence for morphological recognition of structures including the obex.

27) Should we refrigerate or freeze the sample?

- It depends on the conditions of the sample: if it is going to be delivered immediately it should be refrigerated; if there is going to be a delay in shipping, it may be frozen.
- Storage of samples at the clinic after collection should not be over 2 days during spring/summer/fall, or over 7 days in wintertime.

28) If the animal has one side of the mandible unrecognizable due to trauma, is it still good to estimate its age by dentition?

- The CABSESP allows professional judgment in cases like this one.

29) If we don't send animals for BSE testing we will not find BSE

- We need to test sufficient animals for BSE to demonstrate that our BSE control measures are effective.
- If we don't continue testing, our trading partners won't have confidence that BSE is being controlled.

30) Producers say they will not participate in BSE testing until they're paid more money?

- Between 2004 and 2011 participating producers received \$225 per sample submitted for testing. On September of 2011 the Provincial government decided to withdraw the provincial portion of the reimbursement to producers bringing the payment down to \$75, which is the amount paid by the Federal Government to participating producers across Canada.
- Producers should now that It's thanks to the mitigation measures and BSE Surveillance that producers enjoy good market access and high prices; they should participate to protect their industry and not only for the financial reimbursement.

31) Producers say they will not participate in BSE surveillance for fear of having all their animals destroyed should a positive BSE case be detected

- If a positive BSE case is diagnosed, the CFIA will conduct a complete herd investigation and trace animal of equivalent risk: only those *animals who shared feed during the first year of their lives* will be euthanized and tested for BSE, not the entire herd.

APPENDIX V

Definition on the Eligibility of Certain Clinical Conditions

The criteria for eligibility of certain clinical conditions were redefined based on feedback obtained from veterinarians attending the Certification Sessions. As a result, the final criteria for conditions and situations are presented here:

- Cancer eye, foot rot and lump jaw are eligible conditions if they make the animal unlikely to respond to treatment, unfit for human consumption, and/or unfit for transportation. However, animal welfare and overall conditions of the herd should be considered before accepting these cases.
- Downer animals are accepted for the program *immediately* if they are not likely to respond to therapy and assuming that they meet the other criteria. (See Page 8, g).
- Lameness as a sign has been incorporated within the abnormalities in locomotion.
- Johne's disease (JD): Groups of (3 or more) animals with signs of JD from recognized Johne's herds do not qualify for the program. An individual case where JD is suspected in a JD-free herd may qualify as long as it meets the eligibility criteria to fit into one of the categories.
- The brainstem can be collected, stored and delivered in a frozen state.
- A postmortem may be excluded in dead cases where the carcass is frozen solid, scavenged and/or autolyzed if the producer, animal and sample meet the eligibility criteria, providing that there is *enough history and information on this case*.
- Neurological cases must have one or more clinical signs in any category.
- The whole brain may be delivered (optional) on neurological cases.
- Storage of samples at the clinic after collection should not be over 2 days during spring/summer/fall, or over 7 days in wintertime.
- Copies of the "Schedule B: Program Conditions" have been distributed to veterinarians during the Certification Sessions. Certified Veterinarians should maintain enough copies of the Schedule B in their trucks and should allow the Applicant to read the Program Conditions, before signing the Application Form.
- This Manual, together with the national program "Schedule A", the provincial program "Schedule B: Program Conditions", a guideline for ante mortem/postmortem examination towards determining the fitness of a carcass for human consumption, and authorization forms can be downloaded from the internet from www.agriculture.alberta.ca/bse

APPENDIX VI
Alphabetical Designations Used for Birthdates in Cattle

LETTER	EQUIVALENT YEARS
A	1991 and 2013
B	1992 and 2014
C	1993 and 2015
D	1994 and 2016
E	1995 and 2017
F	1996 and 2018
G	1997 and 2019
H	1998 and 2020
J	1999
K	2000
L	2001
M	2002
N	2003
P	2004
R	2005
S	2006
T	2007
U	2008
W	2009
X	2010
Y	2011
Z	1990 and 2012

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