Introduction to the CQA® Program

Project Background

Canada's pork industry is experiencing tremendous growth in domestic and export markets as consumers discover the versatility, value and consistent quality available to them. However, as marketing opportunities increase, so does competition. Today's consumers want to be assured that the food they buy is safe, wholesome and responsibly produced.

In the past, Canada's reputation as a quality producer, along with verbal assurances, was sufficient to maintain customer trust. Today, that's not enough. Buyers want proof that the food they buy meets clearly-defined quality standards.

The Canadian Quality Assurance (CQA®) program, developed by a technical team comprised of specialists assembled by the Canadian Pork Council and supported by Agriculture and Agri-Food Canada, is the pork industry's commitment to consumers that pork products meet the highest food safety standards. CQA® is based on HACCP (Hazard Analysis Critical Control Point), an internationally accepted food safety assurance system developed by the Pillsbury Company, originally developed to ensure that food produced for the United States' space program was uniformly safe and wholesome.

Although HACCP (pronounced ha-sip) was originally intended for use in food processing situations, the food industry now finds it useful to apply HACCP principles at each stage in the producer-to-consumer chain. The Canadian Pork Council's CQA® program is the producer component in the pork industry's commitment to total quality assurance for customers at home and around the world.

Customers, governments and the media constantly challenge food producers to assure safe, wholesome and responsibly produced food. CQA® gives hog producers the opportunity to provide that assurance on behalf of the pork industry.

The HACCP Approach

HACCP is a preventive methodology for assuring food safety, wherein potential problems or hazards are initially identified, and then subsequent steps taken to eliminate or minimize them. Prevention is a key element of HACCP. Another important component is documentation. Operations following a HACCP program indicate what they intend to do and then document their procedures to prove that they have actually been completed.

Part of any HACCP program involves ensuring that all inputs used adhere to its principles. This is the driving force that has prompted processors to ask producers for assurances at the farm level. While this is a relatively new concept for Canadian hog producers, in other countries, hog producers have been working with quality assurance programs for some time.

Putting HACCP to Work on the Farm

The CQA® Producer Manual is divided into two main sections. The first part of the manual, the On-Farm Quality Assessment Form, is designed to allow you to work through the questions on your own. It contains some questions that require only yes/no answers and others that require written explanations of what you do in your operation to address specific issues. By completing the Assessment Form, you will in fact create a quality assurance program for your operation. An accredited CQA® validator will ultimately review this

form. The answers and records you provide will determine whether or not your farm receives CQA® recognition.

Shaded sections are mandatory areas that the CQA® validator will specifically check in order to qualify your operation for CQA® program recognition.

As part of the Assessment Form, several records are required. Sections applicable to your operation must be fully completed.

The second part of the Producer Manual provides additional detail on various quality assurance issues. It contains descriptions of good production practices (GPPs) as well as an abundance of other practical information.

The Producer Manual is required reading for owners and managers. Staff members may also use it as reference when and if they need help. Should you find any sections of the Assessment Form unclear, the rest of the Producer Manual should provide clarification.

In addition to the content of the Producer Manual, all CQA® participants should be familiar with a publication produced by Agriculture and Agri-Food Canada entitled *Recommended Code of Practice for the Care and Handling of Farm Animals* ***Pigs.*** If you do not have a copy of this publication, we recommend that you check with your CQA® provincial delivery agency to see if they have it in stock.

A Little More About HACCP and the Assessment Form

You may notice that some of the shaded questions of the Assessment Form seem to ask for more information than others. There is a very good reason for this. When CQA® was developed, the technical team assembled by the Canadian Pork Council worked on developing a generic HACCP plan that would apply to the Canadian hog industry in general rather than to one specific farm. In the food processing industry and the Canadian packing industry, each plant has its own HACCP plan.

HACCP plans are developed by completing a series of forms and by asking and answering questions related to the production system being evaluated. Remember that HACCP stands for Hazard Analysis Critical Control Point. The first component — the hazard analysis — identifies food-safety hazards that might occur. A series of questions are asked and answered, which help to determine whether or not the hazard is beyond producer control, what Good Production Practices (GPPs) might be applied to minimize the risk of the hazard and where the hazard might be considered to be critical to the production system. If the answers to the questions indicate that a hazard can be maintained within its "critical limit" by the application of a GPP, it is important, but not "critical", in the context of HACCP. If the GPP may not control the hazard within its "critical limit", then it becomes a Critical Control Point (CCP).

The HACCP plan for CQA®, as mentioned above, was developed for the "typical" Canadian hog operation. This was done so that producers would not be required to work through the entire HACCP hazard identification and critical control point determination process. Because CQA® has taken this approach, the program is "HACCP-based" rather than a pure HACCP program.

Good Production Practices relate to pre-requisites in the CFIA FSEP program. GPPs provide the basic environmental and operating conditions necessary for the production of safe products. In other words, GPPs are the broad conditions that are in place to manage the system. The Producer Manual has GPPs broken out according to the

following category headings: Purchasing, Animal Handling, Sanitation and Building Design, Medical Supplies: Use and Storage, Feed Handling, Biosecurity, Water, Shipping, Marketing and Transport, Personnel Training and Deviation and Notification.

A critical control point is a specific point, step or procedure in the production process where control can be applied to manage a hazard, "Level B" good production practices (GPPs) control the identified hazard (within acceptable limits) at any point in production.

The generic CQA® HACCP plan has three critical control points and fourteen "level B" GPPs. They include procedures known as either Monitoring, Deviation or Verification activities. Monitoring procedures are the day-to-day, routine activities conducted by staff members, which ensure that a protocol is being followed. Deviation procedures are the steps followed when something goes wrong. Verification procedures are carried out by someone other than the person responsible for the day-to-day procedures and monitoring in question, and are conducted periodically to ensure that monitoring and deviation procedures are being carried out correctly.

When developing the CQA® On-Farm Quality Assessment Form (based on identified hazards) it was necessary to compile questions that would assist producers in recording and/or creating their own production protocols, determining how they would monitor procedures and detailing what, if any, deviation procedures might be required.

In some cases, protocols and monitoring procedures can be documented by fully answering a single question. For example, in the question about avoiding injection site abscesses, writing the answer requires that you provide a description of the way in which injections are given in order to minimize the risk of creating abscesses. As well, a component of abscess control is daily monitoring of animals for visible signs. Therefore, if an existing abscess is found and treated, any treatment and deviation will be recorded since the treatment record requires documentation of the reasons why the treatment was used.

In other cases, specific questions about monitoring and deviation will be asked. Monitoring questions and the answers you provide form part of your protocol. They describe what records you keep and how they are reviewed to capture any problems that might arise. Deviation questions ask what you would do should something go wrong. In other words, monitoring and deviation questions enable you to develop a plan of action that can be followed to avoid mistakes in the future.

Verification is addressed by questions and answers that detail how you ensure that protocols are followed. Verification is an additional step that ensures your protocols are working and that they are conducted by someone other than the person who completes the day-to-day tasks. Producers are strongly encouraged to ask their herd veterinarian (if that person is different from the CQA® validator), feed or equipment salespeople/technicians and family and staff members to verify procedures and records from time to time. In the event that none of these individuals are available, it is acceptable for the CQA® validator to conduct verification activities. However, the verifier must have access to the written protocols, monitoring procedures and deviation procedures. Armed with this information, the verifier can review records and ask additional questions which will help him/her confirm whether tasks are being conducted as per the written protocol. If you have someone available to verify your protocols other than your CQA®

validator, consider making verification a standard part of your protocol.

Shaded questions that are not considered to be critical control points or "level B" GPPs are still deemed "important" for food safety related concerns under CQA®. Although they do not ask for the same amount of detail as critical control points remember that any protocols you write for these particular questions will be used by your staff and their replacements as protocols for getting the job done right. Any additional clarification you can provide here will reduce unnecessary staff enquiries. Knowing that they are following procedures correctly will also increase staff confidence.

Non-shaded questions relate to food safety concerns, but are not requirements for CQA® recognition. For example, some tools used in pig processing can spread bacteria, which may have food safety consequences, or which may result in an abscess, should the bacteria cause an infection. With proper handling, such hazards can easily be controlled.

With that, begin reviewing and completing your Assessment Form to write protocols for your operation. Notes have been included with the questions to assist you in answering. As well, references to applicable Producer Manual sections are provided.

Staff Responsibilities

1. List each person, working at this location, who has a role in the feeding and rearing of pigs marketed or sold from this farm. Identify each person's responsibilities and the back-up person assigned to each position.

Your list must include all staff with any responsibility that may impact food safety.

Remember that "staff" includes hired staff as well as family members who have tasks that may relate to food safety.

Use the Assessment Form as a guide to help identify different responsibilities on your farm.

You don't need to limit the list of responsibilities to those dealing with food safety issues only. Consider using your staff list to create a full description of all tasks on your farm.

Sample Answer 1 to Question 1
Multi-employee Operation

Joe O'Brien *– Farm manager. Trains employees, purchases medications, reviews records, purchases replacement breeding stock and helps with pig shipments.*
Jake Trumper *– Operates feed mill, purchases feed ingredients, maintains mill records, assists with barn washing and shipping pigs. Joe fills in at the mill when Jake is away.*
Mary Stuart *– Farrowing barn and nursery. Does piglet processing, record keeping, treats sick animals and does pressure washing. Ron and Joe are backup.*
Ron Turcotte *– Sow barn. Assists in farrowing barn, manages breeding stock, does routine and targeted treatments, record keeping and barn maintenance. Joe, Mary and Jean are trained for backup.*
Jean Nicollet *– Feeder barn, Selects and ships pigs, treats animals when necessary. Does record keeping and washing. Joe and Ron are backup.*

Sample Answer 2 to Question 1
Small Family Operation

John Little *– Farm manager. Orders and oversees feed delivery, farm purchases (equipment, medication, vaccines), breeding barn and feeder barn. Sorts and ships pigs, treats sick animals, does record keeping, reviews sow/litter and nursery records, and does pressure washing.*
Marian Little *(wife) – Responsible for farrowing barn and nursery, piglet processing, weaning, sow/litter and nursery record keeping. Reviews dry sow and feeder records and helps to ship pigs.*
Jeff *(son) – Helps with various chores, under the supervision of John and Marian, and does pressure washing.*
Reg Smith *(neighbour) – Occasional hired hand. Trained for treatment of animals and routine chores. Is available to fill in if John and/or Marian are not available.*

Sample Answer 3 Question 1
Single Operator Farm

Jean Richard *– Responsible for all areas of barn operation including feed ordering and delivery, record keeping, animal care and shipping.*
Marc Beaubien *(neighbour) – Occasional hired hand. Helps out when Jean is ill or away. Has minimal responsibility and treats animals only as directed.*
Marie Ouellette *– Veterinarian. Reviews records and works with Jean to create drug use plan.*

Animals Entering the Production Units

(See the Purchasing Program section of the Producer Manual.)

Breeding animals typically enter production units as replacements for culled sows or boars, or as new stock for emerging and expanding units. As a general rule, producers should limit introductions of new stock, whether breeding stock or animals for further feeding and destined for market, to one or two suppliers. Most producers tend to stay with their chosen suppliers until there are compelling reasons to change. This allows the producer to keep close watch on the biosecurity and compatibility of supply herds. From a food safety standpoint, the risk of introducing *Salmonella* has been shown to increase with increased numbers of source herds. By changing management practices to reduce risks such as this, producers can reduce the need for antibiotics to control outbreaks. Animal identification makes it easier to prevent chemical residues from entering the human food chain.

2a) Do incoming animals come from fewer than three sources?

Yes ○ No ○

While it is not a CQA® program requirement to limit the number of source herds to one or two, it is important to understand that the greater the number of source herds, the greater the chances of introducing diseases or food safety hazards to your farm. It is also easier to become and stay familiar with the health status of a smaller number of source herds.

This question refers to the introduction of breeding stock as well as the weaners or feeder pigs being introduced to your operation.

2b) Do all incoming animals come from registered CQA® farms?

Yes ○ No ○

All sources of live animals must be currently registered CQA® farms. That is, source farms must have successfully completed validation and be registered by their provincial delivery agent.

If incoming animals come from farms outside of Canada, contact your provincial coordinator.

2c) Do these source farms have a herd health program?

Yes ○ No ○

2d) Do suppliers provide you with a written treatment history?

Yes ○ No ○

You must have written treatment histories on file for all incoming animals. One option you might consider is to request a written protocol from your supplier that indicates their policy for routine vaccination, water and feed medications. If you have a written protocol on hand, you will be aware of routine withdrawal times that you must deal with and your supplier will only have to provide treatment information for specific animals that have received treatment and have not yet completed a withdrawal period.

Sample Outgoing Pig Treatment Record

OUTGOING PIG TREATMENT RECORD

Farm of Origin *(please print)* Bacon Acres Q.A. Reg'n No. QA0016

Destination *(please print)* Pork Plus

Date Shipped 12 / 03 / 04
Day / Month / Year

Number of Pigs in Shipment 46

Sold as
Gilts or boars for replacement ○
Less than market-weight for slaughter ○
Less than market-weight for further feeding ⊗

Date Treated	Animal Identification	Product, Dosage & Route	Withdrawal Date	Needle Fragment?
9 March '04	Weaners	FluSure/RespisureOne/ ER Bac Plus, 2 ml IM (second dose)	March 30	Yes – pig id'd with red tag, right ear

Signature of Shipper John Little

Signature of Recipient Joe Beauregard

2e) Are treated incoming animals identified well enough to prevent you from unwittingly sending them to a processor with a residue?

Yes ○ No ○

Incoming animals must be identified well enough to prevent you from shipping them prior to the clearance of all withdrawal times. Remember that vaccines also have withdrawal times. An example might be a replacement gilt that arrives at your farm injured. Proper identification, along with treatment records, will allow you to adequately handle any incoming animal that has not cleared a withdrawal time.

Water, Feed and Ingredients Entering the Production Unit

The word "feed", as used in this manual, means grains, supplements, premixed feeds, and edible residual materials (ERM). **Biological risks** include such things as *Salmonella,* introduced by rodents or birds, or *Trichinella,* passed on through the improper use of food by-products. **Chemical risks** might include those posed by moulds, toxins and antibiotics, pesticides and herbicides. **Physical risks** include such things as metal objects, plastics and wood.

When looking for possible hazards, you should also consider the risk of contamination that might occur during transportation and storage from such hazards as leaking oil, radiator fluids or goods previously hauled or handled.

3a) Is your water tested annually for nitrates and total solids?

Yes ○ No ○

3b) If so, do you retain the records?

Yes ○ No ○

3c) Are the test results within the limits set for these hazards?

Yes ○ No ○

(See the Water Program section of the Producer Manual.)
A water test is not yet a CQA® program requirement, but you are encouraged to have it done. If you do have your water tested, retain the records, in order to compare one test to the next for any variation. Elevated nitrate and total solids levels may indicate bacterial contamination. If your test results do show elevated levels, you are encouraged to have follow-up tests conducted to determine bacterial levels in your water.

4a) Are vehicles and other equipment used to transport animals also used to haul feedstuffs and other commodities? *N/A means it is not applicable to your operation*

N/A ○ Yes ○ No ○

4b) Are vehicles and other equipment thoroughly cleaned between use for different purposes? (Will become a CQA® program requirement at a later date.)

N/A ○ Yes ○ No ○

(See the Sanitation and Building Design and Shipping, Marketing and Tranport sections of the Producer Manual.)

It is strongly recommended that you avoid using the same vehicles for transporting both pigs and other commodities. If you must use the same vehicles, remember that not only can cross-contamination occur between hogs, but any manure left in a vehicle can contaminate feed or feed ingredients transported in it. A spill of farm chemicals or medicated feed in a vehicle that is not properly cleaned up may leave a residue in hogs. It is recommended that all vehicles and equipment be swept clean and, weather permitting, thoroughly washed between transportation of different commodities and/or between loads of hogs.

5a) Are feed and raw material storage and mixing areas in your operation kept reasonably clean, dry and free from significant contamination from bird or animal excrement?

Yes ○ No ○

5b) Are they kept free of chemical contaminants?
(Examples: herbicides, insecticides, oil, fertilizer)

Yes ○ No ○

(See the Purchasing and Feed Handling sections of the Producer Manual.)

Question #5 is a program requirement, and for this reason, both parts (a) and (b) must be answered "Yes". This question will be addressed during the in-barn visit of a full validation.

When evaluating part (a), there are two key words to bear in mind: "reasonably" and "significant". In consideration of the design of your storage areas and your rodent control program (addressed in question #29), you should determine if their current state is consistent with these two key words. Examine them closely, to look for the presence of birds, rodents, cats and the possibility of accessibility by other livestock, chemicals or standing water. The major concern about birds and rodents is *Salmonella,* while the main concern associated with cats is *Toxoplasma.* Positive actions, such as covering open bins or feed carts, using traps and bait stations, and physically separating medicated and non-medicated feed ingredients, demonstrate your recognition of these concerns.

When evaluating part (b), bear in mind that in the Canadian Food Inspection Agency's requirements for on-farm feed mills that mix medicated feed requires that these products be stored separately from feed, feed ingredients and the milling area. As part of the CQA® program, any storage or feed mixing area must be free of chemicals that could contaminate feed or feed ingredients.

6a) List those suppliers who provide you with complete feed or feed ingredients. (This list should include current suppliers of premixes, proteins, cereal grains, tallow and complete feeds. Consider including contact names and telephone numbers of your suppliers so that they are readily accessible.)

6b) Identify those suppliers who have a quality assurance program for feed in place.

6c) Do you keep samples of incoming feeds and ingredients?

Yes ○ No ○

(See the Purchasing and Feed Handling sections of the Producer Manual.)

Your answer to Question #6 is for your own information. It is good practice to maintain a list of feed and feed ingredient suppliers. If the person who normally looks after these things is away and a problem arises, your list will assist the back-up person in rectifying the problem.

Question #6b is intended to encourage the development of open lines of communication between producers and their feed suppliers. You should be aware of the feed handling practices of your suppliers. You are encouraged to ask suppliers about handling practices, whether or not they have a HACCP-based quality assurance program, storage, sequencing in mills and on trucks and training programs for mill employees and truckers.

Producers are encouraged to keep samples of complete feed and feed ingredients; however, it is not a mandatory requirement of the program. We recognize that this can be a daunting task, which on some farms, can result in a great many feed samples being stored in many separate bags and containers. Nonetheless, aside from food safety related concerns, feed samples also help to identify nutritional and other health problems that may be feed related. If you do decide to keep samples, we recommend that you keep a 0.5-1 kg sample for no less than 6 months.

Remember to store all feed in closed containers, to discourage rodents and birds.

7. Are feed and ingredient bins, blower pipes and/or feed transfer systems clearly marked to ensure that feed-truck drivers and employees know where they are supposed to deliver feed?

Yes ○ No ○

(See the Purchasing and Feed Handling sections of the Producer Manual.)

Question #7 is a program requirement, and must therefore be answered with a "Yes". Your validator will check for this during a full validation. You may identify components of your feed storage and delivery system with letters, numbers, names or a combination of indicators. You may use paint, decals or any other method that is both durable and visible. If storage and delivery components of your feed system are not identified well enough to manage the risk of misdirection of feed, the correction can be made while the validator is at the site. However, if it is not, your farm will not be recommended for recognition.

Consider providing a farm plan to your feed suppliers that indicates the location of all buildings and feed bins.

This question leads directly to question #11. When you get to it, consider how you identify the different components of your feed system as they relate to delivery, mixing and transfer.

8a) Are edible residual materials (food by-products) being fed in your operation?

Yes ○ No ○

8b) Are you licensed to feed such products?

Yes ○ No ○

(See the Purchasing and Feed Handling sections of the Producer Manual.)

Edible residual materials are those products that remain after, or are not used, in the processing, manufacturing, preparing, serving or sale of food. They pertain to bakery waste, certain restaurant waste (not including meat or products that may have come into contact with raw meat products), cull french fries, potato chips or potatoes from a processing plant, dairy waste or any other edible waste material left over from any type of food processing. Tallow from a licensed rendering plant does not fall into this category, however, as it will have been processed according to strict guidelines.

Meat, meat products or any material that may have come into contact with raw meat may not be fed as edible residual material in Canada, due to concerns about disease risk.

If you are feeding, or wish to feed ERM, you must have a permit from the CFIA to do so. Permits are issued by CFIA Regional Veterinarians, are valid for one year and must be in place if you are feeding ERM. Your permit will be examined at the time of validation to ensure that it is valid, current and issued for your farm.

Bedding

(See the Purchasing section of the Producer Manual.)

Bedding, such as straw, sawdust and wood shavings, may contain biological and chemical hazards, if not handled and stored properly.

9a) If straw is used as bedding in your operation, does it come from a supplier known to guard against heavy contamination from the feces of other animals?

N/A ○ Yes ○ No ○

The issue related to this question is the spread of *Salmonella* and other organisms responsible for foodborne illnesses, which may be found in the feces of both domestic and wild animals. It has been included to draw attention to your current purchasing practices and to encourage you to consider improvements that might be made to the process.

9b) If wood shavings are used in your operation, have you checked with your supplier to ensure that they do not contain the wood preservative PCP and/or other hazardous chemicals such as chromated copper arsenate?

N/A ○ Yes ○ No ○

Question #9b must be answered "Yes" to meet this program requirement. PCP (pentachlorophenol) is a fungicide used to preserve wood, which can create residues in meat. Producers should be aware of this problem and must purchase shavings that do not contain PCP. Please note that PCP is also a marker for other dangerous organ chlorides, and is monitored in pork as part of the federal monitoring program.

As a producer, you should consult with any suppliers of wood product bedding about the possible presence of PCP or other wood preservatives. You should also make a note of the date you contacted your supplier and the name of the person with whom you spoke. Ask if they would provide a letter stating that their product is free of wood preservatives, to retain for your records.

9c) Is bedding changed between each production batch?

N/A ○ Yes ○ No ○

Bedding can harbour bacteria and other microorganisms. These cause concerns about the transmission of foodborne pathogens and can pose other herd health concerns. If you are using bedding, consider removing wet and soiled bedding regularly if you have a continuous flow barn, and complete removal of bedding between batches if you operate an all-in-all-out production environment. CQA® program requirements related to bedding are described in question #25.

The Handling of Medicated Feed

(See the Feed Handling and Shipping, Marketing and Transport sections of the Producer Manual.)

10a) On the **Rations Used On-Farm Form,** or a similar form of your own design, list each ration fed in your operation. The form can be found at the end of this **Assessment Form.** The information you need to complete the form can be found on the feed tags.

All rations, medicated and non-medicated both, are to be listed on your Rations Used on Farm Form. The form need not be exactly the same as the one shown in the sample, but whatever form you use must capture the information shown on the sample form. The discovery of a missed ration during a validation should be corrected immediately.

Sample Rations Used On Farm Form

RATIONS USED ON FARM

Ration eg. starter #1	Purchased (P) or made on Farm (OF)	Medicated? Yes or No	For All Rations		For Medicated Rations			
			Which are used? (M)icro (P)remix (S)upplement or (C)omplete feed	Supplier of the premix, supplement or complete feed	Name of the medication used	Kg of medication per 1,000 Kg of feed	Grams of active ingredient per tonne of feed	Withdrawal time in days
Dry Sow	OF	N	P	Pig Nutrition Co.	__	__	__	__
Nurse Sow	OF	N	P	Pig Nutrition Co.				
Pre-starter	P	Y	C	Northern Feed	Aureo S-P 250	2.5	110 g aureomycin 110 g sulfamethazine 55 g penicillin	10
Grower 1a	OF	N	P	Northern Feed	--	--	--	--
Grower 1b	OF	Y	P	Northern Feed	Tylan 40	0.25	22 g	0
Grower 2	OF	N	P	Northern Feed	--	--	--	--
Finisher 1	OF	N	P	Northern Feed	--	--	--	--
Finisher 2	P	Y	C	Northern Feed	Paylean	0.5	10	0

10b) Refer to the section titled **Swine Feed Medications** at the end of the **CQA® Producer Manual (yellow tabbed section).** Check for product names or ingredients that you are using. Check in the clinical indications and dosage columns to see that each is being used for the approved purpose and at approved levels. If you are using any product in combination with another, check the compatibility column.

10c) Is the withdrawal time (the period between the last consumption of medicated feed and slaughter) observed by your operation adequate for each of the ingredients you looked up in part b?

N/A ○ Yes ○ No ○

10d) Do you have copies of feed prescriptions for medication usage not outlined in the appendices? Using a drug in any way other than the manner outlined, such as increasing the dosage or mixing it with another in a combination not listed, requires a veterinary prescription.

N/A ○ Yes ○ No ○

Double-check dosages and drug compatibilities when reviewing your ration list for question #10b. The dosages or uses must not differ from the label directions. Any differences require a veterinary prescription. Veterinary prescriptions for feed medication use that differs from label direction is a legal requirement. A copy of the prescription, even if it is a photocopy, should be kept on file at the farm.

Feed tags must be checked to ensure that the reported inclusion rates are at the level they should be and that the correct medication is reported.

Be sure that all staff members responsible for mixing and delivering feed are aware of which rations are medicated and which are not.

11a) If you use medicated feed, how do you determine that feed medication is necessary?

Feed medication should only be used on recommendation from a veterinarian. As a producer, you should be able to identify each of the medications that you use in feed and why each has been included. Products with zero withdrawal are still considered to be medications.

11b) i) Describe how medicated feed is mixed correctly.

(This includes purchased and farm-mixed medicated feeds.)

For mixing feed:

Items including mill calibration, feed sequencing, the order in which you add ingredients, mixing times, the person responsible for mixing feeds, staff training, the chain of command and feed testing must all be included.

Mill calibration requirements will vary with the type of equipment used. As a guide, you should ensure that this is being done according to the manufacturer's recommendations. In general, records should show that mill calibration is done every month or whenever ingredients or inclusion rates for these ingredients change. The minimum requirement for calibration on the CQA® program is once per year. Calibration must be recorded.

You must be prepared to show your validator the record that indicates when the mill was last calibrated and a copy of your sequencing protocol. If feed is mixed on an as needed basis, you are required to demonstrate how you avoid contaminating non-medicated feeds. If you flush your feed mill, flushing must be indicated in your records and your protocol must clearly explain how flushing is carried out.

Records must also show formulation changes and any changes to the sequencing protocol. Changes to feed formulations, sequencing changes or other protocol changes must be recorded, dated and described, to show who reviewed and authorized the change. In other words, if you repeat the same procedure day after day, marking on a calendar that you mixed feed as outlined on your written protocol is adequate. Changing the formulation or the sequence, however, means you must write out how the protocol was changed. Even a one-day change requires a record of that change.

A sample **Feed Mixing and Sequencing Record** can be found at the end of this question. When strict feed and production protocols are not followed, the production unit must keep a "Feed Mixing and Sequencing Record" complete and up-to-date. This is especially important where the feed production sequence is subject to change on a daily or weekly basis. If no feed is mixed on the farm, simply write N/A to indicate that this requirement is not applicable to your farm. If the records show that feed medication is not mixed into any rations, the sequencing protocol is not terribly important. The key point here is to understand that finisher rations should not be mixed immediately after making a batch of medicated feed. Thorough flushing is required first. Another key point is to determine what safeguards are in place to prevent medicated feeds from being delivered to the wrong destination.

Sample Feed Mixing and Sequencing Record

Date	Ration Name	Medicated?	Quantity produced (Tonnes)	Person who mixed it	Destination (Barn, room, pen or group)
2 Mar 98	Starter #2	Y	1	Peter	Nursery
2 Mar 98	Grower	Y	2	Peter	Grower Barn
2 Mar 98	Flush *	N	0.5	Peter	Flush Storage Bin
2 Mar	Finisher	N	2	Peter	Finisher Barn
3 Mar	Dry Sow	N	1	Joe	Dry Sow Barn
3 Mar	Lactation	N	1	Joe	Farrowing
4 Mar	Starter #1	Y	.5	Joe	Nursery
4 Mar	Starter #2	Y	.5	Joe	Nursery
5 Mar	Grower	Y	1	Peter	Grower Barn

* The flush may be a small amount of a non-medicated feed or an amount of grain. If grain is used as a flush, the protocol that describes feed mixing should include an explanation of where this grain is then stored and in which diets it may be used.

11b) ii) Describe how medicated feed is delivered and/or transferred correctly to ensure that the proper feeds are delivered to targeted pigs only.

For Feed Delivery and Transfer:

Feed bins and transfer pipes (auger and blower) must be clearly identified. A protocol for transferring or delivering feed should identify which pipes deliver feed to specific areas of the barn and how the employee responsible for feed delivery ensures that feed is being delivered to targeted pigs only.

Whether feed is delivered or mixed on the farm, feed should be visually inspected to ensure that the correct ration is being delivered to the intended production area.

Tags and shipping manifests must be reviewed following feed delivery to ensure that the proper rations or feed ingredients were, in fact, delivered.

11c) Describe how you ensure that all pigs marketed for slaughter leave the farm free of violative residues from feed medications.

This is a key issue, which gets right to the heart of the CQA® program. How do the steps that you take fit together to ensure that you have taken all of the steps necessary to minimize the risk of shipping a pig with a residue? In HACCP terminology, this is referred to as monitoring. Ensuring that animals leave the farm free of residues is one part of monitoring for the use of medicated feeds. Your identification methods, treatment records, feeding records, feed distribution and staff training all come together at this point to show how well your system works. Your overall protocol must address not only the feeding and shipment of "market hogs", but also lightweight animals (i.e. barbecue hogs) and cull breeding stock. Remember that protocols can indicate not only what you do but also what you do not do. If you decide that no lightweight hogs will ever be shipped for slaughter from your farm, include that information in your protocol.

11d) How do you ensure that the procedures that you developed in parts a, b, and c of question 11 are being followed?

(Consider such things as the types of records that are kept, checklists, staff training, inventory control, bin and system checks, periodic testing.)

This is your verification procedure. How do you monitor this area of your production system? How do you train your staff? Do you follow-up on staff training? What records do you keep? Have you developed any checklists related to feed mixing, delivery and transfer? Do you conduct any system checks or have tests done for residues? Do you have your feed analysed to check on how well your mill is mixing feed? Think about how you follow-up (monitor) to ensure that the policies you have in place are followed by everyone with a role in feeding your animals.

11e) What would you do if something went wrong? (See the Deviation and Notification Section of the Producer Manual.)

As with other areas of the On-Farm Quality Assessment Form, it may be that you have never had a problem with delivery, mixing or transfer of feed or feed ingredients. If a problem was identified, however, how would you handle it? (for example, if the wrong feed was delivered to your farm)? What if you discovered that the wrong level of medication or the wrong medication altogether had been included in a premix or a complete feed that was delivered to your farm? What if the wrong feed was delivered to the wrong pigs? How would you know whether the feed could still be used? How would you identify the affected pigs? What would you do with contaminated feed? How would you determine that the affected animals could safely be marketed? Who would you notify about the problem?

When something goes wrong and you implement this protocol, it must be recorded. You may keep a separate record for deviations or you may record it with your other feed records.

Needles and Injection Techniques

(See the Medical Supplies: Use and Storage section of the Producer Manual.)

Most producers will raise hogs for a lifetime without breaking a needle. The point we're making is that it can happen, and that producers should identify things they can do to make it less likely to happen, and plan what will be done if it does.

The ham, one of the most valuable cuts in a pig's carcass, is usually sold whole. Scars due to injections can produce tough gristle, and an injection abscess or cyst may not be detected until the consumer cuts into it. For several years now, packers have urged producers to give intramuscular injections in a pig's neck. If injection site complications happen there, minimal trim from the less valuable neck meat will eliminate the problem before it reaches the consumer.

12a) If hip site intramuscular injections are given, are they given only in breeding stock, and only according to the CQA® protocol for hip injections (see Producer Manual Chapter D4 page D4-14.)?

Yes ○ No ○

12b) Are all other intramuscular injections given in the neck muscles of your pigs?

Yes ○ No ○

Intramuscular injections are to be routinely administered in the neck muscles of the pigs. The hip injection site may only be used in animals committed to the breeding herd, and only in dosages of 5cc or less. Specific information for the hip injection site and protocol for use can be found in chapter D4 Medical Supplies: Use and Storage of the CQA® Producer Manual. Be aware that if animals are being given intramuscular injections in any other location(s), your farm cannot be recommended for CQA® registration. The timeline for the delay of your recommendation will vary depending on which animals are involved. If animals destined for market are involved, you may be waiting for as long as six months. If breeding stock is involved, a timeline for implementing the change will be determined between yourself and your validator. Your validator or provincial delivery agent can provide more information.

13a) Describe the steps you take on your farm to minimize the risk of a broken needle.

You may believe that this question does not apply to you because you have never broken a needle. In fact, many producers will never break a needle. However, the question really pertains to what steps you take to minimize the risk. You are probably already doing many things; for example, proper injection techniques and restraint of animals, changing needles frequently and immediately discarding needles that have bent. Think about the things that you already do and have a look at the Medical Supplies: Use and Storage section for things to think about as you answer this question.

13b) Describe the steps you take on your farm to minimize injection site abscesses.

(Consider these items: defining a maximum dosage per injection site, establishing protocols for stating the needle length and gauge to be used, and instituting a policy for the cleaning and care of syringes.)

Injection site abscesses are caused by two main things — dirty injection sites/equipment and injecting too much medication in one spot. Some injection site abscesses may not be visible when you inspect your pigs. Others will be very obvious. The ones that you may not see can do as much or more damage than the ones that you can see and treat. Abscesses lead to trim (check your manifests!) and, if buried within a large muscle, may not be found until the pig is processed or when the consumer cuts into it. Injection site abscesses are one of the reasons why all pigs on CQA® farms must be injected in the neck. Proper injection technique (including not injecting through dirty skin), proper use (route of injection) and storage of medication (no needles left in the cap!) are a few things to think about. The Medical Supplies: Use and Storage section of the Producer Manual offers other suggestions. You can also discuss this issue with your veterinarian.

13c) Are only detectable needles being used in this production unit?

Yes ○ No ○

"Detectable" needles are those that can be identified by metal detectors in processing plant production lines. While most disposable and stainless steel needles cannot be detected by these machines, detectable needles have been specially designed so that their materials will be identified if passed through a metal detector. Ask your supplier or check the packaging of your needles to ensure that they are a detectable brand.

13d) How do you ensure that the policies you put in place are actually carried out effectively?

How do you verify this area of your production system? How do you train your staff? Do you follow-up on staff training? Think about how you follow-up (monitor) to ensure that the risk of abscesses and broken needles is minimized. What records are you keeping? The control of broken needles and abscesses is a critical control point of the CQA® program. Broken needles must be recorded in the treatment record. If you choose to use the same record form that has been included with the program, remember that it is not necessary to record if a needle is not broken. A record of abscesses will occur when animals are treated for abscesses. What will you do if it appears that the number or frequency of abscesses increases on your operation? How will you address the issue of increased frequency of broken needles or abscesses with your staff?

14. What would you do if a needle broke off and remained in a pig after an injection?

Here you are still being asked to create a deviation procedure. As mentioned previously, you may never break a needle. But if it happens, what will you do? Broken needles must be recorded on the Treatment Record. Can the needle be removed? How will you identify the animal? Who will you talk to at your marketing agency or packing plant? Does your province or packer have a specific manner in which suspect hogs are to be identified? Consider these things as you answer this question.

Minor Surgeries

(See the Medical Supplies: Use and Storage section of the Producer Manual.)

In order to ensure complete removal of abscesses and arthritis, processing plant workers must trim away otherwise edible meat. During the removal process, workers run the risk of not removing all contamination or of contaminating the meat of adjacent carcasses. Tools used to perform routine procedures on the farm can contribute to abscesses and arthritis.

15. Are needle teeth nippers kept sharp to ensure that instead of shattering into the gum line, the tooth is sheared parallel to the gum?

Yes ○ No ○

16. Are instruments used for ear notch, tail dock, castration, and tattoo procedures kept clean and sharp?

Yes ○ No ○

These two questions are not CQA® program requirements, but they are relevant to food safety concerns. Improper care of these pieces of equipment can transfer microorganisms from animal to animal, or can cause excessive tissue damage leading to infection. In either of these cases, the result can be swollen joints and abscesses requiring treatment or trim at the abattoir. They can also transfer bacteria like *Salmonella* from infected to non-infected animals.

Medicated Water

Some operations have systems capable of delivering medication to sick animals via the drinking water. This is done because water consumption by a sick animal is more predictable than feed intake.

(See the Medical Supplies: Use and Storage section of the Producer Manual.)

17. If you ever use medicated water on your farm:

17a) How do you determine that this medication is necessary? *If you never use medicated water, skip to the next section — Medication and Vaccine Usage.*

17b) How do you ensure that water medications will be correctly and accurately proportioned to deliver the proper dosage to targeted pigs only?

Include in your answer the name of the person that makes the decisions, calibration of dispensers, selection of medication, the placement of valves and whether these need to be adjusted by hand, flushing water lines, the risk of non-medicated swine eating the feces of or drinking from the gutters of treated pigs, list who is responsible, staff training, the chain of command and testing. Remember that water medication is a medical treatment and must be recorded in your treatment records. The Medical Supplies: Use and Storage section of the Producer Manual discusses issues such as properly dosing animals and water consumption. These are two important points to consider when preparing to administer water medication.

17c) How do you ensure that the procedures you have set out are being followed?

Whether you are responsible for administering water medication or it is the responsibility of someone else who works in the barn, how do you make sure that everything is done as it should be? How do you monitor it? What records do you check? Consider things such as scheduled calibration, checking stock solutions, checklists, inventory control, maintenance records and periodic testing.

17d) What would you do if something went wrong?

This question asks you to create a deviation procedure. What will you do if the medicated water is sent to the wrong animals? What if the wrong dose is given? How would the wrong dose affect the effectiveness of the medication or the withdrawal time? Consider how you would identify the pigs and how you would determine that they could be safely marketed as being residue free. How would you handle the water lines? Could medicated water be redirected?

Medication and Vaccine Usage

(See the Medical Supplies: Use and Storage and the Shipping, Marketing and Transport sections of the Producer Manual.)

Vaccines and antibiotics account for the majority or medications found in refrigerators and cupboards on most pig farms. Most products have labels and package inserts that describe the drug, its usage and its withdrawal times. The Canadian Pork Council (CPC) realizes that it is important for producers to know which products are licensed for use in swine and the withdrawal times for each. To help producers achieve this goal, the CQA® program has included a listing of all swine medicines, vaccines and the withdrawal times for each. This listing can be found in Appendices 1-7 at the back of the **Producer Manual.**

Most producers are aware of the withdrawal period for commonly used antibiotics. They may be surprised, however, to see withdrawal times for vaccines and topical medications. If you refer to the chart mentioned earlier, you will see that some stretch as far out as 60 days.

Off-label drug usage exists anytime your actions differ from the label directions for the following parameters:

- Dosage
- Duration or frequency of treatment
- Purpose of treatment
- Route of administration
- Species of animal
- Age or stage of production

The CQA® Program Does Not Permit Off-Label Drug Use unless:

- There is written veterinary direction, including recommended withdrawal time
- No approved products exist for a particular use
- A valid veterinary-client relationship exists

18a) On the **Medication and Vaccine Usage Plan** on Farm form (or a similar form of your own design containing the same information) list each product found in your operation.

(The form can be found in the Appendices of this Assessment Form.)

All non-feed medications used on your farm are to be included on this list.

If you use the medication for more than one purpose, be sure to list all of them on the form.

If your veterinarian provides you with a generalized list of medications that he/she dispenses, you must indicate which medications from that list you use on your farm.

When recording the product contraindications and warnings, focus on those that directly affect human and animal health.

Sample Medication and Vaccine Usage Plan Form

MEDICATION & VACCINE USAGE PLAN ON FARM

Legend

I.M. – In the muscle
I.V. – In the vein
I.W. – In the water
S.Q. – Under the skin
Rx – Prescription Drug
T.T. –Targeted treatment
R.T. – Routine treatment

Product Name	Manufactured by	Rx or Non -Rx	Why it's used	When it is used for this purpose the dosage used is	Route used	Product contraindications, cautions and warnings	Where it is stored on this farm	Withdrawal time in days
Farrow check®	Vetrepharm	Non	Sow site @ Boars RT New RT	5 cc	i.m	none	Fridge in office	21 days
Ivomec®	Merck Agvet	Non	Mange prev/treat T.T.	300 mcg/kg	SQ	Admin in the neck.	"	28 d.
Neo-chlor®	A.P.A.	Non	scours T.T.	100g/225L water	I.W.	none	Entry cupboard	5 d.
Tribrissen Piglet Susp.	Mallinckrodt	Rx	scours T.T.	1cc/2kg	Oral	Repeat until 2d after symptoms disappear	Fridge in office	5 d.

Note: Product contraindications and warnings should refer only to human or animal health concerns related to product usage.

Producer signature John Little Date: January 5, 2004

Veterinarian signature David Smith Date: January 5, 2004

18b) Using the sections in the Appendices entitled **Swine Injectable Medications, Swine Biologicals (Vaccines), Swine Oral Medications, Swine Topical Medications, Swine Anthelmintics (Dewormers)** and **Swine Water Medications,** look up each of the medications that you listed on your **Medication and Vaccine Usage Plan** on Farm list. Check to see that the products you use are being administered at approved dosages and that they are approved for use in swine in the manner you are using them.

Note: The products listed in the sections mentioned above contain only those medications and vaccines that have been approved for use in swine. If you can't find it on the chart, it may mean that the product you are using is being used in an off-label manner.

When you are checking dosages and withdrawal times, be sure that you are looking at the correct product information.

Remember that the label information may have changed since the time the Appendices were printed. If there is a difference between the label information and the information in the Appendices, check with your veterinarian.

18c) Do you have written directions for use of all prescription drugs?

Yes ○ No ○

Although you must have a valid veterinary-client-patient relationship to obtain prescription medications, it is not necessary to have a written prescription for the purposes of the CQA® program. Product labels and package inserts provide all the information required for use of the product. You must have written directions for the use of all prescription drugs.

19a) Are you using products in an extra-label manner?

Yes ○ No ○

Extra-label use (also referred to as off-label use) occurs any time that a medication is used other than as detailed on the label. A change to the species, production stage, dosage, route of administration, treatment regime (duration) or purpose all constitute off-label use. Additionally, extra-label use includes the use of drugs such as active pharmaceutical ingredients and compounded drugs.

19b) If so, do you have a copy of the prescription that is, signed and dated by a veterinarian?

Yes ○ No ○

The CQA® program requires that all extra-label medication use be accompanied by the written directions of your veterinarian. These written directions must be available at the time of validation. It is acceptable that the only copy of extra-label directions be included in your Medication and Vaccine Usage Plan with your veterinarian's signature and date of approval on it. If the extra-label use is prescribed for a limited time period, however, that should also be indicated on the plan.

19c) If so, does each recommendation state the withdrawal time you are to observe?

N/A ○ Yes ○ No ○

Any use that differs from the label directions of a medication will affect the withdrawal time that should be observed. Doubling the dose does not mean that the withdrawal time is doubled. Doubling the dose may require that the withdrawal time is multiplied by three. Your veterinarian has appropriate knowledge and access to information deemed necessary to provide you with appropriate withdrawal times for off-label use.

20. If you use medications and vaccines on your farm:

20a) How do you determine that medications and vaccines are necessary?

The decision to use medications and vaccines on your farm should be made in consultation with your veterinarian. Are there other people in the swine industry with whom you consult regarding the use of medications and vaccines?

20b) What is your protocol to ensure that sows marketed for slaughter are sold without residues?

When it comes time to cull a sow, it can be easy to forget that she may have been receiving a medicated feed. Perhaps she was vaccinated recently or treated for a health problem. When was she last dewormed? It is important to record sow treatments and to refer to them prior to making culling decisions. It may be necessary to hold her back until she has cleared a withdrawal time or to euthanize her on the farm. What protocols do you have in place to make sure this happens? Consider who makes purchasing and culling decisions, who is responsible for treatments and who trains staff, and list the chain of command and record keeping procedures.

20c) What is your protocol to ensure that growers and finishers will be marketed for slaughter as being residue-free?

It is critical that no animal is marketed for slaughter with a residue. Medication use according to the protocols you described earlier in this section, identification of animals and record keeping are important points to remember when answering. How do you implement these tools on your farm? What else do you do to ensure that animals are marketed without residues? Who is responsible for making these decisions?

20d) Do you keep pen or individual treatment records for all treatments given to all animals that are beyond the weanling stage (animals greater than 50 pounds or 22.5 kilograms)?

Note: The person doing the validation on your farm will want to see treatment records for growers, finishers and sows. Look in the Appendices at the end of this Assessment Form for an example of a **Pen or Individual Treatment Record** that shows the type of information needed.

Yes ◯ No ◯

It is a requirement of the CQA® program that you keep records for all animals greater than 22.5 kg (50 lbs). This requirement applies to breeding stock as well as animals intended for slaughter. Records may be kept in the Pen and Individual Treatment Record form that is provided for your information in the back of this Assessment Form, or you may create your own record keeping forms. You may wish to keep sow treatment records on sow cards, for easy reference. Electronic record keeping systems are an acceptable format for the CQA® program, provided that they supply the same information.

If you have decided to implement a no-treatment policy in any section of your barn (usually the finisher barn) ensure that the protocol is clearly documented and available to show your validator.

If you have minimal treatments, it is recommended that you routinely (weekly or monthly) make a note that there were no treatments for that time period.

For any validation (initial or renewal) the CQA® validator will request three months of records. If it is your initial validation, the last three months of records may be requested. For renewal validations, the validator will request any three months at random from the last twelve.

PEN OR INDIVIDUAL TREATMENT RECORDS FOR ALL PIGS BEYOND THE WEANING PHASE
(This form can be used for growers, finishers, sows and barbecue pigs)

I.M. – in the muscle I.W. – in the water I.V. – in the vein S.Q. – under the skin

Date	Animal or pen ID	Number of animals	Product name	Reason the product was used	Amount given and the route used	Who gave it	Weight of the treated pig	Withdrawal time in days	Not to go before (date)	Treatment result	Needle broken?
April 1 (day 4 of 5)	Room 5	87	Pot Pen	Glassers outbreak	0.25 billion IU / 870 L IW	JL	7 kg	1	April 3	improving	
April 2 (day 5 of 5)	Room 5	87	Pot Pen	Glassers outbreak	0.25 billion IU / 870 L IW	JL	7 kg	1	April 4	Pigs improved	
April 5	Sow barn	All breeding herd	Erycheck	Vaccination	2 ml IM	JL	7 kg	21	April 26		
April 10	N7621	1	Oxytocin	Milk let-down	2 ml IM	JL	200 kg	3	April 14	Adequate letdown – no repeat required	
April 17	Rm 6, pen 5	1	Predef 2X	Swollen leg	0.75 ml IM	JL	40 kg	5	April 23	Swelling decreased	✔
April 24 (day 1)	Rm 2, pen 1	7	Lincomix	scours	1.5 ml IM	JL	15 kg	2	April 27		
April 25 (day 2)	Rm 2, pen 1	7	Lincomix	scours	1.5 ml IM	JL	15 kg	2	April 28	No change	
April 26	Sow barn	Gilts	Erycheck	vaccination	2 ml IM	JL		21	May 18		
April 26 (day 3)	Rm 2, pen 1	7	Lincomix	scours	1.5 ml IM	JL	15 kg	2	April 29	Firming up	

20e) How do you ensure that the procedures you have set out are being followed?

For this question, as with others that ask how you ensure that protocols are being followed, consider staff training, record keeping and review of records among other things that you may do. What type of verification system do you have in place?

20f) What would you do if something went wrong? (See the Deviation and Notification section of the Producer Manual.)

You or one of your staff members have identified a problem in your record keeping or in the Medication and Vaccine Usage Plan. What do you do? How will you identify the affected animals? How will you handle the affected animals? What records have been kept? What records will you keep? Have any animals been shipped? Has an animal been moved?

What could go wrong and how will you address it? It is critical that you have deviation procedures in place. It may happen that you never have a problem related to the use of medications and vaccines, but you must be prepared if something *does* go wrong.

Barbecue and Lightweight Hogs

A growing demand for barbecue and lightweight animals has prompted some producers to sell pigs at a much earlier stage of production. This is an area where it might be easy to forget about a pig that was treated with a product that requires several days of withdrawal before the meat is safe to eat.

21. Does your operation sell lightweight and/or barbecue hogs, salvage animals and weanlings for further finishing, etc.?

Yes ○ No ○

22. If you answered Yes to question #21:

22a) Describe the protocol that you follow to assure freedom from residues in those pigs that are sold directly for processing.

22b) How do you make buyers aware of treated pigs that require additional withdrawal periods before they can be processed and used for food?

22c) How do you ensure that the procedures you have outlined are being followed?

22d) What would you do if something went wrong?

The issues relating to the handling of hogs destined for the barbecue and/or ethnic markets, or any other animal that is not being marketed at the usual time, are similar to those relating to regular market hogs or cull breeding stock. Review your protocols for those animals and determine how you apply the protocols to these animals.

How will you address treatment records for these light animals? How will you notify the purchaser if there are still withdrawal times to be managed and you know or suspect that the animals will not be slaughtered immediately? Will you handle pigs differently on your farm if you know that some of them will be destined for this market?

Sanitation and Building Design

(See the Sanitation and Building Design section of the Producer Manual.)

Good sanitation practices help to reduce disease and decrease the need for antibacterial agents. Infectious agents in nasal secretions, saliva, urine, and manure enable pig-to-pig spread of disease. Removal of these elements is key to sanitation programs. Examples of removal procedures might include sweeping alleyways to remove any grain that could feed disease-spreading mice or rats, eliminating manure that might serve as a breeding ground for flies and removing dead pigs before they are cannibalized by pen mates or other animals.

Humidity is crucial to the survival of microbes. Poorly functioning drains, which allow pens and feeding areas to become flooded, invite contamination problems. Water leaks and the housing of more animals than your building's ventilation system can cope with also readily increase humidity.

23. Is the building used to house your hogs free of obvious deterioration that could interfere with the production of safe pork?

Yes ○ No ○

24. Are there any areas in your barn with drainage problems sufficient to cause manure or water to pool in pen areas?

Yes ○ No ○

Occasionally, your manure pits will fill and some will come through the slats, or you may have minor flooding in a section of your barn/hoop structure/shelter during the spring thaw. These are anticipated instances of manure or water pooling in an area that pigs can access.

A broken water line is unanticipated, but it is expected that you would rectify that problem quickly.

An important point about these examples is that they are short term. You are probably already doing things to rectify or to manage them. This question particularly addresses the issue of standing water or manure in the pen areas that is almost always present or is present for extended periods of time. Moisture is the most important factor in the survival of microorganisms. Standing water or manure pooling in the pen area is a real concern and must be rectified.

25a) i) Does your barn sanitation protocol include cleaning, washing and disinfection?

Yes ○ No ○

If your barn sanitation program does not include these steps, answer "No" and proceed to 25a(ii). If you answer "Yes", go to (b).

25a) ii) Do you have an effective alternative barn sanitation protocol?

Note: The CQA® validator or delivery agent must approve alternative protocols

Yes ○ No ○

Any alternative sanitation protocol used will depend on your production system. No matter what type of production system you are using, your sanitation protocol must be designed to minimize the risk of spreading foodborne pathogens that pigs can carry and which can contaminate their meat.

Aspects to consider as part of alternative protocols include, but are not limited to:

- Sweeping
- Cleaning air inlets and fans
- Scraping pens
- Using lime
- Managing stocking density in a continuous flow system so that every pen is empty at some point during a calendar year. For example, when a pen is empty, it can be thoroughly scraped, washed down using a garden hose and detergent, if possible, and disinfectant can be applied with a backpack sprayer.
- Pressure washing without a detergent and/or disinfectant, including an extended drying period.

Pressure spraying in a room where pigs are still housed is discouraged. The action of pressure washing aerosolizes manure and microorganisms can be inhaled by the pigs. These aerosolized particles may introduce pathogens which are important from a food safety perspective (such as *Salmonella*) to pigs that were previously uninfected, or can cause other health problems in the animals.

If you are using a bedded system, all bedding must be removed at least once per year and the facilities cleaned. This is a requirement of the CQA® program. If you are using bedding in a confined barn, consider the suggestion made previously regarding cleaning in a continuous flow barn. If you are using quonsets, hoop structures, pole barns or other bedded facilities, consider using lime. Discuss disinfectant options with your veterinarian.

25b) Describe your sanitation protocol for each area of the barn. Include frequency, how manure is removed, any detergents and/or disinfectants used and drying times within your description.

The more information that you include in your answer to this question, the easier it will be for your staff and your CQA® validator to understand how your barn sanitation program works. Be as specific as possible for each area of your barn.

25c) Has your sanitation protocol been applied to each production area within the last 12 months?

Yes ○ No ○

It is not necessary that every area of the barn be washed at the same time. It is a requirement of the CQA® program, however, that your sanitation protocol be applied to each area of the barn at least once per year. You are strongly encouraged to apply barn sanitation maintenance practices, such as scraping and sweeping, between full applications of your sanitation protocol. The requirement for application of your sanitation protocol once per year is a minimum. The greater the frequency of cleaning, the greater control you have over contamination by microbes.

25d) Describe what you do to prevent contamination of the feeding area by urine or feces.

This question is often addressed through appropriate feeder and pen design. How can those two things affect the prevention of contamination of the feeder? How do you address the issue if you floor-feed?

Biosecurity

(See the Biosecurity, Purchasing and Barn Sanitation sections of the Producer Manual.)

Biosecurity refers to the measures you take to reduce the risk of spreading disease from one area to another. It is important to recognize there are external and internal measures to be taken. External measures are designed to keep pigs, birds, rodents and humans from introducing disease-carrying organisms into the herd. Internal measures are designed to keep disease from being carried from one area to another within your operation.

26. Do you have a written protocol that describes entry of:

a) People?

Yes ○ No ○

b) Animals?

Yes ○ No ○

c) Equipment?

Yes ○ No ○

All three of these things can introduce pathogens into your barn that may be of concern from a food safety perspective. They may also transfer other disease causing organisms that could have a negative impact on your herd.

27. Are boots used in the barn ever used outside the barn as well?

Yes ○ No ○

Boots are a primary method of transfer of organisms from one place to another. When you wear your boots outside of the barn as well as inside, you risk picking up microorganisms that may be deposited in your pig barn. Keep this in mind even if you never wear your boots off the farm. Who has come into the yard? Do you have other livestock commodities that may be carriers of organisms that are not found in your pig barn? The Barn Sanitation and Biosecurity sections of the Producer Manual discuss this issue further.

28a) Describe your rodent control program.

As with your barn sanitation program, be as specific as possible in your answer to this question. Identify the chemicals you use for bait, the types of traps that you use, where they are situated, how often the bait needs to be changed, how frequently you check traps, etc. Consider keeping a record of the removal of dead rodents, but bear in mind that if you use baits, the animals are probably dying somewhere other than the bait station.

28b) Is your rodent control program effective?

Yes ○ No ○

29. Are dogs or cats allowed in the production unit?

Yes ○ No ○

Dogs and cats can be important vectors for microorganisms. Both can carry *Salmonella.* Cats are well known hosts to *Toxoplasma,* especially nursing mothers and kittens. If you allow cats in your barn, try to keep them out of the production area, cover feed carts and bins, provide litter pans and have all cats neutered. The best course of action, of course, is to keep cats and dogs out of the barn altogether.

30. Excluding outbreak situations, where it may be impractical, are severely ill, injured or dead pigs quickly removed and kept separate from other pigs?

Yes ○ No ○

Sick and injured animals will shed infectious organisms. If possible, remove them to a sick pen. Remove dead animals as soon after death as possible, to minimize transmission of microorganisms to other animals in the pen.

31. Do people who work in your barn wash and disinfect their hands and boots after handling sick or dead animals?

Yes ○ No ○

It is important for your staff to wash their hands and boots after handling sick or dead animals, to minimize the risk of transmission of microorganisms to other animals. You might also consider the use of disposable gloves when handling sick and dead animals.

Marketing and Transport

(See the Shipping, Marketing and Transport section of the Producer Manual.)

There are three important issues related to marketing and transport. Firstly, studies have shown that urine and feces from treated pigs can contain enough antibiotic residue which, if ingested, can cause a violative level of residue in market hogs. Secondly, research has proven a relationship between gut fill and the risk of spillage leading to contamination of carcasses at the processing plant. Thirdly, handling, mixing and transportation of pigs causes stress, which may cause the animals to shed bacteria, including *Salmonella.* Non-contaminated animals may become contaminated through exposure to these animals and their feces or to contaminated vehicles.

32. Do you work with your marketing agency or processor to determine the most appropriate pre-slaughter management practices (transport, resting period, feed withdrawal)?

Yes ○ No ○

Personnel Training

(See the Personnel Training section of the Producer Manual.)

33a) Do all staff members understand the CQA® On-Farm Assessment Form as it relates to their particular job description?

Yes ○ No ○

33b) Does your staff fully understand the protocols you have developed?

Yes ○ No ○

33c) Has the person in charge read both the Producer Manual and the Assessment Form?

Yes ○ No ○

34. Have you completed all the applicable questions on the Assessment Form?

Yes ○ No ○

35. All people listed in question1 must affix their signature beside their name to signify that they understand the **Assessment Form** and the protocols you have developed.

APPENDIX

CQA® Forms

The forms on the following pages are recommended CQA® program record keeping forms. You may create your own forms if you wish, provided that all of the critical information from these sample forms is reflected in your system.

Records may be kept electronically, either on a computer (using spreadsheets or other forms of your own design) or by commercially-available computerized record keeping systems (herd health, production analysis or feed mill software).

The following forms are contained in this Appendix:

Outgoing Pig Treatment Record: This form is used to record withdrawal times (which have not yet cleared) prior to selling animals for breeding stock or further finishing. Only those treatments that have not cleared the withdrawal time need be recorded. It is also used to record any suspected or known broken needle fragments in any animal. Because this also provides an "incoming pig treatment record", when you receive animals on your farm, be sure to file the forms in order to prove to your validator that you are successfully managing the risk of chemical residues or physical hazards.

Rations Used On Farm: This form provides a record of different feed rations used on your farm, regardless of whether they are purchased as complete feed or manufactured on your farm. It acts as a record of feeds used and chosen suppliers, and indicates which feeds are medicated together with the medication information related to that ration.

If you are pulse medicating a ration, be sure to indicate the medicated and non-medicated versions as two different rations. Remember that any medication used in a manner other than as described on the medication label or in the Medicated Ingredients Brochure (MIB) requires a veterinary prescription. As with all your records, this form should be reviewed periodically to ensure that it is accurate and up-to-date. It is suggested that you date the form to indicate when it was created or last reviewed.

Feed Mixing and Sequencing Record: This is a record of the order (sequencing) in which feed is manufactured on your farm. Proper sequencing minimizes the risk of cross-contamination of different rations. Your CQA® validator will check this record to ensure that feed is properly sequenced. If you flush your mill as part of the sequencing process, flushes must also be recorded. It is recommended that you record mill calibration on this form as well, in order to ensure that the information will be easy to find when you need it.

Medication and Vaccine Usage Plan: This form is used to record medications used on your farm, their purpose(s), their administration (dosage, route of administration), withdrawal times and

caution information. Any prescription medications must be marked with a black box containing the letters "Pr" in white and may only be used when you have a valid veterinary-client-patient relationship. As well, you must have written directions for their use. Any off-label use, whether for a Pr drug or otherwise, must be accompanied by directions signed and dated by your veterinarian. In both cases, this form may be used as those directions. In the case of Pr drugs, you are encouraged to keep a copy of the product label or package insert as well. Have your veterinarian sign and date your plan, to demonstrate that he/she is aware of it, has approved the products included on it, and has approved the dosage rates, routes of administration and withdrawal times being used and recorded.

Pen or Individual Treatment Record: This form is used to record all treatments, including those administered via drinking water. You may also wish to use this form to record start and end dates for medicated feed. Specifically, the CQA® program requires that all treatments beyond 50 lbs. live weight be recorded (including breeding stock); however, should you wish to record prior treatments (for example, if you sell weaner pigs and are making purchasers aware of withdrawal times or needle fragments) you may include them in this record.

Corrective Action Form: You will find two Corrective Action sample forms in this section of the Assessment Form. The first of these is in a format similar to the other forms that have been created for CQA® and allows you to record several corrective actions on one form. If you choose to use this or a similar version of this form, you may need to use several lines to properly describe the deviation and corrective action. Do not feel that you are limited in your descriptions by the amount of space on a single line.

The second sample form allows for only one deviation and corrective action to be recorded per page. This form, however, allows plenty of room to write out the descriptions of the deviation and corrective action. Feel free to use either of these forms as they are presented or to create a similar form of your own design to record deviations and corrective actions. Remember, though, that you must identify what went wrong (deviation) as well as how it was corrected (corrective action) and it must be signed and dated by the staff member and management. Use the samples as a guide.

Verification Record: Verification is required for specific questions of the On-Farm Quality Assessment Form. In this sample Verification Record, you will find each area requiring verification identified. For each verification, the responsible staff people must be identified and the date that observation of staff, review of written protocols and review of written records occurred must be recorded. If any inconsistencies or discrepancies are observed by the verifier, these must also be recorded. Don't forget that if any inconsistencies or discrepancies are identified that these require corrective action.

OUTGOING PIG TREATMENT RECORD

Farm of Origin _____ Q.A. Reg'n No. _____
(please print)

Destination _____
(please print)

Date Shipped ____/____/____
Day / Month / Year

Number of Pigs in Shipment _____

Sold as
Gilts or boars for replacement ○
Less than market-weight for slaughter ○
Less than market-weight for further feeding ○

Date Treated	Animal Identification	Product, Dosage & Route	Withdrawal Date	Needle Fragment?

○ Animals in this shipment have not been fed feed containing ractopamine

Signature of Shipper _____

Signature of Recipient _____

RATIONS USED ON FARM

Ration eg. starter #1	Purchased (P) or made on Farm (OF)	Medicated? Yes or No	For All Rations		For Medicated Rations			
			Which are used? (M)icro (P)remix (S)upplement or (C)omplete feed	Supplier of the premix, supplement or complete feed	Name of the medication used	Kg of medication per 1,000 Kg of feed	Grams of active ingredient per tonne of feed	Withdrawal time in days

FEED MIXING AND SEQUENCING RECORD

Date	Ration	Medicated? Yes/No	Quantity Produced	Person Who Mixed It	Destination

MEDICATION & VACCINE USAGE PLAN ON FARM

I.M. – In the Muscle
S.Q. – Under the Skin
I.W. – In the Water
Pr – Prescription Drug
I.V. – In the Vein

Product Name	Manufacturer	Pr or non-Pr	Why it's used	Dosage	Route used	Product contraindications, cautions and warnings*	Where it is stored on the farm	Withdrawal time in days

Producer signature _____ Date: _____

Veterinarian signature** _____ Date: _____

* Product contraindications and warnings should refer only to human or animal health concerns related to product usage.
** The signing veterinarian assures that all prescription medication and extra-label use outlined in this plan are prescribed by him/her under a valid VCPR and that any compounded products have been compounded according to provincial regulation and following the protocol for identity testing of Active Pharmaceutical Ingredients outlined by the Canadian Association of Swine Veterinarians.

PEN OR INDIVIDUAL TREATMENT RECORDS FOR ALL PIGS BEYOND THE WEANING PHASE

(This form can be used for growers, finishers, sows and barbecue pigs)

I.M. – in the muscle I.W. – in the water I.V. – in the vein S.Q. – under the skin

Date	Animal or pen ID	Number of animals	Product name	Reason the product was used	Amount given and the route used	Who gave it	Weight of the treated pig	Withdrawal time in days	Not to go before (date)	Treatment result	Needle broken?

CORRECTIVE ACTION FORM

Complete this form in the event that a deviation occurs ("What would you do if something went wrong?"). Identify the date the error was identified and describe what actions were taken to correct it. Use as much space as necessary and include details such as who was consulted, the specific actions taken, how animals were identified and where any additional records were written, etc. Both the employee responsible for taking the corrective action as well as the manager are to sign to indicate that the action is complete.

Date	Error (refer to Assessment Form question and describe)	Corrective Action	Staff Signature	Management Signature

CQA® CORRECTIVE ACTION FORM

Date:
What happened?
Why did the problem occur?
What was done to rectify the problem?
What did you do to ensure it doesn't happen again?

Signature of Person Correcting Problem: _____

Signature of Person Conducting the Verification: _____

CQA® VERIFICATION RECORD

Producer _____ Year _____

Protocol	Protocol routinely performed by (Indicate Staff member(s))	Written procedures Reviewed (Date)	Records reviewed (Date)	Observation of staff (Date)	Problems or discrepancies	Name and signature of verifier
Feed mixing and delivery						
Injections						
Water medication						
Medication and vaccine use						
BBQ pigs						