GENERAL PROTOCOLS

FOR IMPORTING GAME FARM ANIMALS

INTO SASKATCHEWAN

Protocol for the Importation of Game Farm Animals
from Canada and the United States
into the Province of Saskatchewan

Prepared by:

Saskatchewan Agriculture, Food and Rural Revitalization
Saskatchewan Environment

August 2004

NOTE: These protocols are based on the most current information available. Because of the nature of diseases and parasites, and as new testing or treatment procedures become available, these protocols may be changed at any time or a complete ban on the import of game farm species may be imposed without notice.

TABLE OF CONTENTS

DEFINITIONS 3

INTRODUCTION 6

1. GENERAL CRITERIA 7

2. ANIMALS MAY BE IMPORTED PROVIDED THE FOLLOWING CRITERIA FOR SPECIFIC DISEASES HAVE BEEN MET 11

2.1 CHRONIC WASTING DISEASE (CWD) 11
2.2 MENINGEAL WORM (*PARELAPHOSTRONGYLUS TENUIS*) 13
2.3 TISSUE WORM (*ELAPHOSTRONGYLUS SPP*) 18
2.4 WHITE-TAILED DEER MUSCLE WORM 20
2.5 MULE DEER MUSCLE WORM 22
2.6 CAROTID WORM (*ELAEOPHORA SCHNEIDERI*) 23
2.7 BESNOITIA (*BESNOITIA TARANDI*) 26
2.8 TUBERCULOSIS (TB) 27
2.9 BRUCELLA SPPS 27
2.10 ECTOPARASITES AND ENDOPARASITES 28

3 GENETICS (RED DEER GENES) 29

4 SEMEN AND EMBRYOS 29

APPENDIX A: CALF/FAWN PROTOCOL 31
APPENDIX B: CONDITIONS REQUIRED FOR MOLLUSC-FREE ENVIRONMENTS 35
APPENDIX C: APPROVED MOLLUSCACIDES FOR QUARANTINE/ISOLATION AREAS 36
APPENDIX D: REQUIREMENTS FOR ON-FARM QUARANTINE IN SASKATCHEWAN 37
APPENDIX E: LANKESTER-MODIFIED BAERMANN FECAL SAMPLES 38
MODIFIED BAERMANN EXAM SUBMISSION/WORKSHEET *40*
APPENDIX F: IDENTIFICATION OF THE OBEX 41
APPENDIX G: GUIDELINES FOR ACCEPTABLE DISPOSAL OF OFFAL AND OTHER INEDIBLE MATERIAL FROM CERVIDS 42
APPENDIX H: LIST OF AVERMECTINS 45

Definitions:

Acaricide: An agent that destroys ticks and mites.

Accredited Veterinarian: A licensed veterinarian accredited by CFIA for certain disease testing.

Approved Test: A test that has been determined by SAFRR and SE to reduce the risk of importing a disease or parasite to an acceptable level.

CFIA: Canadian Food Inspection Agency - an agency of the Federal Government whose mandate includes the administration of the *Health of Animals Act* (Canada)**.**

Contact: An animal that has been in such association with either an infected animal or a contaminated environment, as to have had opportunity to acquire the infection.

Designated Disease: A disease listed by:

1) CFIA as a "Reportable Disease" under the *Health of Animals Act* (Canada).
2) Or any other disease designated by the Government of Saskatchewan under the authority of *The Diseases of Animals Act* or *The Wildlife Act*.

Ectoparasite: External parasites e.g. ticks, fleas, etc.

Endoparasites: Internal parasites, e.g. lungworm, stomach worms, etc.

Enzootic Region: The constant or predictable presence of a disease or infectious agent within a population group or geographic area such as a state, province, territory, or ecological region.

Game Farm (Domestic Game Farm): The land and facilities on which game farm animals are held for commercial purposes.

Game Farm Animal (Domestic Game Farm Animal): As per the *Domestic Game Farm Animal Regulations, 1999,* an animal that is held for the purposes of producing products and that:

i) is a member of the following species, which are indigenous to Saskatchewan:
   (A) the species of antelope having the scientific name *Antilocapra americana;*
   (B) the species of caribou and reindeer having the scientific name *Rangifer tarandus;*
   (C) the species of elk having the scientific name *Cervis elaphus nelsoni, Cervus elaphus roosevelti, Cervus elaphus manitobensis, Cervus elaphus nannodes* or any crosses between these subspecies;
   (D) the species of moose having the scientific name *Alces alces;*

(E) the species of mule deer having the scientific name *Odocoileus hemionus;*
(F) the species of white-tailed deer having the scientific name *Odocoileus virginianus;*
(G) any interspecies hybrids of mule deer mentioned in paragraph (E) with white-tailed deer mentioned in paragraph (F); or

ii) is a member of the following species, which are not indigenous to Saskatchewan:
(A) the species of fallow deer having the scientific name *Dama dama;*
(B) the species of bighorn sheep having the scientific name *Ovis canadensis;*
(C) the species of American thinhorn sheep having the scientific name *Ovis dalli,* including stone and dall sheep;
(D) the species of mouflon sheep having the scientific name *Ovis ammon*;
(E) the species of musk deer having the scientific name *Moschus* spp.;
(F) the species of mountain goat having the scientific name *Oreamnos americanus.*

Germplasm: Any genetic material, including semen, ova, embryos, tissues or DNA, to be used to generate live animals.

***Health of Animals Act*:** The federal *Health of Animals Act* and its regulations as administered by the Canadian Food Inspection Agency.

Herd: A group of animals managed as a separate and discrete unit not commingled with other groups of susceptible species. Animals in the herd must have been together for a minimum of 6 months with less than 15% introductions in the last 6 months. All game farm animals on two or more geographically separated premises but on which animals have been interchanged or where there has been physical contact of animals between the premises is considered one herd. Contact of animals between separated premises under common management is assumed to have occurred unless complete separation and biosecurity measures between premises can be established by the herd owner or manager.

Herdmates: Any animals that resided on the same premises at the same time, and includes any animals that traveled in a common carrier at the same time.

Herd of Origin: The herd in the exporting jurisdiction from which animals are to be imported.

Herd of Destination: The herd into which the imported animals are going to in Saskatchewan.

Licensed Veterinarian: A veterinarian who is licensed to practice in the jurisdiction where the animals are located.

Mollusc: Members of the phylum Mollusca, including snails and slugs.

Molluscacide: An agent used for killing molluscs.

Parasitacide: An agent that is destructive to parasites.

PDS: Prairie Diagnostics Services – laboratory designated by the Government of Saskatchewan to perform certain tests required to import game farm animals into Saskatchewan. PDS has locations in Regina and Saskatoon, Saskatchewan.

Region: A province, territory, or state, **OR** eco-region within a province, territory, or state as determined by the Government of Saskatchewan for the purpose of importation of game-farmed animals into Saskatchewan.

Reportable Disease: Any disease that is prescribed as reportable under the *Health of Animals Act* (Canada).

Risk: The likelihood of the occurrence and the magnitude of the consequences of an adverse event.

SAFRR: Saskatchewan Agriculture, Food and Rural Revitalization.

SE: Saskatchewan Environment.

NOTE: These protocols are based on the most current information available. Because of the nature of diseases and parasites, and as new testing or treatment procedures become available, these protocols may be changed at any time or a complete ban on the import of game farm species may be imposed without notice.

Protocols for importing game farm animals are not valid unless they have been signed by the ministers of both SE and SAFRR or their authorized officials. The conditions in these Saskatchewan import protocols for game farmed animals can only be amended or changed **with written approval from the ministers of SE and SAFRR or their authorized officials**.

Producers are encouraged to check import protocol requirements with the Inspection and Regulatory Management Branch of Saskatchewan Agriculture, Food and Rural Revitalization (SAFRR), before purchasing animals and proceeding with testing for import.

Introduction

An import permit issued by SAFRR (under *The Wildlife Act, 1998) is required to import game farm animals into Saskatchewan. Results from any required disease testing and documentation from the Canadian Food Inspection Agency (CFIA) must be provided to SAFRR before the import permit will be issued.**

*Legal authority controlling importation of game farm animals remains under *The Wildlife Act*, *1999,* but administrative responsibility for issuing permits is transferred to SAFRR.

Only species authorized for game farming under *The Domestic Game Farm Animal Regulations, 1999* are eligible for importation to Saskatchewan. See Definition of "game farm animal" for list of species.

Transportation Authorization Permits issued by the Canadian Food Inspection Agency (CFIA) are required to move cervids within and between provinces. For importation from other countries, a CFIA import permit and certificate of health are required as well as the Saskatchewan import permit. **Note: CFIA documentation is only part of the information required to import into Saskatchewan**.

The protocols described here include testing, treatment and quarantine procedures that may be in addition to federal requirements for importing game farm animals from other regions within Canada or from the United States.

Before Saskatchewan will issue import permits, it will require documentation including:

- CFIA transportation authorization permit including requirements listed per federal protocol (for inter-provincial movement).
- CFIA Certificate of Health, federal import permit requirements listed per federal protocol (for international movement).
- All CFIA and Saskatchewan Government required test results.
- Signed statements (described in the following sections).

As a matter of courtesy to Manitoba, game farm operators who are moving elk by truck to Saskatchewan from east of Manitoba and thereby driving through the province of Manitoba, it is recommended to notify by telephone the office of the Director of Veterinary Services Branch, Manitoba Agriculture and Food (204/945-7650).

All game farm operators transporting game farm animals through Alberta are required to obtain an import permit from the Natural Resources District Office closest to point of entry into Alberta. It is the importer's responsibility to ensure all other jurisdictions' regulatory requirements are met.

1. GENERAL CRITERIA

The following are general criteria that must be met for all imports in addition to the specifics for individual species in Section 2, 3 and 4 of this document.

1.1 An import permit application must be received by SAFRR not less than 1 month (30 days) prior to the proposed date of importation and prior to initiating any disease testing procedures required by CFIA and/or Saskatchewan.

The application form has to include the number of animals, approximate ages, and if possible the animal ear tag numbers on exporting animals; name and location of exporting farm; and, name and location (including land description) of importing Saskatchewan farm. Please direct your application to:

Licensing and Brand Registrar
Inspection and Regulatory Management Branch
Saskatchewan Agriculture, Food and Rural Revitalization
201 – 3085 Albert Street
REGINA SK S4S 0B1
Telephone: 306-787-4682; Fax: 306-787-1315

SAFRR will send a copy of the relevant import protocol for the region of the proposed importation to the applicant, *or* provide a letter explaining why animals cannot be imported from that region within two weeks (ten working days) of

receipt of the application for an import permit.

1.2 Any cervid, before entering Saskatchewan, must satisfy CFIA requirements for movement of cervids from the United States or within Canada. The CFIA prohibits the importation of cervid embryos and live mule deer from the United States. Semen originating from the United States is subject to the CFIA protocol for the importation of semen from the state of export.

1.3 Each animal must be uniquely identified pursuant to *The Domestic Game Farm Animal Regulations, 1999*, with either a federal Health of Animals tag *or* a tag recognized by the exporting jurisdiction; *and* be uniquely identified on arrival at their first destination in Saskatchewan. Unique identification requires two forms of identification for each animal. One being a provincial ear tag issued by SAFRR or an approved producer association or by an approved government jurisdiction, and another form of identification chosen by the producer, as defined by the above regulations.

1.4 The animals must, so far as can be determined, not have co-mingled with free ranging wild animals within the domestic game farm enclosure in the past three years. From the time of introduction into the domestic herd until the time of importation to Saskatchewan, all animals within the herd of origin must have been individually identified. This information must have been verified by the appropriate federal, provincial, territorial, or state official and supplied to SAFRR before an import permit will be issued.

1.5 When individuals are required to provide or verify information and/or treatments, these must be pre-approved by Saskatchewan Government officials in charge of issuing permits.

1.6 The animal (s) must be examined by the licensed herd veterinarian within the 30 days immediately prior to date of entry into Saskatchewan for general health and verification of identification; the examination must also meet the requirements of the *Health of Animals Act* (Canada). Verification of identification will require reading of all ear tags in each animal to be imported, taking a hair sample from each animal and providing the list and hair samples to SAFRR.

Within this time period hair samples must be taken by the licensed herd veterinarian, with intact hair bulbs from each animal to be imported. These samples will be stored and used by SAFRR in the event verification of parentage or source is required. The clump of hairs taken must be approximately 1 cm in diameter (approximately half the thickness of an adult's thumb). Samples must be taken using a method that prevents cross-contamination (e.g. a separate disposable glove between animals). The veterinarian will place the samples into individual paper envelopes for each animal, seal them, and on the outside in

indelible ink write the name of the herd of origin, animal's unique identification ear tags [provincial ear tag (in jurisdictions that do not issue provincial ear tags, then Health of Animals tag number/USDA number or other official permanent identifier must be recorded), plus tag of producer's choice], date of collection and initial verifying information. Samples must be kept dry, at room temperature, and within a week after importation of cervids into Saskatchewan, sent to the address below accompanied by a copy of the Saskatchewan import permit:

Animal Health Unit
Saskatchewan Agriculture, Food and Rural Revitalization
Room 201 – 3085 Albert Street
REGINA SK S4S 0B1

1.7 A statement verifying the freedom of the herd of origin from contagious or infectious diseases in general, and from the specific concerns/conditions listed within these protocols, signed by the manager/owner of the herd of origin, the owner of the animals proposed for import and a licensed veterinarian familiar with the herd and its health history, witnessed by an independent party, must be provided before an import permit will be issued. The statement must also contain an acknowledgment by both the farm manager and the owner of the animals of responsibility for all financial losses associated with a subsequent diagnosis of a disease or parasite if evidence is produced showing that the manager, owner and/or veterinarian have made false statements regarding knowledge of previous history or contact.

1.8 The farm of destination in Saskatchewan must hold a valid and current domestic game farm license, in accordance with *The Domestic Game Farm Animal Regulations, 1999.* The farm of destination must have no outstanding contraventions of Saskatchewan Acts, Regulations or Policies that pertain to game farming, and, if importing cervids, must be enrolled in Saskatchewan's Cervid Chronic Wasting Disease (CWD) Surveillance and Certification Program. The farm of destination must not have any CWD trace-out results pending, and all results of trace-outs must have been found negative for CWD. The farm of destination also must have no cervids that have had contact with other cervid herds with trace-outs that have not been tested. If tested, the trace-outs must also be negative.

1.9 The importer must immediately report to an inspector the death of any imported animals that die within 30 days of import. [see *The Domestic Game Farm Animal Regulations* subsection 15(2)]. The owner must have a complete necropsy done by a licensed veterinarian or veterinary diagnostic laboratory to determine cause of death (costs of necropsy will be the producer's responsibility). Note: for cervids all deaths of animals 12 months of age or older are also to be reported within 24 hours to SAFRR's Animal Health Unit and appropriate samples

submitted for CWD testing.

1.10 Saskatchewan Government officials must pre-approve the quarantine facilities, laboratories for testing, sample collection, and drug treatments to animals, where the protocol requires such actions for pre importation or post importation into Saskatchewan.

1.11 Contravention of any of the terms or conditions, including omission or false information or records provided, lack of submission of adequate tissues for CWD or other disease testing, may result in an order to remove all imported game farm animals or germplasm from the province, or forfeit to the Crown at the expense of the applicant.

1.12 Contravention may also result in the licensed game farm producer not being allowed import permits in future years and may result in suspension of his/her game farm license.

1.13 The producer assumes full responsibility and liability from claim for compensation for any loss or damage that may be made as a result of the presence of these game farm animals and their offspring within Saskatchewan, and will indemnify and save harmless the Ministers of Saskatchewan Agriculture, Food and Rural Revitalization and Saskatchewan Environment and their employees from such claim.

1.14 No right of compensation exists against the Ministers of SAFRR and SE and their employees for any act done or any failure to act pursuant to these protocols.

2. ANIMALS MAY BE IMPORTED PROVIDED THE FOLLOWING CRITERIA FOR SPECIFIC DISEASES HAVE BEEN MET

The following is a list of diseases and parasites of concern to Saskatchewan:

Chronic Wasting Disease
Meningeal Worm *(Parelaphostrongylus tenuis)*
Tissue Worm (*Elaphostrongylus* spp)
White-tailed Deer Muscle Worm (*Parelaphostrongylus andersoni)*
Mule Deer Muscle Worm (*Parelaphostrongylus odocoilei)*
Carotid Worm (*Elaephora schneideri*)
Besnoitia (*Besnoitia tarandi*)
Tuberculosis (TB)
Brucella spps
Ectoparasites and Other Endoparasites

2.1 Chronic Wasting Disease (CWD)

(Any jurisdiction in North America is considered at risk for enzootic CWD unless there are adequate data to suggest otherwise)

Semen is not considered a risk and may be collected and imported under Saskatchewan Government's approved protocol.

All Cervids (Elk, White-tailed Deer, Mule Deer, Fallow Deer, Caribou/Reindeer, Moose)

1) All cervids, except those going directly to a licensed slaughter facility:

- the herd of origin must be in a jurisdiction that has a comprehensive CWD **eradication** program equivalent to that of the CFIA.

- the herd of origin must be participating in a CWD surveillance program equivalent to Saskatchewan's mandatory CWD program for a minimum of 3 years preceding the date of proposed importation and must have obtained an equivalent to Canada's Level B CWD herd status.

- the animal(s), or donor animal(s) must never have been in contact with any animal found positive for CWD within the 5 years prior to importation, including animals that may have left the herd and subsequently tested positive for CWD.

- the animal(s), or donor animal(s) must never have resided on a premise where CWD was ever diagnosed within the last 5 years, unless they are on a premise that has undergone complete cervid depopulation, and completed a government-approved clean-up and disinfection protocol equivalent to the CFIA's requirements for restocking.

- the herd of origin must not contain any animal(s) that have been in contact with any animal that has been diagnosed with CWD within the past 5 years, unless the contact animals have been removed and tested negative for CWD.

- Ova/embryos will assume the CWD risk of the donor at the time of collection.
  - Ova/embryos will only be accepted if collected after the herd has enrolled in a CWD program equivalent to Saskatchewan's mandatory program and has attained an equivalent to Saskatchewan's Level B CWD Herd Status.
  - Prior to import:
    - if the donor dies within 5 years of collection and tests negative for CWD or is still alive 5 years after collection the ova/embryo will be considered of no risk for CWD.
    - if the donor tests positive for CWD within 36 months after collection the ova/embryo cannot be imported.
    - if the herd of origin of the ova/embryo is under quarantine for suspicion of CWD, the ova/embryo will not be allowed to be imported unless the donor tests negative for CWD.

2) Slaughter animals (does not include Harvest Preserves)

- must be imported directly from the herd of origin to a federally, provincially or health licensed slaughter facility.

- herd of origin is a licensed game farm in the exporting jurisdiction and participating in a CWD surveillance program equivalent to the Saskatchewan surveillance program.

- trailer must be sealed by an accredited veterinarian, or approved provincial, state or federal official at the farm of origin in the exporting jurisdiction and the seal cannot be removed until arrival at the slaughter facility in Saskatchewan, where the CFIA inspector or an accredited veterinarian will remove the seal. Note: for a health inspected slaughter facility the exporter/importer will have to make arrangements and cover the costs of having an accredited veterinarian,

CFIA inspector or SAFRR inspector at the facility at the time of unloading. If the animals require unloading en route for inspection purposes or feed and water, an approved federal, state or provincial official must remove and replace the seal on the trailer. It is the importer's responsibility to ensure that humane care, handling and transportation guidelines are followed.

- SAFRRR must be notified immediately if any cervid escapes from the trailer or licensed processor and the cervid(s) must be disposed of immediately and tested for CWD.

- suitable samples for CWD testing must be submitted to PDS (importer pays the cost of testing) or another CFIA recognized laboratory to be tested for CWD. Suitable samples are either:
  - the obex section of the brain, the retropharyngeal lymph nodes and the tonsils that have been prepared by the CFIA inspector or an accredited veterinarian trained in the procedure and labeled with all the official identification of each animal (see Appendix F for diagram); or
  - the entire cervid head with the animal's identification tags attached that has been properly handled and stored to prevent deterioration of the brain.

- offal and carcasses must be handled in accordance with CFIA policy and its regulations and the Saskatchewan Government Guidelines for cervids. (See Appendix G for the Saskatchewan Government Guidelines).

Bighorn, Thinhorn, and Mouflon Sheep, Mountain Goats, and Pronghorn Antelope

Not known hosts therefore no restrictions

2.2 Meningeal Worm (*Parelaphostrongylus tenuis*)

(All regions in Canada east of the Saskatchewan/Manitoba Border and all regions in the United States east of 102° West Longitude are considered enzootic for *P. tenuis*)

Semen and embryos are not considered a risk and may be collected and imported under Saskatchewan Government's approved protocol.

Elk

A Within an enzootic region

1) the herd of origin has been documented by a licensed veterinarian to be free of clinical signs consistent with neurologic disease for a period of 90 days prior to import; and

2) calves under 30 days of age may be imported if they:
   - are born into a mollusc-free environment (see Appendix A & B for details);
   - are treated by a licensed veterinarian, with an approved avermectin (see Appendix H) by 10 days of age and again within 48 hours prior to shipment
   - are imported prior to 30 days of age into on-farm quarantine (see Appendix D); and
   - subsequently test negative to an approved immunological test between 30 to 45 days post import; or

3) animals over 60 days of age may be imported if they:
   - test negative to an approved immunological test within 30 days prior to import ;
   - are treated with an approved avermectin (see Appendix H) at time of serum being taken for test and again 48 hours prior to import;
   - are imported into on-farm quarantine (see Appendix D) and
   - re-test negative to an approved immunological test 30 days post import.

NOTE: Where a post entry immunological test is required, if any imported animal tests positive for *P. tenuis*, it must be slaughtered within 48 hours of confirmation of the positive test or treated with an approved avermectin (see Appendix H) within 48 hours of receiving the positive results and exported from Saskatchewan within 30 days after the avermectin treatment. If environmental clean-up of the area where the animals were quarantined and the area surrounding the quarantined pens and facilities is deemed necessary, it will be the producer's responsibility.

B Outside an enzootic region with contact

1) herd of origin has been documented by an licensed veterinarian to be free of clinical signs consistent with neurological disease for a period of 90 days prior to import, and

2) no additional restrictions if contact animals, capable of patent infection, were imported into the herd of origin under a protocol approved by the Saskatchewan Government; or

3) herds within a jurisdiction that have imported animals capable of a patent infection from an enzootic region, under a protocol unapproved by the Government of Saskatchewan, must follow the same protocol procedures for elk from enzootic regions.

C Outside an enzootic region without contact

No restrictions provided there is documentation from a jurisdictional authority that there has been no contact with any animals capable of a patent infection from an enzootic region.

White-tailed deer

A Within an enzootic region

1) fawns under 30 days of age may be imported if they:
   - are born into a mollusc-free environment (see Appendix A & B for details);
   - are treated by a licensed veterinarian, with an approved avermectin (see Appendix H) by 10 days of age and again within 48 hours prior to shipment;
   - are imported prior to 30 days of age into on-farm quarantine (see Appendix D); and
   - subsequently test negative to an approved immunological test between 30 to 45 days post import; or

2) animals over 60 days of age may be imported if they:
   - test negative to an approved immunological test within 30 days prior to import;
   - are treated with an approved avermectin (see Appendix H) at time of serum being taken for test and again 48 hours prior to import;
   - are imported into on-farm quarantine (see Appendix D); and
   - re-test negative to an approved immunological test 30 days post import.

NOTE: Where a post entry immunological test is required, if any imported animal tests positive for *P. tenuis*, it must be slaughtered within 48 hours of confirmation of the positive test or treated with an approved avermectin (see Appendix H) within 48 hours of

receiving the positive results and exported from Saskatchewan within 30 days after the avermectin treatment. If environmental clean-up of the area where the animals were quarantined and the area surrounding the quarantined pens and facilities is deemed necessary, it will be the producer's responsibility.

B Outside an enzootic region with contact

1) no restrictions if contact animals, capable of patent infection, were imported into the herd of origin under a protocol approved by the Saskatchewan Government; or

2) herds within a jurisdiction that have imported animals capable of a patent infection from an enzootic region, under a protocol unapproved by the Government of Saskatchewan, must follow the same protocol procedures as for white-tailed deer from enzootic regions.

C Outside an enzootic region without contact

No restrictions provided there is documentation from a jurisdictional authority that there has been no contact with any animals capable of a patent infection from an enzootic region.

Moose

A Within an enzootic region

1) Herd of origin has been documented by a licensed veterinarian to be free of clinical signs consistent with neurologic disease for a period of 90 days prior to import; and

2) Only calves under 30 days of age may be imported if they:
   - are born into a mollusc-free environment (see Appendix A & B for details);
   - are treated by a licensed veterinarian, with an approved avermectin (see Appendix H) by 10 days of age and again within 48 hours prior to shipment; and
   - are imported prior to 30 days of age into on-farm quarantine (see Appendix D); and
   - test negative to one Baermann test with the fecal samples collected between 60 days and 90 days post import and processed as approved by the Government of Saskatchewan (see Appendix E for details).

- blood samples may be required to be taken at the time fecal samples are collected to be randomly tested for parasiticide residues.

Animals over 30 days of age will not be allowed to be imported from enzootic regions.

B Outside an enzootic region with contact

1) Herd of origin has been documented by a licensed veterinarian to be free of clinical signs consistent with neurological disease for a period of 90 days prior to import, and

2) No additional restrictions if contact animals, capable of patent infection, were imported into the herd of origin under a protocol approved by the Saskatchewan Government; or

3) Herds within a jurisdiction that have imported animals capable of a patent infection from an enzootic region, under a protocol unapproved by the Government of Saskatchewan, must follow the same protocol procedures for fawns/calves from enzootic regions.

C Outside an enzootic region without contact

No restrictions provided there is documentation from a jurisdictional authority that there has been no contact with any animals capable of a patent infection from an enzootic region.

Fallow Deer, Bighorn, Thinhorn and Mouflon Sheep, Pronghorn Antelope, and Mountain Goats

A) Within an enzootic region

1) Herd/flock of origin has been documented by a licensed veterinarian to be free of clinical signs consistent with neurologic disease for a period of 90 days prior to import.

B) Outside an enzootic region with contact

1) no restrictions if contact animals, capable of patent infection, were imported under a protocol approved by the Saskatchewan Government; or

2) herds/flocks within a jurisdiction that has imported animals capable of a patent infection from an enzootic region, under a protocol unapproved by the Government of Saskatchewan, must follow the same protocol procedures as for animals from enzootic regions.

C) Outside an enzootic region without contact

No restrictions provided there is documentation from a jurisdictional authority that there has been no contact with any animals capable of a patent infection from an enzootic region.

Mule Deer, Reindeer/Caribou

Not known hosts therefore no restrictions.

2.3 Tissue Worm (*Elaphostrongylus* spp)

[Newfoundland is the only known enzootic region in North America (*E. rangiferi*)]

Semen and embryos are not considered a risk and may be collected and imported under Saskatchewan Government's approved protocol.

Elk, White-tailed Deer, Mule Deer, Reindeer/Caribou, and Moose

A Within an enzootic region

1) fawns/calves under 30 days of age may be imported if they:
   - are born into a mollusc-free environment (see Appendix A & B for details);
   - are treated by a licensed veterinarian, with an approved avermectin (see Appendix H) by 10 days of age and again within 48 hours prior to shipment;
   - are imported prior to 30 days of age into on-farm quarantine (see Appendix D); and
   - subsequently test negative to an approved immunological test between 30 to 45 days post import; or

2) animals over 60 days of age may be imported if they:
   - test negative to an approved immunological test within 30 days prior to import;
   - are treated with an approved avermectin (see Appendix H) at time of serum being taken for test and again 48 hours prior to import;
   - are imported into on-farm quarantine (see Appendix D); and

- re-test negative to an approved immunological test 30 days post import.

NOTE: Where a post entry immunological test is required, if any imported animal tests positive for *Elaphostrongylus species*, it must be slaughtered within 48 hours of confirmation of the positive test or treated with an approved avermectin (see Appendix H) within 48 hours of receiving the positive results and exported from Saskatchewan within 30 days after the avermectin treatment. If environmental clean-up of the area where the animals were quarantined and the area surrounding the quarantined pens and facilities is deemed necessary, it will be the producer's responsibility.

B Outside an enzootic region with contact

1) no restrictions if contact animals, capable of patent infection, were imported into the herd of origin under a protocol approved by the Saskatchewan Government; or

2) herds within a jurisdiction that have imported animals capable of a patent infection from an enzootic region, under a protocol unapproved by the Government of Saskatchewan, must follow the same protocol procedures as for elk, white-tailed deer, mule deer, moose, and reindeer/caribou from enzootic regions.

C Outside an enzootic region without contact

No restrictions provided there is documentation from a jurisdictional authority that there has been no contact with any animals capable of a patent infection from an enzootic region.

Bighorn, Thinhorn and Mouflon Sheep and Mountain Goats, Pronghorn Antelope

A Within an enzootic region

Herd/flock of origin has been documented by a licensed veterinarian to be free of clinical signs consistent with neurologic disease for a period of 90 days prior to import.

B Outside an enzootic region with contact

1) no restrictions if contact animals, capable of patent infection, were

imported under a protocol approved by the Saskatchewan Government; or

2) herds/flocks within a jurisdiction that has imported animals capable of a patent infection from an enzootic region, under a protocol unapproved by the Government of Saskatchewan, must follow the same protocol procedures as for animals from enzootic regions.

C Outside an enzootic region without contact

No restrictions provided there is documentation from a jurisdictional authority that there has been no contact with any animals capable of a patent infection from an enzootic region.

Fallow Deer

Not known hosts therefore no restrictions.

2.4 White-tailed Deer Muscle Worm (*Parelaphostrongylus andersoni*)

[Northern Quebec, central Manitoba, southeast and southcentral British Columbia, Yukon, Northwest Territories, Nunavut, northwestern Ontario, Newfoundland, Labrador, Alaska, and the southeastern United States (Alabama, Florida, Arkansas, Georgia, Louisiana, Mississippi, Tennessee, North and South Carolina), north-east Wyoming, Michigan and New Jersey are considered enzootic regions]

Semen and embryos are not considered a risk and may be collected and imported under Saskatchewan Government's approved protocol.

White-tailed Deer, Reindeer/Caribou, Fallow deer, Mule Deer, and Moose

A Within an enzootic region

1) fawns/calves less than 6 months of age treated by a licensed veterinarian, with an approved avermectin (see Appendix H), 10 days of age and every 30 days thereafter and imported by 6 months of age; or

2) animals over 6 months of age that:
   - have 2 negative Baermann tests, with fecal samples taken 30 days apart, prior to import on a minimum herd size of 20. If not

importing 20 head, must test other animals, 6 months of age and older, in the herd to bring the total number tested to 20 head;

- a licensed veterinarian provides a declaration stating that the animals proposed for import have not been treated with an avermectin or any other parasitacides in the 60 days prior to the fecal samples being collected.
- the fecal samples are collected and processed as approved by the Government of Saskatchewan (see Appendix E for details).
- blood samples may be required to be taken at time fecal samples are collected to be randomly tested for parasiticide residues.
- the fecal samples must be taken at least 80 days after the end of mollusc season (freeze-up) and up to one month before the start of mollusc season (spring thaw) (this method will no longer be accepted once an approved immunological test is available); or

3) individuals with negative results to an approved immunological test, should one become available.

B Outside an enzootic region with contact

1) no restrictions if contact cervids, capable of patent infection, were imported into the herd of origin under a protocol approved by the Saskatchewan Government; or

2) herds within a jurisdiction that have imported cervids capable of a patent infection from an enzootic region, under a protocol unapproved by the Government of Saskatchewan, must follow the same protocol procedures as for white-tailed deer, mule deer, fallow deer, moose and reindeer/caribou from enzootic regions.

C Outside an enzootic area without contact

No restrictions provided there is documentation from a jurisdictional authority that there has been no contact with any cervids capable of a patent infection from an enzootic region.

Elk, Bighorn, Thinhorn and Mouflon Sheep, Pronghorn Antelope, and Mountain Goats

Not known hosts therefore no restrictions.

2.5 Mule Deer Muscle Worm (*Parelaphostrongylus odocoilei*)

(British Columbia, Alberta (west of 114 West longitude), Yukon, Northwest Territories, Washington, Oregon and California are considered to be enzootic for *P. odocoilei*)

Semen and embryos are not considered a risk and may be collected and imported under Saskatchewan Government's approved protocol.

Mule Deer, Fallow Deer, Reindeer/Caribou, Moose, Bighorn, Thinhorn and Mouflon Sheep, Mountain Goats, and Pronghorn Antelope

(Bighorn and Mouflon sheep, fallow deer, moose and pronghorn antelope are not a known host but will be imported under same restrictions as the other listed species until more studies are completed)

A Within an enzootic region

1) Calves/fawns/lambs/kids less than 6 months of age treated by a licensed veterinarian, with an approved avermectin (see Appendix H) by 10 days of age and every 30 days thereafter and imported by 6 months of age; or

2) Animals over 6 months of age:
   a) from warmer climates or from cool climates imported between spring and autumn:
      - test negative to one Baermann test within 30 days prior to import ;
      - are treated with an approved avermectin (see Appendix H) at time of fecal samples are taken for test and again 48 hours prior to import;
      - the fecal samples are collected and processed as approved by the Government of Saskatchewan (see Appendix E for details);
      - blood samples may be required to be taken at time fecal samples are collected, and prior to treatment with avermectin, to be randomly tested for parasitacides residues; and
      - a licensed veterinarian must provide a declaration stating that the animals proposed for import have not been treated with an avermectin or any other parasitacides in the 60 days prior to the fecal samples being collected. (this method will no longer be accepted once an

approved immunological test is available); or

b) from cool climates and imported during the winter months:
   - test negative to one Baermann test within 30 days prior to import. The fecal sample must be taken at least 80 days after the end of mollusc season (freeze up) and up to one month before the beginning of the mollusc season (this method will no longer be accepted once an approved immunological test is available); and
   - animals must be imported prior to the beginning of mollusc season (spring thaw) in the exporting jurisdiction; or

3) individuals with negative results to an approved immunological test, should one become available.

B Outside an enzootic region with contact

1) no restrictions if contact animals, capable of patent infection, were imported under a protocol approved by the Saskatchewan Government; or

2) herds/flocks within a jurisdiction that have imported animals capable of a patent infection from an enzootic region, under a protocol unapproved by the Government of Saskatchewan, must follow the same protocol procedures as for mule deer, fallow deer, reindeer/caribou, moose, bighorn, thinhorn and mouflon sheep and mountain goats, and pronghorn antelope from enzootic regions.

C Outside an enzootic area without contact

No restrictions provided there is documentation from a jurisdictional authority that there has been no contact with any animals capable of a patent infection from an enzootic region.

Elk and White-tailed deer

Not a known host therefore no restrictions

2.6 Carotid Worm (*Elaeophora schneideri*)

(Arizona, Arkansas, Florida, Georgia, Kentucky, North and South Carolina, California, Colorado, Idaho, Montana, Nevada, New Mexico, Texas, Utah, Washington, and Wyoming, Oregon are considered to be enzootic. Note: British

Columbia has reported one unconfirmed wild mule deer).

Carotid worm is not known to exist within Canada therefore no restrictions on imports from Canadian jurisdictions.

Semen and embryos are not considered a risk and may be collected and imported under Saskatchewan Government's approved protocol.

Elk and Moose

A) Within an enzootic region

1) Herd of origin must be documented by a licensed veterinarian, familiar with the herd, to be free of clinical signs consistent with carotid worm infections (cropped ears, blindness, deformed antlers, muzzle necrosis, nervous signs, stagger, walking in circles) for a period of at least 1 year preceding an application for import. The herd of origin must not have had any animals introduced from enzootic regions within the previous 6 months, unless the licensed veterinarian, familiar with the herd the animals were introduced from, will document the herd free of clinical signs of carotid worm.

B) Outside an enzootic region with contact

1) No restrictions if contact animals, capable of patent infection, were imported under a protocol approved by the Saskatchewan Government; or

2) Herds within a jurisdiction that have imported animals capable of a patent infection from an enzootic region, under a protocol unapproved by the Government of Saskatchewan, must follow the same protocol procedures as for elk and moose from enzootic regions.

C) Outside an enzootic region with no contact

No restrictions provided there is documentation from a jurisdictional authority that there has been no contact with any animals capable of a patent infection from an enzootic region.

White-tailed deer and Mule Deer

A) Within an enzootic region

Cannot be imported.

B) Outside an enzootic region with contact

Cannot be imported.

C) Outside an enzootic region with no contact

No restrictions provided there is documentation from a jurisdictional authority that there has been no contact with any animals capable of a patent infection from an enzootic region.

Reindeer/Caribou, Fallow Deer, Bighorn, Thinhorn and Mouflon Sheep, Mountain Goats and Pronghorn Antelope

A) Within an enzootic region

1) Herd/flock of origin has been documented by a licensed veterinarian, familiar with the herd, to be free of clinical signs consistent with carotid worm infections (filarial dermatitis or itching or crustiness of the forehead, face and lower legs, blindness or brain damage) for a period of at least 1 year preceding an application for import; and

2) The herd/flock of origin must not have had any animals introduced from enzootic regions within the previous 6 months, unless the licensed veterinarian, familiar with the herd the animals were introduced from, will document the herd free of clinical signs of carotid worm.

B) Outside an enzootic region with contact

1) no restrictions if contact animals, capable of patent infection, were imported into the herd/flock of origin under a protocol approved by the Saskatchewan Government; or

2) herd/flock within a jurisdiction that has imported animals capable of a patent infection from an enzootic region, under a protocol unapproved by the Government of Saskatchewan, must follow the same protocol procedures as for reindeer, caribou, fallow deer, bighorn, thinhorn and mouflon sheep, mountain goats and pronghorn antelope imported from within an enzootic region.

C) Outside an enzootic region with no contact

No restrictions provided there is documentation from a jurisdictional authority that there has been no contact with any animals capable of a patent infection from an enzootic region.

2.7 Besnoitia (*Besnoitia tarandi)*

(Yukon, Northwest Territories, Nunavut, northern British Columbia, northern Ontario, northern Quebec, Labrador, northern Manitoba, northern Saskatchewan, northern Alberta, and Alaska are considered to be enzootic for *Besnoitia)*

Semen and embryos are not considered a risk and may be collected and imported under Saskatchewan Government's approved protocol.

Reindeer/Caribou, Mule Deer

A Within an enzootic region

1) Fawns/calves are eligible for import if:
   - herd of origin does not contain any animals that have commingled with wild caribou;
   - they were born and raised on the farm of origin;
   - they have been examined by a licensed veterinarian for scleral cysts within 30 days prior to importation and a signed declaration by licensed herd veterinarian, or provincial/territorial official and owner/manager, witnessed by an independent party, that no animals within the exporting herd show evidence of besnoitiosis;
   - they are imported into Saskatchewan by March 1 of the year following their birth;
   - herd of destination agree to keep imported animals on the farm of destination for one year, unless otherwise authorized in writing by the Government of Saskatchewan;
   - all deaths in the first 12 months after importation must be necropsied by a licensed veterinarian or diagnostic laboratory to determine cause of death and tested for *Besnoitia* spp [testing requires examination by PDS of an ~ 10 cm (4 inch) circumferential strip of skin and subcutaneous tissue removed from just below one hock (tarsal joint) or knee (carpal joint)]; and
   - imported animals that die must have their remains rendered, burnt, or deeply buried (minimum of 1 metre deep pit) to prevent scavenging. Meat must not be used as a food source for domestic or wild carnivores.

NOTE: Upon being imported into Saskatchewan, caribou/reindeer must not be kept on a game farm that has mule deer.

B Outside an enzootic region with contact

1) no restrictions if contact cervids capable of patent infection were imported into the herd of origin under an approved protocol by the Government of Saskatchewan; or

2) herds within a jurisdiction that have imported cervids capable of a patent infection from an enzootic region, under an unapproved protocol by the Government of Saskatchewan, must follow the same protocol procedures as for cervids from enzootic regions.

C Outside an enzootic region without contact

No restrictions provided there is documentation from a jurisdictional authority that there has been no contact with any cervids capable of a patent infection from an enzootic region.

Elk, White-tailed Deer, Fallow Deer, Moose, Pronghorn Antelope, Bighorn, Thinhorn and Mouflon Sheep, and Mountain Goats

Not a known host therefore no restrictions

2.8 Tuberculosis (TB)

(all jurisdictions within North America are considered at risk for TB, in all species of game farm animals)

All Game Farm Animals, Semen and Embryos

1) cervids and antelope and donor cervids and donor antelope must be from a TB accredited free herd according to CFIA requirements; or

2) for sheep and goats and donor sheep and goats, the herd of origin must not have had contact with untestable species.

2.9 *Brucella* spp

(all jurisdictions within North America are considered at risk for *Brucella* spp, in all species of cervids)

All Cervids, and Cervid Semen and Embryos

1) must come from brucellosis (*B. abortus*) accredited – free herd according to CFIA requirements; and

2) reindeer/caribou and donor reindeer/caribou, in addition, from all exporting jurisdictions, except British Columbia and Alberta, must also test negative for *Brucella suis* using an approved test within 60 days prior to importation into Saskatchewan (blood must be taken by an accredited veterinarian and submitted to PDS).

Bighorn, Thinhorn and Mouflon Sheep and Mountain Goats, and Pronghorn Antelope and their Semen and Embryos

No restrictions for movement within Canada. CFIA import testing protocols would apply from other jurisdictions.

2.10 Ectoparasites and Endoparasites
(heart water, Rocky Mountain Spotted Fever, Lyme Disease, etc)

Ectoparasites: There are various ectoparasites in all regions of North America that affect game farm species. Ectoparasites can increase the stress on the animal during transportation and relocation. Some of these ectoparasites also affect traditional domestic livestock species and some have public health implications.

Endoparasites: There are various endoparasites in all regions of North America (e.g. lungworms) that affect game farm species. Endoparasites can increase the stress on the animal during transportation and relocation. Some of these endoparasites also affect traditional domestic livestock species.

It is recommended that all game farm animals entering Saskatchewan should be treated with an acaricide within 48 hours prior to importation to the province, and an avermectin 30 days prior to shipment.

It is the importers' responsibility to ensure required withdrawal times, as recommended by a licensed veterinarian familiar with the herd of origin, have elapsed before the animals are harvested or slaughtered for human consumption.

NOTE: Animals imported for immediate slaughter at a licensed slaughter facility should not be treated with an acaricide or avermectin before

importation.

3 Genetics (Red deer genes)

Elk, including donor animals of semen and embryos

1) All elk proposed for import, or donor elk in the case of semen or embryos proposed for import to Saskatchewan, must be proven free of red deer genes as determined by a negative DNA approved test performed by a laboratory approved by the Government of Saskatchewan.

2) North American subspecies of elk coming from Alberta certified as having pure herd status (PHS) by the Alberta government do not require a DNA red deer gene purity test.

3) Male animals, which fail the purity test, including male red deer may be imported if they have been vasectomized and subsequently proven sterile by semen testing (a statement from the licensed veterinarian(s) performing the vasectomy and semen test will be required).

Species other than elk

No restrictions apply.

4 Semen and Embryos

In addition to the requirements in previous sections, the following information and certification must be provided:

1) The name of the location in which the semen and embryos were collected and certification that it is a facility that is approved by the CFIA and collected according to their standards;

2) The identification of each of the donor animals;

3) A copy of the CFIA collection permit (if collected in Canada);

4) The number of vials or embryos proposed to be imported from each animal;

5) An export certificate provided by the exporter stating that the

semen/embryo was collected from a game farmed animal;

6) The name and location of the facility in Saskatchewan proposed to store the embryos and semen if different from the importers' farm.

Signature: _____ Date: _____
Minister or designated official DD/MM/YY
Saskatchewan Environment

Signature: _____ Date: _____
Minister or designated official DD/MM/YY
Saskatchewan Agriculture, Food and Rural Revitalization

Protocols for importing game farm animals are not valid unless they have been signed by the ministers of both SE and SAFRR or their authorized officials.

APPENDIXES

APPENDIX A: CALF/FAWN PROTOCOL

(FOR NEONATAL FAWNS/CALVES IMPORTED BY 30 DAYS OF AGE)

1) Pregnant females from which fawns/calves are to be imported must be treated with an avermectin at prescribed dosages (pour-ons must be applied directly to the skin) by a licensed veterinarian between May 1 and May 15 or a minimum of 15 days before the earliest expected fawning/calving date and every 30 days thereafter while in the fawning/calving facilities to prevent larval shedding by any female infected with Protostrongylid species (e.g. *P. tenuis, E. cervi*).

2) After the initial treatment with an avermectin all does/cows must be fed a pelleted mollusc free diet.

3) Pregnant females must be placed in a mollusc free environment (see Appendix B) between 10 and 14 days after the initial avermectin treatment and not less than two days before the earliest expected fawning/calving date and maintained in that environment until fawns/calves are removed from dams.

4) If fawning/calving in a barn, pens/stalls must be not less than 2.9 square metres (32 square feet) for deer and 13 square metres (144 square feet) for elk penned individually. If fawning/calving in paddocks, there must be not less than 81 square metres (900 square feet) per pregnant female (48 pregnant females per acre).

5) The fawning/calving barn/pens/paddocks must be inspected by a licensed veterinarian at the time the does/cows are placed in the barn/pens/paddocks and again 48 hours later. At the 48-hour inspection, any doe/cow that has not quieted down and is considered by the licensed veterinarian to present a risk of injury to itself or to the fawns/calves shall be removed from the fawning/calving barn/pen/paddock.

6) The licensed veterinarian must inspect all fawning/calving pens/paddocks on a daily basis after the first fawn/calf is born. The licensed veterinarian will record all births on a daily basis and will uniquely identify fawns/calves with a tamper proof ear tag by three days of age. The unique identification numbers of fawns/calves shall be cross-referenced to their dam's unique identification number.

7) Fawns/calves in pens in a barn must be orphaned by three days of age and will be housed continuously in the fawning/calving barn until shipped to Saskatchewan. Each pen of orphaned fawns/calves must be provided with a feeder containing snail free earth for bacterial inoculation of the fawns/calves

digestive systems. Each doe/cow must be removed from the fawning barn immediately after her fawns/calves are orphaned.

8) Fawns/calves must be treated with an avermectin by 10 days of age and must remain in a mollusc free environment and imported to Saskatchewan by 30 days of age. The fawns/calves must be re-treated with an avermectin within 48 hours prior to shipment to Saskatchewan.

9) A declaration from the licensed veterinarian supervising the quarantine/isolation must be received, prior to issuing the import permit in the exporting jurisdiction, stating that:

   i. the required molluscacide treatment to both the inside and outside of the fawning/calving barn/paddock was performed (as per Appendix B);
   ii. the mollusc free environment was maintained (as per Appendix B);
   iii. the required avermectin treatment of the does/cows was performed between May 1 and May 10 and every 30 days thereafter;
   iv. all does/cows in pens/paddocks had become accustomed to their pens/paddocks and did not present undue risk of injury to the newborns;
   v. new births were recorded daily;
   vi. he/she uniquely identified all new births and cross referenced them to their dam's unique identification;
   vii. the cows/does were fed a pelleted mollusc free diet continuously from the time of the initial injection of avermectin until being released from the fawning/calving barn/paddocks and that fawns/calves were provided mollusc free earth for digestive system inoculation;
   viii. all fawns/calves received the required avermectin treatment by 10 days of age and 48 hours prior to shipment to Saskatchewan; and
   ix. all shipping containers and bedding materials were mollusc free at the time of loading in the exporting jurisdiction.

10) Fawns/calves must be transported in sealed mollusc free air shipping containers, trucks or trailer units bedded with dry sawdust or wood shavings and have non-slip floor surfaces. The containers must be sealed by the licensed veterinarian and must remain sealed until the containers arrive at the importer's farm in Saskatchewan unless feeding is required enroute (see 10i for removal of seal requirements).

   i. If fawns/calves are shipped by ground transportation:
      - the truck or trailer unit must be checked by a licensed veterinarian and the unit and bedding certified mollusc free at the time of loading.
      - the owner/transporter must pre-arrange designated feeding locations and have a licensed veterinarian supervise and certify that the feeding occurred on a paved lot and a mollusc free environment was

maintained at each feeding stop.
- feeding stops must be not more than seven hours apart;
- the unit must be sealed by the licensed veterinarian at the time of departing each feeding stop;
- all feeding stops must be supervised by a licensed veterinarian or government official approved by SAFRR to ensure a mollusc free environment was maintained;
- the seal can only be broken by the licensed veterinarian or government official approved by SAFRR supervising the next feeding operation;
- A statement from the CFIA or licensed veterinarian(s) certifying the health status/condition of the fawns/calves upon arrival at each feeding stop and at farm of destination in Saskatchewan is required; and
- Sawdust or wood shavings must be removed from the shipping container immediately after unloading and burned and the unloading area sprayed with copper sulfate.

ii. If fawns/calves are shipped by air:
- All fawns/calves must be inspected by a CFIA or licensed veterinarian upon arrival at an airport
- the CFIA official or licensed veterinarian must inspect all shipping crates to ensure they are mollusc-free.

11) Immediately after unloading at the final destination, all bedding materials used in the shipping crates/truck/trailer must be burned and shipping containers and floor in the unloading area must be thoroughly sprayed with an approved molluscacide (see Appendix C), under the supervision of a licensed veterinarian or a SAFRR/SE Official (on a cost recovery basis).

12) On-farm quarantine in Saskatchewan is required for fawns/calves imported under this import protocol. Fawns/calves must be kept in an on-farm quarantine (see Appendix D for quarantine requirements) separate from the rest of the herd until testing is complete, and SAFRR releases the fawns/calves from quarantine.

13) The entire animal, of all calves/fawns that die or are killed while in quarantine, must immediately be submitted to the PDS in either Saskatoon or Regina to be examined for the presence of parasites and diseases. This includes animals for which the cause of death is known, i.e. accidental deaths. Costs of necropsy will be the producer's responsibility.
NOTE: For all caribou and reindeer submissions this examination must include *Besnoitia* spp, by the examination of a section of skin, two inches long and completely surrounding the metacarpal or metatarsal region (below the knee or the hock) of a leg.

14) Upon being imported into Saskatchewan, caribou/reindeer must not be kept on a game farm that has mule deer.

****NOTE: Contravention of any of the foregoing terms or conditions may result in an order to remove all imported fawns/calves from the province.**

APPENDIX B: CONDITIONS REQUIRED FOR MOLLUSC FREE ENVIRONMENTS

1) Under the direct supervision of a licensed veterinarian:
   a) for fawning/calving in a barn :
      - the floor and bottom metre of all perimeter walls and individual pen dividers and feeders must be sprayed with a molluscacide copper sulfate (such as Baylicide) at a concentration of 32 gm/litre of water and sprayed at a rate sufficient to completely wet all surface areas 48 hours before the does/cows are placed in the barn;
      - no vegetative bedding, other than saw dust or wood shavings may be used in the fawning/calving barn.
   b) for fawning/calving in paddocks:
      - the paddocks must be sprayed with a molluscacide copper sulfate (such as Baylicside) at a concentration of 32 gm/ litre of water and sprayed at a rate sufficient to completely wet all surface area 48 hours before the does/cows are placed in the paddock
      - no vegetative bedding, other than saw dust or wood shavings may be used in the fawning/calving paddocks.

2) A vegetation free mollusc buffer strip 3.5 metres (10 feet) wide must be maintained on all sides of the fawning/calving barn/paddock. An approved molluscacide, listed in Appendix C, must be applied to the buffer strip. The molluscacide must be applied in a band not less than one metre wide within the buffer strip and must completely surround the fawning/calving barn/paddock. The molluscacide must be applied, under the direct supervision of a licensed veterinarian, to the buffer strip not less than 48 hours before the does/cows are placed in the barn/paddock. The barn/paddock perimeter buffer strip must be maintained vegetation free throughout the isolation period and a one metre width must be retreated with the molluscacide after every rain storm of more than 0.1 inch or 0.25 cm, or every 10 days if rain does not require more frequent application.

3) The licensed veterinarian supervising the quarantine/isolation in the exporting jurisdiction, will provide a declaration that the required molluscacide treatments to both the inside and outside of the fawning/calving barn/paddock were performed and the other requirements of the calf/fawn protocol were followed (as per Appendix A) prior the issuance of a Saskatchewan import permit.

4) Immediately after unloading at the final destination, all bedding materials used in the shipping crates/truck/trailer must be burned and shipping containers and floor in the unloading area must be thoroughly sprayed with an approved molluscacide (see Appendix C), under the supervision of a licensed veterinarian or a SAFRR/SE Official (on a cost recovery basis).

APPENDIX C: APPROVED MOLLUSCACIDES FOR QUARANTINE/ISOLATION AREAS

1) Hydrated lime applied at a rate sufficient to leave a continuous one metre wide white surface surrounding fawning/calving barns/paddocks and quarantine/isolation areas.

2) A mixture of 75% hydrated lime and 25% diatomaceous earth, applied as in 1) above.

3) A mixture of 75% hydrated lime and 25% copper sulfate applied as in 1) above.

APPENDIX D: REQUIREMENTS FOR ON-FARM QUARANTINE IN SASKATCHEWAN

1) A SAFRR inspector will inspect and must approve the facilities prior to arrival of imported animals.

2) A mollusc free buffer zone must be maintained completely around the pen(s) and facilities in which the animals will be held while in quarantine (as per Appendix B) unless the entire quarantine will occur during freeze up.

3) The quarantined pens and facilities must not drain outside of the quarantined pens and facilities.

4) Imported animals must be kept in an enclosure with a mollusc free zone around the perimeter by either:
   a. separating the imported animals from the rest of the herd by a double game farm fence with a height of at least 8 feet with the mollusc free buffer zone between the fences; or
   b. having an adequate game fence with a height of at least 8 feet with the mollusc free buffer zone around the outside of the enclosures containing both the quarantined animals and rest of the herd.

5) Animals must be easily gathered for further testing.

6) Handling facilities must be adequate to obtain required samples for testing.

7) Animals must remain in quarantine until SAFRR provides written permission that the animals have met all import requirements and can be removed from quarantine.

8) Animals that do not meet the import requirements must be removed immediately from the province or destroyed at the owner's expense.

APPENDIX E: LANKESTER-MODIFIED BAERMANN FECAL SAMPLES (Updated August 2002)

1) Animals must not have been treated with any parasitacides (e.g. ivermectin) within 60 days prior to the fecal sample collection, or between sampling for multiple samples.

2) A statement from the farm manager and licensed veterinarian is required certifying that the animals have not been treated with any parasitacides within 60 days prior to initiating the fecal sample collection, and that the animals have not been treated with any parasitacides between sampling for multiple samples.

3) SAFRR/SE reserves the right to arrange for the collection of blood samples, from any or all animals proposed for import, to be tested for parasitacide residues. If performed, the costs of such collection and analysis shall be the owner's responsibility.

4) Fecal samples taken pre-entry into Saskatchewan are to be analyzed by Prairie Diagnostic Services (PDS) in Regina, Saskatchewan. Fecal samples taken pre-entry into Saskatchewan will have to be couriered overnight to PDS in Regina. Cost of fecal sample analysis and courier costs will be the producer's responsibility. Please contact PDS at (306) 787-6431 for current price.

5) Fecal samples must be collected on Monday, Tuesday or Wednesday and shipped to PDS. PDS conducts their Baermann analysis only on certain days of the week. Please phone the lab at (306) 787-6431 as soon as it is known when and how many samples will be arriving so that staff can process the samples as quickly as possible.

6) A licensed veterinarian shall collect fecal samples from each animal using the following guidelines:

   a. Each fecal sample must contain 30 grams or a minimum of 20 medium-sized firm pellets for deer, sheep, and goats, and 40 grams or a minimum of 30 medium-sized firm pellets for elk, from an individual animal; patty-like feces are not adequate. Samples are to be taken directly from the rectum.

   b. Each sample is to be placed in a sealed plastic bag. This bag and an identifying label must then be placed within a second plastic bag. The label must contain the following three items: 1) the animal's unique identification number or code, 2) the owner's (or holder's) name and address, and 3) the date of collection.

c. Samples must be chilled and delivered to the laboratory within 24 hours; they must not be frozen. Samples must be shipped to the lab on ice packs in an insulated container.

d. A statement from the licensed veterinarian is required certifying that all pellets in each sample originated from a single animal.

e. When multiple samples are required, each successive sample shall be collected 7 days or more from the last.

f. A submission form (see attached) must be submitted with the fecal samples.

Submit samples to: **Prairie Diagnostic Services**
4840 Wascana Parkway
REGINA, SK S4S 7J6

Phone: (306) 787-6431
Fax: (306) 787-6439

MODIFIED BAERMANN EXAM SUBMISSION/WORKSHEET

Clinic	Owner/Manager
Veterinarian	Farm Name
Address	Address
City/Town Phone	City/Town Postal Code
Postal Code Fax	SPECIES

Date/Time of Sample Collection: _____

Sample #	Health of Animals Tag #	**Provincial Tag #**	**Results**

All animals listed above have not been treated with any parasitacides in the past 60 days prior to fecal sampling.

_____ Veterinarian's Signature

_____ Owner/Manager's Signature

Please forward a copy of results to: **Animal Health Unit**
Saskatchewan Agriculture, Food and Rural Revitalization
Room 201 – 3085 Albert Street, Regina, SK S4S 0B1
Phone: (306) 787-6069

APPENDIX F: IDENTIFICATION OF THE OBEX

Figure 1: Head Sectioned Through Midline.

The obex is located about 8 cms (~3 inches or a finger length) forward of the back opening of the skull (foramen magnum)

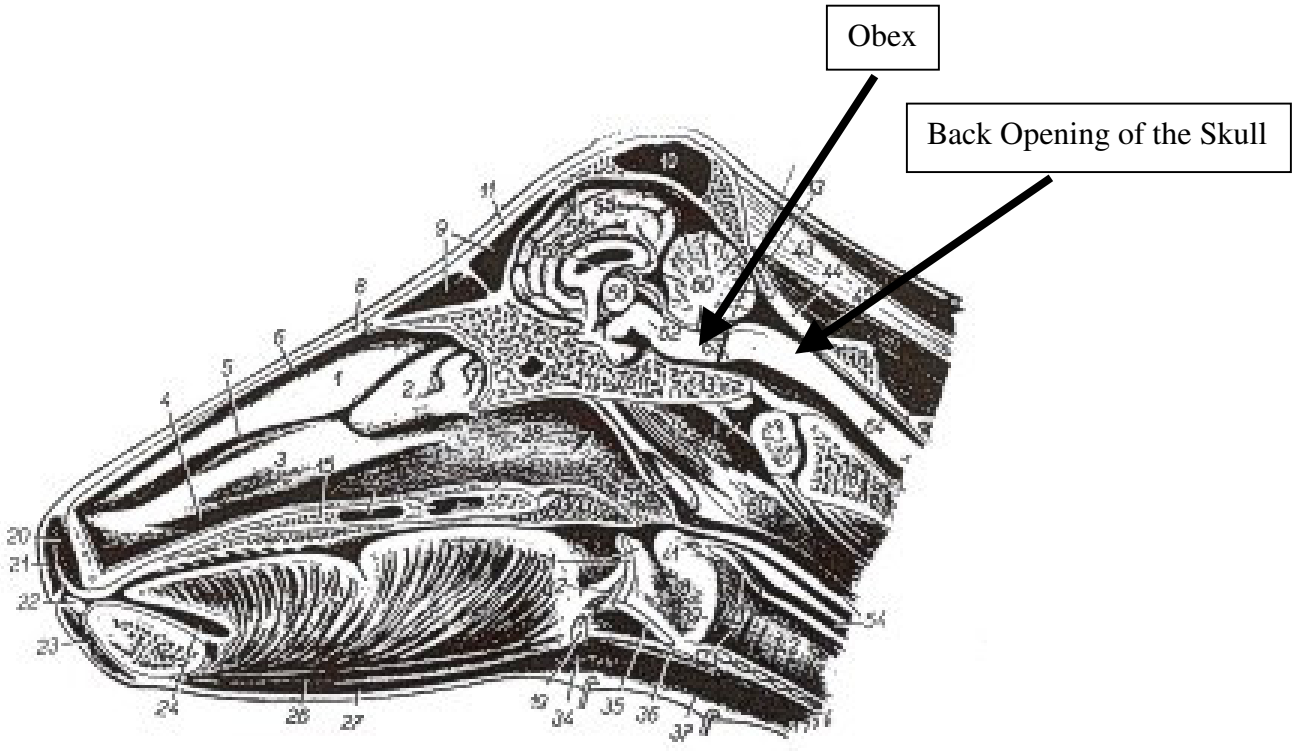
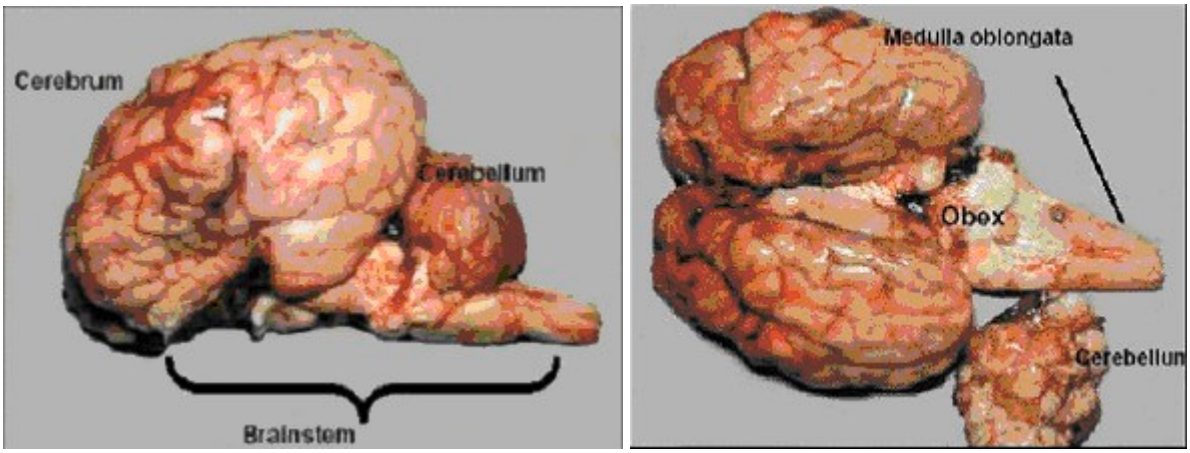


Figure 2: Whole Brain

The obex section of the brain can be located by the shallow v-shaped notch on the surface of the brainstem just under the loose back edge of the cerebellum which is shaped somewhat like a walnut



APPENDIX G: GUIDELINES FOR ACCEPTABLE DISPOSAL OF OFFAL AND OTHER INEDIBLE MATERIAL FROM CERVIDS

These guidelines come into effect immediately and are intended to assist abattoirs and meat processors dispose of offal and other inedible material. They are not intended to replace rendering as the preferred method for the disposal of such material.

As everyone is aware, the rendering companies will no longer accept any offal, including bones from cervids. Cervids are those animals belonging to the deer family including elk, white-tailed deer, mule deer, etc. Current science indicates moose and antelope are not affected by Chronic Wasting Disease (CWD). This decision was taken in response to concerns by the rendering companies' customers over CWD and the possibility of inclusion of material from animals that test positive in the rendered meal. The last few cases of CWD have been discovered in clinically healthy animals submitted for slaughter. Test results were obtained after the rendered material had been picked up and processed.

The following guidelines for disposal of offal and other inedible material were developed jointly by Saskatchewan Health, Saskatchewan Environment, Saskatchewan Agriculture, Food and Rural Revitalization, and the Canadian Food Inspection Agency. While the guidelines are intended to cover disposal of offal from cervids, they can be applied to other slaughtered animals. However, rendering is the preferred method of disposal in all cases, where possible.

1. Offal shall be stored under refrigeration at the abattoir pending removal by acceptable transportation means if it is to be held at the abattoir for more than 12 hours.

   If offal will be removed from the plant at the end of the day it can be stored in suitable covered containers that will be cleaned after each use.

   Outdoor storage in covered suitable (leak proof and rodent proof) containers may be permissible during winter months with freezing temperatures. These containers must be emptied in one of the suggested methods as soon as melting starts in spring.

2. Offal may be disposed of at any approved and properly operated municipal landfill. The processor is responsible for obtaining approval from the landfill operator. Written approval with responsibilities such as notification prior to dumping, hours of operation, covering disposed material, etc. for each of the parties is a good idea.

3(a). Offal may be buried on site or on land owned by the operator if the abattoir or processor meets the following guidelines.

- Offal shall be buried in a pit or trench and fully covered with 6 inches (15 cm) of earth on a daily basis or immediately after deposition if not used on a daily basis.
- The pit or trench must be located
    - At least 200 feet (61 m) from the premises it serves.
    - At least 1000 feet (305 m) from any other dwelling, school, hospital, public eating establishment or other occupied building.
    - Not within the limits of any city, town, village, hamlet, or approved subdivision or within one-half mile (0.8 km) of boundary thereof except with written approval of the administrative authority (i.e. the health district in the case of health licensed plants).
    - Not within 100 feet (30.5 m) of a drilled well or 200 feet (61 m) of any other well or water supply used for domestic purposes.
    - Bottom of the pit or trench must be 5 feet (1.5 m) above the high water table where the soil is clay or of similar material.

    Winter will present some challenges. Earth should still be placed on top of offal at the end of each day or each time the pit is used, if not used on a daily basis.

3(b). A culvert or well casing with a lid could be installed in a hole and used as a dump. In summer, dirt would still have to be put on top of each dump of offal or other inedible material to keep the odor and flies down. In winter, the product would probably freeze, and the material could be covered with dirt as soon as melting started. The lid would be a mechanism for keeping scavengers away from the pit. This method would have to meet the same criteria as a pit or trench above regarding distances from dwellings and other buildings, type of soil, and distance form water tables.

4. Material may be burned in an approved incinerator. This method tends to be expensive and is probably not suitable to large volumes of material.

5. If the producer is a licensed game farm, the producer can make arrangements with the plant to dispose of the offal from his animals on the producer's premises. The producer would be responsible for ensuring proper disposal as outlined above, as well as, ensuring the offal was removed from the plant in leak proof containers.

Note: Cervid offal must not be made available for bait (e.g. bear bait) or pet food.

Currently science does not indicate that CWD can infect other species including humans. However, it would be prudent that we hold carcasses or meat until results are obtained if they have been tested for CWD. Furthermore, it is advisable to avoid eating meat from sick animals at any time. We should also ensure disposal of all inedible portions so it is not available for consumption by other animals. It is also desirable to ensure that whatever disposal method is chosen by processors, it does not create problems or nuisances for others.

A list of contact personnel for concerns or complaints is outlined below.

- Health licensed processing plants should contact the Senior Public Health Inspector for their district.
- Domestic plants can contact Jim Laturnas, Saskatchewan Agriculture, Food, and Rural Revitalization.
    - Landfills – contact local Saskatchewan Environment Eco-region

Guideline prepared June 2002 by Canadian Food Inspection Agency, Saskatchewan Environment, Saskatchewan Agriculture, Food and Rural Revitalization, and Saskatchewan Health.

APPENDIX H: LIST OF AVERMECTINS

(Approved by the Government of Saskatchewan to prevent parasites from entering Saskatchewan)

Active ingredient	Common Name/Brand Name	Dose based on active ingredient
5 mg eprinomectin/ml	Ivomec Eprinex ™ Pour-on	500 µg/kg of eprinomectin /kg body weight
5 mg ivermectin/ml	Ivomec™ Pour-on	500 µg/kg of ivermectin/kg body weight
10 mg ivermectin/ml	Ivomec ™ injection	200 µg of ivermectin/kg body weight

It is the importers' responsibility to ensure required withdrawal times, as recommended by a licensed veterinarian familiar with the herd of origin, have elapsed before the animals are harvested or slaughtered for human consumption.

NOTE: Animals imported for immediate slaughter at a licensed slaughter facility should not be treated with an acaricide or avermectin treatment before importation.