Manitoba pork producers use many different ways to get their hogs to market – highway trailers, pickup or grain trucks, fifth wheel trailers – even converted school buses. Regardless of the vehicle, all producers have one thing in common – a concern for the welfare of pigs in transit.

Farmers have always been concerned for the well-being of their livestock and nowadays they’re approaching animal care with greater awareness than ever. Today’s producers have a better understanding of how handling and transportation affects meat quality and profits. They know the public is concerned about the treatment of farm animals and realize negative consumer attitudes can adversely affect their businesses.

Fortunately, along with this heightened awareness about animal care, pork producers also have the knowledge and technology to ensure pigs are handled and transported responsibly. The back cover of this brochure lists some additional information on the care and handling of swine, available through the Manitoba Pork Council.
Demand for quality pork is increasing as Manitoba moves into highly-competitive international export markets where quality is a major factor in buying decisions. At the same time, Canadian consumers are becoming more quality-conscious as they demand maximum value for their food dollars. This means hog producers must handle their animals with extreme care every step of the way – to maintain the highest possible quality standards.

Heat, cold, fear, bumpy roads, stops and starts, prodding and rough handling – these are just some of the things that can cause stress and exhaustion in livestock during handling and transportation.

And that stress can severely reduce meat quality and price.

Stress and exhaustion increase muscle temperature and deplete the supply of glycogen, the energy stored in muscle tissue that produces moist, pink, high-quality pork. When animals are stressed before slaughter, glycogen levels drop. The result
is Pale, Soft, and Exudative (PSE) pork, a product that doesn’t appeal to consumers. Extreme exhaustion during transit can result in Dark, Firm, Dry (DFD) meat which has even lower consumer appeal and shorter shelf life.

Pigs and People

Pigs used to having people around experience less stress than those with limited human contact. Animal behaviourists have demonstrated farm animals regularly handled by people are easier to lead, remain calmer in transit and behave better for their handlers at the receiving end. This all helps to maintain glycogen levels and ensure top quality meat.
Getting pigs comfortable with people is as easy as walking through each pen for 10-15 seconds every day. Excited pigs are hard to handle. The goal is to teach the pigs to quietly get up and flow around you.

Loading and Unloading

All pigs experience stress to some extent during loading and unloading. But stress can be minimized through calm, patient handling and an understanding of pig behaviour.

By understanding the animals’ basic natural instincts during handling, farmers will be able to incorporate stress-reducing features into their buildings, transport vehicles and handling techniques.

Pigs have a strong natural urge to escape. Slight visual gaps between pens, alleys, ramps, sides gates, chutes or anywhere else may tempt excited pigs to make a break for it. Even if escape is not possible, animals may injure themselves in the attempt.

Eliminating visual gaps in holding facilities will reduce pigs’ urge to escape.
Pigs also have a natural tendency to follow each other and maintain visual and body contact. For this reason, ramps should be sloped no steeper than 20 degrees and curves within a facility should be gradual. Cleats on ramps should be spaced to suit the pigs’ size. Truck decks should never be tilted to force pigs off.

Pig hides are tender. Protrusions or sharp edges along the path from pen to killing floor can inflict injury and create undue stress.

Fright is another potential source of stress. Many things can spook pigs during the loading and unloading process including air blowing in their faces, dangling chains, loose ramps and boards, slippery floors, extremes of bright lights and darkness and loud noises.

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**Stress Busters**

- Move pigs in small groups
- Eliminate visual gaps
- Use gradual slopes and curves
- Remove potentially frightening objects
- Remove possible injury causes
- Choose low-stress moving devices
Walking through the entire loading and unloading procedure can provide a better understanding of what might frighten or upset pigs. For even greater insights into a pig’s perspective, some handlers even crawl through the process on their hands and knees. This can go a long way in reducing stress losses.

Electric prods can be dangerous to pigs. In fact, they can be a major obstacle preventing farmers from delivering valuable, high-quality pork. Improper use of prods can cause severe stress or even heart attacks and death. They must never be used on a pig’s genital, anal or facial areas or on pigs that are down or distraught. Handlers must keep electric prod use to an absolute minimum. Prods should only be held by handlers when needed. If the handler carries a prod all the time, pigs will naturally be adverse to being handled. Keep prods hung up when not in use.

Pigs should be moved in small groups (6 finisher size pigs at a time) and only with chase boards or plastic flags. Use of other devices such as canvas slappers should be kept to a minimum. Stock whips should never be used on pigs.

Comfort is an essential part of the humane transportation of pigs.
Good stockmanship can reduce pigs’ fear levels and improve production. Pigs naturally resent handlers getting into their personal space. Handlers should learn to think like a pig and use a pig’s natural “flight zone” (Figure A) – the animal’s instinctive escape route – to help herd them. If a handler enters this circular zone, the pig will step away to maintain the circle’s size.

The direction the pigs will move depends on where handlers position themselves in relation to the circle’s “point of balance.” If handlers step behind the point of balance, pigs will move forward; if they step in front of them, animals will turn back. In effect, handlers who try to move animals by standing behind them in the animal’s blind spot only slow down the process. Pigs will turn to face the person entering their space rather than move forward.

Handlers should train their pigs to respond by using these flight zones. They should apply pressure by invading the animals flight zone then provide relief by stepping out once the animal has responded correctly.

**FIGURE A**
Crowding livestock during transport is a costly practice. It may reduce transportation costs on a per animal basis but it is not worth the risk in terms of animal suffering and death loss risks. During the winter, overcrowding can result in frostbite damage; during the summer, overcrowded pigs may die from heat stress. Both problems are avoidable.

On short trips - those less than four hours - pigs may prefer to stand. On longer trips they will lie down. Groups of recumbent hogs will require more floor space so loading densities should be reduced for long trips.

There is a limit to the number of pigs you can squeeze into a given space, even without considering animal comfort. If loaded at 4 ft² per 250 lb. hog, market-size animals will be snug when standing. Dividers should be used so no more than 30 market hogs are held in any section of the trailer during transport. If the trip will take longer than four hours and the animals are likely to lie down, space should be increased to about 4.8 ft² per 250 lb. hog.

Appendix A has charts which list the maximum recommended loading densities for hogs of various sizes. Hogs tire from standing on long trips and will compete for floor space if it’s not available. That kind of competition generates heat (and noise) and puts increased stress on the animals.

Pigs cannot sweat to cool themselves. Excess heat will move by convection from the skin, but pigs will pant through their mouth when overheated. Overcrowding, as well as conditions such as atrophic rhinitis, can reduce an animal’s ability to cool itself by panting. Fighting for floor space and excessive panting contribute to more body heat being gener-
ated. These stresses increase the problems associated with summer confinement conditions.

There is a misconception that during cold weather you should pack more pigs into the load to generate heat. This is wrong. In fact, many truckers decrease the number of hogs in the load during the winter and add more bedding.

In overloaded trucks, pigs are unable to reposition themselves if they’re not comfortable. They can’t move away from drafts and cold spots. That leads to increased frostbite risk. Crowded hogs will also be pressed against the sides of metal trailers and will be more susceptible to frostbite. Metal compartments should be lined with wood to prevent contact frostbite.

Remember that pigs of substantially different weights and ages must be penned separately during transportation. Cull sows over 375 lbs. must not be mixed up with market hogs. Sick or weak pigs should also be penned separately. Avoid transporting pregnant sows within 6 weeks of expected farrowing or sows with a suckling litter.

During Transit

Farmers or handlers should check their pigs periodically during transit - once within the first hour after loading and every two hours after that. This is especially important in changeable weather. During the check stops, drivers should examine each load compartment and monitor all thermometers and heat sensors. The legislated maximum transport time for market hogs is 36 hours and the minimum time between feed, water and rest times is 5 hours.
Still, there’s no guarantee things still won’t go wrong during transit and handling. When they do, calming down the pigs is the priority. Stopping to give both pigs and handlers time to settle down is a much better idea than speeding up to hasten delivery.

In transit, some pigs will vomit, a condition some people consider a form of “motion sickness.” Holding back some feed prior to transporting will reduce this risk.

When it comes to detecting cold spots in a trailer, the dumbest pig is smarter than the wisest trucker. Pigs huddling and attempting to root in straw bedding during transit is a good indication the animals are cold and under stress. Using lots of bedding and giving the animals enough room to reposition themselves for maximum comfort will eliminate most minor transportation problems.

When the weather changes significantly, trailers must be adjusted to protect the animals. On long distance shipments, only trailers in which ventilation can be adjusted from outside should be used. Many truckers have installed misting systems in their hog liners for hot weather transport.

Temperature sensors or regular thermometers should be installed in every load compartment – located so they can be easily read by the driver at check stops.

Farmers who follow these guidelines can make their pigs’ journey from farm to market a more comfortable one. There should be enough dividers available to limit the number of pigs in any one section of the transport vehicle to 30. Load compartments should be built so one or two pigs can be penned separately to isolate them from the rest of the load if necessary. Where possible, pen mates should be shipped together in the same compartment to reduce fighting and accompanying injury risks.
Cold Manitoba Winters

Because of their thin hides and lack of fur, pigs have very little cold tolerance. They lose heat rapidly and burn large amounts of glycogen trying to maintain body temperature. They are also extremely susceptible to frostbite. Both factors can greatly devalue the carcass.

Even when outdoor temperatures are above freezing, windchill can kill pigs. It’s important to keep direct, cold airflow off animals while making sure there’s adequate ventilation and fresh air flowing through. Hogs will suffocate in airtight compartments.

Cold pigs may pile up or crowd together to stay warm. When this happens, injuries or deaths often result. Proper bedding material, plenty of partitions, controlled ventilation and taking whatever steps are needed to keep pigs warm will prevent pile-ups and ensure high quality meat arrives at the market.

Proper handling precautions must be taken to protect pigs from Manitoba’s extreme temperatures. For example, this truck has a rubber bumper to protect the pigs from the metal, a thick layer of straw, and adjustable tarp cover to control ventilation.
Hot Manitoba Summers

Pigs have a low tolerance to high temperatures and high humidity. Unless precautions are taken, summer transportation can cause heat stress which may prove fatal.

Farmers and handlers must do everything possible to keep pigs cool and calm in extreme summer conditions. Carefully following recommended loading densities is the first step. Heat builds quickly in a stopped truck but heat build-up can be reduced by avoiding straw or shavings as bedding material and keeping maximum airflow through all compartments.

If possible, farmers should schedule their shipments during evenings or early mornings when weather is cooler.

Heated pigs must be cooled carefully. Spray animals with a fine mist or run cold water on the floor of the compartment. Never pour cold water directly on heated pigs. The shock may kill them.
Humane Treatment of Sick or Injured Pigs

Nobody likes to see an injured animal suffer. People in the hog industry know these animals should be put down as quickly and humanely as possible.

If an animal will be condemned at slaughter anyway, it should not be shipped. Examples of these animals include severely emaciated pigs, downers and pigs with multiple abscesses, rectal strictures, severe hernias or prolapsed uteruses.

Pigs with less severe conditions such as minor abscesses, mild hernias and mild-to-moderate lameness should be shipped early to minimize the pain and to prevent the condition from deteriorating. These pigs must be segregated during transport to prevent trampling and trauma from other pigs.

Some insurance companies have revised their policies so handlers can put down injured or infirm pigs first, then deal with the details of the claim later. This reduces the chance of needless suffering while establishing the validity of an insurance claim.

Federal regulations forbid loading injured or infirm pigs. They also prohibit handlers from reloading and returning pigs injured in transit. Remember, pigs must be fit in order to be transported.
Humane handling of livestock is a top industry priority. Many firms within the pork industry have established their own pig handling standards, many of which are even higher than those spelled out in federal and provincial legislation.

Leading trucking firms, insurance companies, assembly yards, hog farms and abattoirs insist their employees and customers follow codes of ethics and practices. Some provide their staff with training courses in proper and responsible livestock treatment.

The Animal Care Act is the basic law for all animal handling and care activities in Manitoba. The regulations under this Act recognize the Recommended Code of Practice for the Care and Handling of Farm Animals: Pigs as the legally required standard for pig handling. Codes of practice are meaningless if they are considered just words on paper. The real code of conduct is our recognition of our responsibility as livestock producers for our animals’ health, comfort and well-being.

Proper procedures for handling emergencies are outlined in Appendix B.

If at any time you believe that animals are not being properly handled, please report this incident in confidence by calling the Animal Care Line at 204-945-8000.
Reduce loading density to 75% of maximum for hot humid weather conditions. Market hogs travelling 2-3 hours will prefer to stand; on longer hauls they prefer to lie down and rest. For slaughter hogs travelling long distances, a loading density of 52 lbs./ft² allows for the pigs to lie down simultaneously. Thin animals require more space than finished animals of the same weight.
APPENDIX B

Emergency Procedures

1. Naturally, the rescue and care of injured persons comes first.

2. If the rescue of people is involved, avoid using sirens and lights near live animals as much as possible.

3. Deal with loose, mobile animals first. These animals will be frightened and disoriented. They will be unpredictable and will react instinctively by running or fighting. If possible, allow them to calm down before trying to move them.
   Always keep an escape route for yourself. Do not shout or wave arms wildly and do not approach animals from directly in front unless you must protect an injured person.
   Once loose animals are quiet, move them to a safe area slowly and in a group. They may be temporarily penned with portable fencing, trucks, etc.

4. Deal with conscious, badly injured animals next. Keep people away.
   Injured animals are less likely to struggle to their feet if left alone.
   To quiet a struggling injured animal which is lying down, place a blanket or jacket over its eyes, leaving the nostrils exposed and press down lightly on the neck just behind the head with a knee. Talking to the animal in a calm, quiet voice may help.

5. Comatose animals are not aware of any pain and may be left for treatment last. Animals lying down with seizures or those paddling their legs may have serious head injuries. Unless these animals start to lift their heads or try to rise, they may be left until time is available to deal with them.
6. Once assistance arrives:
   a. Assign someone to watch loose animals.
   b. Advise police if assistance such as veterinarians, department of agriculture staff or humane society officers may be required.
   c. Notify trucking company dispatchers, owners and/or receivers to obtain direction. Arrange to have surviving animals moved to a safe location.
   d. Seriously injured animals must be examined by a veterinarian if possible. Animals in serious pain or with untreatable injuries may need to be euthanized.

Adapted from the Recommended Code of Practice for the Care and Handling of Farm Animals, Transportation, Agriculture Canada, Appendix 3.
RESOURCE INFORMATION

Recommended Code of Practice for the Care and Handling of Farm Animals, Pigs, Agriculture Canada
also Addendum to above for Early Weaned Pigs
Available from Manitoba Pork Council

Recommended Code of Practice for the Care and Handling of Farm Animals, Transportation, Agriculture Canada
Available from Manitoba Pork Council

Animal Care Act, Manitoba Agriculture and Food
Available from Manitoba Pork Council or Manitoba Veterinary Services Branch

Health of Animals Act, Canadian Food Inspection Agency
Available from Program Coordination and Compliance Section
59 Camelot Drive, Nepean, Ontario K1A 0Y9  Telephone: (613) 225-2342  www.cfia-acia.agr.ca

On-Farm Euthanasia of Swine: Options for the Producer
Ontario Pork publication available from Manitoba Pork Council

Humane Handling of Swine: Standards For The Care of Unfit Hogs
Alberta Pork publication available from Manitoba Pork Council later in 2002

Instructional VHS videos available on a loan basis from Manitoba Pork Council:

“Swine Handling and Transportation,” 20 minutes, produced by Livestock Conservation Institute.


“Human Behavior,” 5 minutes and “Handling Facilities and Practices,” 8 minutes, produced by Pigworld Inc.