

Updating Canada's Farmed Animal Transportation Regulations

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Introduction

Canadian laws governing the transportation of farmed animals are arguably the worst in the Western world. Europe, Australia, New Zealand, and even the United States have more stringent standards than Canada to protect farmed animals in transport. Transportation exposes animals to several unique stressors that severely compromise their welfare¹. Because of vague regulations and lax enforcement, animals are often loaded for arduous transport journeys that cause injury, illness, and death. In 2015, more than 9 million farmed animals arrived at slaughterhouses either dead or so sick or injured that they were declared unfit for human consumption². This report outlines the inadequacies of Canadian transport regulations and recommends evidence-based reforms based on the most current scientific research on animal transport.

A multitude of interconnected factors influences the welfare of animals during transport. These include loading densities, trailer microclimate, journey length, health condition of animals, and management factors, including bedding, ventilation, handling, facilities, and vehicle design. Any of these factors can reduce welfare through impacts on stress, declining health, injury, fatigue, dehydration, changes in core body temperature, mortality, and morbidity¹. As animals are exposed to these stressful conditions for longer periods of time, they become more likely to experience suffering from any one of those factors.

Transportation times in Canada are disgracefully long. Pigs, chickens, and turkeys can be transported without food, water, or rest for up to 36 hours. Cows, sheep, and goats can be transported for up to 52 hours without food, water, or rest. These journey times go beyond the animals' physiological capacities to withstand food and water deprivation³⁻⁶. Farmed animals are sometimes subjected to violent and often injurious handling prior to transport. Chickens in particular—both spent egg-laying hens and broiler chickens used for meat—are grabbed by their fragile wings or legs and loaded hastily by workers and frequently suffer from broken bones and other serious injuries.

Transport trucks in Canada are not adequately enclosed, ventilated, or climate controlled. Temperatures in Canada range from average winter lows of -21°C in Winnipeg to average highs of 28°C in Windsor. Consequently, animals in transit are exposed to extreme hot and cold, as well as wet, windy, and humid conditions^{1,7,8}. Severe outside temperatures like these result in uneven microclimates throughout the transport truck, with some animals dying from overheating and others freezing to death in the same load^{1,8-10}.

Although Canadian regulations prohibit overcrowding in transit, no measurable standards are set out. Some animals do not have space to stand or lie down comfortably, and the jostling in transit can cause animals to crush one another, sometimes leading to injury and even death¹¹. When combined with inadequate ventilation, overcrowding can also compromise air quality, causing asphyxiation⁸.

During loading and unloading, confused and scared animals are forced to walk on steep, treacherous ramps, often leading to injuries or exacerbating injuries for those who have become injured during the journey. Research has shown that shallower slopes are less stressful and the use of hydraulic lifts greatly reduces the stress associated with loading and unloading¹².

Current regulations are silent as to how delays and other emergencies in transit should be managed. Upon arrival at the slaughterhouse, animals are often forced to wait in a queue on crowded, stationary trucks without access to food or water while other trucks unload. Transportation companies and personnel are unregulated with respect to animal welfare. There is no legal requirement that drivers be trained in the safe transport of animals in compliance with the regulations. They are not required to understand even basic animal welfare criteria. The penalties for transport violations are so low and offences so underprosecuted as to be ineffective at ensuring compliance. Fines are treated as a cost of doing business.

How does Canada compare?

While there are numerous examples of Canada's insufficient animal transportation regulations, below are just a few comparisons between some of the country's most outdated regulations and the regulations of other Western nations.

	Canada	Outside Canada
How long can animals be confined to a transport truck?	Cattle, sheep, and goats can be transported for 52 hours with no food, water, or rest.	In the EU, animals cannot be transported longer than eight hours without food, water, or rest.
Protection from the elements?	On journeys less than 12 hours, no protection is necessary.	In the EU, temperature range must be held between 5 and 30°C, whether moving or stationary.
How much space do the animals need?	Canada prohibits loading at stocking densities that are likely to cause "injury or undue suffering," but gives no clear guidelines.	Australia and the EU mandate species-specific, evidence-based stocking densities.
How steep can truck loading ramps be?	45 degrees	In New Zealand, ramps can be no more than 20 degrees.
How should animals with tusks be handled?	Producers are permitted to cut off the tusks of boars without the use of painkillers, exposing nerves and blood vessels.	In the EU, animals with horns or tusks must be transported separately from animals without horns or tusks.
Can handlers beat animals?	Striking and kicking of animals is permitted as long as it does not cause the animal "injury or undue suffering."	In the EU, striking and kicking are outright prohibited.

Applicable Legislation

Health of Animals Act: The Health of Animals Act is "an act respecting diseases and toxic substances that may affect animals or that may be transmitted by animals to persons, and respecting the protection of animals." ¹³

Health of Animals Regulations¹⁴: Regulations regarding the transportation of animals are laid out in Part XII of the Health of Animals Regulations. They apply to the transportation of animals into or out of Canada or within Canada. Animals transported by rail, road, air, or sea are subject to inspection at all times. The requirements span 23 sections with very few species-specific standards and virtually no precise guidance. For example, although it is prohibited to cause "undue suffering" to animals because of "undue exposure to the weather," neither of these terms is defined or accompanied by measurable guidelines.

The Meat Inspection Act: The Meat Inspections Act is "an act respecting the import and export of and interprovincial trade in meat products, the registration of establishments, the inspection of animals and meat products in registered establishments and the standards for those establishments and for animals slaughtered and meat products prepared in those establishments."¹⁶

Meat Inspection Regulations¹⁵: The Meat Inspection Regulations apply to the handling and slaughtering of "food animals" at federally inspected slaughter plants. Part III includes some provisions respecting "humane treatment and slaughter," which apply to animals being unloaded at slaughter plants.

Agriculture and Agri-Food Administrative Monetary Penalties Act: The AMPA's purpose is to "establish a system of administrative monetary penalties for the enforcement of the Canada Agricultural Products Act, the Farm Debt Mediation Act, the Feeds Act, the Fertilizers Act, the Health of Animals Act, the Meat Inspection Act, the Pest Control Products Act, the Plant Protection Act and the Seeds Act."¹⁷

Current Regulations and Proposed Changes

Maximum Transport Times

Current

Canada's maximum allowable transport times are the longest in the Western world. Under section 148 of the Health of Animals Regulations, horses, pigs, and other monogastric animals can be transported for up to 36 hours without access to food, water, or rest. For cattle, sheep, goats, and other ruminants, the maximum is 52 hours. Chicks may be deprived of food and water for up to 72 hours after hatching. Section 149 allows calves to be deprived of food and water for up to 18 hours.

Proposed

Journeys must not exceed eight hours.

- Confinement to a transport vehicle must not exceed eight hours if the terms of the next subsection are not met^{1,5,18,19}. Animals unfit for transport (see "Animals in Compromised Health" below) must not be transported at all.
- Confinement begins when the first animal is loaded and ends when the last animal is unloaded.
- After unloading, all animals must be fed, watered, and rested for at least 24 hours before beginning additional journeys³.
- Provided that the terms of the next subsection are met, cattle, sheep, and horses may be confined to a transport vehicle for up to 24 hours^{20,21} and poultry for up to 12 hours²².
- Pigs younger than four weeks, lambs younger than one week, and calves younger than 10 days may only be transported up to 100 kilometers, and should not be confined to a transport vehicle for longer than four hours²².

On journeys longer than eight hours, animals must have food and water.

- All animals should have access to onboard food and water sufficient for double the planned journey length^{6,23}.
- Food and water must be secure in clean, species- and age-specific containers than cannot tip over, will not freeze, and are protected from contaminants.
- Feed offered should ideally be the same feed to which the animals are accustomed. If different, the animals must be gradually pre-conditioned to the new food over a period of no less than three days.
- There should be water and feeding nipples sufficient in number to prevent aggression.

Exposure to Weather

Current

Section 143 of the Health of Animals Regulations prohibits causing "injury or undue suffering" by reason of "undue exposure to the weather," but only for journeys of more than 12 hours. Further, neither of these terms is defined. There are no measurable standards to guide behaviour.

Proposed

Thermal environment must not cause suffering.

- Temperatures within transport vehicles must be kept 5–30°C and animals protected from precipitation and sun^{1,8}.
- Temperatures must be kept 5–30°C in all parts of the truck (see Appendix A, Table 1). Humidity

must be taken into account through the use of species-specific temperature-humidity indices. If keeping temperatures $5-30^{\circ}$ C is not possible, transport should be delayed until conditions can be met.

- If a heating/ventilation system is installed to control temperatures, it must be able to operate for four hours independently of the vehicle engine. If there is no such system, provisions should be made in case of unexpected delays.
- Vehicles must be fitted with temperature sensors located in areas of the truck most likely to experience extreme climatic conditions²⁴. Data shall be made available to authorities upon request.
- A warning system must be installed to alert the driver when temperatures within the truck exceed acceptable limits. Immediate action must be taken when temperatures exceed these limits.

Loading Densities

Current

Section 140 of the Health of Animals Regulations prohibits loading, causing to be loaded, transporting, or causing to be transported any animal in any vehicle if it is crowded to such an extent that injury or undue suffering is likely. There are no specific, measurable guidelines that set out appropriate loading densities. "Crowded" is not defined.

Section 142 of the Health of Animals Regulations requires only that animals be able to stand in their natural position without coming into contact with a ceiling.

Section 64 of the Meat Inspection Regulations stipulates that pens used to hold animals awaiting slaughter "shall not be used in a manner that results in their overcrowding." There are no specific, measurable guidelines that set out appropriate density. "Overcrowding" is not defined.

Proposed

Animals must have enough space.

- Transport stocking densities should allow animals to lie down if they wish, thermoregulate effectively, and assume natural postures and movement.
- Animals must be able to stand up after lying down and have sufficient head room to allow freedom of movement and ensure adequate ventilation (see Appendix A, Table 2).
- Stocking densities must be uniform across the vehicle (except for cases of solitary animals) and within acceptable limits. Where k values have been determined, densities must be based on the allometric equation A=k*BW^{^0.667} in which A is area in m² and BW is body weight in kg. Refer to Appendix A, Table 3 for species-specific stocking densities. If ambient air temperature inside the truck is between 20 and 30°C, stocking densities must be sufficiently reduced to protect animals from hyperthermia.
- It is prohibited to cut the tusks of boars or otherwise mutilate animals in preparation for transport.
- The following groups must be transported separately:
 - Adult breeding boars, horned cattle, and stallions
 - Animals of different species
 - Animals of significantly different sizes or ages
 - Animals from different farms
 - Aggressive individuals (sexually mature males should be separated from females)
 - Horses, except for mares with foals (should be transported each in a separate stall)

Vehicle Design

Current

Section 139 of the Health of Animals Regulations states that the slope of ramps used for loading and unloading shall not be greater than 45 degrees, shall have sides that prohibit the animals from falling off the ramp or getting injured, and shall have safe and secure footholds.

Section 143 mandates that animals not be transported in vehicles in which "injury or undue suffering is likely to be caused" by "inadequate construction" or "insecure fittings."

Proposed

Vehicles must be designed to avoid injury and suffering.

- Vehicles must be easily cleanable and disinfectable to prevent disease transmission; prevent animals from becoming injured, becoming stuck, escaping, or falling out; be anti-slip; prevent leakage of urine or feces onto other animals; and provide sufficient lighting and access doors to allow inspection and care of animals.
- All animals must be given bedding specific to species, age, and weather that ensures adequate absorption of urine and feces. Hygiene must be assessed before loading and upon unloading using a scoring system similar to the cow cleanliness assessment²⁵. Where species-specific scoring systems do not exist, they must be developed. Bedding must be sufficient to ensure that hygiene does not decline over the course of the journey.
- Vehicles must have shock absorption sufficient to reduce the impact of vibration on animal welfare.
- When possible, hydraulic lifting systems should be used in place of ramps. When used, ramps should have solid sides and must be fitted with foot battens and be no steeper than 20 degrees for pigs and horses, 12 degrees for calves, and 26 degrees for sheep and cattle¹².

Animals in Compromised Health

Current

Canada's current regulations governing transport of animals in compromised health are incredibly vague. Section 138 of the Health of Animals Regulations prohibits transporting or causing to be transported animals if they "by reason of infirmity, illness, injury, fatigue or any other cause cannot be transported without undue suffering during the expected journey" or if "it is probable that the animal will give birth during the journey."

The Canadian Food Inspection Agency's Compromised Animals Policy—a non-binding document intended to guide enforcement—states that an animal should be considered unfit for travel if there is a "high risk that transportation will lead to undue suffering."²⁶

In 2015, at federally inspected slaughterhouses alone:

- 1,174,113 farmed animals were dead on arrival.
- 9,670,141 farmed animals were condemned for being too diseased or injured.

Proposed

Animals in compromised health must not be transported.

• Inspect all animals prior to the journey to determine fitness for travel. A veterinarian must be

consulted if any uncertainty exists or if the animal exhibits difficulty walking. Do not transport the following groups:

- Animals who are unable to move without pain or assistance, have open wounds or prolapses, or have fractured bones, especially if transport will worsen suffering
- Newborns with unhealed navels and females at greater than 90% gestation or who have given birth in the previous seven days²⁷
- Any animal who is likely to die during transport
- Exceptions will be made for sick animals who need to be transported locally for veterinary care per the advice of a veterinarian.
- Animals sent to auction must be completely healthy, uncompromised, and rested 24 hours with food and water between journeys.

Feed and Water Deprivation

Current

Section 138 of the Health of Animals Regulations mandates that no animal be transported if he or she "has not been fed and watered within five hours before being loaded, if the expected duration of the animal's confinement is longer than 24 hours from the time of loading."

Proposed

Feed and water deprivation must be prohibited.

• Feed and water deprivation prior to transport is prohibited²², with the exception of pigs, who should be fasted four hours prior to transport³⁻⁶.

Handling, Delays, Licensing, and Training

Current

Section 139 of the Health of Animals Regulations prohibits beating animals, but only in a way likely to cause injury or undue suffering. Section 62 of the Meat Inspection Regulations prohibits subjecting animals to avoidable distress or avoidable pain. These are the only requirements relating specifically to handling animals in transit and at the slaughterhouse.

The regulations are silent on the possibility of unforeseen delay and how it should be managed. If, for instance, a vehicle breaks down, there is no requirement to attend to the animals' welfare. Additionally, animals may spend hours queued up waiting to be unloaded upon arrival at the slaughterhouse.

Section 153 of the Health of Animals Regulations requires only sea carriers to have someone experienced with livestock on board the vessel. There is no required or specified level of experience for other carriers. There are no animal welfare training, equipment, or compliance requirements for transporting animals by road, air, or rail.

Drivers should be required to obtain a certificate of competence indicating they have been trained in and understand animal physiology and in particular drinking and feeding needs, animal behaviour, and the concept of stress; practical aspects of handling animals; impact of driving behaviour on the welfare of transported animals; and emergency care for animals.

Section 151 of the Health of Animals Regulations requires transport companies to keep records identifying the place of departure; the place of destination; the number of animals; the square footage of

the transport vehicle floor area; and times and dates of loading, resting, and unloading. These records must be retained for a period of two years. There is no method for verifying the content of these records; the information is recorded using the honour system. A 2010 report found that not only are some drivers not keeping complete records; some are not even aware that they are required to²⁸.

Proposed

Transport companies must meet strict requirements.

- They must demonstrate sufficient and appropriate staffing, comply with transport regulations, and have no record of infringing animal welfare standards in the preceding three years unless it can be demonstrated that all steps have been taken to avoid future infringements.
- Drivers must obtain a certificate of competence indicating training in and understanding of animal physiology, drinking and feeding needs, animal behaviour and the concept of stress, ways to reduce handling stress in animals, driving methods that uphold high welfare of transported animals, a contingency plan in case of unexpected delays, and emergency care and euthanasia methods (see Appendix A, Table 4) for animals.
- Drivers must inspect animals for injury or signs of pain or distress within two hours of the beginning of the trip, upon loading, and at least every four hours thereafter, attending to any welfare problems as they arise. If animals become ill or injured during transport, they must be separated from the group to be treated or euthanized according to best welfare standards (see Appendix A, Table 4). The time and place of inspection must be recorded as well as any deaths or incidents causing suffering to animals.
- Careful handling of animals by workers should be encouraged over fast pace with incentives for farms and transport companies whose animal shipments have the lowest DOA numbers.
- Current laws regarding transport documentation must be well-enforced, with absence of documentation resulting in effective and dissuasive punishment.
- Vehicles must be fitted with electronic navigation systems that record the place of departure, place of destination, route, and opening and closing of the loading flap. Recorded information must be made available to law enforcement upon request.
- Vehicles must be clearly marked to indicate the presence of live animals.

Penalties for Animal Abuse

Current

Under the Health of Animals Act, anyone who violates the regulations may face imprisonment for up to two years or fines of up to \$250,000. The offence can be prosecuted by indictment. Under the Meat Inspection Act, violations of the regulations can carry fines of up to \$50,000. However, the Administrative Monetary Penalties Act allows the Minister of Agriculture to create an alternative penalty scheme.

The Administrative Monetary Penalties Regulations sets out markedly reduced penalties. Violations committed in the course of business or in order to obtain a financial benefit carry penalties of up to \$1,300 for minor violations, \$6,000 for serious violations, and \$10,000 for very serious violations. In practice, fines are frequently much lower. These fines were established in 2010; therefore, the government cannot characterize them as out-of-date. If the government is serious about preventing animal welfare violations, penalties should be sufficient to deter unwanted behaviour.

Transporting animals who cannot stand in their natural position is considered "minor," as is failing to keep records indicating the length of time animals have been in transit, loading density, and other

particulars. Loading an animal who cannot be transported without suffering is considered "serious." Transporting animals for longer than the prescribed time is also considered "serious." Few violations rise to the level of "very serious"; one such violation is beating an animal being loaded or unloaded in a way likely to cause injury or undue suffering.

Proposed

A zero tolerance policy for animal abuse must be established.

- Penalties must be effective, proportionate, and dissuasive. Checks for compliance must be frequent and penalties harsh enough to deter regulatory violations. CFIA must establish a training program for local law enforcement agencies regarding animal welfare during transport.
- Offences should be prosecuted under the Health of Animals Act and the Meat Inspection Act as they were in R. v. Maple Lodge Farms, 2013 ONCJ 535. Violations that compromise animals' well-being should be considered "very serious."
- Install video cameras that live stream to the internet in catching, loading, and unloading areas²⁹. Cameras must provide high-resolution footage and operate at a speed allowing for real-time monitoring by the public and a third-party non-governmental organization.

Appendix A

Table 1: Exceptions to temperature regulations of 5 – 30°C

Species	Temperature Guidelines (within containers)
Broiler chickens and spent layer hens ²²	20 – 24° C
Newly hatched chicks ³⁰	30 – 36°C

Table 2: Headroom Guidelines

Species	Forced Air Ventilation	Minimum Distance from Top of Head to Ceiling of Container
Sheep and Pigs ³	Yes	15 cm
	No	30 cm
Cattle (from tip of horns if present), including calves ³	Either	20 cm
Poultry ³¹	Either	10 cm
Rabbits ³²	Either	Minimum crate height = 35 cm
Horses ³³	Either	75 cm from the withers of the tallest horse to the ceiling

Table 3: Recommended Stocking Densities

Including Allometric Equations to Calculate Stocking Density by Average Weight of Animal Pregnant birds and mammals must be allotted 10% more space.

Species	Additional	Equation or	Comments
	Criteria	Stocking Density	
Cattle ²²	Standing	$A = 0.019 * W^{2/3}$	
	Lying	$A = 0.027 * W^{2/3}$	
Sheep ²²	Shorn ewes	$A = 0.026 * W^{2/3}$	
	Fleeced ewes and	$A = 0.033 * W^{2/3}$	
	lambs	$A = 0.029 * W^{2/3}$	
	Shorn lambs		
Pigs ²²		$A = 0.027 * W^{2/3}$	All pigs must be able to lie
	Finishing phase	$A = 0.036 * W^{2/3}$	down and stand up.
Goats ³⁴	<35 kg	0.25 m ² /animal	
	25 – 55 kg	0.35 m ² /animal	
	> 55 kg	0.58 m ² /animal	
Horses ³⁴		1.75 m ² /animal	Individual pens. During journeys longer than eight hours, foals and young horses must be able to lie down.
Poultry by age/size ^{22,35}	Up to day-old chicks	$21 - 25 \text{ cm}^2/\text{chick}$	
	<1.6 kg	$180 - 200 \text{ cm}^2/\text{kg}$	
	>1.6 kg	$160 \text{ cm}^2/\text{kg}$	
Rabbits ²²	>1kg, filtered crates	0.2 m ² /animal	
	>2.5 kg, unfiltered crates	0.1 m ² /animal	

Table 4: Acceptable Methous of Euthanasia		
Species	Acceptable Methods of Emergency Euthanasia During Transport	
Adult pigs over 5.5 kg	Gunshot, penetrating captive bolt gun followed by exsanguination or pithing, overdose of injectable anesthetics ^{36,37}	
Piglets up to and including 5.5 kg	Non-penetrating captive bolt followed by exsanguination or pithing, overdose of injectable anesthetics ^{36,37}	
Poultry	Penetrating and non-penetrating captive bolt gun; overdose of injectable anesthetics, including barbiturates and barbituric acid derivatives; manual cervical dislocation in chickens and turkeys less than 35 days old ^{36,37}	
Cattle	Firearm, penetrating or non-penetrating captive bolt gun followed by exsanguination or pithing ^{36,37}	
Calves	Firearm, penetrating or non-penetrating captive bolt gun followed by exsanguination or pithing ^{36,37}	
Goats	Firearm, penetrating or non-penetrating captive bolt gun followed by exsanguination or pithing, injection with barbiturates or barbituric acid ^{36,37}	
Kids	Firearm, penetrating or non-penetrating captive bolt gun followed by exsanguination or pithing, injection with barbiturates or barbituric acid ^{36,37}	
Sheep	Firearm, penetrating or non-penetrating captive bolt gun followed by exsanguination or pithing, injection with barbiturates or barbituric acid ^{36,37}	
Lambs	Firearm, penetrating or non-penetrating captive bolt gun followed by exsanguination or pithing, injection with barbiturates or barbituric acid ^{36,37}	
Horses	Gunshot, overdose of injectable anesthetics ^{37,38}	

Table 4: Acceptable Methods of Euthanasia

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