

## 7.9 Appendix 3—National Standards for Scrapie Flock Certification Program

### Voluntary Scrapie Flock Certification Program National Standards

#### **Introduction**

The Scrapie Flock Certification Program (SFCP) is voluntary. The program is designed to give producers a means of detecting and controlling scrapie within their flock, resulting in recognition that the risk of animals from their flock being infected with scrapie diminishes to negligible with progressive participation in the program. A sheep or goat producer can join the SFCP provided that the producer agrees to adhere to the program rules.

As there is no test to diagnose the disease in the individual live animal, “scrapie-free” status is determined based on the results of surveillance testing carried out on dead stock, screening the flock for presence of disease, removing genetically susceptible animals, restricting animals entering the flock, and the absence of clinical signs.

There are three separate paths that can be followed for a flock to achieve certified status. Pathway 1 involves limiting acquisitions to animals from similar or higher status flocks and ongoing surveillance through the submission of dead stock for scrapie testing. The program includes six levels, from the entry level (Level E) to the highest level (Certified). A minimum of five years is necessary for a registered flock to reach the Certified Level.

Pathway 2 involves genotype screening to determine adults who possess the genotype susceptible to scrapie and then screening these animals by the third eyelid test. Negative results gives a reasonable level of assurance that the disease is not present in the flock. Ongoing surveillance of dead stock continues to monitor for the presence of the disease.

Pathway 3 involves genotype screening and the elimination of genetically susceptible animals from the breeding flock.

The SFCP is carried out in cooperation with producers, accredited veterinarians, provincial governments and the Canadian Food Inspection Agency (CFIA). The roles assumed by each of these organizations may vary in different geographic regions of Canada.

## 1. Roles and Responsibilities

### 1.1 National Standards Development and Audit

This role and the associated responsibilities will be assumed by the CFIA in all situations. The CFIA is responsible for the development using a consultative process of national (minimum) standards for a scrapie flock certification program. Modifications and updates to these standards will be undertaken as required. The CFIA is responsible for providing the current national standards to the organizations responsible for regional administration (see point 2 below).

Where the regional administration is assumed by organizations other than CFIA, it is CFIA's responsibility to review any scrapie flock certification program proposed for the specific geographic region of Canada and determine equivalency to the published national scrapie flock certification standards. International negotiation for recognition of the program and endorsement of export certification by the CFIA will only be done for those scrapie flock certification programs judged by the CFIA to meet the national standards.

The CFIA is responsible for auditing program design and implementation to verify that the scrapie flock certification program in a particular geographic region of Canada meets the national standards.

The CFIA is responsible for the design and implementation of a quality assurance program for non CFIA laboratories performing TSE testing and laboratories providing genotyping for scrapie susceptibility. All confirmatory testing on suspect or positive scrapie tissue samples will be performed by a CFIA laboratory. In the case of a confirmed positive animal, the CFIA will implement an official disease control program. *Discrepancies between genotyping results from two laboratories will be subject to final genotype testing by CFIA genotyping laboratory.*

The CFIA is responsible for developing and maintaining a publically accessible report (e.g. on Web site) of all enrolled flocks and their status. This report will be updated quarterly.

### 1.2 Regional Administrator

This role and the associated responsibilities may be assumed by a national or provincial industry group, the provincial government, or the CFIA Program Network. The Regional Administrator is responsible for enrollment and membership in the scrapie flock certification program for the particular geographic region of Canada including the following:

- developing a program that meets the national standard;
- developing and distributing a contract (application form) for entry into the program;
- developing and distributing forms required for the program including

application forms, annual reports, inventory reports, and flock status certificates;

- collecting and collating all data on enrolled flocks in that region;
- issuing certificates indicating the status of a flock;
- issuing a certificate indicating that a sheep is a member of a herd enrolled in the certification program and indicating the status of the flock;
- informing the CFIA SFCP co-ordinator of the status of all enrolled flocks on a quarterly basis; and
- designing an appeal process for decisions made with respect to the voluntary flock certification program, for example with regard to compliance with national standards.

### **1.3 Status Assessment or Status Assessor**

The role of assessment of flock status may be assumed by a national or provincial industry group, the provincial government or the CFIA district office. The status assessor is responsible for the following:

- receiving and reviewing completed application for enrollment into SFCP;
- accepting flock into the appropriate level of the program or informing the producer/responsible veterinarian of outstanding requirements that prevent flock enrollment at that time;
- verifying initial and annual flock inventories and additional records for all additions and deletions are complete;
- suspending SFCP status in the event of reported irregularities;
- investigating flocks that are suspended and proceeding with reinstatement or revocation of SFCP status;
- updating the regional administrator of the SFCP of changes in flock status (additions, suspensions, revocations) as they occur;
- implementing the appeal process to determine whether an exemption should be granted for enrolled owners who failed to comply with national standard program requirements.

### **1.4 Program Delivery**

Program delivery is carried out by a veterinarian accredited by CFIA. The inventory portion of the initial or annual report may be conducted by CFIA staff, an animal health technician supervised by the accredited veterinarian, or staff of a provincial department or agency that is the status assessor or regional administrator.

Veterinary practitioners are authorized (accredited) by the CFIA or the appropriate provincial government to perform inspections, to take samples for diagnostic purposes or genotyping, and to check records. To obtain accreditation, a veterinarian must successfully complete the Accredited Veterinarian's Manual of Procedures module or provincial equivalent. The accredited veterinarian must sign the application form completed by the flock owner.

If the owner decides to no longer do business with the accredited veterinarian who signed the original application form, a new accredited veterinarian must be asked to sign a copy of the form, or if the situation has changed, a new application form.

Program delivery personnel are responsible for the following:

- reviewing the requirements of the program and responding to questions of the owner of premises applying for or enrolled in the program;
- teaching the owner to recognize the clinical signs of scrapie, providing information on the epidemiology of the disease and flock management;
- conducting or supervising a flock inventory;
- assessing the health of the flock to determine whether any sheep or goat is demonstrating signs of scrapie;
- immediately notifying the CFIA of the existence of any animal suspected of having clinical scrapie;
- reconciling records to assure that the flock meets the program requirements;
- signing and submitting reports, including the annual inventory to the status assessor;
- collecting or supervising collection and submitting samples for genotyping; and
- collecting and submitting tissue samples from deadstock if the owner requests.

## **1.5 Laboratories**

Laboratory approval is accompanied by training and implementation of a quality assurance program established by the CFIA. A member of the laboratory staff must have taken CFIA training to be able to supervise scrapie tests and ensure that the quality assurance program is followed. Laboratories providing diagnostic testing services for the SFCP are responsible for the following:

- collecting, preparing and testing tissue samples in accordance with the CFIA national protocol for the diagnosis of scrapie; or
- genotyping blood samples for codon 171 of the scrapie incubation gene;
- participating in the quality assurance program designed by the CFIA Laboratories Directorate;
- forwarding suspect samples to the appropriate CFIA laboratory (Ottawa-Fallowfield) for confirmation (the results are not reported to the owner or the accredited veterinarian);
- providing required forms;
- providing appropriate shipping containers;
- notifying the owner, accredited veterinarian responsible for the flock, and status assessor of negative test results;
- assessing whether a tissue sample is adequate to permit diagnosis of scrapie and notifying the owner, accredited veterinarian and status

- assessor of samples which are not suitable; and,
- disposing of tissues and carcasses in accordance with the environmental regulations in force in the province and territory. (Positive carcasses must be disposed of by burial or incineration.)

## **1.6 Producers**

Owners are persons who own a premises or who have responsibility for the care and handling of all sheep on a premises.

The owner or shepherd of a flock wishing enrollment in the SFCP is responsible for the following:

- identifying animals in the flock;
- providing the necessary facilities and assistance for inspection and handling of the animals;
- obtaining the services of a veterinarian accredited by the CFIA to deliver the SFCP;
- assisting the accredited veterinarian in conducting annual inventories;
- obtaining, maintaining, and compiling all relevant documentation of animal acquisitions and departures (keeping records);
- depending on the program pathway being followed, submitting the appropriate tissue samples for laboratory analysis with appropriate animal identification;
- immediately reporting to the CFIA district veterinarian any animal suspected of being clinically affected by scrapie; and
- agreeing, on reasonable notice, to make the animals and records available so that the accredited veterinarian, the provincial regulatory agency, and the CFIA can inspect them.

## **2. Administration**

### **2.1 Enrollment Procedure**

The flock owner contacts the local CFIA district veterinarian to determine the organizations responsible for the SFCP in the geographic region in which the flock is located.

The flock owner contacts the SFCP regional administrator and requests an application form to participate.

An application is completed and submitted to the organization responsible for status assessment. The applicant must indicate which program specific pathway to certification will be pursued. The application form must be accompanied by the following:

- site plan of all buildings and grazing premises to which the animals are given access;
- the initial flock inventory prepared by the accredited veterinarian within the three month period immediately prior to submission of the application; and,
- a record-keeping plan (objective: records must be reviewed completely and effectively at each annual inspection).

Accelerated admission to more advanced levels of the SFCP may be possible for flocks which have met all program requirements for a number of years prior to application.

A flock that has been subject to the CFIA scrapie disease control program may be admitted to the certification program at the level at which it meets the certification program requirements.

## **2.2 Advancement/Downgrading**

An owner may apply to have the flock's certification status upgraded if the following conditions are met:

- a) the premises is not currently subject to CFIA actions related to the scrapie program; **and,**
- b) the flock has met the minimum requirements applicable to its current certification level.

To upgrade the flock's certification status, the owner must submit a request, along with the annual report that would make the flock eligible for advancement, to the status assessor for review and approval. The request must be completed and signed by the owner and the accredited veterinarian responsible for the flock.

The status assessor reviews the annual report and approves advancement or identifies deficiencies that prevent advancement. When deficiencies are identified the status assessor may require that the current level be maintained until the deficiencies are addressed, downgraded to a lower status or that the flock status is suspended. The decision is documented to the program participant and copied to the accredited veterinarian and the regional administrator.

Regardless of the certification pathway that is pursued, having attained the "Certified" level, annual application for renewal of this level is required. The owner must submit a request to maintain the status of "Certified," along with the annual report that documents that all ongoing requirements have been met to the status assessor for review and approval. The request must be completed and signed by the owner and the accredited veterinarian responsible for the flock.

### 2.3 Revoking Registration

If the owner of a registered flock contravenes the program rules, the organization responsible for status assessment will temporarily suspend the flock's certification status and, after reviewing the situation, may reinstate the flock at the same level, downgrade the flock, or revoke the flock's status and remove it from the program.

An owner whose flock is under review for possible removal from the program will be given the opportunity to submit any relevant information to the status assessor, provided that this is done no later than 30 days after the flock is suspended.

Any flock whose owner fails to submit an inspection report within the month following the end of the anniversary quarter will be automatically suspended.

The status assessor will notify the owner and the accredited veterinarian in writing of the reasons for the decision and will give the owner the opportunity to appeal within 60 days. The notice will include the name and address of the responsible person on the appeal committee as established by the status assessor.

An owner whose flock has been removed from the program because of a contravention of program rules may submit a new application after meeting the conditions stipulated in the program. In such cases, the owner must submit satisfactory proof to the status assessor that steps have been taken to ensure that the flock will continue to meet the program requirements in the future. In the case of a flock that is reinstated in the program, the reinstatement level will depend on the reasons for suspension. The flock will not be automatically reinstated at its previous level. In cases in which the flock was removed for reasons of information falsification, failure to report to a veterinary inspector that an animal might have scrapie, or any other action that might expose other flocks to scrapie, an owner may lose the privilege of registering a flock in the program.

If a participating flock is found to be infected with, or a source of scrapie, its certification status will be suspended. The flock will be subject to the scrapie control program governed by the *Health of Animals Act and Regulations*. Following completion of the scrapie control program, the flock may be reinstated in the flock certification program in the appropriate pathway and level.

## 2.4 Reports

The results of all reports, including information on registrations, tests, suspensions, revocations, and changes in status are distributed to the owner, the accredited veterinarian and the CFIA district veterinarian.

The status assessor will submit a summary report, which will be sent to the regions and to CFIA headquarters so that the information can be included in the CFIA's quarterly report and posted on the CFIA Web site (Levels E, D, C, B, A, and Certified). Flocks whose report is not submitted to the status assessor within the prescribed time will be identified on the Web site as being suspended.

The quarterly report published by the CFIA will be produced and automatically distributed to all provinces, and/or published on the Web site. It will list all registered and certified flocks with their pathway and certification levels.

Records must be kept of feed given to animals according to the *Health of Animals Act and Regulations*.

## 2.5 Review of the Program

The voluntary SFCP will be reviewed on an annual basis and/or as the scientific information becomes available and changes are required.

## 3. General Rules

These requirements must be fulfilled by participants in all three certification pathways.

- 3.1 The certification program must be open to any owner of a premises on which sheep/goats are kept, provided the owner and the premises meet the program requirements and the owner of the premises has not had the right to participate in the SFCP removed (revoked).
- 3.2 All sheep and goats on a premises must be included in the flock enrolled in the certification program, ownership notwithstanding.
- 3.3 Multiple premises must be listed under the same certification contract if the premises belong to the same owner and are located in proximity to each other.
- 3.4 The flock owner must arrange for the services of a veterinarian certified by the CFIA to deliver the SFCP. The accredited veterinarian's acceptance of their role in implementing the SFCP within the identified flock is indicated by signing the application form.



- 3.5 The owner of a flock must report to their accredited veterinarian any illness in a sheep or goat over 12 months of age lasting longer than two weeks, except a physical injury. The accredited veterinarian will be responsible for monitoring the outcome of the case and for reporting the case to the CFIA if scrapie is a differential diagnosis.
- 3.6 All animals in a flock aged 12 months or more must be identified with two unique identification devices.
- 3.7 Animals less than 12 months of age must be identified in a manner that enables the flock owner to track these animals in the flock inventory. All animals aged less than 12 months must be appropriately identified (as required by regulation) when a change in ownership occurs or when the animals are moved outside their usual location (e.g. exhibition, insemination centre, sales barn, or auction barn).
- 3.8 The owner must keep detailed flock records of every sheep or goat that is born on or enters the premises, no matter who the owner is or who is responsible for the sheep or goat. The records must be kept for a period of five years after the animal has left the flock or has died. They must be made available to the program delivery person or the CFIA inspector at any reasonable time and must be presented at the time of each annual inventory.

For all animals in the flock, the basic minimum data that must be maintained in the flock records includes the following:

- (a) the animal's identifiers;
- (b) date the animal entered the flock (day if available, month and year);
- (c) sex;
- (d) source of the animal (homegrown, purchased, loaned);
- (e) if the animal is not born in the flock the name and address of the person from whom it was obtained along with the flock status certificate issued for the flock of origin of female animals;
- (f) date the animal left the flock;
- (g) reason for leaving flock and appropriate documentation (shipped - shipping invoice, sold - receipt, died);
- (h) scrapie testing results for deadstock > 12 months of age.

Additional information that is required for pathway 3:

- (i) identifiers of the sire and dam;
- (ii) genotype testing results as required by the pathway specific requirements.

### **Flock Inventories**

- 3.9 Inventories (initial and annual) will be conducted by the accredited veterinarian or an appropriate third party supervised by the accredited veterinarian. The inventory will identify all sheep and goats on the premises. During the inventory inspection all animals over 12 months of age in the flock must be identified individually (by tag) and the veterinarian must check for any clinical symptoms of scrapie. If a flock inspection is performed by a CFIA veterinary inspector for the purpose of the scrapie disease control program, this may replace part or all of the annual inspection by the accredited veterinarian.

### **Annual Reports**

- 3.10 The annual report lists the following:
- all identification of each sheep and goat on the premises at the time of the inventory;
  - all identification devices placed on each sheep/goat, including the current lamb/kid crop and any sheep or goats that have lost identification devices;
  - all sheep/goats that have entered or left the premises since the last inventory;
  - the status of the flock of origin for those sheep/goats entering the premises;
  - all deaths;
  - the destination of every sheep/goat that moved off the premises as established by a bill of sale or, if the animal has not been sold, a signed document showing the destination of the sheep/goat; and,
  - appropriate laboratory results (**genotyping or scrapie testing**).

The report must be forwarded to the status assessor within the anniversary quarter of when the certified flock was registered.

### **Deadstock Testing**

- 3.11 The head of the animal or the brain sample may be submitted directly to an approved provincial laboratory by the producer or the accredited veterinarian may collect samples for submission to an approved provincial laboratory. In all cases, the head (or the sample) should be chilled or frozen immediately. The owner must contact the laboratory in advance before submitting the head. The head must bear animal identification.
- 3.12 If moribund animals are humanely destroyed on farm by a gun shot to the head, the recipient lab must sample and test both brain and one lymph node from the head (mandibular, retro pharyngeal, or third eyelid) for scrapie.

- 3.13 If the dead animal is not found immediately or the accredited veterinarian or laboratory are not available within 36 hours of the death, the head of the animal must be frozen by the owner and submitted as a frozen specimen. Freezing enables the scrapie diagnostic test to be applied to the tissues which otherwise would no longer be suitable for testing.
- 3.14 Animals over 12 months of age submitted for routine post-mortem may be considered as dead submissions if tested for scrapie.
- 3.15 Specimens must meet the requirements specified in the diagnostic protocol approved by the CFIA, which guarantees the reliability and accuracy of the results. If an unsuitable specimen is received, the receiving laboratory is to notify the status assessor and accredited veterinarian responsible for the flock. A follow-up of the details of the individual situation will be undertaken with the responsible accredited veterinarian/status assessor. If negligence on the part of the producer is identified as the cause, or this occurrence is repeated, the program's requirements are not considered to have been met and the flock will be suspended.
- 3.16 No more than five adult animals have to be submitted for testing from a group of animals that die from a common cause as determined by a veterinarian or veterinary pathologist within the time frame (not to exceed four weeks) of the same epidemiologically linked episode.
- 3.17 Exemption from submission of heads.

The status assessor should consider the following as automatic exemptions from the requirement to submit, unless the status assessor suspects the conditions set out were not met or that the exemption is being abused to the detriment of the flock certification program.

- A. Destruction of sheep by fire:  
- a certificate or letter of an appropriate fire official must accompany the annual flock report.
- B. Destruction and carrying away the head of a sheep by a predator:  
- a certificate or letter of an appropriate wildlife officer or other government official responsible for investigating such incidents must accompany the annual flock report.
- C. Theft:  
- a report of the police officer investigating the theft must accompany the annual flock report.

- D. Loss or destruction of the sample when it is no longer in the control of the owner, e.g. by an accredited veterinarian or laboratory. Recognized laboratories should note on reception of the specimen that the obex is not present and the reason why:
  - a letter setting out the details of the loss of the sample by the individual responsible must accompany the annual flock report.
  
- E. Any other reason over which the owner could not reasonably be expected to have control which results in the destruction or disappearance of the body, such as a flood:
  - a letter or report by an acceptable third party which sets out the details of the reason for failure to submit the sample must accompany the annual flock report.

### ***Genotype Samples and Testing***

- 3.18 Samples (e.g. blood samples) required for genotyping may be taken by a veterinarian accredited to deliver the SFCP or a third party under the supervision of a veterinarian accredited to deliver the SFCP (e.g. a veterinary student, a technician).
  
- 3.19 The genotype of 171RR breeding males must be determined twice: either by using a combination of predictive parentage and testing by a laboratory approved by CFIA; or by testing at any laboratory and at a laboratory approved by the CFIA. Accordance between the results of the two separate determinations of genotype is required. In cases of discordance, a separate sample will be taken from the animal and submitted to the CFIA lab for determination of the genotype.

Breeding ewes that are required to be genotyped may have their genotype determined through the use of predictive parentage or laboratory analysis. Samples for genotyping of female sheep may be submitted to any Canadian laboratory that participates in the national genotyping project or a foreign laboratory approved by CFIA.

### ***Information Sharing***

- 3.20 Information sharing requires all flock information, including inventories, test results, documents related to purchases and sales of animals or embryos, deaths, to be available to the owner, the CFIA, the status assessor, the regional administrator, and the accredited veterinarian. The owner must also agree to allow publication of the status of the flock under the program.

#### 4. Specific Program Pathway 1

**Note: This is the only pathway that applies to goats.**

- 4.1 The program includes six levels, from the entry level (Level E) to the highest level (Certified). A minimum of five years (one year at each of Level E, D, C, B, A) is necessary for an enrolled flock to reach the Certified Level in Pathway 1. Once a flock has reached the Certified Level, it maintains this level provided that the applicable requirements continue to be met.
- 4.2 The flock category is effective from the date when the flock is accepted within the program and the anniversary quarter for subsequent years is the quarter in which the acceptance date falls (January 1—March 31; April 1—June 30; July 1—September 30; October 1—December 31).
- 4.3 A brain sample from all sheep/goats over 12 months of age that die or are humanely killed on the farm (dead stock) must be submitted for scrapie testing in a CFIA-approved laboratory.
- 4.4 All animals (100%) over 12 months of age that die die or are humanely killed on farm are to be submitted for scrapie testing. Animals that are unavailable for testing beyond the automatic exemptions detailed in these standards will be considered as per policy detailed by the status assessor. A program participant that does not agree with the decision of the status assessor may appeal the decision.
- 4.5 If no suitable samples have been submitted for testing for a period of time equal to or exceeding 12 months, then at least one animal 24 months of age or older is to be killed (slaughter, euthanasia) and a sample submitted for testing.
- 4.6 Introduction of female animals or embryos from the following sources (with the supporting zoosanitary health certificate) will have no effect on the flock's certification level:
  - from flocks registered in the SFCP at an equivalent or higher certification level (anniversary quarter will be taken into consideration); or
  - from a country the CFIA recognizes as free from bovine spongiform encephalopathy and scrapie; or,
  - from a flock registered (on the date of export or embryo collection) at an equivalent or higher level in a country/region/zone of origin's scrapie flock certification program, that the CFIA has assessed as equivalent to the Canadian program.

- 4.7 The flock status certificate accompanying the purchase of the animals or embryos will be the supporting document required to attest to the certification level of the flock of origin.
- 4.8 Introduction of one or more females/embryos obtained from flocks registered in the SFCP at the same certification level but registered in a later anniversary quarter will result in the recipient flock's anniversary quarter being moved to that of the flock of origin.
- 4.9 If female animals/embryos from flocks of a lower certification level are introduced, the status of the recipient flock will be downgraded to that of the flock of origin of the lowest category. If animals/embryos from a non-participating flock are introduced, the status of the recipient flock will be reduced to Level E.
- 4.10 With the exception of limited contacts (see definitions that follow), commingling of animals from non-participating flocks or a flock of a lower status will result in downgrading of the certification level to that of the flock of origin of the lowest category (Level E if animals are commingled with animals from a non-participating flock).
- 4.11 Introduction of males from flocks of any status will have no impact on the certification level of the recipient flock. There is currently no scientific evidence that male animals can transmit scrapie; however, producers must be aware that the requirement for export in the U.S. and Japan is that scrapie has not existed on any premises on which animals (for export) were located during the 60 months immediately prior to shipment.
- 4.12 Semen may be sourced from males in non-participating flocks or flocks of any certification level, with no effect on the certification level of the recipient flock, provided that, on the date of insemination, the semen donor is not affected by scrapie (positive) or suspected of being affected by scrapie. The semen must meet the requirements of the national artificial insemination program.
- 4.13 The producer must make an annual request for advancement or maintenance of the flock status within the SFCP. The request must be accompanied by the annual report including animal inventory, and all supporting documentation must be submitted to the status assessor.

## **5. Program Specific Pathway 2**

**Note: This pathway does not apply to goats.**

- 5.1 A blood sample is collected from all ewes greater than 14 months of age and submitted for genotyping by a CFIA-approved laboratory. Samples (e.g. blood samples) required for genotyping must be taken by a veterinarian accredited to deliver the SFCP or a third party under the supervision of a veterinarian accredited to deliver the SFCP (e.g. a veterinary student, a technician).
- 5.2 All ewes 14 months of age or older, which are determined to have the 171QQ genotype, must have a sample of lymphoid tissue collected from the 3rd eyelid by the accredited veterinarian on contract and subjected to testing for scrapie by a laboratory approved by CFIA for that purpose. A minimum of 50 ewes must be tested to continue in this pathway.
- 5.3 If all laboratory tests for scrapie are negative, the flock may officially apply to enter the SFCP and if accepted, enters Level B.
- 5.4 Commencing with acceptance into the program, brain samples from all sheep/goats over 12 months of age that die on the farm (deadstock) must be submitted for scrapie testing by a CFIA-approved laboratory.
- 5.5 Females and embryos acquired from flocks of an equivalent or higher status will not affect the status of the recipient flock. The acquisition of females or embryos from flocks of lower status will result in the lowering of the status of the recipient flock to the status of the flock of origin.
- 5.6 To apply to advance to Level A, any breeding females purchased from other farms before entering the SFCP but not 14 months or older (thus did not have a 3<sup>rd</sup> eyelid test) at the time of the first testing, must now be subject to genotyping and 3<sup>rd</sup> eyelid testing as per steps 5.1 and 5.2 above. These results must be submitted along with the annual report and the request to advance to Level A.
- 5.7 The flock may advance to the Certified Level as per Pathway 1. Once a flock has reached the Certified Level, it maintains this level provided that the requirements (deadstock surveillance, acquisitions) are followed. An annual request, with the accompanying annual report including animal inventory and all supporting documentation must be submitted to the status assessor.
- 5.8 If no suitable samples have been submitted for testing for a period of time equal to or exceeding 24 months, then the flock will be required to be rescreened by genotyping and 3<sup>rd</sup> eyelid testing.

## 6 & 7 Program Specific Pathway 3

**Note: This pathway does not apply to goats.**

There are two distinct ways in which a producer may prepare a flock for application into this pathway.

### 6. Whole Flock Screening

- 6.1 A blood sample is collected from all breeding sheep and submitted for genotyping by a CFIA-approved laboratory.
- 6.2 Upon receiving the results, all breeding females and males that are determined to be 171QQ are removed from the breeding flock.  
  
If any of the breeding stock to be retained have been bred, it will be necessary to determine the genotype of their progeny to establish whether they can also be retained.
- 6.3 After removing 171QQ sheep from the flock, an updated inventory documenting that all remaining breeding sheep are 171RR or 171QR must be conducted under the supervision of a veterinarian accredited to deliver the SFCP. At this point, the producer may officially apply to enter the SFCP and, if accepted, enters Level A.
- 6.4 Commencing upon acceptance into the program, brain samples from all sheep/goats over 12 months of age that die on the farm (deadstock) must be submitted for scrapie testing by a CFIA-approved laboratory.
- 6.5 Newly purchased breeding stock must be genotyped 171QR or 171RR by a CFIA-approved laboratory. This restriction also applies to semen.
- 6.6 Offspring (including embryos) from a mating involving at least one 171RR parent (either ewe or ram) may be retained in the flock for breeding purposes without genotyping.
- 6.7 Offspring (including embryos) from all other matings (other than one involving at least one 171RR parent) must be genotyped or removed from the flock by 12 months of age. Also by 12 months of age, 171QQ offspring must be removed.
- 6.8 After one year of continuing the requirements for restrictions on genotype of introduced animals and deadstock surveillance and the compilation of a second annual inventory that documents the appropriate flock membership, the owner may apply for advancement in the SFCP to the "Certified Level" status.



- 6.9 Once a flock has received the certified level, it maintains this level provided that the requirements for this level (genotyping of offspring from non RR matings and genotype restriction on purchased breeding stock or germplasm; deadstock surveillance) are followed. An annual request, with the accompanying annual report including animal inventory and all supporting documentation, must be submitted to the status assessor.

## 7. Ram Only Screening

- 7.1 A producer starts by selecting breeding rams that are documented 171RR.
- 7.2 Over subsequent breeding cycles, cull the flock such that all remaining sheep can be documented (by flock records) to be offspring of a 171RR ram.
- 7.3 All subsequent breeding males, be they natural replacements, purchases or loans must be 171RR. Semen must be sourced from rams genotyped 171RR. All breeding females, other than natural replacements, and embryos must be established by genotyping as 171QR or 171RR .
- 7.4 At this point an annual inventory documenting the removal of 171QQ and ungenotyped sheep must be conducted under the supervision of a veterinarian accredited to deliver the SFCP. At this point the producer may officially apply to enter the SFCP and, if accepted, enters Level A.
- 7.5 Commencing with acceptance into the program, a brain sample from all sheep/goats over 12 months of age that die on the farm (deadstock) must be submitted for scrapie testing by a CFIA-approved laboratory.
- 7.6 After one year of continuing the requirements for restrictions on genotype of introduced animals and deadstock surveillance and the compilation of a second annual inventory that documents the appropriate flock membership, the owner may apply to advance to the Certified Level of the SFCP.
- 7.7 Once a flock has received the Certified Level, it maintains this level provided that the requirements (selection of replacement breeding rams genotyped twice and purchased ewes, and deadstock surveillance) are followed. An annual request, with the accompanying annual report including animal inventory and all supporting documentation, must be submitted to the status assessor.

## Definitions

Commingle (mixed):

- Animals grouped together with physical contact between the animals. This does not include limited contact (e.g. contact through a fence, pen separation). Commingling includes sharing the same section in a transportation unit where physical contact can occur.

Established flock:

- All animals that are maintained on a single premises and all animals under common ownership or supervision on two or more premises with animal interchange between the premises.

Flock:

- A flock as defined in the *Health of Animals Regulations*.

Flock status certificate:

- Certificate issued by the status assessor specifying the flock's location and status, indicating the date of issue, and identifying animals leaving the flock following their sale.

Limited contact:

- Incidental contacts between animals off the flock's premises, e.g. fairs, shows, exhibitions and sales. Limited contacts do not include any contact, incidental or otherwise, with an animal during or up to 30 days after she lambed, kidded or aborted or when there is any visible vaginal discharge. Limited contacts do not include any activity where uninhibited contact occurs, such as sharing an enclosure, sharing a section of a transport vehicle, or residing in other flocks for breeding or other purposes.

Official identification:

- Permanent, unique, traceable and secure (e.g. electronic identification, tattoo, tamper proof tag).

171QQ:

- Include all results that do not identify arginine at codon 171 of the scrapie incubation gene (includes glutamine and histidine; QQ, QH, HH).

171QR:

- Include all results that do not identify the animal as a heterozygote for arginine at codon 171 of the scrapie incubation gene, identifying arginine on one allele and the absence of arginine on the other (includes glutamine and histidine; QR or HR).