



ACA™

FOR CANADIAN HOG PRODUCERS

*Animal Care
at Work*

*Animal Care
Assessment
2011*



Canadian Pork Council
Conseil canadien du porc

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Introduction:

The swine Animal Care Assessment has been designed as an educational and assessment tool for producers to track the welfare of animals on their farms, independent of the production system. Coupled with the external verification process, the program can be used to provide assurance of on-farm animal welfare. Implementing an animal care assessment will help you manage animal care on your farm and demonstrate this to customers.

Pigs are raised in many ways including indoor systems (which predominate in Canada), outdoor pasture systems and mixed indoor-outdoor systems. Each system has its own set of advantages and disadvantages for the animals. Within any system, however, animal welfare is largely determined by the amount and quality of care provided.

Standards described in this assessment are outlined in various recommended codes

including the Recommended Code of Practice for the Care and Handling of Farm Animals — Pigs, the Addendum Early Weaned Pigs and Transportation. Producers are encouraged to refer to these documents when completing the assessment.

The Approach:

The aspects of day-to-day farm life that impact the health and welfare of the pig have been identified in the swine Animal Care Assessment and checklist. By completing the questions, producers will create a welfare assessment for their farm.

This program builds on the food safety aspects of the CQA® program as it is recognized that many practices that promote food safety on farms also are essential to good animal care. Attention to animal health and well-being are critical. Participants following the Animal Care Assessment will be required to meet the food safety requirements of CQA®.

When the document refers to operating procedures or standard operating procedures, this simply means that you have an approach to address this particular issue, and that the approach is written down.

Shaded questions are program requirements.

This document was developed by a team of producer representatives, researchers and government officials. It is an evolving document. As part of the evolution, the Canadian Pork Council is committed to taking a leadership role in furthering work on various issues, including sow housing, tail trimming, castration and environmental enrichment.



Part 1: General

Stockmanship

Well-trained stockpeople are the key to success in any type of system. Stockpeople and pigs are in regular and close contact during the course of a normal day. Sometimes pigs need to be restrained for veterinary purposes or other procedures. During these interactions, the demeanor and behaviour of the stockperson influences the pig's stress level and subsequently, the pig's response.

Handling studies have shown that pigs are very sensitive to brief tactile interactions with humans. Negative tactile interactions imposed briefly but recurrently will cause fear of humans.

The above-mentioned interactions also affect the stockperson, and can influence his or her attitude, stress level, and work performance to the extent of affecting job satisfaction.

Before working with pigs, stockpeople need to know the basic needs of the animals entrusted to their care and receive adequate instruction to look after them humanely. Training should include a review of the Recommended Code of Practice for the Care and Handling of Farm Animals — Pigs, the Addendum Early Weaned Pigs and Transportation. Producers are encouraged to establish standard operating procedures for dealing with various aspects of pig welfare (feed, water, treatment, handling etc.) and to make these standard operating procedures part of the education and ongoing training of staff.

Attitudes and personalities of stockpeople strongly determine their demeanor and hence their behaviour towards animals. A stockperson's behaviour influences a pig's welfare and the quality of the interaction influences both welfare and production. Pigs that are handled by stockpeople that are considerate perform better. Producers need to understand the relationship between attitudes and behaviour and begin training staff and selecting new staff with positive attitudes. The best stockpeople:

- Like their pigs
- Have a good understanding of their needs
- Are determined to meet the needs of the pigs
- Provide, through knowledgeable handling practices, a high level of care which results in optimum pig health, welfare and performance.

Staff Training

1) Do you have copies or have access to the Recommended Codes of Practice for the Care and Handling of Farm Animals available?

(Participants should have access to the codes that are of relevance to their farming operation available as follows: Recommended code of practice for the care and handling of farm animals: Pigs, Addendum Early Weaned Pigs and Transportation)

Yes ☐ No ☐



- 2) Do you have a documented system in place that ensures that stockpeople have access to, and receive training in animal handling?

Yes ☐ No ☐

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Handling:

Pigs must be handled with care, gentleness and patience. Positive human contact is an important factor in animal welfare and productivity. Studies show that fear of humans (i.e. shying away or vigorous avoidance) produces long-term stress in pigs.

- 3) Are stockpeople monitored weekly on how they interact with the pigs in their care?

Yes ☐ No ☐ N/A ☐

- 4) Do pigs experience consistent, positive human contact on a daily basis?

Yes ☐ No ☐

Use of handling devices

The actual moving of pigs, whether from pen to pen, barn to truck or truck to plant, can be stressful for pigs and attendants. Patience and common sense are needed to make the move easier.

By encouraging the lead pig to enter the handling facility, others will generally follow.

Handling devices can help move pigs if used properly — the improper use of these devices is not acceptable. Attendants must be patient and considerate. Sometimes the best move may be to stop or step back and let both the pig and the attendant calm down.

Electric prods should be used only as a last resort and only according to manufacturers' instructions. It is unacceptable to use electric prods on very young animals and breeding animals. It is also unacceptable to use prods on sensitive areas, such as the nose, eyes, vulva, anus and testicles.

- 5) What devices are used to move pigs on your farm?

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6) Are stockpeople trained in the use of handling devices used on your farm?

Yes ☐ No ☐

Loading Pigs for Transport:

Loading pigs for transport is stressful, especially if this is a new experience for the pig. Pigs have evolved to treat novel situations as dangerous. Their reaction will also be influenced by previous experience and genetics.

If pigs have not been exposed to regular human contact, they will resist attempts to loading. The way to overcome this is to gradually introduce pigs to the idea of being loaded and unloaded through consistent contact with stockpeople. Tame animals that are used to close contact with people are usually less stressed by handling.

Everyone involved in the handling and transportation of pigs needs to be trained in the basics of pig behaviour and good pig handling. Quiet, careful handling during all phases of production will help preserve meat quality.

Educational materials should be available in the barn for staff who have questions regarding the handling of certain classes of pigs (i.e. non-ambulatory, piglets, sows, boars).

7) Are pigs moved in a manner such that none fall down or are forced through doorways?

Yes ☐ No ☐

Compromised pigs

At the time of transport, all pigs must be fit for transport. Animals that are sick, injured, disabled, fatigued or that cannot be moved without causing them additional suffering are unfit for transport.

Federal regulations prohibit loading or transporting any animal that is unfit for transport. Some provinces also have their own regulations and industry standards. Please refer to resources provided by provincial hog producer associations, identified in Appendix 2, to determine the specific requirements for your province.

8) Is your transporter on a trucker quality assurance program?

Yes ☐ No ☐



Transporting early-weaned piglets

Handling and transportation of newly weaned piglets must be conducted with care.

- 9) Are early weaned piglets transported according to the recommendations in the Addendum — Early Weaned Pigs?**

Yes ☐ No ☐ N/A ☐

Loading facilities

Well-designed handling facilities should facilitate easy, quick and humane sorting, treating and loading of pigs. Facilities should be designed to encourage the smooth flow of animals, thereby reducing excitement, panic and traffic jams and, indirectly, to reduce heart difficulties, body injuries and damaged meat (including bruises, PSE and other losses).

- 10) Is non-slip flooring provided on loading ramps and walkways? (This could include providing wood shavings or wood chips, or ensuring floors have grooves or slats.)**

Yes ☐ No ☐

- 11) Do pathways and ramps have sharp edges that would cause scratches or injury?**

Yes ☐ No ☐

- 12) Do pathways and ramps have sharp turns that impede pig movement?**

Yes ☐ No ☐

Pigs find loading and unloading disagreeable. They dislike moving up (or down) ramps. Loading of pigs can be more easily accomplished if pathways and ramps have no sharp turns that impede movement and that may lead to injury of the pigs. An ideal loading alley and ramp should be curved, have solid walls, be properly illuminated and be flat. Ramps should never be steeper than 20°. Step height should not exceed 10 inches for market hogs. Pigs will move from a darker place to a brighter place, but they will not move toward blinding light. Pigs will refuse to move forward onto a truck if air is blowing into their faces.

- 13) Are ramps steeper than 20°?**

Yes ☐ No ☐

**14) Are your loading areas and ramps well lit?**Yes ☐ No ☐**15) Are loading densities appropriate?**Yes ☐ No ☐***Temperature and Ventilation During Transportation***

Appropriate temperatures must be maintained, and a source of fresh air ventilation be provided for pigs undergoing travel. As pigs are especially sensitive to extremes of temperature, they must be protected from the cold in winter and the heat in summer for the duration of the travel. On extremely hot days, pigs must be periodically sprayed with cold water to prevent stress.

Transportation of boars

Moving and transporting boars can be dangerous to handlers and other animals. When de-tusking is necessary prior to transport, it must be carried out humanely. Only the two tusks in the bottom jaw need to be removed as these are the teeth used for fighting. Ensure stockpeople are adequately trained to handle these animals, and refer to Appendix 2 at the back of this booklet for more information.

Pig Health and Comfort

Pigs should be observed (this does not involve entering the pens) at least twice per day for signs of disease, injury, thermal comfort (too cold or too hot) or general unthriftiness (not thriving or growing well). Monitoring should be more frequent during high-risk outbreak situations such as suspected signs of illness, or abnormal behaviour (i.e. tail biting). Pigs should be observed while feeding to monitor their comfort level around the feeder(s).

Stockpeople need to know the normal behaviour for their pigs and be able to recognize signs that indicate discomfort or disease, as well as what needs to be done to remedy the situation. Pigs that do not stand or show interest at feeding time need to be closely examined. Refer to Appendix 2 in the back for access to more information on caring for compromised pigs.

16) Are stockpeople familiar with the behavioural and other signs related to discomfort or disease?Yes ☐ No ☐

Sick, injured or disadvantaged pigs must be attended to immediately and may be moved to a designated isolation/hospital pen. An isolation/hospital pen should be available for each category of pig on the farm. The key to success with an isolation/hospital pen is to intervene



early. Sick, injured or disadvantaged pigs need to be relocated as soon as staff recognize that these animals need special attention. For example, lameness in any animal is usually a sign that they are in pain. Lameness in pigs is a sign of ill health and discomfort. Some examples of conditions that cause leg problems are arthritis, abscesses, fractures and skin ulcers in the joint area. When there is a high incidence of lameness, identify the source of the problem. (Refer to the Caring for Compromised pigs references for more information on identifying specific actions that need to be taken with various conditions.)

It is recommended that producers establish a standard operating procedure for isolating and caring for sick or injured pigs.

17) Do you have a documented standard operating procedure in place for the identification, care and humane treatment of sick or injured pigs?

Yes ☐ No ☐

Isolation pens (i.e. hospital pens) need to be draft free and warm with ready access to feed and water in order to minimize competition that can lead to fighting and to sick pigs not being able to access the feed and water they require. Isolation/hospital pens should be cleaned and disinfected as appropriate. Refer to the CQA® program requirements.

18) Is there space where you can isolate and treat pigs that need special attention (eg, hospital pen, or segregated area)?

Yes ☐ No ☐



Euthanasia

In the case of severe injury or when pigs fail to respond to treatment, pigs must be humanely euthanized. Please refer to provincial hog producer organization references as outlined in the reference list.

19) Do you have a euthanasia plan that includes the proper methods for euthanasia of the different sizes and types of pigs on your farm?

Yes ☐ No ☐

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Mortality

Unusual diseases or high mortality warrants investigation by barn staff. Individual producers should establish acceptable mortality levels for each phase of production. All mortalities should be recorded and records examined and evaluated at least twice a year.

20) Are mortalities recorded daily and investigated when in excess of your established levels?

Yes ☐ No ☐



Facilities

Every type of housing system must provide conditions conducive to comfort, good health, growth and performance at all stages of the pig's life. Ensure that buildings intended for indoor housing of pigs are suitably insulated and ventilated. Monitor ventilation and heating daily to maintain a comfortable environment, paying particular attention to temperature, relative humidity, condensation, dust and ammonia. A standard operating procedure for the maintenance of heating and ventilation systems should be developed and available for staff.

21) Are systems for controlling temperature and ventilation well maintained?

Yes ☐ No ☐

22) Are emergency plans in place at each facility to deal with power failures?

Yes ☐ No ☐

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Air Quality

Keep air movement at pig level in the resting area of the pens below 0.2m/s (40ft/min).

Drafts moving as slowly as 0.25 m/s (50 ft/min) can be detected on the back of a person's wet hand. However, when the effective temperature is near or over the upper range of the comfort zone, higher air speeds may be needed.

Low ventilation rates lead to increased CO₂ and ammonia levels and microbial proliferation.



Fresh air should be provided and excessive heat, ammonia and water vapor should be removed by means of efficient air exchange. Ongoing ammonia concentrations greater than 25 ppm are not acceptable for human or pig health.

23) Is the level of ammonia less than 25 ppm?

Yes ☐ No ☐

Ammonia Level Records:

Gestation room(s):

Farrowing room(s):

Weaner barn(s):

Grow/finish:

Lighting

Pigs should not be kept in permanent darkness, but be allowed access either to natural or artificial light. Light should be of a sufficient intensity to allow a newspaper to be read (or this booklet!).

24) Is lighting provided on a daily basis?

Yes ☐ No ☐



Part 2: Sows and Piglets

Stockmanship

The housing systems currently used for pregnant sows have both advantages and disadvantages. Within any system, however, animal care is largely determined by the operator's understanding of the animals and the extent and quality of care provided.

The swine industry in Canada acknowledges that the use of the gestation stall is not acceptable to some of the Canadian public. However, until a sustainable, animal-welfare friendly alternative is available to producers, sows will continue to be housed in stalls. Therefore, this assessment will include the measure of the welfare of these animals under current conditions. The industry is working with researchers and producers to develop sustainable alternatives to the gestation stall.

Stockpeople working in farrowing rooms must be aware of the vulnerability of sows and piglets during, and immediately after farrowing. Some sows and gilts may need assistance during farrowing. Sow health problems occur most commonly in the first few days after farrowing. Normally, newborn piglets will suckle soon after birth. It is the stockperson's responsibility to confirm access (i.e. visually see piglet sucking) within the first 12 hours. All piglets must have access to colostrum within the first 12 hours of life as well as continuous access to a functional teat or an appropriate supplementary milk source.

Farrowing

- 25) Are sows and piglets observed closely during, and 24 hours post-farrowing, by knowledgeable staff?**

Yes ☐ No ☐

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Excessive fighting should be monitored by stockpeople and appropriate action (such as removing pigs) taken before severe injury occurs. Evaluate skin wounds and lesions to determine when fighting is excessive.

Stockpeople authorised to perform minor surgical tasks must be properly trained. Training should include the preparation of facilities and restraints and the ability to select and maintain the appropriate equipment for each procedure.

**Piglet processing**

Teeth trimming is a practice used to minimize the risk of damage to the sow's teats and to litter-mates. Teeth trimming may not be necessary, depending on breed and management; over time, this practice is becoming less common.

- 26)** When teeth trimming is necessary, are teeth trimmed by a trained operator within a few days of the pig's birth?

Yes ☐ No ☐ N/A ☐

Tail trimming is used primarily to reduce the risk of tail biting. Tail trimming may not be necessary and over time, may become less common. Where possible, avoid this practice.

- 27)** When tail trimming is practiced, is it performed by trained staff within a few days of the pig's birth and only when necessary?

Yes ☐ No ☐ N/A ☐

Because of consumer expectations in Canada, intact males are not normally accepted for slaughter. Trained personnel should castrate male pigs within 2 weeks using acceptable procedures to minimize pain.

- 28)** Are male pigs castrated within the first 2 weeks of life by trained personnel?

Yes ☐ No ☐





All sows should be fed, at a minimum, once per day. In any group housing situations, there should be sufficient space (1.5 linear feet per sow) for all sows to eat at the same time in order to reduce fighting.

31) Is there sufficient space for all sows to eat at the same time?

(Not applicable to electronic sow feeding stations.)

Yes ☐ No ☐ N/A ☐

Producers should assess the nutritional needs of their pigs according to the type of housing available. Pigs must have access to nutritionally adequate diets for each class of pig. Select a diet to meet the basic nutritional needs of sows as currently defined by the National Research Council. Seek expert advice before using unusual feedstuffs.

32) Are sows fed daily to meet their nutritional needs?

Yes ☐ No ☐

Note: Producers will need to demonstrate the rations are appropriate (examples include: working with a feed specialist, referring to feed labels, using an appropriate reference material).

Groups with Electric Sow Feeders (ESF's) should be closely monitored, especially in (a) larger groups, (b) when groups are first formed and (c) when new animals are added. Dominant sows will eat first and often return to the feeder to remove any feed left by other sows.

Sows that are not using the feeder are either off feed, have lost their transponder or have not adapted well to the feeding system.

33) Are ESF records monitored daily to ensure that all sows are accessing the feeder?

Yes ☐ No ☐

Piglets should be provided with access to a functioning teat or a supplementary milk source. Creep feeding a highly digestible, palatable diet is recommended.

Body Condition Scoring

A good measure of sow welfare is body condition score — body condition scoring can contribute greatly to good husbandry and help to avoid costly welfare problems. It is important to recognize unthrifty sows and to take appropriate action when sows fall below the predetermined score.



A number of sows from various stages of gestation (see Appendix 1) should be assessed to get the most accurate measure of body condition in your herd, with particular attention to sows within two weeks of farrowing or two weeks after weaning.

A scale from 1 (emaciated) to 5 (obese) is used in the scoring system which combines both visual appraisal and feel. Visual appraisal alone is not enough; handling the sow is essential to get an accurate assessment of condition. In practice, very few extreme (1 or 5) scores are found in well managed sow herds. The majority of sows should fall into the middle scoring range (2 or 3). To cover this middle range adequately, half scores may be used (1.5 to 3.5). Refer to the reference list for more specific details.

Body Score Sheet	Body Condition				
	1	2	3	4	5
Number of Sows Observed*					

Total number of sows observed:

Total number of sows in the herd:

Total number of sows with a score less than 2:

34) What is the percentage of sows observed that are less than score 2?

Culled sows are particularly susceptible to becoming compromised during transport and require special considerations before deciding to transport. For example, consider the condition of the animal and the length and type of journey to ensure appropriateness.

Sow-Piglet Comfort

Farrowing Stalls

Sows in farrowing stalls must be able to lie down comfortably, without the head having to rest on the feeder or their hind end in contact with the back of the stall. They must also be able to lie down fully and stand back up freely.

It is useful to have several sizes of farrowing units to accommodate sows of various sizes. Assess sows of various parities to collect a true measurement of the appropriateness of farrowing unit sizes.



The farrowing unit is to be designed so that the sow can be safely controlled while still allowing the piglets to nurse without undue restriction. These needs can be met by using adjustable rails or finger bars, or by using different sizes of units to accommodate smaller or larger sows.

All equipment used in the facility must be well maintained and the correct size for the type of sow and management used.

Appropriateness of equipment can be determined through careful observation of individual pigs. The presence of scratches and wounds on the skin of the head, body or feet can be a sign of poorly designed equipment. Producers/barn staff should observe pigs daily for scratches arising from poorly designed/damaged equipment. Sharp edges on stalls and feeders must be identified and fixed immediately (See Appendix 1 for number of animals to observe to calculate the percentage of pigs with scratches from equipment).

35) Is equipment that causes scratching or wounding of sows and/or piglets promptly repaired or replaced?

Yes ☐ No ☐

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Sow Stalls

The height and width of the individual sow stall must allow for the sow to stand freely and to lie comfortably, without the head having to rest on a raised feeder, to lie down without the rear quarters having to be in contact with the back of the stall and to allow the sow to lie without her udder protruding into the next stall.

All equipment used in the facility must be well maintained and the correct size for the type of sow and management used. To accommodate a typical herd, it is suggested that a minimum



of 10% of the stalls be 70 cm wide, or wider, an additional 30% be at least 65 cm wide or wider, and that no more than 15% be 55 cm wide. The remaining 45% of the stalls should be 60 cm wide or wider. Injuries should be reduced by allotting animals to stalls based on their size.

36) Can sows stand freely and lie comfortably?

Yes ☐ No ☐

Appropriateness of equipment can be determined through careful observation of individual pigs. The presence of scratches and wounds on the skin of the head, body or feet can be a sign of fighting and/or poorly designed equipment. Sharp edges on stalls and feeders must be identified and fixed immediately.

37) Is equipment that causes scratching or wounding of sows promptly repaired or replaced?

Yes ☐ No ☐

Group Housing:

In group housing, there is to be sufficient space to allow all sows in a pen to rest at the same time. Pen design should incorporate ample room for subordinate sows to escape dominant sows — a rectangular pen allows for this better than a square pen design. In hot weather, floor space allowance may need to be increased up to 10 to 15% on slatted floors. Solid floors may need a greater increase. Research to determine if the current acceptable space allowances for sows are appropriate, is currently underway.

In group housing systems, sows will fight when first introduced to establish a dominance hierarchy within the group. However, when space allowance, access to feed and water and other environmental factors are sufficient, fighting will diminish within the first 24 to 48 hours.

Ensure there is an equitable distribution of feed.

38) Are stockpeople aware of the signs of excessive fighting?

Yes ☐ No ☐

List the actions to be taken when excessive fighting is observed.

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Facilities/Supervision

Temperature

The temperature that the pig actually feels in its immediate surroundings depends on many factors, including:

Flooring material	Dryness of the floor
Presence or absence of bedding material	Humidity
Air movement	Feed type and intake
Size of pig	Health status
Group size	

The thermal comfort zone for gestating sows is 10–21° C. The sow and her piglets have different temperature requirements. Farrowing rooms should be kept at 18–20° C (64–68° F) with the provision of radiant (heat lamps) or floor heat to — 30–34° C (93–100° F) for neonatal pigs, and 25–30° C (77–86° F) for 4-week-old pigs. Piglets that are seen to huddle or shiver are too cold. Piglets avoiding the heated zone or resting on its perimeter are too hot. **Producers are to monitor the pigs regularly.**

A major component of a comfortable barn environment is the appropriate temperature and air quality. Both depend on well maintained ventilation systems (natural or mechanical).

39) Are temperatures maintained for sow/piglet comfort throughout the different rooms?

Yes ☐ No ☐



Part 3 – Weaned Piglets

Stockmanship

Separation of piglets (weaning) from their dam is a stressful time for both piglets and sows. The practice of early weaning has grown in Canada and has led to the development of a special code of practice.

Sometimes due to the death of the sow or to control some type of disease, piglets are weaned early. Weaning at less than 14 days of age requires very high levels of animal care and specialized management.

- 40)** Is a standard operating procedure available for care of piglets during and following weaning?

Yes ☐ No ☐

- 41)** If early weaning is being practiced, do stockpeople follow the recommendations of the Addendum — Early Weaned Pigs?

Yes ☐ No ☐



Weaned pig comfort

All equipment used in the facility must be well maintained. Just because a piece of equipment or flooring is sold commercially, does not mean that it has been properly designed for the weaner. Appropriateness of equipment can be determined through careful observation of individual pigs. The presence of scratches and wounds on the skin of the head, body, or feet can be a sign of poorly designed equipment. Sharp edges should be identified and fixed immediately.

42) Is equipment or penning that causes scratching or wounding of weaned pigs promptly repaired or replaced?

Yes ☐ No ☐

A pen must have enough space for all weaned pigs to lie down at the same time. Pen design should provide ample room for subordinate pigs to escape dominant animals. A rectangular pen allows for this better than a square pen design. Floor space allowance in pens should be sufficient for the end weight of the piglets when they leave the nursery. The recommended space allowance for pigs on the ACA program is represented by the following formula:

$$\text{Space in square metres} = 0.0335 \times (\text{Body weight in kilograms})^{0.667}$$



Recognizing that the welfare of pigs is impacted by more than just space, and includes other factors such as humidity, wind and temperature, some flexibility in the figures is allowed for to accommodate short periods of time in the raising of pigs when space may be more limited (for example, pens become more crowded just prior to moving the first animals from a pen). Therefore, the minimum space allowances required for hogs is represented by the following formula:

$$\text{Space in square metres} = 0.028 \times (\text{Body weight in kilograms})^{0.667}$$

To illustrate how these formulas translate into space allowances, see the conversion chart below. The body weight used in the calculations is the average weight of the animals in the pen, not the weight of the largest animal leaving the pen.

Space Allowance

Average Pen		Recommended		Minimum	
kgs	lbs	m ²	ft ²	m ²	ft ²
10	22	0.16	1.67	0.13	1.40
20	44	0.25	2.66	0.21	2.22
30	66	0.32	3.49	0.27	2.91
60	132	0.51	5.53	0.43	4.63
70	154	0.57	6.13	0.48	5.13
80	176	0.62	6.70	0.52	5.60
90	198	0.67	7.25	0.56	6.06
100	220	0.72	7.78	0.60	6.50
110	243	0.77	8.29	0.64	6.93
120	265	0.82	8.79	0.68	7.34
130	287	0.86	9.27	0.72	7.75

43) Have you calculated the space allowances for weaned pigs on your farm?

Yes ☐ No ☐

Outline your calculations for allocating space allowance per pig.

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Pigs kept on solid, bedded floors and partially slatted floors require more space for control of the manure than those kept on fully slatted floors over the manure pit.

44) Do pigs have a dry area for resting in the pen?

Yes ☐ No ☐

Keep mixing to a minimum. When grouping piglets from different litters is necessary, mix pigs of about the same size and place them in clean pens on the same day.

When first mixed, pigs will fight to establish a dominance hierarchy within the group. However, when space allowance, access to feed and water and other environmental factors are sufficient, fighting will diminish within the first 24 to 48 hours.

Stockpeople are to watch for excessive fighting and behaviours such as tail biting, and take appropriate action (such as removing piglets) before severe injury occurs. Evaluating skin wounds and lesions can be useful for determining when fighting is excessive.

45) Are weaned pigs observed for signs of excessive fighting?

Yes ☐ No ☐

List actions to be taken when excessive fighting is observed:



Tail biting, belly nosing/sucking, navel biting and vulva biting are significant problems within the industry. Although much has been learnt from research and practical on-farm experience, it is not possible to produce a definitive solution suitable for all cases. Each outbreak should be thoroughly assessed to identify the particular cause of an outbreak on the unit and to find the appropriate solution to the problem. Quantify the problem:

- Note the position of pens and numbers of pigs affected, check records of previous incidents.
- List possible causes:

- Such as interruption or inadequate supply of feed or water, inadequate ventilation, drafts, incorrect temperature levels, overstocking, competition at feeding, excessive light levels, elevated dust/noxious gases. Different causes may be found in different pens on the same unit.

Modify standard operating procedure:

- Modify your standard operating procedure to implement the necessary changes to prevent future outbreaks.

46) Do you have a standard operating procedure for handling pigs with social behaviour problems (i.e. tail biting, vulva biting, navel sucking, or ear biting)?

Yes ☐ No ☐



If yes, detail what the specific problem(s) was and how this situation was addressed:

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Nutrition

Water

Newly weaned pigs are especially sensitive to water quality. At this stage any contamination of water bowls can reduce the acceptability of water. Drinking water must be available at all times. It should be fresh and free from contamination. Nipple drinkers provide an excellent source of clean, uncontaminated water. Barn water should be tested occasionally to ensure it's appropriate for the animals.

47) Do weaned pigs have access to water at all times?

Yes ☐ No ☐

Feed

Weaned pigs must have access to nutritionally balanced diets for each stage of growth. Select a diet to meet the basic nutritional needs of weaned pigs as currently defined by the National Research Council. Seek expert advice before using unusual feedstuffs. Newly weaned pigs will be accustomed to eating all at one time; it may be necessary to provide additional, temporary feeder space.

**48) Are pigs fed daily to meet their nutritional needs?**Yes ☐ No ☐

Note: Producers will need to demonstrate the rations are appropriate (examples include: working with a feed specialist, referring to feed labels, using an appropriate reference material).

Facilities Management

Weaned pigs should be weaned into a clean, dry, well-heated, draft-free facility specifically designed to meet their needs.

The thermal comfort zone for a newly weaned piglet is 24–34° C. The thermal comfort zone for four week old pigs is 25–30° C (77–86° F). Low consumption and digestion of feed in the first days after weaning causes a drop in body heat production and an increase in the pig's need for warmth.

Producers are encouraged to read the weaned pig's behaviour for signs of heat or cold stress. Piglets that are seen to huddle or shiver are cold. Weaned pigs resting around the perimeter of pens are hot.

The use of heat lamps, covers or bedding can increase the temperature for weaned pigs.

49) Are temperatures maintained to meet the requirements of the weaned pigs?Yes ☐ No ☐



Part 4 – Grow/Finish

Stockmanship

Positive human contact is an important factor in animal well-being and productivity. Studies show that fear of humans (i.e. shying away or vigorous avoidance) produces long-term stress in pigs. Fear is produced not only by rough handling (goading, slapping) but also by handlers who approach pigs too quickly. Handlers can reduce fear reactions by crouching (to reduce perceived body size), moving slowly and walking through pens at least once daily and by gently moving pigs.

50) Do stockpeople observe each pen every day?

Yes ☐ No ☐

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Pig Comfort

Over-crowding in the grower-finisher area causes stress and discomfort. Failure to provide pigs with sufficient room to carry out their normal activities creates stress, causes aggressive behaviour, and lowers the quality of the environment (e.g. increased ammonia in the air).

In all situations, the amount of space must allow all pigs in a pen to lie down at the same time. Pen design and shape should incorporate ample room for subordinate pigs to escape dominant pigs — a rectangular pen (versus a square) allows for this activity — and access to resources to reduce fighting.

NB: In hot weather floor space allowance may need to be increased up to 10 to 15% on slatted floors and perhaps greater on solid floors, to allow for necessary heat dissipation.



The recommended space allowance for pigs on the ACA program is represented by the following formula:

$$\text{Space in square metres} = 0.0335 \times (\text{Body weight in kilograms})^{0.667}$$

Recognizing that the welfare of pigs is impacted by more than just space, and includes other factors such as humidity, wind and temperature, some flexibility in their figures is allowed for to accommodate short periods of time in the raising of pigs when space may be more limited (for example, pens become more crowded just prior to moving the first animals from a pen).

Therefore, the minimum space allowances required for hogs is represented by the following formula:

$$\text{Space in square metres} = 0.028 \times (\text{Body weight in kilograms})^{0.667}$$

To illustrate how these formulas translate into space allowances, see the conversion chart below. The body weight used in the calculations is the average weight of the animals in the pen, not the weight of the largest animal leaving the pen.

Space Allowance

Average Pen		Recommended		Minimum	
kgs	lbs	m ²	ft ²	m ²	ft ²
10	22	0.16	1.67	0.13	1.40
20	44	0.25	2.66	0.21	2.22
30	66	0.32	3.49	0.27	2.91
60	132	0.51	5.53	0.43	4.63
70	154	0.57	6.13	0.48	5.13
80	176	0.62	6.70	0.52	5.60
90	198	0.67	7.25	0.56	6.06
100	220	0.72	7.78	0.60	6.50
110	243	0.77	8.29	0.64	6.93
120	265	0.82	8.79	0.68	7.34
130	287	0.86	9.27	0.72	7.75

51) Have you calculated the space allowances provided on your farm for grower and finisher pigs?

Yes ☐ No ☐



Outline your calculations for allocating space allowance per pig.

When first mixed, pigs will fight to establish a dominance hierarchy within the group. However, when space allowance, access to feed and water and other environmental factors are sufficient, fighting will diminish within the first 24 to 48 hours.

Excessive fighting should be observed by stockpeople and appropriate action (removing pigs) taken before severe injury occurs. Evaluating skin wounds and lesions can be useful for determining if fighting is excessive and when remedial action should be taken.

52) Are stockpeople aware of the signs of excessive fighting?

Yes ☐ No ☐

List the actions to be taken when excessive fighting is observed.



Vices

Research has shown that the welfare of pigs is improved by environmental enrichment (usually in the form of straw or other substrates) and therefore enrichment should be considered as an integral part of management practices. Pigs are inquisitive animals and like to explore their environment. In settings of deficient stimuli, pigs may explore their pen mates, which leads to high levels of harmful social behaviour (tail-biting, ear biting, navel sucking).

Environmental enrichment can stimulate behaviour patterns similar to those of pigs in semi-natural settings. The provision of toys and other substrates has been shown to reduce the incidence of tail-biting, as well as having a calming effect on pigs. Calmer pigs are easier to handle. (See section on weaned pigs for more information on management of vices.)

53) Are tail biting, ear biting and/or navel sucking a problem on your farm?

Yes ☐ No ☐

54) Do you have a standard operating procedure for handling pigs with social/behaviour problems (ie. Tail biting, vulva biting, navel sucking, or ear biting)?

Yes ☐ No ☐

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If yes, detail what the specific problem(s) was (were) and how this situation was brought under control:

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All equipment used in the facility must be well maintained and the correct size for the type of pig and management used. Just because a piece of equipment or flooring is sold commercially, producers must not assume that it has been properly designed for the pig. Appropriateness of equipment can be determined through careful observation of individual pigs. The presence of scratches and wounds on the skin of the head, body, or feet can be a sign of fighting and/or poorly designed feeding equipment.

55) Is equipment or penning that causes scratching or wounding of pigs promptly repaired or replaced?

Yes ☐ No ☐

Nutrition

Water

Drinking water must be available at all times. It should be fresh and free from contamination. Barn water should be tested occasionally to ensure it's appropriate for the animals. Nipple drinkers provide an excellent source of clean, uncontaminated water. One nipple serves 1–15 pigs. Drinkers must be adjusted to the corresponding pig height.

56) Do pigs have access to water at all times?

Yes ☐ No ☐



Feed

Pigs must have access to nutritionally balanced diets for each stage of growth. Producers should assess the nutritional needs of their pigs according to the type of housing available. Each class of pigs must have access to nutritionally adequate diets. Select a diet to meet the basic nutritional needs of sows as currently defined by the National Research Council. Seek expert advice before using unusual feedstuffs.

The type of feeder will dictate the number of feeders required. Feeding schedules should be part of the standard operating procedure and all stockpeople should review these documents. Plans should be in place to ensure the appropriate amounts and types of feed are available in advance.

57) Is a written standard operating procedure for feeding and feed delivery available?

Yes ☐ No ☐

**58) Are pigs fed daily to meet their nutritional needs?**Yes ☐ No ☐

Note: Producers will need to demonstrate the rations are appropriate (examples include: working with a feed specialist, referring to feed labels, using an appropriate reference material).

59) When controlled feeding is practiced, is enough space and feed available so that all pigs can eat at the same time?Yes ☐ No ☐**60) Are feeders and waterers checked daily to ensure that they are clean and functioning properly and at the appropriate height? (For nipple drinkers, the appropriate height is 2 inches above the shoulder).**Yes ☐ No ☐

Facilities/Supervision

The temperature that the pig actually feels in its immediate surroundings depends on many factors, including:

Flooring material	Size of pig (surface area)
Presence or absence of bedding material	Group size
Dryness of the floor	Feed type and intake
Humidity	Health status
Air movement	

Keep facilities properly ventilated but free from drafts at pig level, which may contribute to tail biting. Spray cooling will help to prevent discomfort on warm days.

Well-fed grower pigs of 20 kg are generally most comfortable at room temperatures of 20–28° C (68–82° F), declining to 14–20° C (57–68° F) at 100 kg. However, the range that provides thermal comfort varies a great deal depending on circumstances such as floor type, dryness of the floor, group size, feed intake and air movement. Use of straw bedding provides a heat saving benefit of at least 3–6° C (5–11° F).

Producers are to read the pig's behaviour for signs of heat stress or huddling from cold.



Some provision for heating or cooling should be present and in good working order during extremes in weather. Your operation must be able to moderate temperatures sufficiently to prevent extreme thermoregulatory behaviour such as excessive panting in hot weather or excessive piling in cold weather, within your capacity.

61) Are standard operating procedures available to deal with extremes in temperature?

Yes ☐ No ☐

Note: You will need to have a plan that lays out what must be done in an emergency situation of weather extremes.



Appendix 1:

Number of individually housed or large-group housed pigs to be observed per site.

Average number of pigs per site	Site Size: Minimum number of individually housed or large group housed pigs for assessment	Approximately every___pig or sow
50	All	All
90	46	2 nd
150	53	3 rd
250	63	4 th
350	70	5 th
450	76	6 th
550	82	7 th
700	89	8 th
850	95	9 th
1000	100	10 th
2000	126	16 th
3000	144	21 st
4000	158	25 th
5000	170	29 th

Reference: Swine Welfare Assurance program



Appendix 2: Resources for producers

National

Recommended code of practice for the care and handling of farm animals: Pigs

Recommended code of practice for the care and handling of farm animals: Pigs Addendum Early Weaned Pigs

Recommended code of practice for the care and handling of farm animals: Transportation

Animal welfare database: www.prairieswine.com

Quebec

Le Transport des animaux fragilisés: Évaluation des animaux à risque

Arbre de décision: Transport des animaux fragilisés

Euthanasie des porcs à la ferme: Les options du producteur

Plan d'Action sur l'euthanasie

La trousse de départ du producteur

Le guide du compostage à la ferme

Ontario

Caring for Compromised Pigs: Assessing Animals at Risk

Should this pig be transported? (Decision tree)

Cold and Warm weather loading charts for transporters

On-Farm Euthanasia of Swine — Options for the Producer

On-Farm Euthanasia of Swine — Action Plan

Manitoba

How pigs are raised

Pigs in Transit

Humane Handling and Euthanasia of Swine: Standards for the Care of Unfit Animals and poster

Alberta

Humane Handling of Swine: Standards for the Care of Unfit Animals

Humane Handling of Swine — poster

Hog Handling and Training Course