# CANADIAN LIVESTOCK TRANSPORT CERTIFICATION MANUAL

## LIVESTOCK

## 2023

Canadian Livestock Transport

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# Introduction to Animal Health & Transportation

## WHAT WE DO

This program was developed to provide skills certification and support for Canada's livestock and poultry transport sector.

## HOW WE DO IT

This training program is aligned with the current Canadian regulation on animal transport requiring that any person involved in the transport of animals needs to:

- know and comply with the humane transport regulations
- be trained and competent to work with the species they are transporting
- comply with the Health of Animals Act and Health of Animals Regulations (HAR) – Part XII (Transport of Animals) by keeping records and collaborating with CFIA inspectors.

You will be provided with clear information on the regulations you need to know. You will be instructed to identify problems, assess risk, take proper actions, and find resources to go to when in doubt. You will be instructed on pertinent documents and how to interact with CFIA inspectors.

***When you see this light bulb icon, you will know the information is important to remember!***

## WHY IS TRAINING IMPORTANT TO YOU?

### EVERYONE INVOLVED IN THE PROCESS OF TRANSPORTING ANIMALS SHARES A RESPONSIBILITY.

Transportation is one of the protein production system's most critical and visible components.

Livestock and poultry are transported every day of the year across North America, and animal welfare is everyone's responsibility.

Under Canadian legislation, animal transport is a shared responsibility.

All persons involved in the transport of animals share responsibility under the law, including those who:

- plan the transport
- prepare animals for the journey (including food and water withdrawal)
- assemble animals
- catch animals
- load animals
- confine animals in a crate or conveyance
- move animals from the point of origin to their destination
- unload animals from the conveyance or container at their final destination.

Moreover, it has to be done right!

***Humane transport is a shared responsibility of the law applying to all those involved directly or indirectly in the transport of live animals.***

This includes, but is not limited to:

- animal owners
- producers
- buyers
- carriers
- exporters
- importers
- commercial carriers
- animal handlers
- processors
- assembly centres (auction markets, assembly yards, independent holding facilities associated with slaughter establishments)
- feed, water and rest (FWR) stations/locations.

Benefits of training are:

- improved knowledge
- improved consideration
- improved safety for both the handlers and the animals
- reduced livestock stress
- you always learn something new
- decrease in economic loss
- increase in public trust.

**Note: Proof of training is not enough for the CFIA, you have to prove competency as well.**

# ANIMAL WELFARE

## ANIMAL WELFARE IS PART OF EVERYDAY BUSINESS

***We must strive to ensure the viability of livestock and poultry production systems through awareness, certification and continuous improvement.***

Employers should promote the philosophy that animal welfare is key to the success of their business and a responsibility of all employees.

All employees should be qualified and provided with education and training. Managers and employees must know all regulations, laws and quality assurance program expectations.

Livestock and poultry transport is an important and visible component of animal agriculture.

### High Profile

Animal welfare has evolved as a high-profile issue for every segment of the livestock and poultry industry.

### Questions Being Raised

All stakeholders, including consumers and the public, are asking more questions and closely examining industry practices.

One way to reassure the public that we are doing the right thing is to demonstrate that people throughout the production system have been made aware of requirements and best practices and to strive for continuous improvement.

Transport links all aspects of the animal production cycle.

Transport best practices are part of the picture in many animal care programs and brand assurance programs. Not only is it visible to the public, but it is an area of concern for the entire value chain and customers.

***What you do on the road impacts the perception of the public eye on many other stakeholders.***

## CANADIAN STAKEHOLDERS

### Hog Producer

- In 2021 there were 14.03 million hogs on 7,635 farms in Canada. Farm cash receipts from the sale of hogs totaled $6.2 billion, 7.5% of total receipts.

### Cattle/Bison/Elk Producer

- In 2021 there were 12.24 million cattle and calves, on 72,925 farms and ranches in Canada
  - o farm cash receipts from the sale of cattle and calves totalled $10.2 billion, 12.4% of total receipts
- 149,539 bison on 989 farms in Canada (source: 2021 census of agriculture)
- 29,655 farm raised cervids (deer and elk) on 402 farms.

### Dairy Producer

- In 2021, there were 9,952 registered dairy farms in Canada. Dairy cattle population (dairy cows and heifers) was 1.4343 million head
- the total net farm cash receipts from dairying was $7.39 billion. Milk production was estimated to 95.12 million hl.

### Sheep Producer

- In 2021 there were 791,300 sheep and lambs, on 8,487 farms in Canada
- farm cash receipts for sheep and lambs totaled $249 million, 0.3% of total farm cash receipts.

### Goat Producer

- In 2021, there were 253,278 goats on 4,801 Canadian farms
- the goat industry can be segmented into three distinct sectors: chevon (meat), dairy (milk) and fibre (mohair and cashmere)
- 87,068 goats slaughtered in Canada. Over 99% of these goats were processed at provincially inspected establishments.

**Chicken Producer**

- In 2021, there were 2,823 regulated chicken producers in Canada that produced 1.30 billion kilograms of chicken (eviscerated weight)
- overall in 2021, Canadian chicken production generated $3.3 billion, contributing 4.0% of cash receipts to farming operations.

**Turkey Producer**

- In 2021, Canada produced turkey products worth $397.1 million, contributing 0.5% of cash receipts to farming operations
- in 2021, Canada produced 150.1 million kilograms of turkey (eviscerated weight)
- in 2020, there were 515 regulated turkey producers in Canada.

**Egg Producer**

- In 2021, there were 1,205 registered egg farms in Canada. The eggs in shell sold for consumption industry generated $1.4 billion in total farm cash receipts, contributing 1.7% of cash receipts to farming operation in Canada.

**Meat Processing Industry**

- Canada's red meat industry includes beef and veal, pork, lamb and mutton, goat, rabbit, horse, as well as venison and bison. The red meat industry had annual shipments worth $22.3 billion in 2019.

**Canadian Consumers (aged between 15 and 64) and Making Decision on Meat**

The Canadian agri-food system

- In 2020 employed 2.1 million people and provided 1 in 9 jobs in Canada, generating $139.3 billion (around 7.4%) of Canada's gross domestic product (GDP)
- primary agriculture (GDP $39.8 billion, 2.1%, 269,300 jobs, 0.7% of population), food and beverage processors, food retailers and wholesalers, foodservice providers.

The Canadian population in 2020: 38.01 million people

- Food decisions are made 3 times/day
- that's 27,519,772,140 food decisions/year by people between 15 and 64 years old (66.12%).

Sourced out of Statcan and Ag Canada

Canada's livestock transporters face several challenges, and it is essential to seek ways to improve continually.

Scientific research continues to deliver new information in many areas, such as:

- appropriate stocking densities for each weight class and age
- optimal travel distance and feed, water and rest intervals
- bedding type and quantity
- trailer design
- the role that driver experience and training plays in the welfare of animals being transported
- optimal conditions for loading and off-loading.

## WHO IS IMPACTED BY THIS IMPORTANT RESEARCH?

**Animals**

- Appropriate stocking densities for each weight class and age.

**Truckers & Animals**

- Optimal travel distance and feed, water and rest intervals
- trailer design
- driver experience & training vs welfare of transported animals
- optimal conditions for loading and off-loading.

***As animal welfare practices improve, so will the conditions for the workers.***

## CLT CERTIFICATION PROGRAM

The Canadian Livestock/Poultry Transport certification programs are standardized courses offering certification that is recognized throughout Canada and the United States.


### Industry Initiative

The program is led by an industry initiative to address the need for increased accountability and improved handling practices in livestock and poultry transport.

### Industry Contributions

All segments of the Canadian livestock and poultry sectors (including producers, transporters, processors, provincial and federal regulatory advisors, researchers and other industry professionals) contributed to its development.

### Certification Key Knowledge Areas

- Animal Welfare
- Importance of Animal Welfare in Transport
- Regulations and Code of Practice
- Animal Handling and Behaviour
- Contingency planning
- Biosecurity
- Transportation.

Certification is offered for **poultry** and **livestock** (livestock includes cattle, sheep, goats, hogs, horses, bison, and elk).

Upon successful course completion, recipients are provided with proof of completion, and the certification is **valid for three years**.

## TRANSPORT OF ANIMALS

**Amended regulations for the transport of animals:** Humane Transport.

***In February 2020, training became mandatory for all commercial transporters per the Health of Animals Act Part XII.***

***It refers to the obligation of knowledge and skills.***

**The regulations require that the training includes the following:**

- animal behaviour, handling and restraint
- how to assess an animal's capacity to withstand loading, confinement, transport and unloading
- space requirements
- methods for the loading, confinement, transport and unloading of animals
- contingency planning
- how to effectively monitor animals during loading, confinement, transport and unloading
- risk factors during transport.

**Training is required and CLT is beneficial for the following people:**

- livestock and poultry handlers
- dispatchers
- support staff involved in decision making
- catching and loading crews
- slaughter plant staff
- live animal importers
- producers
- transporters/carriers.

**While they may not spend time working directly with animals, facility managers and key decision-makers also benefit from the knowledge gained from this course.**

*When key decision-makers are aware of the responsibilities and the laws and regulations, they are better equipped to support a culture of maintaining high standards for animal care. In addition, they better understand the challenges of transporting livestock and poultry and can support individuals tasked with their direct care daily.*

# 1 IMPORTANCE OF ANIMAL WELFARE IN TRANSPORT

## WHY CARE ABOUT ANIMAL WELFARE

This module will explain why Animal Welfare in Transport is essential to everyone.

As a transporter, you are not alone on the animal welfare journey, and we will show you how important you are to the welfare of the animal and to the success of the entire animal production sector.

## INVESTMENT & TRAINING

**Investment**

The Canadian Industry has invested a lot of effort and engaged thousands of people in setting up, maintaining and improving animal welfare programs.

**Training**

We will briefly show you what is out there and how your Canadian livestock transportation certification program merges with many animal care and quality assurance programs.

***This certification is suitable for anyone involved in the animal transport process and its decision-making, such as haulers, producers, handlers, plant crews, loading crews and management.***

***It encompasses all aspects of the transport process: preloading, loading, time in transit and arrival at the destination.***

## ANIMAL WELFARE IN TRANSPORT

There is an obvious reason we all need to do the right things regarding animals under our care and responsibility.

However, there is much more to it; let's examine why.

**"One Health" Concept**

The World Organisation for Animal Health (WOAH, founded as OIE) defines animal welfare as a complex and multifaceted subject with scientific, ethical, economic, cultural, social, religious and political dimensions.

It is attracting growing interest from civil society and is one of the priorities of WOAH.

In simple terms, animal welfare means 'the physical and mental state of an animal in relation to the conditions in which it lives and dies.'

**Five Freedoms**

The guiding principles which inform the World Organisation for Animal Health's work on the welfare of terrestrial animals include the "Five Freedoms'. Developed in 1965 and widely recognized, the five freedoms describe society's expectations for

World Organisation for Animal Health
Founded as OIE

the conditions animals should experience when under human control, namely:

1. Freedom from hunger, malnutrition and thirst
2. Freedom from fear and distress
3. Freedom from heat stress or physical discomfort
4. Freedom from pain, injury and disease
5. Freedom to express normal patterns of behaviour.

Of course, keeping animals healthy, with low stress, while housed or transported under optimal biosecurity conditions contributes to their welfare and the welfare of others from the same species. Good animal welfare means good quality animal products and lower risks of spreading disease to other animals and humans (Zoonotic diseases).

**WOAH calls this holistic approach: The "One Health" approach.**

***The "One Health" approach summarizes a concept that has been known for more than a century; that human, animal and plant health are interdependent and bound to the health of the ecosystems in which they exist.***

***They envisage and implement it as a collaborative, whole-of-society, whole-of-government approach to understanding, anticipating and addressing risks to global health.***

Canada, being a WOAH member country, is a long-time supporter of the WOAH animal welfare principles and is also adhered to the "One Health" approach; expect to hear more about it in the coming years.

You can already see WOAH's impacts on governmental policies, programs and industry initiatives to meet international trade agreements.

Follow this link if you want to learn more about the **WOAH** Global Animal Welfare Strategy (**GAWS**).

WOAH Global Animal Welfare Strategy (GAWS).pdf

## CONSUMER TRUST

**Public Trust**

Animal production and transport are part of our societal choices, and we have been given the privilege to work and grow doing what we like because most people trust that we are doing it right.

We call this our social licence, our public trust.

**Engaging the Public**

According to the Canadian Centre for Food Integrity's annual public trust research (2022), overall concern for animal welfare is relatively low, and Canadians are not highly engaged on this topic.

This issue, however, is essential in maintaining and growing public trust in Canada's food and agriculture system.

## CONSUMER CONFIDENCE

Ensuring consumers are confident in the food system's approach to animal welfare is a top-three driver

of public trust. Yet, only three in ten are very confident about how the food system addresses this issue (60% moderately confident).

Overall concern about the humane treatment of farm animals has been consistent for the past three years (2020-2022).

This issue is among the lowest ranked compared to 18 other life (inflation rate, energy costs, health care costs, climate change, etc.) and food-specific issues.

**Improving Levels of Concern**

The consistently low level of concern may reflect trust and approval of current animal welfare practices, something to be fostered through continuous improvements and transparency.

**Positive Impressions**

When we think about it, animal transport is, for many, the only occasion someone will have to see a farm animal.

Let's make sure we keep this first impression as positive as possible!

## INDUSTRY

Every segment of the food chain, from farm to fork, including animal transport, is liable to guarantee the best possible animal welfare conditions for the animal under their care.

Of course, good animal welfare practices will contribute to better performances and economic returns on animal products.

## LIABILITY

All stakeholders in animal production (farm to fork) in Canada have adhered to or implemented their animal welfare programs.

Animal transport is involved at every step of animal production. Implications of those commitments took root from regulations, best practices, National codes of practices, customer requests, etc.

When transporting an animal both parties at the origin and destination are responsible for animals during transit and the transfer of care.

These decisions were taken under their obligations toward animal welfare.

**Decisions & Actions**

As an animal transporter, your decisions and actions impact your job and the commitments your employer has made towards animal welfare and significantly impact the senders and the receivers. It can substantially impact their liability, regulatory compliance, and public image.

**Professionalism**

It might not feel like it when you are driving alone on the road, but many stakeholders also rely on your professionalism and collaboration on their animal welfare journey.

## THE ANIMALS

The primary beneficiaries of animal welfare are the animals themselves. No animal should have to endure abuse, wilfully induced or by neglect.

Our responsibility is to report any animal abuse to the competent authorities and to foster animal practices and husbandry that will optimize the **Five freedoms** mentioned above.

Animals suffer from inappropriate handling, and you need to understand the role you can play in optimizing their **Five Freedoms**.

***As a transporter or someone involved in decisions surrounding their transit, you need to know the Five Freedoms.***

1. **Freedom from Hunger, Malnutrition and Thirst**
   - Plan your animal transport considering their last and next access to feed, water, and rest
   - Evaluate their fitness to transport before loading them on board, so animals will make it to their destination in much better shape.
2. **Freedom from Fear and Distress**
   - Know how they react when handling them, and avoid panicking and balking. Cooperative animals are easier to handle.
3. **Freedom from Heat Stress or Physical Discomfort**
   - Transporting animals in passively ventilated trailers is a challenge during all seasons in Canada and needs to be planned around accordingly
   - Know how to plan, react and be attentive to their needs during the entire transit
   - During transport, animals are at your mercy, and you can control their comfort.
4. **Freedom from Pain, Injury and Disease**
   - Be conscious they are sentient beings and not objects
   - They feel pain, and they feel fear, they feel exhaustion, and they can get hurt
   - Think of biosecurity as 'shall-do's' and not as 'have-to-do's' only when people are looking
     - transport can be a disease dissemination vector and a source of injuries; you are also playing a part in their global health plan.
5. **Freedom to Express Normal Patterns of Behaviour**
   - Knowing their natural behaviour will facilitate your work and reduce avoidable stress for you and the animal(s).

Take full advantage of your learning to improve animal welfare.

Animal welfare does not add benefits to your job and the sector; it multiplies them while improving the reality of the animals.

# REGULATIONS AND STANDARDS

## NO ONE CAN IGNORE THE LAW

If you are involved in transporting animals, you are expected to comply with all regulations pertaining to your tasks.

**Framework**

In Canada, our governments provide us with the legal framework of the animal welfare requirements in transport.

**Industry Standards**

From there, the industry sets standards to meet and exceed the regulations. These standards are the results of a consensus based on science and evidence.

**Implementation**

Commodity groups implement transportation regulations in audit standards and reinforce knowledge with training extension and collaboration.

## NO ONE CAN IGNORE THE LAW

You must be knowledgeable, competent and trained to ensure your compliance with animal welfare requirements.

***As a transporter or someone making decisions related to the transport of animals, you must know the regulations and standards.***

***Know what to do, do what you are expected to do, and prove it (records).***

# ANIMAL WELFARE IN TRANSPORT - WHERE DO YOU FIT?

The Canadian Industry has invested a lot of effort and engaged thousands of people in setting up, maintaining and improving animal welfare programs on its territory.

Your role will take you to primary farms, between farms, between farms and assembly yards, between farms and auction markets and to processing facilities.

**All of these transportation events will impact the effectiveness of an animal welfare program and the ability to successfully implement the program.**

So let's review what is out there and how you fit in.

**BEEF CATTLE**

**National Farm Animal Care Council**

*Click the link to read the NFACC Beef Cattle - Code of Practice*

**About this production Code and how it impacts you**

Canada has a National Code of Practice for the Care and Handling of Beef Cattle. The code promotes

sound management and welfare practices for housing, care, transport, and other animal husbandry practices.

A full section of this Code is dedicated to transportation and guides the producer to make good decisions around transport. It covers pre-transport decision-making and preparation for transport, arranging transport, and loading/unloading and receiving.

Amongst many essential requirements around transportation, the following requirements will concern you directly:

- transporters must follow the most current federal and provincial animal transport regulatory requirements
- cattle must be transported by competent personnel
- cattle must be assessed before transport, and decisions made in their best interest
- cattle must be fit for the intended journey and monitored en route to ensure a positive welfare outcome
- some animals can be transported with special conditions (e.g. compromised, lactating, pregnant, very young animals, cull). The right of the transporter to refuse to load cattle that s/he deems unfit for transport must be respected. The reason for refusal must be addressed.
- cattle producers and transporters must immediately report instances of inhumane handling to the proper authorities.

**Verified Beef Program Plus**

**Verified Beef Program Plus** is a certification program to which producers adhere to prove their compliance with food safety, animal care and other good producing practices. **VBP+** dedicates an entire program section to guide producers to meet today's transportation expectations.

**Some requirements of the VBP+ program directly target your collaboration and compliance as a transporter:**

- written notice of transfer of care between the transporter and the receiver for delivery to assembly centres and slaughter establishments and animal transport records are required
- the transporters must be aware of transportation regulations
- the transporters must be competent, knowledgeable and trained
- the transporters need to be aware of transport delays and conditions and provide additional services when needed
- the transporters must have a contingency plan.

**Canadian Feedlot Animal Care Assessment**

About this animal care program and how it impacts you.

The **Canadian Feedlot Animal Care Assessment** is a voluntary audit tool. It is designed to show that the animal welfare values of the feedlot industry line up with those of packers, their retail and consumer audiences.

The content of the **Canadian Feedlot Animal Care Assessment** program has been independently reviewed by the National Farm Animal Care Council and found to have met all requirements outlined in Canada's Animal Care Assessment Framework.

*Click the link to read about the* **Canadian Feedlot Animal Care Assessment Program :** Canadian Feedlot Audit

This national framework was developed by consensus amongst multiple stakeholders and sets a credible process for developing animal care assessment programs based on Codes of Practice.

Therefore, everything mentioned under the Beef Cattle Code section would apply here. Audit criteria will be similar to those of the processing section.

**DAIRY CATTLE**

**National Farm Animal Care Council**

*Click the link to read the* NFACC Dairy Cattle - Code of Practice

**About this production Code and how it impacts you**

In Canada, we have a National Code of Practice for the care and handling of farm animals - Dairy Cattle (2023). The Code promotes sound management and welfare practices for housing, care, transport, and other animal husbandry practices.

An entire section of this Code is dedicated to transportation and guides the producer to make good decisions around transport. It covers pre-transport decision-making and preparation for transport, arranging transport, and loading/unloading and receiving. Amongst many essential requirements around transportation, the following requirements will concern you directly:

- every animal must be assessed before being transported and fit for the intended journey
- animals must be monitored en route to ensure a positive welfare outcome
- producers are responsible for ensuring that the transporter they hire is trained and qualified
- the transporters must be provided with required paperwork
- the transporters must have a contingency plan
- key transport elements need to be agreed upon between the producer and the transporter
- the code provides selection guidelines for when selecting the carrier
- communicate with transporter to determine proper loading densities.

**ProAction**

**About this animal care program and how it impacts you.**

**ProAction**, a Dairy Farmers of Canada initiative, is a national mandatory certification program focused on several aspects of milk production. This program aims to promote Canadian milk to consumers as one of the world's best products that meet the highest standards. ProAction is also an opportunity for milk producers to improve and thus reap the benefits of their on-farm practices.

The ProAction initiative has six modules. The Animal Care and Biosecurity modules are of interest for this course:

- the transporter must be provided with all the pertinent transport information (feed, water and medication withdrawal, broken needles, etc.)
- the transporter must provide information on distance and duration of the transport.
- producers are responsible to evaluate fitness to transport and not present unfit animals to the transporter.
- only experienced and trained handlers should load cattle.
- ensure cattle that are incompatible by nature are segregated.

## PIGS

### National Farm Animal Care Council

*Click the link to read the* NFACC Pigs - Code of Practice

**About this production Code and how it impacts you.**

In Canada, we have a National Code of Practice for the care and handling of pigs (2014). The Code promotes sound management and welfare practices for housing, care, transport, and other animal husbandry practices.

An entire section of this Code is dedicated to transportation and guides the producer to make good decisions around transport. It covers pre-transport planning, preparing pigs for transport, preparing newly weaned pigs for transport, fitness for transportation, handling during loading or unloading, and loading/unloading facilities.

Amongst many essential requirements around transportation, the following requirements will concern you directly:

- those transporting pigs or arranging for pigs to be transported must follow the most current national and provincial animal transport requirements
- the transporters need to share the expected length of the trip, including intermediate stops
- the transporters must know if additional services need to be provided
- the transporters must have a contingency plan
- the transporters must be trained and qualified
- pigs must be assessed before loading, and only those fit for the intended journey be transported
- pigs must be monitored en route to ensure a positive welfare outcome
- pigs must be loaded, unloaded, handled, and transported by competent people
- trailers must be properly equipped for the type of pig hauled
- the carrier or the driver has the right and responsibility to refuse to load an animal they recognize as unfit or compromised.

### PigCARE

**About this animal care program and how it impacts you.**

**PigCARE** is the Canadian Pork Council's Animal Care Assessment program. This program version will account for introducing the 2014 Code of Practice for the Care and Handling of Pigs. Its roll-out onto farms started in 2019.

In addition, they are dedicating a full section of the program to guide producers to meet today's transportation expectations, called Humane Transportation.

The following requirements of their program directly target your collaboration and compliance as a transporter:

- unfit animals must not be loaded
- pigs that are incompatible are not mixed in together
- the vehicle or container is adequately bedded according to the weather conditions and the age of the pigs.

## SHEEP

### National Farm Animal Care Council

*Click the link to read the* NFACC Sheep - Code of Practice

**About this production Code and how it impacts you.**

In Canada, we have a National Code of Practice for the care and handling of sheep (2013). The code promotes sound management and welfare practices for housing, care, transport, and other animal husbandry practices.

An entire section of this code is dedicated to transportation and guides the producer to make good decisions around transport. It covers pre-transport decision-making, fitness to transport, arranging transport, preparing sheep for transport, and loading and unloading.

Amongst many essential requirements around transportation, you must also be aware of the following elements:

- the code provides selection guidelines for when selecting a carrier
- the transporters must be provided with all the pertinent transport information and documents
- the transporters must have a contingency plan
- ensure loading facilities are compatible with the type of trailer being used by the transporter
- key transport information must be discussed and agreed upon between the transporter and shipper
- animals must be fit for the intended journey and monitored en route to ensure a positive welfare outcome.

### Canadian Verified Sheep Program

**About this animal care program and how it impacts you.**

The Canadian Verified Sheep Program is Canada's quality assurance program for sheep farmers and ranchers. Developed by producers with input from veterinarians, industry stakeholders and the government, this voluntary program helps farmers and ranchers implement, demonstrate and validate exemplary food safety, animal welfare and biosecurity management practices.

An entire section of this program is dedicated to transportation and guides the producer to make a good decision around transport. It covers pre-transport decision-making, fitness to transport, arranging transport, preparing sheep for transport, and loading and unloading.

You will be directly concerned by the following elements:

- each person responsible for transporting animals in Canada or arranging their transport must ensure that the entire transportation process (including loading, transit and unloading) does not cause injury or suffering to the animals
- the transporters need to share the expected length of the trip, including intermediate stops
- the transporters must know if additional services need to be provided
- the transporters must be trained and qualified
- certification with Canadian Livestock training is recommended
- each person involved in handling or transporting sheep should be properly instructed and skillful in handling sheep
- competent transporters are aware of the health and welfare needs of sheep during transport
- the requirements for loading and unloading procedures and equipment are described in your provincial transportation regulations must be complied with.

## GOATS

### National Farm Animal Care Council

*Click the link to read the* NFACC Goats - Code of Practice

**About this production Code and how it affects you.**

In Canada, we have a National Code of Practice for the care and handling of Goats (2022). The Code promotes sound management and welfare practices for housing, care, transport, and other animal husbandry practices.

An entire section of this code is dedicated to transportation and guides the producer to make good decisions around transport. It covers pre-transport decision-making, pre-transport preparation, arranging transport, and loading and receiving on-farm.

Among many key transportation requirements, the following are a few that will concern you directly:

- each person involved in various stages of goat transport in Canada has a role in ensuring that the transport process (including loading, transport, and unloading) does not cause injury, suffering, or death of the animals
- anyone involved in shipping goats must comply with federal requirements for animal transport or risk being fined or prosecuted
- if your actions or neglect are considered animal abuse, you could also be charged and convicted under the Criminal Code of Canada and/or provincial regulations
- it is the responsibility of the party that is shipping, or causing to load, the animals to ensure that all animals are fit for the intended journey
- those responsible for arranging transport need to be aware of how long the animals may be in transit
- those arranging shipping will also need to know whether additional services (e.g., feed, water, rest, milking) during transit are needed
- each person involved in shipping an animal must assess and be sure each animal is fit to withstand the intended journey
- those involved in arranging transport for or loading/unloading goats have experience transporting goats and are knowledgeable of goat behaviour and care
- transporter must be trained and competent
- people involved with loading and unloading should have sound knowledge of goat behaviour and understand how those natural behaviours can be used to assist the low-stress loading/unloading process
- transporter must adjust densities to current weather conditions and weight restrictions
- trucks must be in good repair, clean, and adequately bedded.

### Canadian National Goat Federation

**About CNGF and their vision about the Codes of Practice.**

Canadian National Goat Federation is the national representative for Canada's goat producers.

The mandate of the CNGF is to represent all goat producers in Canada and further the viability, expansion and prosperity of the Canadian goat industry, which includes milk, meat and fibre.

Canada's Codes of Practice provide critical guidance for the care and handling of farm animals. They

are the foundation for ensuring that farm animals are cared for using sound management and welfare practices that promote animal health and well-being. Codes are used as educational tools, reference materials for regulations, and the foundation for industry animal care assessment programs.

Canada's Codes of Practice are a powerful tool for meeting rising consumer, marketplace and societal expectations relative to farmed animal welfare. Codes support responsible animal care practices and keep everyone involved in farmed animal care and handling on the same page.

**EQUINES**

**National Farm Animal Care Council**

*Click the link to read the* NFACC Equines - Code of Practice

**About this production code and how it impacts you.**

In Canada, we have a National Code of Practice for the care and handling of Equines (2013). The code promotes sound management and welfare practices for housing, care, transport, and other animal husbandry practices.

An entire section of this code is dedicated to transportation and guides the producer to make good decisions around transport. It covers pre-transport decision-making, fitness to transport, preparing the horse for transport, arranging transport, training to load, and lastly, on-farm management post-transport.

Amongst many essential transportation requirements, the following will concern you directly:

- each person responsible for transporting animals, or arranging for their transport, must ensure that no part of the transportation process causes suffering, injury or death to the animals
- if you are responsible for loading, transporting or unloading animals, you must be familiar with, and follow, Canada's animal transport requirements
- animals must be fit for the intended journey and monitored en route to ensure a positive welfare outcome
- your vehicle is subject to inspection at any time
- it is the responsibility of the party transporting or loading animals to ensure that all animals are fit for the intended journey
- the transporters need to share the expected length of the trip, including intermediate stops
- the transporters must have a contingency plan
- the transporters must know if additional services need to be provided
- the transporters must be trained and qualified.

**Equestrian Canada**

**About this animal care program and how it impacts you.**

To maintain a thriving equestrian industry in Canada, it is essential that we proactively take steps to demonstrate our alignment with best practices in horse welfare. Building public trust is accomplished through transparency, which is what **Equestrian Canada (EC)** aims to achieve with the **Equine Care Program**.

The standards in the **Equine Care Program** are based on the minimum requirements outlined in the National Farm Animal Care Council (NFACC) Code of Practice for the Care and Handling of Equines (or"Code of Practice"). Therefore, everything mentioned under the equine code section would also apply here.

## PROCESSING

### Slaughter plant guidelines and audits.

*Click the link to read the* North American Meat Institute (NAMI) Animal Handling Guidelines.

### NAMI Guidelines

Canada does not have a code for processing. We have a National Code of practice for transport, and we will touch on that later. Regarding processing and its activities involved in animal welfare, we concentrate on transport and slaughter. Slaughter plants are also evaluated on transport because they are the last step of the process. Most of them coordinate and organize transport activities to their facilities. So, for our guidelines, we rely on a North American approach which utilizes science-based standards as compiled by North American Meat Institute (NAMI).

Since 1991, the NAMI members have voluntarily subscribed to animal welfare guidelines and have embraced auditing programs. The meat industry was the first sector in animal agriculture to develop such guidelines and to begin self-audit programs.

### About these guidelines and how they impact you.

Transporters shipping to processing plants that have fully embraced the NAMI program will be evaluated based on these guidelines. We will devote an entire section to that later.

### Private Guidelines and Audits

Processing plants are selling their meat to clients who may have guidelines to which they have agreed to adhere to be allowed to supply them. Some fast-food chains are well known for their position on animal welfare down the food chain and have passed down their expectations to their suppliers (the processing plants you are transporting animals to).

### How these private guidelines impact you.

To continue to be a preferred transport, you must be aware of these expectations and collaborate with the processing to ensure their compliance with their customers 'expectations'.

***That's a lot isn't it?***

***By now, we hope that you realize how important YOU are as a contributor to the animal welfare effort in transport. Transport has its code of practice and precise regulations.***

***All the programs we just showed you measure guidelines previously agreed upon and keep score.***

**"We can only improve what we measure." - Dr. Temple Grandin**

These programs' goals and spirit are to foster continuous improvement rather than pointing fingers at anyone. If we rely on open and transparent communication and the will to do better, everyone will benefit, both animals and humans.

Regarding your transporter role, let's look at the auditing elements you are most likely to face during your transport activities. We will follow with tangible examples of the impact of these continuous improvements on animals and their carcasses.

## AUDITING

**Internal Audits**

Individual driver performance is often assessed in internal animal welfare audits at feedlots, production companies and transport companies.

The assessments contain criteria similar to the **North American Meat Institute (NAMI)** or the **National Cattle Feeders Association (NCFA)** audit but often incorporate internal company policies and industry programs. In addition, labelling programs can also include their policy or expectations in the foundation audit.

Note: An internal audit usually bears no consequence to the certification status of the auditee. However, any non-conformance related to the transporter would still need to be corrected.

**Third-Party Audit**

Third-party animal welfare audits are intended to give a "snapshot" of the welfare of the animals being transported to the plant, not of individual drivers. They are usually meant to prove compliance with a given animal care program (NAMI, NCFA or private brand programs like McDonald's or A&W, for example).

**Auditing Trucks**

- Several trucks are audited, and the percentages are based on the number of animals transported on the audited trailers.

**Compliance**

- Compared to an internal audit, this audit has more implications for feedlot and slaughter plant compliance.

**Non-Conformance**

- Any non-conformance related to the transporter will need to be corrected and proven for your partner (slaughter plant, feedlot, farm) to obtain its full compliance with the program.

## KEY COMPONENTS OF A TRANSPORT AUDIT

We will now review the key components of a transport audit.

**Plant Policy/Preparedness for Receiving Animals**

**These criteria include:**

- having a written transportation policy
- extreme temperature management tools
- management tools to minimize wait times
- emergency plans for transport
- written policy for non-ambulatory and compromised animals
- availability of acceptable handling tools
- access to euthanasia tools and maintenance records
- gates in proper working conditions
- non-slip flooring
- unloading area in good repair
- adequate lighting
- staff available for receiving pens with bedding, feed and water.

**Set-up and loading of trailer:**

- ensures animals are loaded at the proper density
- trailer appropriately aligned with the ramp
- animals segregated/isolated when required
- non slip flooring in the trailer
- bedding and animals do not make contact with the roof or upper deck of the trailer.

**Timeliness of arrival and animal loading and unloading:**

- documents how long it takes to load or unload a trailer
- timing for unloading begins when the trailer arrives at the plant or feedlot and stops when the first animal steps off the trailer
- timing for loading begins when the first animal steps on the trailer and stops when the trailer leaves the facility.

**Falls**

- Falls are scored when a non-limbic part of the body touches the ground.

**Electric Prod Use**

- The application of an electric prod to animals will be scored.

**Condition of Animals**

- Documents the number of compromised animals arriving on a trailer.

**Wilful Acts of Abuse**

Wilful Acts of Abuse are documented and often lead to an audit failure. Possible acts of abuse include but are not limited to:

- dragging a non-ambulatory animal
- prodding sensitive parts of the body, such as the face or anus areas
- deliberate slamming of gates on animals or hitting or beating animals.

Secondary Criteria are documented but not scored like the core criteria. This can include:

- the condition of the trailer, such as non-slip solid flooring
- gates and doors opening freely and closing securely
- internal ramps functioning properly
- no sharp or protruding objects
- manure not over hoof level
- winter slats or plugs in place at recommended levels.

It also includes:

- time to unload
- slips in the unloading area
- electric prod used inside a trailer or through sides
- handling tools misused
- the number of animals dead on arrival (DOA)
- emaciated or poor body condition score
- poor udder condition.

## TRANSPORTATION STRESS

Livestock is subject to several different stressors during transport. Stress can influence behaviour and meat quality.

Therefore, it is essential to eliminate as much stress as possible when handling and transporting livestock for animal welfare and meat quality reasons.

All the audit measurements we presented to you are meant to minimize unavoidable stress and eliminate avoidable stress for the animals during transport.

**A Closer Look**

We will first have a closer look at the various forms of stress an animal can endure and will complete this module by showing you how these stressors can directly impact meat quality.

**The Role a Transporter Plays**

As a transporter, not only do you transport the animals from one point to another, but you also have a role to play in the quality of the finished product and the experience the consumer will have from the meat derived from the animals you hauled.

**Transportation Stress**

**Physical Stress**

- This can occur during relocation, especially if the animals are handled roughly or prodded excessively. Balancing, bracing, climbing or descending, restricted movement, and road vibrations also bring on physical stress during transport.

**Psychological Stress**

- Psychological stress, mainly fear, has a substantial impact on all animals
- Human contact is a primary source of fear for livestock
- Confinement can also elevate stress levels as livestock are claustrophobic by nature
- In addition, psychological stress can have physical effects, such as increased stress hormone levels, which can affect meat quality.

**Social Stress can result from the following:**

- overcrowding
- mixing of
  - unfamiliar animals,
  - incompatible groups,
  - aggressive animals, or
- isolating individual animals.

**Environmental Stress**

Environmental Stress occurs when the animals are not comfortable during the move. Environmental stressors include:

- temperature and humidity
- poor ventilation
- inhalants.

### Nutritional Stress

Nutritional stress refers to the following:

- the absence of necessary nutrition and water required for the animals to be transported in comfort and good health
- to allow them to recover from the stress of the entire relocation process.

Other nutritional stressors include:

- the disruption of normal feed patterns (and methodology, particularly in younger animals) and
- a change in water and feed quality.

## MEAT QUALITY

### Improper Handling and Transport

The effects of improper animal handling and transport cause poor animal welfare and negative outcomes that cost the livestock industry millions of dollars annually.

Carcass devaluation occurs when any bruise or condition adversely affects the quantity or quality of the carcass of a slaughtered animal.

Any low-quality meat or significant bruises are trimmed from the carcass.

Handlers and transporters can help to decrease carcass devaluation, including bruising and poor meat quality, by handling and transporting animals calmly and quietly - especially more vulnerable animals such as dairy cows or cull sows.

**Handle all animals with care!**

### Beef Quality

Estimates show that bruises can cost the North American Beef Industry millions of dollars annually, and overall quality defects total several hundred million dollars annually.

In addition, carcasses of some cattle that have been significantly stressed shortly before slaughter may change the quality of their meat.

Instead of bright red meat, the carcass becomes dark, firm and dry.

Known as '**dark cutters**', these carcasses are graded as a B4 quality grade and discounted up to 50% of their original value.

### How Do We Avoid These Issues?

- Quiet handling and transport can help reduce the incidence of dark cutters
- Research has shown that cattle can lose up to 5% of their body weight during transport, referred to as 'shrink'
- Research in Alberta, Canada, showed that on trips less than 4 hours, cattle experienced a 1.7% shrink, and cattle on trips more significant than 4 hours experienced a 4.6% shrink.

### Pork Quality

Improper handling and transport cost the hog industry millions of dollars annually.

- For example, in 2006, DOAs reached 0.09% resulting in an estimated $2.5 million loss to the hog industry.

Currently, the hog industry averages 0.08% DOA.

Severe bruising can downgrade a carcass up to 6%, contributing to a $0.08 loss per carcass.

The economic loss due to bruises has been estimated to be $0.44/carcass.

### Calculating Loss

The economic loss has been estimated for **PSE** pork at $5/carcass (**PSE** stands for **pale, soft** and **exudative** meat, meaning it cannot retain juices).

- This estimation has been recently confirmed in terms of $0.78 loss per each 1% drip loss
- Research has shown that more than **20%** of hogs handled aggressively are injured, become stressed or fatigued compared to 0% of those appropriately handled.

## KEY LEARNINGS

***Animal Welfare in Transport is Important for the Animal***
***Animal welfare in transportation is important for everyone involved, farm to fork. You are part of the solution!***

***Your Accountability***
***Like the other stakeholders, you will be held accountable (audited) for doing the right things and improving your practices.***

***The Impact of Stress***
***Livestock is subject to several different stressors during transport. Stress can influence behaviour and meat quality.***

***Proper Handling***
***Improper handling and transport cost the livestock industry millions of dollars annually. Handlers and transporters can help to decrease carcass devaluation by handling and transporting animals calmly and quietly.***

***As a transporter or someone making decisions related to the transport of animals, you must know the regulations and standards. Know what to do, do what you are expected to do, and prove it (records).***

# 2 REGULATIONS AND CODES OF PRACTICE IN LIVESTOCK TRANSPORT

In this module, we will review the regulations and the Code of Practice for transport.

As a livestock transporter, it is YOUR responsibility to be aware of the regulations about the humane transportation of livestock. It is the responsibility of the individual performing the task and your employer's responsibility to be aware and ensure you are knowledgeable of these regulations.

As you have learned and have been presented numerous times, transport is a shared responsibility. This is more than a moral conviction; it is rooted in Canadian regulations.

In Canada, regulations give the framework of the expectations, and the code outlines guidelines, requirements, and recommended practices for achieving compliance with these regulations.

CLT provides an overview of federal and US requirements for livestock transport.

## CANADIAN FEDERAL REGULATIONS GOVERNING HUMANE ANIMAL TRANSPORT

The intent of the Canadian humane transport regulations is to prevent the avoidable suffering of animals throughout the transport process.

All those involved in the transport of animals must be knowledgeable, accountable, and take proactive steps to ensure animal welfare.

***The following Acts (3), and their respective regulations, work together to govern the humane transport of animals into, within and out of Canada.***

1. **Health of Animals Act (HAA)** Paragraph 64(1)(i): provides the authority to make regulations for the humane treatment of animals, including transportation within, into or out of Canada.
   *Click the link to read the* Health of Animals Act (HAA) Paragraph 64(1)(i)
   *Click the link to read the* Health of Animals Regulations (HAR) – Part XII (Transport of Animals)

2. **Safe Food for Canadians Regulations (SFCR):** govern the humane treatment of food animals within a licenced holder's establishments.
   - CFIA enforces SFCR in federally licenced slaughter establishments.
   - The province regulates the welfare of animals at provincial slaughter plants.

   *Click the link to read the* Safe Food for Canadians Act (SFCA)
   *Click on the link to read the* Safe Food for Canadians Regulations (SFCR)
   *Click the link to read the* Provincial slaughter plant regulations

3. **Provincial legislation:** Each province regulates the humane treatment of animals on farms, in auction markets, farmers' markets, assembly yards and provincial slaughter establishments. Each province has its own enforcement system.
   - Some provinces have additional legislation related to humane animal transport. Regulated parties are encouraged to access the Provincial regulations in which they operate.

   *Click the link to read the* Provincial Legislation

Provincial inspectors or police officers/RCMP also investigate complaints under the **Criminal Code** which prohibits wilful and unnecessary pain, injury, and neglect of animals (provisions 445(1)(2)).

*Click the link to read the* Criminal Code.

## CANADIAN FOOD INSPECTION AGENCY (CFIA)

The **Canadian Food Inspection Agency (CFIA)**, with the help of other federal, provincial and territorial authorities, enforces the requirements for the transport of animals into, within, and leaving Canada.

The federal humane transport regulations apply:

- when the animal is handled with the intent to transport or has had feed, water and rest (FWR) removed (prior to loading)
- continue throughout time in transit, including refueling periods, driver rest stops, and could include activities at auction markets
- continue to apply until the animal is unloaded at their destination and has received feed, water and rest, or is humanely slaughtered.

**A regulated party must comply with all legal requirements. Remember that sometimes more than one act and its regulations may apply to a situation.**

**For example, if an animal is unloaded at a federally licensed slaughter plant, there is an overlap of two regulations under the CFIA's oversight which must be met; humane transport (Health of Animals Regulations - Part XII), and humane handling and slaughter under the Safe Food for Canadians Regulations.**

## HEALTH OF ANIMALS REGULATIONS, PART XII - TRANSPORT OF ANIMALS

This section will rely on the CFIA guidance document rather than outlining every law article. As a result, the wording will be much easier to read and understand.

It is recommended to refer to the current published online regulations for precise wording.

### General

Transported animals must be:

- fit for the intended transport process before transport begins
- monitored on an ongoing basis at a frequency which assures the animal remains fit throughout the journey and that they receive prompt care if needed.

### Regulated Parties

**All persons involved in the transport of animals share responsibility under the law, including those who:**

- plan the transport
- prepare animals for the journey (including feed and water withdrawal)
- assemble animals
- catch animals
- load animals
- confine animals in a crate or conveyance
- move animals from the point of origin to their destination
- unload animals from the conveyance or container at their final destination.

**Humane Transport is a Shared Responsibility and applies to all those involved directly or indirectly in the transport of live animals:**

- animal owners
- producers
- buyers
- commercial carriers
- exporters
- importers
- carriers
- animal handlers
- processors
- feed, water and rest (FWR) stations/locations
- assembly centres (auction markets, assembly yards, independent holding facilities associated with slaughter establishments, livestock dealer's facilities).

**Persons involved in the transport of animals will need to know the following:**

- know and comply with the humane transport regulations
- be trained and competent to work with the species they are transporting.

**Comply with Regulations**

**Persons involved in the transport of animals need to:**

- collaborate with inspectors
- keep records for 2 years
- produce a copy of the records when requested by a CFIA inspector
- give the inspector all reasonable assistance
- not hinder nor obstruct the work of the CFIA inspector or provide false or misleading statements to the inspector.

**Regulated Activities**

**Regulated activities** (transport methods that are regulated)

All modes of transporting animals are regulated: aircraft, carriage, motor vehicle, trailer, railway car, vessel, crate, cargo container, cage, module and/or any other conveyance or container used to move animals.

**The transport process covered applies to all aspects of the animal transport continuum and related confinement including:**

- feed and safe water withdrawal and providing rest in preparation for transport
- selection of fit animals for transport/confinement
- animal handling (loading)
- loading of animal(s) into conveyances, including into crates, or containers;
- transport and related confinement of animal(s)
- post transport access to feed, safe water and rest when it is required (or the animal is slaughtered)
- unloading the animals
- animals (in containers) remain in transport until they are removed from the container or enter a stunning chamber for the purposes of slaughter.

**In the context of commercial transport**, we understand that most livestock will not be transported in a "container".

Containers are mostly used with poultry and small non-poultry animals such as rabbits, minks, etc.

Containers should be designed, constructed, equipped, maintained and used to prevent the animal's suffering, injury or death.

Containers must:

- be suitable for the specie
- prevent escaping
- provide adequate ventilation and flooring
- not be likely to collapse or topple over
- have no exposed bolt heads, angles or other projections
- not contain objects that are unsecured
- have secure fittings
- be cleanable except for one-time use
- allow the animals to be visible from outside the container or at least two of the container's outer sides have a readily visible sign or symbol indicating the presence within of a live animal and a readily visible sign or symbol indicating the upright position of the container.

***A regulated party must comply with all legal requirements.***

**Sometimes more than one Act and its regulations may apply to a situation.**

HAR requirements crossover with SFCR requirements in federal slaughter establishments. There is an overlap of the 2 regulations for the transfer of responsibility from the trucker to the consignee, monitoring the animals in lairage, and meeting FWR requirements.

## APPLICATION

All persons involved in all parts of the transport process for animals entering or leaving or within Canada are required to be aware of and transport animals in compliance with this legislation's requirements.

## KNOWLEDGE AND SKILLS

People involved in animal transport (that is, planning, loading, confinement, transportation and unloading) must:

- know about handling and transporting animals
- have skills, and execute their tasks with competence.

To prevent injury, suffering or death caused during all phases of the transport process.

The regulations require that the regulated party must know what to do and have the necessary skills to meet the outcomes required by the regulation.

Information can come from mentorship and/or formal training.

*It is your responsibility to be able to demonstrate that you have the required knowledge and skills.*

**Knowledge and Skills Required**

The needs of animals vary with species, size, sex, age, health and production status, physiology, and the degree to which they have been socialized.

**Knowledge and Skills**

The knowledge and actions you take must be appropriate for the species and type of animal you work with:

- the behaviour of the species being transported (both normal and abnormal), their field of view, depth perception, colour perception, and response to visual and auditory distractions
- indicators of stress due to pain, heat or cold, and fear
- species-specific signs of pain, illness or compromise (for example, mammary engorgement in a dairy cow presents differently than in a dog)
- herd/flock instincts
- their probable response to stimuli, startle response (for example, are they prone to panic, run, fight?)
- dominance behaviour, including what to expect when mixing lots/pens
- their response to social isolation
- their compatibility with any other animal
- common challenges for these animals in transport (Do they tend to overheat? Is unloading them difficult?)
- principles of restraint and handling, including;
  - best practices for animal handling
  - flight zones, points of balance
  - effects of previous restraint and handling
- space requirements for the type of animal
- signs and conditions that you should use to evaluate if the animal is fit for transport
- factors associated with an increased risk of having a negative outcome during transport;
  - long-distance transportation
  - adverse weather
  - animal-associated factors (for example, pregnant, very young, very old, metabolically challenged, lack of body covering, cull animals).

## CONTINGENCY PLANS

**Are mandatory for commercial carriers and anyone transporting animals for business or financial benefit. Assessment of risk factors related to transport and monitoring requirements.**

**All those involved in animal transport must assess:**

- in a manner, and at a frequency that is appropriate to assess the animal's capacity to withstand confinement and transport
  - this will require judgment and experience and will vary with each scenario.

**Every person involved in animal transport must monitor:**

- animal's capacity to withstand confinement and transport (manner and frequency are important and vary with each scenario).

**Risk factors related to transport include the following:**

- current condition of the animal
- a pre-existing condition
- the space requirements
- the compatibility of the animal with any other animal
- animal handling/restraint
- the expected time without feed, safe water and rest
- the expected duration of the transport and confinement
- the foreseeable delays
- the foreseeable weather conditions during transport
- the foreseeable conditions that may be encountered during transport that could result in sharp inclines and declines, vibration and shifting of the container or swaying of the conveyance
- the type and condition of the conveyance, container and equipment.

**All parties who are directly (handlers, producers, transporters) or indirectly (processors) involved in the transport process are to take measures to ensure that animals are assessed for fitness prior to transit.**

This applies to:

- all people who load, confine or transport an animal or cause one to be loaded, confined, transported
- any conveyance or container.

## TRANSPORT OF UNFIT ANIMALS

Animals defined as unfit are likely to suffer during transport. Therefore, they cannot be loaded or transported with **two exceptions**:

1. On the advice of a veterinarian for care or treatment, and then only if special provisions are taken to prevent additional unnecessary suffering, or
2. During the seizure of animals following enforcement action and only if special provisions are taken to prevent additional unnecessary suffering.

**Unloading Unfit Animals**

An animal that becomes unfit during transport and is non-ambulatory.

**Can only be unloaded only if it is unconscious:**

- if the animal is non-ambulatory
- the animal must be rendered unconscious or humanely killed prior to unloading.

**Can be unloaded with special care if:**

- it is unloaded individually in a manner that is not likely to cause unnecessary suffering, injury or death
- it is rendered unconscious before it is unloaded
- it is humanely killed before it is unloaded.

**Unfit animals in containers** can be manually removed from the container before being rendered unconscious or humanely killed (in a manner that is **not likely** to cause the animal to unnecessarily suffer, sustain an injury, or die).

Animals will be considered **unfit** if they are showing the following conditions.

**Unfit Conditions:**

- being non-ambulatory
- any fracture that impedes the animal's mobility
- is lame in one or more limbs to the extent that it exhibits signs of pain or suffering and halted movements or a reluctance to walk
- in shock or is dying
- severe prolapse (uterus, rectal or vaginal)
- signs of a generalized nervous system disorder
- stressed hogs (porcine that is trembling, having trouble breathing and discoloured skin)
- laboured breathing
- severe open wounds
- hobbled to aid in the treatment of an injury
- signs of dehydration
- signs of hyperthermia or hypothermia
- signs of fever
- has a large hernia
- last 10% of gestation or has given birth within the preceding 48 hours
- an unhealed infected navel
- gangrenous udder
- severe cancer eye (squamous cell carcinoma of the eye)
- bloat with discomfort and weakness
- signs of exhaustion
- is extremely thin
- has any other signs of infirmity, illness, injury or condition that indicates an animal cannot be transported without suffering.

## TRANSPORT OF COMPROMISED ANIMALS

Animals determined to be compromised prior to loading can only be transported directly to the nearest suitable place where they can receive care or be humanely killed, except to an assembly centre.

Regulated parties are encouraged to document their decisions and actions to prevent compromised animals from suffering from unnecessary or additional suffering due to transport.

**Animals Identified as Compromised Prior to Loading, are loaded and transported with care taken to minimize their suffering so they:**

- are isolated (one animal by itself) or with one familiar animal is unlikely to cause suffering, injury or death to either animal
- are loaded individually without having to negotiate ramps within the conveyance
- have additional measures taken (for example, additional environmental protection to mitigate pain, extra bedding, given pain control as applicable)
- transported directly to the nearest suitable place to receive care or treatment or to be humanely killed, except to an assembly centre
- provided feed, water and rest at a minimum every 12 hours.

**In the rare event that an animal becomes compromised during transport:**

- special provisions are required to protect them from further transport-related harm
- the animal(s) can be taken for care or humanely killed to prevent suffering, injury or death
- to the nearest suitable place they can receive care or to be humanely killed;
  - this can be an assembly centre.

**Compromised**

Animals are considered compromised if showing the following conditions:

- bloated with no signs of discomfort
- acute frostbite
- blind in both eyes
- not fully healed after a procedure (including dehorning, detusking, or castration)
- lame other than as described in unfit
- has a deformity or fully healed amputation
- is in period of peak lactation
- unhealed or acutely injured penis
- minor rectal or minor vaginal prolapse
- mobility limited by a device to its body
- wet bird
- has any other signs of infirmity, illness, injury or condition that indicates an animal has a reduced capacity to withstand transport.

***If in doubt whether an animal can withstand the same transport challenges as a healthy, fit animal, assume the animal is compromised (and transport with special provisions).***

**NOTE: THE MAXIMUM TIME A COMPROMISED ANIMAL CAN BE WITHOUT FEED, SAFE WATER AND REST IS 12 HOURS**

**An Animal that is likely to become compromised or where deterioration is not unexpected during confinement and transport.**

While an animal may appear fit for transport prior to loading, there may have been some indications on the farm that the animal may be at risk of deterioration during transport. The transporter should be made aware of such findings to adequately prepare for and/or monitor the animal during transport.

**It is not acceptable to withhold this important information from the transporter.**

It is easier to plan and prepare for handling a compromised animal before loading than to adjust the transport plans if an animal becomes compromised while in transit.

**An Animal that becomes Compromised During Transport**

The transporter may be required to make adjustments to accommodate the compromised animal.

### Additional Information Regarding Compromised and Unfit Animals

### Compromised Poultry and Rabbits in Crates

All outcomes listed above apply to compromised crated poultry and rabbits with the following modifications:

- compromised crated poultry and rabbits may be transported without isolation from fit animals in the crate (however, density within the crate may need to be adjusted up or down and must not be likely to lead to unnecessary suffering, injury, or death).

**An animal that becomes compromised or unfit during transport** must be transported directly to the **nearest suitable place** that is suitable to minimize suffering, and reasonable measures must be taken to prevent the animal's unnecessary suffering, injury or death.

In some circumstances, this can include an assembly centre but only for the purpose of care or humane killing. **No** other activities, such as transport for marketing or assembly, are acceptable.

**Nearest Place**

**In the context of the regulations, "the nearest place" is the closest suitable facility where an animal can be transported to receive care or be humanely killed.**

**Depending on each specific situation, this place could be a veterinary establishment, a farm, an abattoir, an assembly centre (only for animals that become compromised or unfit during transport) or any other appropriate location, provided the animal can receive the care or treatment needed, or to be humanely killed.**

**The nearest suitable place may only sometimes be the closest on the map.**

## TRANSPORT OF LIVESTOCK, CAMELIDS OR CERVIDS OF 8 DAYS OF AGE OR LESS AND TRANSPORT OF YOUNG RUMINANTS OF MORE THAN 8 DAYS

Very young livestock, camelids and cervids (8 days old or less) are transported to minimize the impact of risk factors that affect them.

**There are 6 requirements:**

1. Load individually, without negotiating ramps within the conveyance
2. Provide enough space for all animals to lie down, not on top of another animal
3. Take measures to prevent suffering, injury or death during transport (for example, bedding, ventilation, protection from getting cold, protection from dehydration)
4. Transported once in the first eight days with time between the beginning of the loading and unloading no longer than 12 hours
   - this is a maximum time; it may have to be shorter to meet the required outcomes
   - also must be provided feed, water and rest 12 hours after they were last provided feed, water and rest
5. Stops before reaching their final destination are made only to load other animals, and their destination is not an assembly centre
6. Animals are segregated from other animals that are not similar in age and size
   - an animal can be accompanied by its mother if that is not likely to cause injury suffering or death to either animal.

## YOUNG RUMINANTS (FOR EXAMPLE 9 DAYS OF AGE UP TO 8-12 WEEKS)

Ruminants, from birth until the time where they are physically old enough to be fed exclusively on hay and grain, are not transported unless:

- the expected time in transit (loading to unloading) does not exceed 12 hours
- they are provided feed, water and rest within 12 hours after they were last provided feed, water and rest).

**Note: Livestock means animals of the bovine, goat, horse, sheep and porcine species.**

## TRANSPORT OF LACTATING MAMMALS

Lactating mammals are transported in a manner that reduces the risk of avoidable suffering caused by mammary engorgement.

**Lactating animals are loaded, confined or transported either:**

- with their suckling offspring
- the animal is milked at intervals that are sufficient to prevent mammary engorgement.

**Take Action to Relieve Engorgement by:**

- transporting the animals with their suckling offspring (if the offspring are able to suckle sufficiently to prevent engorgement in the dam)
- by milking the animals in a manner and at a frequency that prevents engorgement.

**Mammary Engorgement**

Signs of mammary engorgement vary among and within species, generally:

- animals affected can appear uncomfortable and reluctant to lie down
- mammary glands will be firm to hard and painful
- mammary tissue may be warm or hot to the touch
- mammary tissue may appear deep pink or red.

## ANIMAL HANDLING FROM LOADING TO UNLOADING

Animals are handled during loading, confinement, transport and unloading in a manner that does not cause suffering, injury or death.

**People who transport animals must not:**

- beat, whip, or kick an animal, including
  - striking with goad overhand
  - prodding animals because of frustration or loss of temper
  - repeated prodding of an animal that isn't willing or able to respond
- use a prod, whip or any other driving device on the animal in a manner that is likely to cause injury, suffering or death
- use a prod on animals that cannot move because of
  - conditions that compromise their mobility
  - physical barriers that prevent animal movement (overcrowded pens, chutes, other animals blocking the way)
  - injury or condition that prevents or inhibits animal movement
  - fear of visual distraction preventing animal movement
- use a prod on an animal already in motion to speed it up
- use a prod on areas of the body other than on the fleshy hindquarters area of large bovines or swine > 3 months of age
  - this means no prodding on sensitive areas such as the eyes, mouth, ears, anus, genital region, or belly
  - prods are not allowed on sheep, goats, dogs, horses, calves and weanling pigs that can be moved manually.

**When an animal is in a container, people involved in the process must not:**

- drop, kick or throw the container
- handle the container in any other manner that is likely to cause the animal's suffering/injury/death.

**External ramps and gangways must be:**

- used when needed
- designed and constructed to promote the humane treatment of animals
- designed for the activity and the specific species for which it is intended
- well maintained
- able to bear the weight without collapsing, twisting, breaking or bending
- equipped with side rails strong and tall enough to prevent animal falls
  - side rails are not required if an animal is loaded/unloaded individually in a manner that is not likely to cause the animals suffering, injury or death
- have surfaces that prevent animals from tripping, slipping and falling
- positioned so that there is no gap through which an animal could trip, fall or escape,
- the slope-from-horizontal for ramps, unloading apparatus, gangway, or chutes must not exceed
  - 20° in the case of a porcine (includes hogs, sows, boars, etc.)
  - 25° in the case of a bovine (includes beef and dairy cattle, bison, water buffalo, etc.)
  - 30° in the case of an equine (includes horses, donkeys, etc.)
  - 35° in the case of a cervid (includes deer, elk, etc.), caprine (goats) or ovine (sheep).

## HANDLING OF CONTAINERS AND CONVEYANCE

The regulated party must handle each container, including a cargo container, and the conveyance in a manner that:

- does not cause injury suffering or death to any animal contained within
- is not likely to cause any injury, suffering or death to any animal contained (for example, do not throw, drop or kick the container, do not drive in a manner that causes injury).

**Tail Twisting in Cattle:**

- should not be the routine, go-to, animal handling technique (there are other, less painful, practicable alternatives)
- must not cause visible skin trauma or fracture, and should not be used on animals that are unwilling or unable to rise or animals that can be lifted and moved manually
- the National Farm Animal Care Codes of Practice (NFACC) Codes of Practice for the care and handling of farm animals: Beef and Dairy recommend that animal handlers "avoid tail twisting, particularly in calves" and "use handling tools, such as flags, plastic paddles or rattles, to direct animal movement"
- tail twisting, when done correctly on adult animals, can be used as humane (acceptable) negative reinforcement, however when used incorrectly, is painful and causes suffering.

***Every animal is handled during loading, confinement, transport and unloading in a manner that does not cause or is not likely to cause suffering, injury or death.***

***Animals will be loaded and unloaded using equipment that is designed, built, constructed and maintained to prevent likely suffering, injury or death.***

## WEATHER PROTECTION AND VENTILATION

Animals are protected from the risk of suffering, sustaining an injury and/or death due to inadequate ventilation or exposure to meteorological or environmental conditions during transport.

**Ventilation**

The required outcome is achieved when regulated parties have taken action to ensure:

- there is enough ventilation to prevent suffering, injury or death
- the ventilation system is designed to remove heat and cold
  - ventilation is adjusted to suit ambient temperature and humidity so that animals are not overheated (hyperthermia), subject to hypothermia or injured
  - moisture generated by the animals
  - airborne pollutants (excessive dust that impedes breathing, gases)
- at destination (for example, slaughter facilities), operational conditions prevent the suffering of animals until they are unloaded through the use of ventilation, shade, shelters and covers to maintain the proper ventilation and humidity for the animals.

**Weather Conditions**

Animals need to be protected from dangerous extremes of either heat and humidity, or cold temperatures, wet conditions and/or wind chill. An animal exposed to the effects of the weather can suffer for many reasons, including but not limited to: panic, heat exhaustion, asphyxiation, dehydration, hypoglycemia, frostbite, and hypothermia.

Transportation-related mortality in animals increases significantly during the following:

- hot spells in the summer
- cold snaps in the winter
- with increased humidity
- with wind chill.

High temperatures, high humidity, and poor ventilation can cause severe heat stress in transported animals.

Animals transported in crates, and swine, are especially vulnerable.

**When to Reschedule a Transport due to Unacceptable Weather**

In extreme weather, the regulated party may need to reschedule the transport. Therefore, regulated parties are urged to consider the external temperatures, conditions, available protections, and load characteristics.

Wind chill, condensation, loading and airflow patterns, venting, environmental controls, monitors, trip duration, species, class and health of animals should all contribute to the decision to begin or postpone the intended journey.

**Air Flow**

The regulated party is responsible for knowing and understanding the inherent risks during all weather conditions as well as species-specific thermo-neutral zones (temperatures within which they are able to regulate their body temperatures), animal behaviour, and signs of the suffering of the transported animals to act appropriately when deviations from normal are identified.

**Stationary Conveyances/Trailers**

Compliance is assessed by observing animals in a conveyance and evaluating if there are indicators of problems likely to be encountered due to ventilation issues, including but not limited to:

- panting
- animals piling on top of each other
- restlessness or agitation
- distress
- injury
- shivering.

**Exposure to Toxic or Noxious Things**

Animals are protected from suffering, sustaining an injury or death by being exposed to anything that is toxic or noxious, including exhaust from the conveyance.

**Space Requirements**

Animals are not subjected to avoidable suffering or death due to overcrowding.

Additionally, **horses** must be loaded on **single-deck vehicles**.

**There are 3 categories of animals specified in this section.**

They have different requirements for space, and headroom in transport.

| Category | Space Requirements Specified |
|---|---|
| Livestock, cervids, **camelids**, ratites (including horses) | • Able to stand at all times **with all feet on the floor**, with head elevated<br>• With sufficient space to permit a full range of **head** movement and<br>• **Without any part of its body** coming into contact with a deck, roof or top of the conveyance or cover of the container. |
| **Poultry in a container** (not ratites) | • Able to maintain a squatting or sitting position<br>• With sufficient space to permit a full range of head movement without coming into contact with the cover of the container. |
| **All other** animals (and poultry not confined in a container) | • Able to maintain **its preferred position** with sufficient space to permit a full range of **head movement**. |

**Overcrowding**

No animal is transported in a way that it is overcrowded.

The regulation states that "overcrowding" occurs when, due to the number of animals:

- the animal cannot maintain its preferred position or adjust its body position in order to protect itself from injuries or avoid being crushed or trampled
- the animal is likely to develop a pathological condition such as hyperthermia, hypothermia or frostbite
- the animal is likely to suffer, sustain an injury or die.

**Space**

Regulated parties must ensure animals are not overcrowded through appropriate planning and effective communication about loading densities.

Conveyances are not overloaded to prevent the panic and piling due to lack of space.

Compliance will be assessed by observing animals in a conveyance and evaluating if there is any indication of problems that occurred or were likely to be encountered due to overcrowding, such as animal to animal contact that results in:

- panting
- scrambling for footing, losing their balance
- animals forced to climb on top of each other
- restlessness or agitation
- distress
- panicking and injuring each other by jumping on top of each other
- injury
- death.

### Isolation

Incompatible animals are isolated from one another to prevent suffering, injury or death.

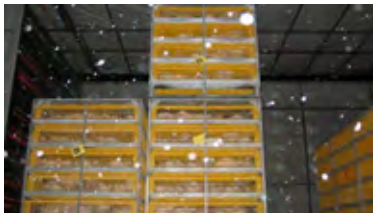
Examples include, but are not limited to:

- mature intact males of the same species
- animals that have shown a pattern of aggressive behaviour previously
- groups of animals of different species, particularly predator and prey species
- dominant and submissive animals
- group or individual animals from different sources or that are otherwise unfamiliar with each other
- dams with young from other animals
- groups or individual animals of significantly different size and weight.

Isolation is interpreted as the physical separation of animals from each other to minimize the potential for injury, suffering or death of an animal due to aggression, trauma, social dominance, or other forms of physical or psychological harm.

## CONVEYANCES AND CONTAINERS

Conveyances and containers are designed, constructed, equipped, maintained and used to prevent animal suffering, injury or death.



When animals are within, they must:

- be suitable for the species of animal
- prevent the animal's escape
- provide adequate ventilation for each animal
- provide a floor that prevents the animal from tripping, slipping and falling
- be free of exposed bolt heads, angles or other projections
- have secure fittings
- do not contain objects that are unsecured
- contain absorbent bedding material in order to prevent pooling or escape of water, urine and liquid manure (such bedding may include sand, straw, wood shavings or other material)
- be cleanable (unless the conveyance or container is designed for one-time use) as a measure to ensure adequate biosecurity and disease prevention
- not be likely to collapse or topple over.

### Conveyance

If using a container on a conveyance, the container must be secured to the conveyance in a manner that prevents it from moving during transport.

### Visibility

In addition, animals must be visible from the outside of the container or there must be readily visible signs indicating:

- the presence of a live animal inside
- the upright position of the container.

### Absorptive Bedding

It is required that floors of conveyances and containers for livestock, cervids, camelid or ratites be strewn with enough bedding material to absorb and prevent the pooling or escape of water, urine and liquid manure.

This requirement is prescriptive (presence of litter) and outcome-based (quality and quantity of litter).

The reasons absorptive bedding material is required during animal transport include:

- enhanced footing and safety
- protection from the elements (wet animals are more susceptible to hypothermia)
- enhanced biosecurity and disease control.

## FEED, SAFE WATER AND REST

The date, time and place where the animal was last fed, watered and rested will be recorded at the time of loading by both commercial carriers and people transporting animals either during the course of business or for financial gain.

**Animals will be provided with feed:**

- of an appropriate type for their species, age and condition
- in amounts sufficient to prevent a nutritional deficit.

**Safe Water**

Animals will be provided with safe water in amounts that are sufficient to prevent them from becoming dehydrated.

**Maximum Allowed Intervals without Feed, Water, and Rest**

Animals will be provided with rest that is appropriate for their species, age and condition in order to prevent the animals from suffering from exhaustion, and at intervals that do not exceed the following:

| Species and Class | Maximum time interval (in hours) without feed, water, rest |
|---|---|
| Compromised animal of any species, size, age, sex, or breed | 12 |
| Livestock, cervids, and camelids that are 8 days of age or less | 12 (single period, not repeated) |
| Ruminants that are too young to be fed exclusively on hay and grain | 12 |
| Broiler chickens, spent laying hens and rabbits | 24 for safe water<br><br>28 for feed |
| Porcine | 28 |
| Equine | 28 |
| Bovine, and other ruminants that can be fed exclusively on hay and grain | 36 |
| All other animals | 36 |
| Day-old poultry (from the time of hatching) | 72 (single period, not repeated) |

**Rest Stop Requirements**

Rest periods, must not be less than 8 consecutive hours (time to next required rest starts after the animal has been rested 8 hours).

**Safe Water for Animals**

Water must be safe for the animals and provide hydration.

- Water delivery systems should be inspected daily and cleaned regularly
- Water must not be frozen
  - water is to be delivered in a way that the animals are familiar with
  - for example, sheep are too short to use many cattle water troughs and are not familiar with pig water spigots
- As the regulation requires that animals (excluding those in crates) must have access to water. This means:
  - the stocking density must be low enough to allow all animals to move to and access the water.
  - if the behaviour of one or more animals prevents others from having access to water, those animals should be relocated.

Spraying crates, modules or trailers does not constitute access to potable water.

**Feed, Safe Water & Rest**

- 12 hours for any compromised animals.
- 12 hours for young ruminants that are too young to be fed exclusively on hay/grain. After unloading at their final destination, they cannot be reloaded.

**Final destination ≠ Auctions + assembly centre.**

**IMPORTANT:** For these young, unweaned calves, the feed provided must be milk and must be provided in adequate quantities so that the calf is able to consume it.

- 36 hours for all other animals

**Safe Water**

It is defined as potable water or water that does not pose a risk to the health of the animal drinking it.

This means clean water, that is accessible to animals in a form that is not frozen, through a delivery system that they are familiar with. Also, safe drinking water for animals does not compromise food safety for humans.

*When fully equipped conveyances are used for the transport of animals, regulated parties using these fully equipped conveyances are not required to meet the maximum allowed time intervals.*

*They must, however, meet the outcome based requirements for the provision of* ***FWR and ALL additional requirements listed in HAR s152.4****.*

## TRANSFER OF CARE

To ensure continuity of care, no animal is to be left at any slaughter facility or assembly centre without written notice that care has been transferred between the transporter and the receiver.

This is done to ensure that the individual responsible for caring for the animals can be clearly identified at all times.

These documents should be kept for 2 years.

If a transporter leaves animals without acknowledgement from the receiver, they could be held responsible for their care. The transporter could choose not to leave the animals.

The transporter must document the decision taken and why it was in the best interest of the welfare of the animals. While they cannot make other regulated parties do the right thing, they can document what they did.

**Transfer of Care**

The written document includes the following:

- the conditions of the animal(s) on arrival
- the date, time, and place where the animal(s) were last fed/watered/rested
- the date, time and place of arrival
- an acknowledgement from the consignee that the animal(s) has been received and is/are now in their care (and any inconsistencies they note from the driver's documents).

## RECORD KEEPING FOR TRANSPORT

Commercial carriers, and those who transport animals in the course of business or for financial benefit, must keep records related to the movement of those animals. Records must be made prior to departure and during transport.

**Information to be contained in the records:**

- the name and address of the producer or shipper, the receiver, the transport company (if applicable), and the driver's name
- conveyance information
  - licence/registration number
  - usable floor space in the conveyance or crate
- the date, time and place that the crates or conveyance were last cleaned and disinfected
- the date, time and place where the animals were loaded
- the number, description and weight (actual, if available, or estimate) of the animals
- the date and time when the animals last had FWR.

***Any changes to the information above must be noted as soon as possible.***

**Changes**

Any changes to the information above must be noted as soon as possible, and the following information must be added to the record when transport ends:

- the date and time when and the place where the animals are fed, watered and rested
- the date, time and place of arrival of the animals at the destination.

***These written records must be kept for a period of 2 years.***

**Duplication of record-keeping requirements**

The regulated party does not have to repeat information in separate documents. A single document that meets all needs is acceptable.

Although CFIA does not prescribe the format, it should be noted that the records, or a copy, must be available if requested by CFIA.

## SAFE FOOD FOR CANADIANS ACT

The **Safe Food for Canadians Act (SFCA)** and the **Safe Food for Canadians Regulations (SFCR)** govern the humane treatment of food animals within a licenced holder's slaughter establishments.

**CFIA** enforces **SFCR** in federally licenced slaughter establishments.

The welfare of animals at provincial slaughter plants is regulated by the province, not **CFIA**.

We will only report elements related to the humane transport of animals that are concerned by the **SFCR.**

Some of them will overlap with the **Health of Animal Regulations**.

**Requirements**

**Avoidable Suffering, Injury or Death**

A licence holder must handle a food animal at the establishment in a manner that does not cause avoidable suffering, injury or death and must not subject it to any condition that may cause such suffering, injury or death.

**Assessing**

A licence holder must assess whether a food animal is showing signs of suffering or injury on its arrival at the establishment.

Before arriving at the plant or immediately upon arrival transporter must communicate any animal welfare issues to the receiving staff to help them assess the situation and take immediate and appropriate actions.

**Monitoring**

After a food animal's arrival, the licence holder must monitor it on a regular basis, including assessing the conditions to which the food animal is subjected in the establishment that may cause avoidable suffering, injury or death.

This holds true to transporter waiting to be unloaded on slaughter plant site.

**Corrective Action**

If the licence holder determines that conditions exist that may cause avoidable suffering, injury or death to a food animal, the licence holder must immediately take corrective action.

The same applies to the transporter while on the slaughter plant site until the transfer of care has been completed.

**Suffering – Immediate Measures**

If a food animal is showing signs of suffering, the licence holder must immediately

a) alleviate its suffering
b) humanely kill it or
c) slaughter it in accordance with these Regulations.

**Electric Prod**

A licence holder must not apply an electric prod to a food animal unless:

a) it is done for the purpose of causing the animal to move and there is no reasonably practicable alternative to the application of the prod
b) the food animal is a pig or a bovine
c) the prod is applied to the lateral portion of the rear leg muscles between the hock joint and the hip joint
d) the food animal has sufficient space to move forward
e) the food animal's ability to move is not compromised, and
f) the prod is applied in a manner that does not cause the food animal avoidable suffering, injury or death.

**Where and How it is Applied is Important**

Applied to the lateral portion of the rear leg muscles between the hock joint and the hip joint, when the animal has sufficient space to move forward.

Applied on an animal which has the ability to move and applied in a manner that does not cause avoidable suffering, injury or death to the animal.

**Segregation & Isolation**

A licence holder must:

a) segregate food animals of different species
b) segregate a sick or injured food animal with other sick or injured food animals or isolate a sick or injured food animal if, because of its condition, it presents a risk to other food animals or it requires protection from other food animals, and
c) isolate a food animal that may cause suffering, injury or death to other food animals because of its nature, temperament, gender, weight, age or any other cause.

Before arriving at the plant or immediately upon arrival transporter must communicate any animal welfare issues to the receiving staff in order to help them assess the situation, segregate the animal and take immediate and appropriate actions.

**Overcrowding**

A licence holder must provide a food animal with sufficient space to prevent the suffering of, injury to or death of the animal.

If the transporter is unloading and moving animals directly into lairage pens, make sure to respect the placing instructions of the plant.

**Areas of Establishment and Equipment**

A licence holder must, during any activity conducted by the licence holder, use only areas of an establishment and equipment for the handling of a food animal that are designed, constructed and maintained in such a manner that they will not cause avoidable suffering, injury or death to the food animal.

As a transporter, if you notice anything with the establishment or equipment that could cause injury, suffering or death, you should report it to the plant.

**Note: A licence holder must not hit a food animal with a whip or prod.**

### Ventilation

A licence holder must provide a food animal with sufficient ventilation to prevent the suffering of, injury to or death of the animal.

### Handling

A licence holder who handles a food animal, including by handling a crate containing a food animal, during any activity they conduct in the establishment, must:

a) be able to do so, by reason of the person's competencies and qualifications for the activity, without causing avoidable suffering, injury or death to the food animal, and
b) do so in a manner and under circumstances in which the equipment that is used will not cause avoidable suffering, injury or death to the food animal.

### Water and Feed

A licence holder must provide a food animal — other than a food animal that is confined in a crate — that is unloaded from a conveyance at an establishment with:

a) water or another source of hydration as soon as it is unloaded, and
b) feed within 24 hours after it is unloaded.

When the time overlaps with the FWR provision of Part XII of the HAR, the license holder must comply with the regulations that is more strict.

### In Crate

In the case of a food animal confined in a crate, the licence holder must provide the food animal with water or another hydration source and feed within 24 hours after it arrives at the establishment.

## CRIMINAL CODE

Provincial inspectors or police officers/RCMP also investigate complaints under the Criminal Code which prohibits wilful and unnecessary pain, injury, and neglect of animals.

### Animals

Everyone commits an offence who wilfully causes or, being the owner, wilfully permits to be caused unnecessary pain, suffering or injury to an animal or a bird.

Anyone who commits this offence is guilty of:

- an indictable offence and liable to imprisonment for a term of not more than five years; or
- a crime punishable on summary conviction and liable to a fine of not more than $10,000 or imprisonment for a term of not more than two years, less a day, or both.

***Wilful acts of abuse on animals are punishable and may lead to criminal charges.***

**What to Expect During an Inspection**

While CFIA has the authority to conduct an animal transport inspection at any location where animals may be transported, CFIA's approach to inspections is risk-based.

**CFIA Inspectors also do routine inspections to verify compliance with the requirements of legislation at:**

- points of entry into Canada (borders, ports and airports)
- federally and provincially registered slaughter establishments
- assembly centres (auction market, sale yards, or other areas where animals are gathered)
- randomized roadside inspections
- unannounced inspection (such as responding to a complaint or concern of a citizen or employee or a referral from a federal, provincial/territorial or municipal government department or agency)
- roadside in emergency situations, such as truck rollovers and accidents.

When CFIA inspectors are on your property, at your place of business or have stopped your vehicle, they will:

1. identify themselves
2. treat you in a respectful and unbiased manner
3. ask to speak with the person in charge or the pre-identified contact
4. explain the purpose of the inspection and any areas that may be of specific concern.

**While on-site, the inspector will collect information to verify compliance with the legal requirements and make notes to record inspection details.**

The inspector may, for example:

- ask to speak with the people involved, such as drivers, receivers and shippers
- collect samples
- take photographs
- take videos
- copy documents
- conduct post-mortem examinations
- review records (monitoring records, health records to support the decision to load an animal, itineraries and schedules)
- in the case of inspection of a commercial carrier, these documents include
  - animal transport records
  - contingency plans
  - documentation of the transfer of care and control
  - evidence of employee training.

***You are legally required to provide information to and assist an inspector.***

Please ensure the inspector is aware of any safety concerns or procedures and any biosecurity controls while on your property so that they are safe and can adhere to the biosecurity procedures you have in place.

The duration of transport inspection is variable. The inspection can be brief when the animals are visible, records are in order and the load can be readily determined to be in full compliance.

In other cases, a more detailed inspection may be required.

## WHAT IF YOU ARE FOUND TO BE NON-COMPLIANT?

CFIA has the flexibility and authority to select the appropriate enforcement actions based on risk and the nature of the non-compliance.

**Gravity of Non-Compliance**

The gravity of non-compliance is determined by considering the potential or actual harm associated with the non-compliance, the compliance history of the regulated party, and the intent related to the non-compliance.

**Administrative Monetary Penalty**

These factors also help determine whether an Administrative Monetary Penalty is issued as a notice of violation with a warning or financial penalties.

**Can an individual receive an administrative monetary penalty?**

Administrative Monetary Penalties can be issued to an individual or a company.

**What are the Penalties?**

**Penalties**

Administrative Monetary Penalties can be issued as a notice of violation with a warning or financial penalties.

**Penalty Range**

Administrative Monetary Penalties with financial penalties to individuals can range from $500 to $1,300.

**Violations**

Violations committed in the course of business or to obtain a financial benefit can result in financial penalties ranging from $1,300 for minor violations to $15,000 for very serious ones.

**How to React**

How to react if you Receive a Notice from CFIA that you are Under Investigation for Non-Conformance to Humane Transport Regulations

**Take Your Time**

- **Don't panic; stay calm.**
- Read the entire document upon reception.
- Consult a trusted counsellor to validate your understanding of the situation.
- Reach out to the contact person identified in the document to clarify the situation if necessary.
- Ask to receive the evidence collected (photos, videos, documents, testimonials, etc).

**Think About It**

- The best way to avoid unpleasant surprises is to **master the requirements and comply with them at all times**, was this the case?

- Maybe you can learn from this situation and approach things in a new and different way next time to minimize risk and ensure compliance.
- Ultimately, the choice is yours: do you want to make the most of your current situation, stay frustrated, or consider other opportunities?
- The **laws are there for everyone and will not change**.

**Consider**

- If you want to improve your current situation, **reflect on your actions** and those of your partners.
- What could you do better? What procedures or problems can you clarify to avoid recurrence?
- The **source of the problem** may be well in advance of transport itself.

**Act**

- Even if the situation can be **resolved in the short term** (simple warning, notice of non-compliance without administrative monetary penalties), it is probably a good idea to **start changing your methods and habits**.
- Organize brief meetings with stakeholders to update your knowledge, expectations and procedures.
- **Communicate your achievements and new procedures internally** so that changes are put in place permanently.
- Finally, respond as soon as possible to the **CFIA's requests** and **communicate your next steps** with them to demonstrate your interest in correcting the situation.

**Conclusion**

- Animal welfare in animal transport is a shared responsibility.
- The law applies to all parties involved.
- Do not accept putting yourself at risk, your partners and even less for the animals under your care; you owe them that: They are why you have a job in animal transport today.

## LIVESTOCK TRANSPORT IN THE UNITED STATES

This section is optional as not all transporters transport animals to the United States.

When you cross the border into the United States, most humane transport laws are similar to ours in Canada.

When it comes to transport duration and rest, here is a little difference you must be aware of:

### The Twenty-Eight Hour Law

The Twenty-Eight Hour Law was initially passed on March 3, 1873. The Law was then repealed and re-enacted in 1906 and again in 1994 to set humane standards for the transportation of livestock. If livestock is transported for longer than 28 consecutive hours, they must be offloaded for at least 5 straight hours to get feed, water, and rest. The U.S. Department of Agriculture enforces the Law.

**Nonapplication** -This Law does not apply when animals are transported in a vehicle in which the animals have food, water, space, and an opportunity for rest.

**Civil Penalty** - A rail carrier, express carrier, or common carrier (except by air or water), a receiver, trustee, or lessee of one of those carriers, or an owner or master of a vessel that knowingly and wilfully violates this section is liable to the United States Government for a civil penalty of at least $100 but not more than $500 for each violation. On learning of a violation, the Attorney General shall bring a civil

action to collect the penalty in the United States district court for the judicial district where the violation occurred or the defendant resides or does business.

**Humane Slaughter of Livestock Act, 9 CFR 313.50**

Transporter actions contributing to inhumane slaughter or handling can cause the USDA inspector to shut down a plant or a section of a plant.

Livestock pens, driveways and ramps must be in good repair, not cause pain or injury to animals, provide sound footing and facilitate ease of animal handling.


**When Crossing the Border**

- Trailers must be loaded to conform with the route's state weight restrictions and bridging allowances.
- All drivers must have a current passport to travel into the U.S. and are subject to drug testing.
- Required paperwork must be presented to U.S. Customs.
- Once drivers clear U.S. Customs, they are to report directly to the USDA Veterinary Inspection Station, where the load and corresponding paperwork will be checked. The trailer doors will be sealed at this point. NEVER break the seals on a trailer. Only authorized personnel are allowed to break the seals at offloading.

**For the Most Efficient Entry into the U.S.**

- Be aware of the hours of operation of the chosen border crossing, especially the USDA Veterinary Inspection Station on the other side.
- Have your paperwork and ID ready to go.
- Have your axle weights configured before the trailer is sealed because entry is prohibited after the seals are applied.

## CODE OF PRACTICE FOR THE CARE AND HANDLING OF FARM ANIMALS: TRANSPORTATION

The **Code of Practice for the Care and Handling of Farm Animal – Transportation (2001)** is currently under review.

It is still referenced at times for enforcement.

Currently, the interpretive guidance for regulated parties of the **Health of Animals Regulations: Part XII: Transport of Animals-Regulatory Amendment** offers great reference in addition to this outdated guide.

Health of Animals Regulations: Part XII: Transport of Animals-Regulatory Amendment Interpretive Guidance for Regulated Parties.

# 3 BEHAVIOR & HANDLING OF LIVESTOCK

## BEHAVIOR & HANDLING

This section introduces general behaviour and handling as it applies to transport.

- It is important to be confident in your ability and have the patience to work with livestock during all aspects of transport.
- Further training and experience may be required. Contact your employer or your provincial commodity organizations for other training opportunities.

The key to effective livestock handling is understanding their natural behaviour.

Once you understand their behaviour, you will be able to handle them more **effectively** and **efficiently**.

***Effectively: Get them to move in an orderly fashion, at their pace, carefully and calmly.***

***Efficiently: Get them to do it with the least amount of stress for you and the animals.***

## PRINCIPLES OF PREY BEHAVIOUR

**As handlers, we often assume that animals react and respond similarly to ourselves.**

**This belief leads to a high level of frustration for both the handler and the animals.**

**Livestock**, like all grazing species, are prey animals. **Humans**, on the other hand, are predators.

**Prey animals** exhibit different traits and behaviours than predators, and once you understand their instinctual behaviour, you will be able to handle them more effectively and efficiently.

Some inexperienced handlers use their physical strength against the animal to force them to move in the direction they have decided. This is especially true against animals that look smaller.

When you think of it, a 300 lb pig or a 400 lb calf is still heavier and better grounded on the floor than most. Any physical encounter will create stress and potential injuries for either involved.

## DOMESTIC LIVESTOCK

Domestic livestock in a controlled environment will often behave in predictable ways. However, it's important to remember that each animal is also an individual and will react individually to each situation depending on their past handling experiences.

***Livestock do not have the same thought process as humans.***

***They are continually reacting to what is happening at that given moment in order to protect themselves (fight or flight response).***

## CHARACTERISTICS OF PREY

### Strong Herd Instinct


First and foremost, prey animals possess a strong herd instinct and isolation from their herd or flock mates causes them a lot of stress. When an animal is isolated, it can become quite frenzied and dangerous. Hogs, sheep, goats, bison and elk have a powerful herd instinct, more so than cattle and horses, for which isolation elevates their stress levels significantly.

### Monocular Vision


As a grazing species, prey animals have elongated heads with their eyes on either side. The placement of their eyes gives them monocular vision, meaning their eyes work independently of each other.

This type of vision significantly limits an animal's depth perception when its head is up - meaning they have a hard time judging how deep or far away things are. This can lead to balking when there are shadows, light contrasts or water puddles present in the handling area.

### Driven by Food & Fear


The two main motivators for livestock are food and fear – they know they need these two things to survive.

They need to eat, and they need to be fearful of predators.

These two motivations can be used to move livestock.

### Reactive to Movement


Livestock are very reactive to rapid movement.

Rapid movement equals predatory behaviour, predatory behaviour equals fear, and fear equals flight or fight.

### Reactive if Upset


If an animal is somewhere unfamiliar or where it does not want to be, it will also revert to its 'wild' instinct to flee (flight) or to fight. Animals are most dangerous when they are frightened, surprised and when they are separated from their pen mates.

### Reactive to Change


Livestock will react to changes in:

- footing
- flooring surface
- temperature
- lighting
- odour
- other people
- drafts or winds
- noises.

**Live in the Present**


Livestock can only have one main thought at a time.

Therefore, if it is not what you want them to do, you will need to redirect their attention.

**Like to Decide for Themselves**


Try to get the animal to decide to do something versus forcing them to do something.

It is significantly less stressful to them if they think it is their idea and something natural to them.

## GENERAL HANDLING

***When handling livestock, handler safety is the top priority.***

***Low-stress handling methods improve the predictability of animal behaviour and contribute to safety and security for the animals and the handler.***

**"The three most common mistakes made by handlers are rough handling, excessive prodding, and overcrowding."**

Dr. Temple Grandin

***Golden Rules of Animal Handling***

1. ***Assess the route/path before him.***
2. ***Small group of animals.***
3. ***Keep the momentum, but at their speed.***
4. ***Keep the pressure without overstimulating, to give them the impression that they decide.***

**Leading Causes of Animal Handling Difficulties**

Animal movement is influenced by the animals themselves, the handler, and the facility.

The leading causes of animal handling difficulties are inadequate facilities and the experience and attitude of the handler.

**Use their Natural Reactions**

Guiding animals using their natural reactions will help the handler get the job done with minimum stress.

Herd instinct is one example of using their natural instincts. Utilizing herd instinct is of particular value on ramps, in hallways or alleyways, and in and out of pens.

**A Handler Must**

- Pay attention and learn to read the animals.

- Anticipate the animal's next move.
- Always treat animals as unpredictable (to be safe).
- Choose your work plan with consideration of an escape route - can you get out of the alley quickly?
- Don't put yourself between the animals and the way out.
- Always give yourself and your animals a way out.
- Panicked animals are dangerous to themselves, other animals and handlers. Never jump in front of an animal to try and stop it.

**Take a Moment to "Read" the Livestock Tendered for Transport**

- Commercial transporters often have no prior knowledge of the animals they are contracted to haul. Each load is different, and the drivers must adopt a unique method of handling the animals safely and effectively.
- Take a moment to "read" (quietly observe) the livestock tendered for transport. Before entering a pen or alleyway, observe how the animals act when the people are working amongst them.
- Let the animals know you are entering the pen or alleyway by talking to them in low tones and moving slowly.
- Take a few moments to let the animals relax and get used to you standing there. A newcomer may make them nervous.

**Stay in their Field of Vision**

Stay within the animal's field of vision - prey animals like to have constant visual contact with predators, including handlers.

**Noise**

Livestock reacts negatively to loud noises, yelling and barking.

Keep noise to a minimum to avoid startling them.

## WHEN HANDLING ANIMALS

**When Moving Animals**

- Move livestock at their natural walking pace. Do not run them.
- Give the animals time to look for the opening. Once they see it, they will normally head through it and the rest of the herd will follow. To keep livestock moving, make sure there is always a clear, well lit way ahead.
- As the handler, you should be able to control the lead animals at all times.
- Give animals time and space to move in the desired direction. Excessive pressure or rushing will result in a more stressful, dangerous situation.
- Make sure animals have a place to go before applying pressure.
- Back off pressure when they are moving well.

**Working in Closed Compartments**

Beware when working in closed compartments.

Working inside the trailer is one of the most dangerous activities during loading and unloading.

Handlers must make sure they always have an escape route as each compartment is loaded.

**Beware of Gates**

While closing or opening a pressurized gate:

- no not push straight ahead with arms extended
- use your shoulder against the pressure
- do not push up against gates - always stand to the side of the gate
- smaller gates especially, are very dangerous and there is a high risk of pinching when opening and closing a counterbalanced gate.

**Night Work**

Night work is a big part of the livestock transport process and much of it is done alone, in close confines with the animals under poor lighting conditions.

Try to work in pairs and use extra caution when working at night.

**"I think using animals for food is an ethical thing to do, but we've got to do it right. We've got to give those animals a decent life and we've got to give them a painless death. We owe the animal respect."**

**Dr. Temple Grandin**

To do so, one must respect the limits of each category of animals according to the following:

- their age
- their physiological and psychological limits
- their level of experience with humans and their past activities.

While considering the environment and the conditions under which we require them to interact.

## REMINDER ON GENERAL HANDLING GUIDANCE

(According to HAR-Part XII - Transport)

**Handling**

***Animals are handled during loading, confinement, transport and unloading in a manner that does not cause suffering, injury or death.***

**People who transport animals must not:**

- beat, whip, or kick an animal, including
  - striking with goad overhand
  - prodding animals because of frustration or loss of temper
  - repeated prodding of an animal that isn't willing or able to respond
  - lift an animal by it's fleece, fur, head, neck, ears or horns
  - drag an animal
- use a prod, whip or any other driving device on the animal in a manner that is likely to cause injury, suffering or death.

**Handling Animals**

Every **animal** is **handled** during loading, confinement, transport and unloading in a manner that **does not** cause or is not likely to cause **suffering, injury or death**.

Animals will be loaded and unloaded using **equipment** that is **designed, built, constructed and maintained to prevent likely suffering, injury or death**.

Understanding animal behaviour is an important skill for humane transportation. Animal handling should be quiet, patient, efficient, safe, low stress and with little or no use of whips, goads, prods or similar devices:

- animals should not be rushed during loading or unloading
- allow time for the animals to move to or from the holding area through chutes and ramps into or out of the conveyance
- use species-appropriate aids to guide but not harm or frighten the animals (for example, boards, paddles, rattles, flags, etc.).

***It is unacceptable to knowingly harm an animal during any phase of the transport continuum.***

**Mishandling animals** in frustration (for example, beating, lifting, dragging, etc.) causes unnecessary suffering and is prohibited by Part XII of the HAR.

**Predicting** potential problems and preventing them is key.

An animal **does not** have to **suffer** an injury before enforcement action can be taken. Handling animals in any way likely to cause suffering, injury, or death is also **non-compliance**.

**Prod Use (including prod-like tools) for Moving Animals**

All driving tools, including the electric prod, are to be used by employees who understand the principles of animal behaviour and how to use these goads correctly to prevent injury and suffering.

The prod use requirements of the regulations are prescriptive and clear.

**Prod Use**

Prods are only used on bovine and porcine species, and are allowed only on specific sections of the hindquarters of large bovines and porcines of at least 3 months of age (that is to say, prod use is not allowed in sheep, goats, dogs, horses, camelids, calves and weanling pigs).

**Prod-Like Equipment**

A prod is considered as "used" (for inspection purposes) every time a handler touches the animal (whether or not they have pressed the power button).

Prod-like equipment, for the purposes of this regulation, includes innovative technology that has an on/off switch, a power source, and causes an aversive reaction in animals.

**How to Use**

These tools may be used only:

- to the hindquarters (not the genitals, face, udder, or anal area)
- on pigs and cattle of at least 3 months of age (that can move unassisted and without pain and suffering)
- if the way is clear and no animals or other obstacles are in front of them (must have a clear path forward).

***Repeated prodding of the same animal is not acceptable under any circumstances.***

**Vibrating or Air Prods**

These devices, with the same parameters for use as prods, are a recent innovation in driving tools used to move cattle or pigs without applying electrical current as well as being: engraving tools connected to a source of compressed air to operate the tool:

- made in-house (there is no "standard" version of the tool)
- not all alike
- air-powered (air hissing and blowing can cause fear reactions, and animals are noise sensitive)
- air pressure and sounds must be adjusted with animal welfare in mind.

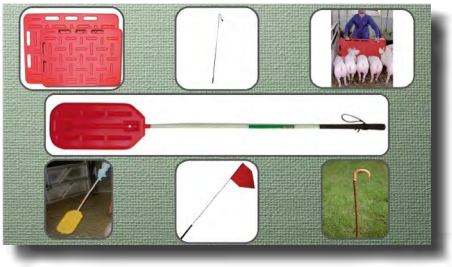
**Acceptable Use of a Vibrating Prod** (same as electric prod)

- To encourage animal movement.
- Applied gently on the fleshy area of the rump of bovine and porcine animals > 3 months of age.

**Unacceptable Use of a Vibrating Prod**

- Air blown in animals' faces (will impede movement and predispose to injury).
- On sensitive areas of the body.
- Used repeatedly on same animal.
- On animals unable to move.

**Guiding Devices, Boards, Pool Noodles and Noise Makers**



Guiding devices guide animals along a route and deter them from excessive deviation from the intended path.

These devices are:

- used to encourage movement in animals
- not needed to come into contact with the animal to have its effect.

Even seemingly benign guiding devices are likely to cause animal suffering if misused.

Such as if:

- these devices are used repeatedly on the same animal
- they are used to invoke pain and fear
- they are used to whip, beat or poke at an animal
- they are forcefully waved in a way that may lead to panic.

**Ramps/ Unloading Apparatus, Gangways**

All conveyances, containers, ramps, stairs, gangways, chutes, boxes or other apparatus used for loading, and unloading animals must be designed, constructed, used and maintained to ensure that these are unlikely to cause or lead to any injury, suffering or death to the animal during loading and unloading. Ramps and steps must be of sufficient strength and height to prevent animals from tripping, slipping, falling or sustaining an injury.

Transporters are required to use a ramp or similar apparatus, if one is needed, to reduce the risk of injury, suffering or death during loading or unloading.

There are both prescriptive (ramp angles to be detailed in species-specific sections) and outcome-based requirements for ramps. The outcome must be that loading and unloading of animals in conveyances is done in a manner that:

- is appropriate for the species
- does not cause suffering, injury or death.

The ramp provisions within this regulation speak to design and construction requirements leading to:

- improved animal welfare through proper facility design
- animals tend to be calmer on a ramp with solid sides
- the importance of slip-resistant flooring
- reduced agitation, balking and turning back in response to human activity or movement with the use of solid sides.

One size does not necessarily fit all:

- equipment designed for use with one species may not be suitable or could be dangerous for use with another species
- ramps must be used in a manner that is not likely to cause injury suffering or death of the animals in question.

## CATTLE

### Codes of Practice

### Handling and Moving Cattle

***There is less risk of injury to both animals and handlers when cattle are handled quietly and calmly. In addition, experienced handlers who are aware of cattle behaviour, including herd instinct, flight zone and point of balance, reaction to wind, noise, sudden movements, light contrast or shadows, etc., can move cattle more smoothly. This will minimize stress and promote cattle welfare.***

### Requirements

- Animal handlers must be familiar with cattle behaviour (through training, experience or mentorship) and use quiet handling techniques.
- Electric prods must only be used to assist the movement of cattle when animal or human safety is at risk or as a last resort when all other humane alternatives have failed and only when cattle have a clear path to move.
- Do not use electric prods repeatedly on the same animal.
- Do not use electric prods on the genitals, face, udder or anal areas.
- Do not use electric prods on calves less than three months of age that can be moved manually.
- Wilful mistreatment or intentional harm of cattle is unacceptable. This includes but is not limited to: beating an animal; slamming gates on animals; allowing herd dogs to continue pushing cattle with nowhere to move; dragging or pushing cattle with machinery (unless to protect animal or human safety).

**Recommended Practices**

- Adjust your handling techniques and positioning according to the response of the animals and the situation.
- Take a course in cattle handling techniques.
- Use handling tools, such as flags, plastic paddles or rattles, to direct animal movement
- Evaluate your cattle handling techniques regularly, and improve them as needed. Factors to consider include the percentage of cattle
  - falling (belly or torso touches the ground) during handling
  - stumbling or tripping (knee contacts ground) after being released from the chute
  - requiring the use of electric prods to move
  - running or jumping when leaving the chute
  - vocalizing as a result of restraint.
  - increasing levels of the above handling events may indicate a need for lighting, noise levels, equipment, handling methods, or environment changes.

**Regulations Guidance on Humane Animal Handling Specific to Cattle**

**People who transport CATTLE must not:**

- use a prod on animals that cannot move because of
  - conditions that compromise their mobility
  - physical barriers that prevent animal movement (overcrowded pens, chutes, other animals blocking the way)
  - injury or condition that prevents or inhibits animal movement
  - fear of visual distraction preventing animal movement.
- use a prod on an animal already in motion to speed it up
- use a prod on areas of the body other than on the fleshy hindquarters area of large bovines > 3 months of age
  - this means no prodding on sensitive areas such as the eyes, mouth, ears, anus, genital region, or belly
  - prods are not allowed on calves that can be moved manually.

**Tail Twisting in Cattle**

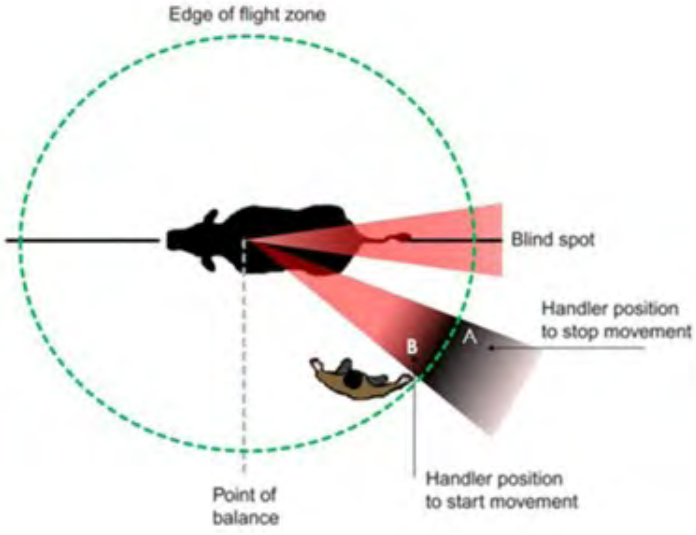
- Should not be the routine, go-to, animal handling technique (there are other, less painful, practicable alternatives).
- Must not cause visible skin trauma or fracture, and should not be used on animals that are unwilling or unable to rise or animals that can be lifted and moved manually.
- The National Farm Animal Care Codes of Practice (NFACC) Codes of Practice for the care and handling of farm animals: Beef and Dairy recommend that animal handlers "avoid tail twisting, particularly in calves" and "use handling tools, such as flags, plastic paddles or rattles, to direct animal movement".
- Tail twisting, when done correctly on adult animals, can be used as humane (acceptable) negative reinforcement, however when used incorrectly, is painful and causes suffering.

**External ramps and gangways must be:**

- used when needed
- designed and constructed to promote the humane treatment of animals
- designed for the activity and the specific species for which it is intended
- well maintained
- able to bear the weight without collapsing, twisting, breaking or bending
- equipped with side rails strong and tall enough to prevent animal falls
  - side rails are not required if an animal is loaded/unloaded individually in a manner that is not likely to cause the animals suffering, injury or death
- have surfaces that prevent animals from tripping, slipping and falling
- positioned so that there is no gap through which an animal could trip, fall or escape
- the slope-from-horizontal for ramps, unloading apparatus, gangway, or chutes must not exceed
  - 25° in the case of bovine (includes beef and dairy cattle, bison, water buffalo, etc).

**Flight Zone**

- The flight zone is the distance within which a person can approach an animal before it moves away.
- The flight zone area extends around and above the animal. The escape instinct is exploited to control the movement of livestock by moving or stopping it.
- Understanding and using this principle well is the key to handling livestock.
- Vision is the primary sense used by the animal to determine the limits of its flight zone.
- The animal needs to see what/who is putting the pressure on before it reacts to it.
- This is why the positioning of the handler is important.
- The video at the end of this section will demonstrate the functioning of the flight zone.



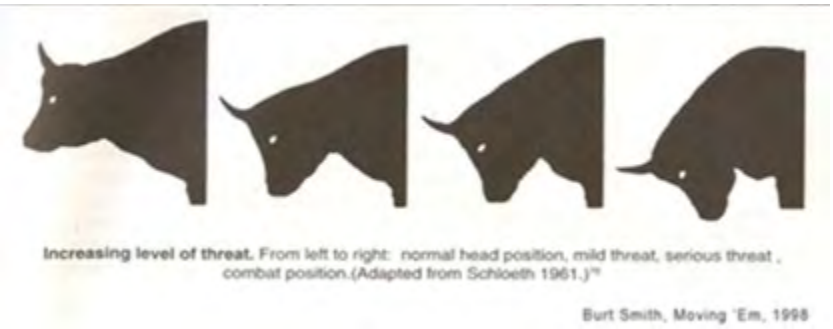

**Age-specific Considerations**

Bulls are extremely dangerous and should be handled with extreme care and caution. Dairy bulls are especially dangerous.

### Tips

Recognize the aggressive signals of a combative cattle:

- face the handler
- paw at the ground
- vocalize
- move their head up and down and/or shake their head
- advance swiftly
- strike with both feet
- stomp
- hold the tail erect.



**Increasing level of threat.** From left to right: normal head position, mild threat, serious threat, combat position.(Adapted from Schloeth 1961.)[78]

Burt Smith, Moving 'Em, 1998

Use handling aids, such as a sorting stick according to industry standards with special consideration given to the client's livestock handling philosophy. If they request that electric prods not be used on the livestock, handlers must comply.

Livestock handling tools are designed to:

- attract the animal's attention
- apply visual pressure and at times auditory pressure, and
- must not harm the animals or be used in an abusive manner.

Rattle paddles are one of the more common handling tools:

- they are used to attract the animal's attention with the rattle noise
- apply visual pressure with the paddle as an extension of your arm, and
- must not harm the animals in any way They are not designed to hit, strike or poke the animals.

Electric Prods:

- must be avoided except as a tool of last resort
- check policies as they are not allowed at all facilities.

## DAIRY

### Codes of Practice

***Cattle are social animals with a natural desire to gather together in herds. Herd management and husbandry procedures should not compromise their social activity or isolate them unnecessarily. Animals should always be handled with care and in a calm, easy manner, following a consistent routine.***

***This will reduce fear, avoid injury, make observation and treatment easier, and enhance animal well-being and productivity.***

### Requirements

- Electric cattle prods must only be used in extreme situations, such as when the animal or human safety is at risk, and must never be used on dairy cattle's face, anus or reproductive organs.
- Electric prods must not be used on calves less than 3 months of age that can be moved manually.

**Recommended Practices**

- Understand the field of vision, flight zone (personal space) and point of balance (shoulder) when moving cattle.
- Refrain from using loud noises to frighten or move cattle.
- Move cattle at a slow walk.
- Use panels, flags, plastic paddles, flappers (a length of cane with a short strap of leather or canvas attached), plastic bags and metallic rattles as aids for moving animals.
- Provide flooring with good traction.
- Provide adequate lighting.
- Have routine contact with cattle and handle them in a calm fashion.
- Avoid tail twisting, particularly in calves.
- Provide a sufficient area that new animals can move into free space.
- Use appropriately designed and maintained restraint devices.
- Restrain animals for as brief a time as possible.

**Regulations Guidance on Humane Animal Handling Specific to Dairy**

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- use a prod on animals that cannot move because of
  - conditions that compromise their mobility
  - physical barriers that prevent animal movement (overcrowded pens, chutes, other animals blocking the way)
  - injury or condition that prevents or inhibits animal movement
  - fear of visual distraction preventing animal movement.
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- use a prod on areas of the body other than on the fleshy hindquarters area of large bovines > 3 months of age
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- able to bear the weight without collapsing, twisting, breaking or bending,
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- have surfaces that prevent animals from tripping, slipping and falling
- positioned so that there is no gap through which an animal could trip, fall or escape
- the slope-from-horizontal for ramps, unloading apparatus, gangway, or chutes must not exceed
  - 25° in the case of bovine (includes beef and dairy cattle, bison, water buffalo, etc).

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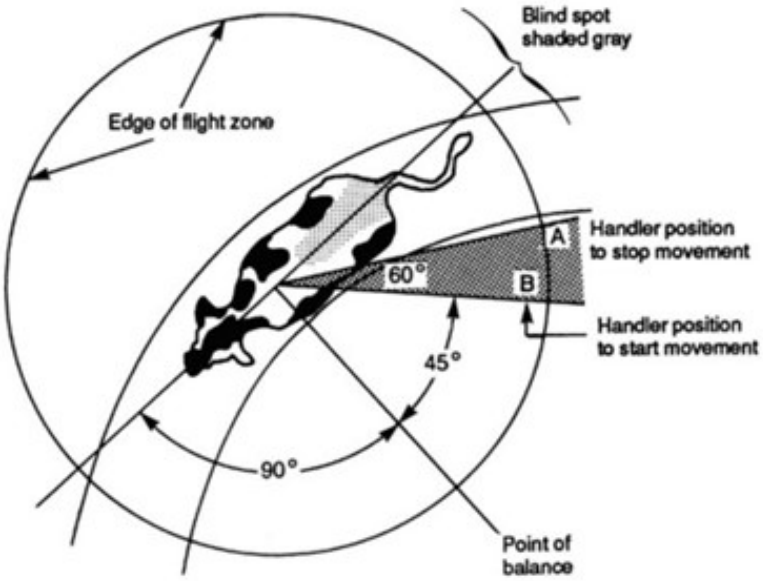



**Age Specific Considerations**

**Bulls**

Bulls are extremely dangerous and should be handled with extreme care and caution, especially dairy bulls.

### Calves

### Veal Calves

For the transport of veal calves, handlers should be trained to use proper handling techniques and restraint methods for calves. In addition, the least amount of force necessary should be used in handling calves. Stressors include:

- heat
- cold
- dehydration
- pain
- trauma
- motion sickness
- fear.

- Move small groups at the appropriate time of day for the season. Calves moved singly or in small groups are less prone to injury.
- Electric prods are unacceptable for use on calves. This is because calves do not have the reflex to escape electrical stimuli. Instead, they will freeze.
- Overcrowding can increase the risk of injuries and calf exposure to pathogens.
- Calves should be moved at a slow walk to prevent slipping and bruising.

### Tips

- Dairy cattle need to be handled with extra care.
- They are more prone to injury than beef cattle because of their thinner body condition and are typically taller (keep in mind when loading and ensure their backs are not touching any part of the conveyance).
- They are also generally tamer than beef cattle and may require extra time and patience for movement as they have a very limited flight zone, if any.

### On Dairy Calves Handling

Click the link to read the NFACC Veal - Code of Practice

## PIG

### Codes of Practice

***Positive human contact is an important factor in animal well-being and productivity. Pigs with previous handling and moving experiences are easier to move.***

***Using pig behaviour is an effective way to move pigs. An important concept in handling all livestock is the "flight zone" (the distance from an animal at which it will choose to move away from an approaching handler) and the "point of balance".***

Pigs move best when handled in a group and when they are following a leader or at least walking side-by-side with other pigs. Overcrowded pigs cannot easily turn around. Pigs may balk and refuse to move if they encounter shadows, puddles, bright spots, changes in flooring type or texture, drains, metal grates, or flapping objects. Moving people distract pigs.

When prodded, a pig will attempt to get away by running forward or turning back to shelter among the group. Repeated electric prodding causes a pig's heart rate to increase with each successive shock, and excessive prodding can kill pigs.

Individual pigs may need to be restrained temporarily for veterinary purposes or other procedures.

**Requirements**

- Use humane moving devices when moving pigs (e.g. chase boards, shakers).
- Electric prods must only be used as a last resort and never as the primary driving device. When necessary, the use of prods must be restricted to the back and hind quarters of lead pigs but never used in the anal and genital areas, and only when there is a clear path for them to move forward.
- Electric prods must not be used in the finishing pen.
- Electric prods must not be used on piglets, nursery, distressed, sick or injured pigs.
- Pigs must not be handled aggressively (e.g. kicked, walked on top of, picked up or suspended or pulled by one front leg, ears or tail).
- Pigs that become distressed during handling must be attended to immediately.
- Pigs must only be restrained for as long as necessary, and only appropriate, well-maintained restraint devices must be used.

**Recommended Practices**

- Aim for 0% of pigs being injured from handling, restraining, or moving pigs.
- Respect the pigs' flight zone: never approach an unsuspecting animal through its blind spot. Refer to Appendix K – Pig Vision and Flight Zone below.
- Move pigs in manageable groups that are small enough for the handler to be able to affect the lead pigs and that are appropriate for the facilities and the size of the pigs. Always move pigs at a pace comfortable to the animal.
- Have non-essential people move out of the line of pigs' sight when moving pigs.
- Walk through finishing pens periodically in a calm manner so that pigs become accustomed to people.

Please click this link to access Appendix K – Pig Vision and Flight Zone.

**Stockmanship Skills Related to Animal Welfare**

Ensuring stock persons understand the behavioural principles of handling pigs, such as flight zone and point of balance, is an effective management tool on farms. In addition, the attitudes of handlers play an important role.

Patience, timing, and the ability to predict the animal's movement are important animal handling qualities.

**Handlers must understand and follow low-stress pig handling techniques, which recognize the following:**

- pigs' reactions to stressors (e.g., separation from pen mates, mixing with new animals, new environments)
- the need for positive interactions between handlers and pigs
- humane methods for sorting and moving pigs, including the need to affect the direction of the lead pigs

- differences in pig breeds where some have ears that flop in front of their eyes, reducing their vision (have patience when moving them)
- the optimum group sizes for moving pigs
- the correct use of handling and humane moving devices
- how to manage distressed and heat-stressed pigs
- the correct use of restraining devices that are appropriate for various sizes of pigs.

**Requirements**

- Handlers must be competent in low-stress pig handling methods.

**Recommended Practices**

- Ensure animal handlers understand the behavioural principles of low-stress pig handling, such as flight zone and point of balance, and understand how their attitudes and behaviour impact pig welfare.
- Hire handlers with positive attitudes and who exhibit empathy towards pigs.

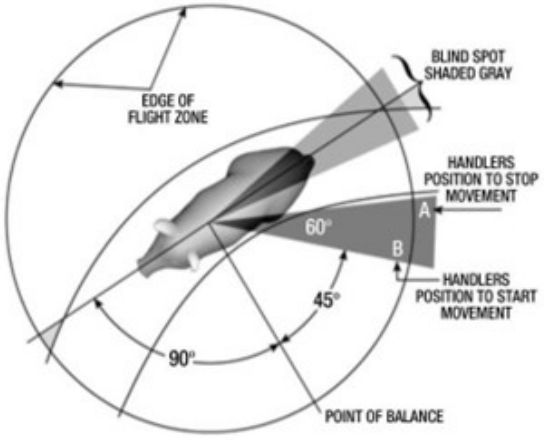
**Regulations Guidance on Humane Animal Handling Specific to Pig**

**External ramps and gangways must be:**

- used when needed
- designed and constructed to promote the humane treatment of animals
- designed for the activity and the specific species for which it is intended
- well maintained
- able to bear the weight without collapsing, twisting, breaking or bending
- equipped with side rails strong and tall enough to prevent animal falls
  - side rails are not required if an animal is loaded/unloaded individually in a manner that is not likely to cause the animals suffering, injury or death
- have surfaces that prevent animals from tripping, slipping and falling
- positioned so that there is no gap through which an animal could trip, fall or escape
- the slope-from-horizontal for ramps, unloading apparatus, gangway, or chutes must not exceed
  - 25° in the case of porcine (includes hogs, sows, boars, etc).

**Flight Zone**

- The flight zone is the distance within which a person can approach an animal before it moves away.
- The flight zone area extends around and above the animal. The escape instinct is exploited to control the movement of livestock by moving or stopping it.
- Understanding and using this principle well is the key to handling livestock.
- Vision is the primary sense used by the animal to determine the limits of its flight zone.
- The animal needs to see what/who is putting the pressure on before it reacts to it.
- This is why the positioning of the handler is important.



### Age Specific Considerations

Extra caution needs to be exhibited when handling mature boars and sows within the trailer, as they can be extremely aggressive. Never let them get between you and the way out, and never turn your back on them.

### Tips

- Hogs can be one of the more challenging animals to move onto and off of transport trailers.
- Great patience is required when working with them.
- Due to their poor vision, pigs will often try to force their way through small openings. They will target in on small openings of light, especially if it is between the handler's legs. For this reason, solid handling devices such hog panels or witches capes should be utilized at all times. In an alley, the panel should be slightly narrower than the alley. Other moving aids are canvas slappers and plastic shakers.

This chart shows the suggested group sizes that pigs should be moved in. Research and experience has shown that the smaller the groups, the easier the pigs tend to move. For weaned piglets, 20 at a time. Nursery – 10, Market hogs 3 – 5, mature sows, gilts or boars 1 – 5 depending on the temperament and safety conditions.

| **SUGGESTED GROUP SIZED BY PIG TYPE**<br>(adapted from National Pork Board's TQA)<br>Group size will need to be adjusted based on width of alleys and ramps. | |
|---|---|
| PIG TYPE / SIZE | SUGGESTED GROUP SIZE |
| Weaned Piglets | 20 |
| Nursery Pigs | 10 |
| Finished / Market pigs | 3-5 |
| Sows / Gilts | 1-5* |
| Boars | 1-5* |
| *Depending on temperature and safety conditions, may require moving individually. | |

**Smart Pig Handling - Basic Pig Behaviour**

VIDEO LINK: https://youtu.be/QIMmxt-YbE8


**Smart Pig Handling - Basic Pig Behaviour Part 2**

VIDEO LINK: https://youtu.be/aeCS71Zznys

# SHEEP

## Codes of Practice

***Most handling procedures are stressful for sheep.***

***Understanding the behaviour of sheep facilitates handling, leading to reduced stress and injury and improved handler safety.***

Sheep:

- are sensitive to the predictability and familiarity of their environment. Sudden changes can easily saartle sheep. Likewise, the handling environment will affect their responses.
- are social animals with very strong flocking and following instincts, and these behaviours can be utilized to facilitate handling procedures.
- are less stressed when handled in groups
- have a flight zone in which they try to distance themselves from the handler
  - a safe distance to follow behind the flock is about three body lengths (3-4 metres)
- using positive reinforcement during handling (e.g. a food reward), habituating sheep to the handling area and using familiar handling system layouts; can help to reduce the stress of handling procedures and the use of dogs and humans as fear-inducing stimuli
- unfamiliar humans, movement, shouting and proximity to dogs, particularly if barking, can cause fear
- are capable of learning from one experience and can remember good and bad experiences
- have a strong ability to recognize individual people; therefore, fostering positive human-sheep interactions is important for animal welfare.

Reducing the fearfulness of sheep when handled can:

- increase handling efficiency
- reduce the incidence of injuries
- create a calmer flock and
- improve performance.

Use the minimal amount of restraint possible when handling sheep (e.g. hand restraint under the jaw).

**Do not lift, drag or pull sheep by the fleece, tail, legs, ears, neck or horns as this can cause pain and bruising. In an open area, a crook can be used to catch a sheep momentarily by the neck or leg.**

**Requirements**

- All stock people must be competent in sheep handling techniques and have an understanding of sheep behaviour, or be under the direct supervision of an experienced stockperson.
- Stockpeople must work calmly and quietly with sheep at all times; this includes minimizing noise (e.g., from people, herding dogs and equipment) as much as possible.
- Plan procedures to minimize the frequency, duration and degree of restraint.
- Sheep must be handled at all times in such a way as to minimize the risk of pain, injury, or distress. For example, sheep must not be
  - dragged or lifted by the fleece, tail, legs, ears, neck or horns
  - grabbed by the fleece
  - held on their side or back for more than a few minutes at a time especially if the rumen is full or if they are heavily pregnant.
- Electric prods are ineffective and must not be used on sheep.
- Mistreating animals is unacceptable. This includes, but is not limited to
  - kicking
  - striking
  - slamming gates on sheep.
- Electro-immobilization must not be used.

**Recommended Practices**

- Use a well-designed, easily operated handling system, designed specifically for sheep, that is appropriate in size and scale to suit the flock numbers.
- Ensure handling facilities and equipment are in place and in good working order.
- Familiarize sheep with the handling facilities to help facilitate willingness of the sheep to enter the handling system.
- Consider positive reinforcement (e.g. feed rewards) to encourage positive response for future handling.
- Take advantage of the natural behaviour to encourage free movement.
- Employ methods on farm to help sheep become accustomed to the presence of people.
- Minimize isolation of individual sheep.

**Regulations Guidance on Humane Animal Handling Specific to Sheep**

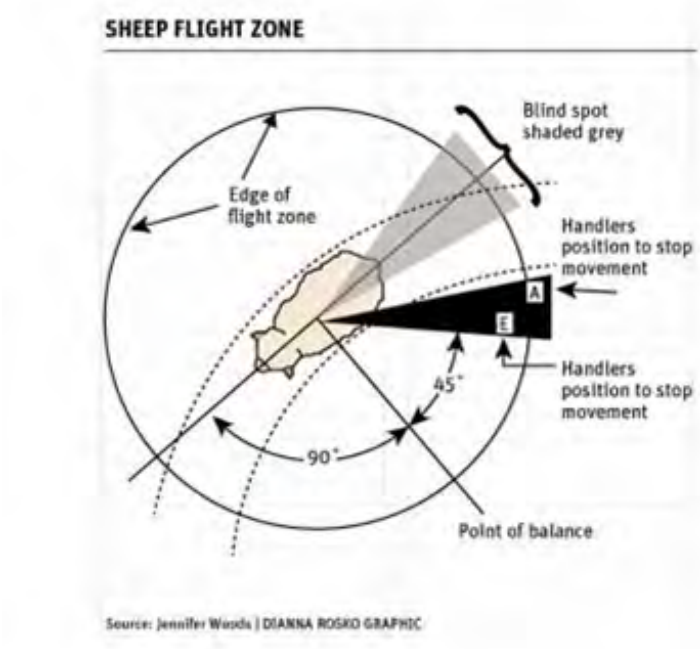
**Prod use is not allowed when working with sheep.**

**External ramps and gangways must be:**

- used when needed
- designed and constructed to promote the humane treatment of animals
- designed for the activity and the specific species for which it is intended
- well maintained
- able to bear the weight without collapsing, twisting, breaking or bending,
- equipped with side rails strong and tall enough to prevent animal falls
  - side rails are not required if an animal is loaded/unloaded individually in a manner that is not likely to cause the animals suffering, injury or death
- have surfaces that prevent animals from tripping, slipping and falling
- positioned so that there is no gap through which an animal could trip, fall or escape
- the slope-from-horizontal for ramps, unloading apparatus, gangway, or chutes must not exceed
  - 35° in the case of a cervid (includes deer, elk, etc.) caprine (goats) or ovine (sheep).

### Flight Zone

- The flight zone is a response to visual pressure, so the handler must stand where the sheep can see them. Sheep have a blind spot directly behind them.
- The best place to stand is off to the side of the animal, within its line of vision
  - when the handler is outside the flight zone, the animal will turn to face you – the animal is aware of the fact you are there, but is not motivated enough to begin to move away.
- As soon as you enter the flight zone, the animal will begin to move away. This is where you want to stay for the animal to move calmly. It is normally a matter of just one step, and they will begin to move.
- If you penetrate the flight zone too deeply, the animal will panic and react frantically. This could include charging the handler or running into gates or fences. This is dangerous for both the handler and the animals.
- Size of the flight zone can vary based on the disposition of the animal, familiarity of the handler or facilities, current environment (i.e. lambs at foot), handler's behaviour, injury or illness or previous experience.
- Sheep confined in small spaces have smaller flight zones than those housed in larger areas. This is because the handler must be closer to the animals in smaller spaces than in a large facility where the sheep feel there is a safer distance between them and the handler.
- Frequent gentle handling tends to diminish the size of the zone.
- Sheep without any flight zone are very difficult to work.




### Point of Balance

- Point of balance is at the animal's shoulder.
- Animals will move forward if the handler stands behind the point of balance.

If the handler is in front of the shoulder, the animals will go backward.

- Sheep will usually refuse to move forward if they see people standing in front of them.

*Click the link to read* 'Sheep are Smart, Handlers Should be Too' by Barb Glen, The Western Producer.

**Age Specific Considerations**

Allow extra time and care for newborns or weaned lambs.

**General Tips**

- Sheep cannot be handled like cattle. They need to be handled like sheep.
- Sheep must never be grabbed, lifted or pulled by their fleece - this is referred to as wool pulling. This is painful for the animal and will cause carcass damage. They also must not be lifted by their head, horns, tail or ears.
- To keep sheep moving, make sure there is always a clear way ahead. Sheep will also stop completely or stop moving forward when they see sheep moving in the opposite direction.
- Sheep move to other sheep willingly.
- Sheep move away from workers and dogs.
- If given a choice, sheep prefer to move over flat areas before going up an incline or down one.
- Sheep flow better through facilities if the same flow path and flow directions are maintained each time the facility is used.
- Sheep will balk or stop moving forward when they see sheep moving in the opposite direction.
- Sheep will move faster through a long narrow pen or area than a square pen.
- Sheep move better through the race (chute) if they cannot see the operator.
- Sheep react negatively to loud noises, yelling and barking.
- Young sheep move through facilities easier when their first move through is with well-trained older sheep.
- Lead sheep are very effective and efficient for moving sheep.
- One sheep can be trained to lead the others to the barn, on and off trailers or other pastures.

**Tips for Moving Sheep**

- Always move sheep slowly, calmly and quietly.
- To keep sheep moving, ensure there's always a clear way ahead.
- Sheep don't like visual dead ends – they don't move freely toward them.
- Sheep move best from dark into light and generally dislike changes in light contrast.
- Lighting coming up from under gratings make sheep uncomfortable because of their poor depth perception. Thus, gratings at woolshed doors should be laid so the floor looks solid to the sheep.
- If you don't have handling dogs, small groups of sheep can be trained to come on vocal commands or at the rattle of a bucket.
- Most sheep will come if they think they are getting grain to eat.
- If it's necessary to go out to the field to get the sheep, either drive them from behind or lead them with a bucket of grain.
- If sheep are unfamiliar with where they are going, several people may be needed as herders.
- Hold sheep under their jaw and lift their dock to move individual sheep.

**Sheep Handling Equipment**

VIDEO LINK: https://youtu.be/CTdPozGncNE

# GOAT

## Codes of Practice

***Handling can be stressful to goats, even when conducted for health and welfare reasons.***

***Awareness of goat behaviours will facilitate handling and reduce stress and injury to goats and stock people.***

### Goats

- Have a natural flight zone from stock people
  - an effective distance to follow a herd to encourage calm forward movement is 3–4 m.
- Using positive reinforcement during handling (e.g., a food reward) and habituating goats to handling areas by using familiar equipment can reduce stress during handling procedures.
- Unfamiliar humans, movement, shouting, and the presence of dogs—particularly if barking—can cause fear.
- Learn from, and may remember, good and bad experiences.
- Have a strong ability to recognize and remember individual humans, therefore fostering positive human-goat interactions is important for animal welfare.
- Are less stressed when handled in groups.

### Being aware of goat behaviours will:

- facilitate handling
- reduce stress and injury for goats
- reduce stress and injury for stockpeople.

### Suggested equipment for restraining in place includes:

- a halter
- stanchion/head gate
- headstall
- handling chute suitable for goats.

**Goats are never to be lifted, dragged, or pulled by the tail, legs, ears, horns, neck, or skin/hair.**

### Requirements

- All stockpeople must understand goat behaviour and be competent in goat handling techniques.
- Stockpeople must always work calmly and quietly with goats using the minimum force necessary.
- All methods of restraint must allow for the quick release of the goat(s).
- Goats must be handled at all times to minimize the risk of pain, injury, or distress.
- Goats must not be subjected to mistreatment (including kicking, hitting, or tail twisting).
- Electric prods must never be used.
- Goats must not be left unattended while restrained.

**Recommended Practices**

- Use well-designed and maintained handling systems and equipment.
- Familiarize goats with handling equipment and provide positive reinforcement to encourage preferred responses to future handling.
- Use goats' natural behaviours to encourage free movement to desired pens or other locations.
- Supervise goats crowded in races (alleyways), pens, or yards for handling purposes.
- Minimize the isolation of individual animals. Goats should be able to see, smell, and hear other goats whenever possible and be returned to their herds as soon as possible.
- Plan procedures to avoid extreme weather conditions and to minimize the frequency, duration, and degree of restraint.
- Avoid inverting or holding goats on their sides or backs for longer than necessary during procedures. Care should be taken if the rumen is full or the animal is heavily pregnant.

**Regulations Guidance on Humane Animal Handling Specific to Goats**

**External ramps and gangways must be:**

- used when needed
- designed and constructed to promote the humane treatment of animals
- designed for the activity and the specific species for which it is intended
- well maintained
- able to bear the weight without collapsing, twisting, breaking or bending,
- equipped with side rails strong and tall enough to prevent animal falls
  - side rails are not required if an animal is loaded/unloaded individually in a manner that is not likely to cause the animals suffering, injury or death
- have surfaces that prevent animals from tripping, slipping and falling
- positioned so that there is no gap through which an animal could trip, fall or escape
- the slope-from-horizontal for ramps, unloading apparatus, gangway, or chutes must not exceed
  - 35° in the case of a caprine (goats).

**Requirements**

- Ramps used for loading/unloading must be able to bear the weight of the animals, have side barriers that inhibit jumping, have secure footing, be placed with no gap between the ramp and vehicle, and have a slope that does not exceed 35 degrees.

**Prod use is not allowed when working with goats.**

**Handling System**

**Goats**

- Do not flow through a handling system as smoothly as cattle and sheep.
- Tend to rush toward an actual or expected opening.
- Readily drop to the ground under crowding pressure and are at greater risk from trampling and smothering.
- Should be handled quietly. Goats will startle at sudden, loud, or unfamiliar sounds.

### A Good Handling System

A good handling system contributes to lowering both animal and human stress:

- longer chutes tend to cause crowding and trampling at the forward end and should be divided into sections with stop gates
- an adjustable chute will allow for handling small goats and kids through to large bucks and goats with horns
- sides of the chute should be smooth and solid to prevent climbing and to encourage forward movement.

### Requirements

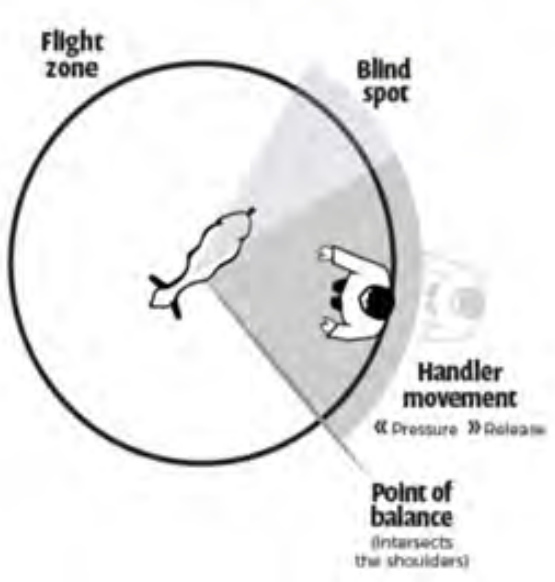
- Handling equipment or method of restraint must not cause injury or unnecessary stress to goats.

### Recommended Practices

- Ensure that handling systems are suitable for goats.
- Use a chute with solid sides to contribute to easier movement and prevent the entrapment of horned goats.
- Walk the route and look for things that may cause distractions or balk before moving goats.
- Provide sufficient area and a clear, well-lit path for goats to move in desired directions.
- Ensure equipment is designed to minimize noise.

### Flight Zone

- The goat's personal space, if entered, will cause the goat to move away.
- Past experiences impact how large the flight zone will be
  - goats that are not used to humans and are being handled will have a larger flight zone than those that are routinely handled (using appropriate low-stress techniques).
- Understanding a stockperson's impact on the animal response will make handling goats less stressful
  - stockperson entering the flight zone is called pressuring
  - stockperson leaving the flight zone is called releasing
  - if the stockperson moves into the flight zone, the animal will move in a direction to avoid the stockperson.



**Point of Balance**

- The point of balance in most livestock is at the shoulder.
- Animal will move forward if the stockperson stands behind the point of balance and backward if the stockperson is ahead of the point of balance.

## HORSE

**Codes of Practice**

***These indications are particularly relevant to handling groups of horses or single horses not on a halter. Handling should be based on the concepts of the field of vision, flight zone and point of balance.***

***Horses evolved as prey species and have a strong fight-or-flight response. When frightened, horses will generally flee. However, they may become aggressive if they feel they cannot flee.***

**Horse welfare and handler safety are improved when handlers respond promptly to signs of fear and agitation in horses.**

Some examples include:

- tail swishing/wringing in the absence of flies
- the whites of the eyes are more visible
- sweating with minimal physical exertion
- flared nostrils or wrinkling at the mouth or nose
- both ears laid flat back
- pawing or striking
- running away from or charging at the handler
- vocalizations (e.g. snorting, squealing, calling)
- head held very high
- kicking or turning the hindquarters toward the handler.

**Requirements**

- Handlers must be familiar with equine behaviour and competent in humane handling techniques either through training, experience or mentorship.
- Horses must be handled in a manner that does not subject them to avoidable pain or avoidable injury.

**Recommended Practices**

- Understand and apply the concepts of the field of vision, flight zone, and point of balance
- Avoid sudden actions or noises that may startle or frighten horses. Horses have sensitive hearing.
- Provide adequate lighting so that horses do not balk at shadows or poorly lit areas.
- Approach an unfamiliar horse carefully and at the shoulder (not the rear). Generally, horses are accustomed to riders/handlers approaching, mounting and leading on the horse's left side.

**Regulations Guidance on Humane Animal Handling Specific to Horses**

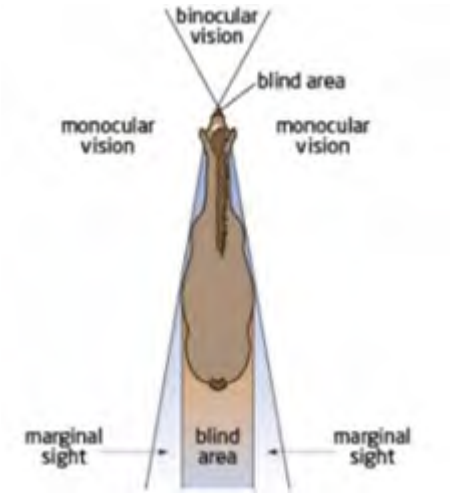
**Prod use is not allowed when working with horses.**

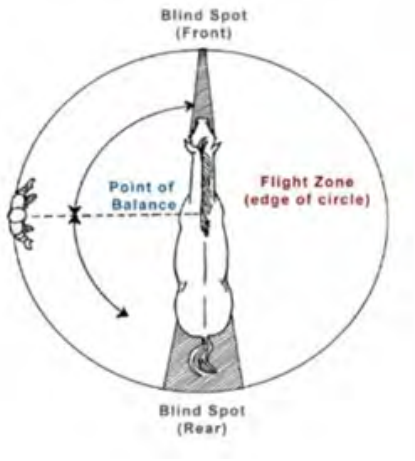
**External ramps and gangways must be:**

- used when needed
- designed and constructed to promote the humane treatment of animals
- designed for the activity and the specific species for which it is intended
- well maintained
- able to bear the weight without collapsing, twisting, breaking or bending
- equipped with side rails strong and tall enough to prevent animal falls
  - side rails are not required if an animal is loaded/unloaded individually in a manner that is not likely to cause the animals suffering, injury or death
- have surfaces that prevent animals from tripping, slipping and falling
- positioned so that there is no gap through which an animal could trip, fall or escape
- the slope-from-horizontal for ramps, unloading apparatus, gangway, or chutes must not exceed
  - 30° in the case of an equine (includes horses, donkeys, etc).

**Flight Zone**

- The flight zone is the distance within which a person can approach an animal before it moves away.
- The flight zone area extends around and above the animal. The escape instinct is exploited to control the movement of livestock by moving or stopping it.
- Understanding and using this principle well is the key to handling livestock.
- Vision is the primary sense used by the animal to determine the limits of its flight zone.
- It needs to see what/who is putting the pressure on before it reacts to it.
- This is why the positioning of the handler is important.




- This is the space surrounding a horse that, when penetrated, causes the horse to move to re-establish a comfortable distance.
- Low-stress handling is based on applying and releasing pressure on the edge of the flight zone ideally never penetrating the zone so aggressively that the horse becomes frightened and "takes flight".
- You have entered a horse's flight zone the moment your approach causes the horse to move away. As a horse becomes more fearful, its flight zone will increase.

**Point of Balance**

- The point of balance is located in the shoulder area of the horse. The handler should stand behind the point of balance at the shoulder to make the horse go forward and stand in front of the point of balance at the shoulder to make an animal back up.

**Field of Vision**

- When looking to the side, horses have monocular vision (each eye can operate independently). When looking forward, they have binocular vision (eyes operate in tandem).
- Horses take longer than humans to adjust to changes in light intensity and they have poor depth perception so may balk at shadows or puddles.

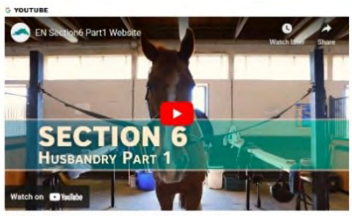

Horses are different from other protein-producing species as they are often trained for use in sports, recreation and work. Horses arriving at auction markets and processing plants come from various backgrounds and with various degrees of training or handling. Always use caution and, in most cases, treat the animals as though they are not gentle or halter trained.

Horses are most effectively and safely approached from the side, particularly the left side, rather than directly in front or behind.

Some animals, such as stallions, may be aggressive/defensive by nature. They may strike out or bite even when not threatened.

**Equine Husbandry**

VIDEO LINK: https://youtu.be/pWqOn9C-ols



EN Section6 Part1 Website

## BISON

**Codes of Practice**

***Desired Outcome***

***For bison to experience minimal stress, discomfort, or injury while handling, necessary husbandry tasks are appropriately conducted safely and efficiently.***

*Click the link to read the* NFACC Bison - Code of Practice

**Bison can be handled safely without injuries or death loss. However, they are not cattle and must be handled with caution.**

**This can be achieved with functional facilities and experienced handlers.**

- Bison should always be handled with care in a patient and relaxed manner.
- There is less risk of injury to animals and humans when bison are handled calmly and quietly.
- Bison with a history of gentle handling will also be easier to handle in the future.
- Experienced handlers who are aware of bison behaviour (including herd instinct, flight zone responses, natural reactions to novel experiences, and susceptibility to fatal stress/capture myopathy) will be able to move bison more smoothly
  - this will also decrease stress and promote bison welfare.
- While it is important that handlers work without delay once animals are restrained during processing, it is equally important that bison not be hurried or pushed forward too quickly beforehand
  - animals that become stressed during the lead-up to restraint are more likely to injure themselves or others and/or balk.
- Habituating bison to handling areas by providing water in catch pens, for example, may help to reduce stress during round up
  - driving out to herds and providing small amounts of grain weekly will make bison quieter around vehicles and easier to bait into handling areas, if necessary.

**Requirements**

- Animal handlers must be familiar with normal bison behaviour (through training, experience, or mentorship) and use quiet handling techniques.
- Electric prods must only be used to assist the movement of bison when an animal or human safety is at risk or as a last resort when all other humane alternatives (e.g., flags) have failed, and only when bison have a clear path to move.
- Electric prods must not be routinely carried while handling bison.
- Electric prods must not be used on sensitive areas such as the genitals, face, udder, or anal regions.
- Electric prods must not be used on calves less than 12 months of age.
- Wilful mistreatment or intentional harm of bison must not occur. This includes, but is not limited to, beating an animal, slamming gates on animals, and dragging or pushing bison with machinery (unless to protect animal or human safety).

**Recommended Practices**

- Avoid using an electric prod more than once on the same animal .
- Initiate attempts to move animals using handler body movements only, applying knowledge of flight zones, followed by the use of further handling aids if needed.
- Use visual handling aids such as waving devices like fibreglass rods or sticks (with flags or plastic bags attached) and panels to direct animal movement.

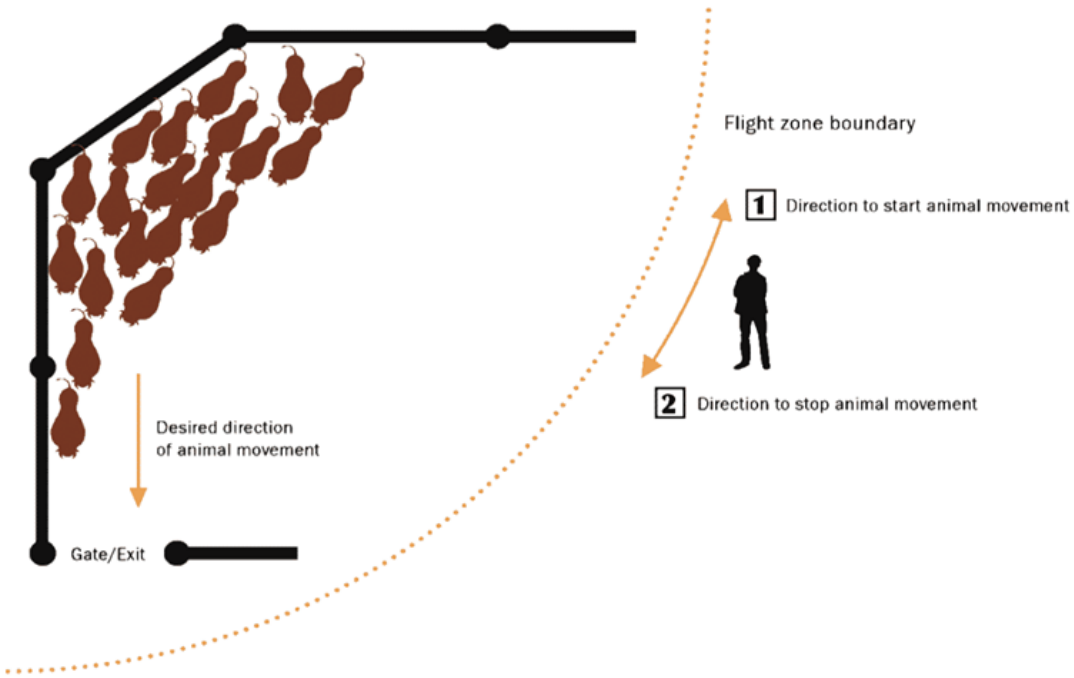
**Regulations Guidance on Humane Animal Handling Specific to Bison**

**Prods are only used on bovines and are allowed only on specific sections of the hindquarters of large bovines of at least 3 months of age.**

**External ramps and gangways must be:**

- used when needed
- designed and constructed to promote the humane treatment of animals
- designed for the activity and the specific species for which it is intended
- well maintained
- able to bear the weight without collapsing, twisting, breaking or bending
- equipped with side rails strong and tall enough to prevent animal falls
  - side rails are not required if an animal is loaded/unloaded individually in a manner that is not likely to cause the animals suffering, injury or death
- have surfaces that prevent animals from tripping, slipping and falling
- positioned so that there is no gap through which an animal could trip, fall or escape
- the slope-from-horizontal for ramps, unloading apparatus, gangway, or chutes must not exceed
  - 25° in the case of a bovine (includes dairy and beef cattle, bison, water buffalo, etc).

**Flight Zone**




1. The flight zone is the critical distance at which an animal, or group of animals, will attempt to escape the approach of another animal, human, or object
   a. understanding the flight zone will help to reduce bison stress and prevent accidents or injuries to animals and handlers
   b. since bison become highly stressed and flightier when isolated, it is always best to move bison in groups.

2. The flight zone of bison tends to be much larger than cattle
   a. as a result, handlers should be able to move bison with comparatively less noise, speed, and body movement
   b. when a handler approaches the flight zone of a group, most bison will usually turn and prepare to move away. However, if some begin to move, an innate follower response will often trigger others to move
   c. a group of bison can be moved most effectively if handlers apply minimum pressure (e.g., noise or movement) from along the edge of the flight zone (see positions 1 and 2).
3. Whenever possible, handlers should work bison from one side only and preferably from outside of the pen
   a. handlers should not stand directly behind a group (i.e., in their blind spot)
   b. bison reactions to the penetration of their flight zone will vary depending on group makeup, size, and location (e.g., corral, pen, field)
   c. handlers should always avoid deep penetration of the flight zone as this may cause panic and trigger escape attempts
   d. panic behaviour, typified by excessive and disoriented running, will increase the risk of animals colliding with fences and corrals and becoming injured
   e. bison handlers should always have an escape route available in case bison charge.

**Tips**

- Bison are not domesticated like other livestock species.
- Bison revert very quickly to instinctive behaviour when they perceive to be threatened.
- They cannot be handled or 'pushed' like cattle. Too much pressure will cause them to attempt to flee or attack.
- Forcing them in a specific direction will lead to the perception they are going to be trapped.
- Bison do everything at a run, and they cannot be stopped.
- Do everything you can to reduce their speed or ability to gain momentum during handling.
- This is for your safety but also for their safety. Speed kills.
- Work bison in small groups. Yearlings are best worked in groups of 3 or 5 because there is one animal that does not succeed in pairing up and will therefore be more prone to take cues from you in terms of direction of movement.

***Show extreme caution when working with bison within a trailer. It is not safe for handlers to enter and try to move bison out.***

***Often the handler needs to open the gates and wait for the bison to decide to unload.***

**Bison Care and Handling**

VIDEO LINK: https://youtu.be/aFISHb_d2iU

# ELK

## Codes of Practice

***Deer should be handled quietly and with care and patience. Familiarizing deer with handling facilities and management routines from an early age reduces apprehension.***

***Deer are often calmer when handled under reduced lighting and in covered sheds.***

*Click the link to read the* NFACC Elk - Code of Practice

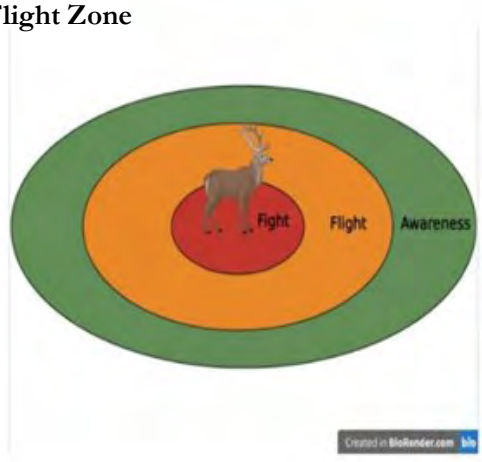
- Large groups of deer should be broken into smaller groups of 10 to 15 or less for handling on entering the yards.
- A minimum number of people should handle deer. Unusual noises should be discouraged.
- Once groups have been established, changes in composition should be minimized. If possible, new animals should be added in groups rather than singly.

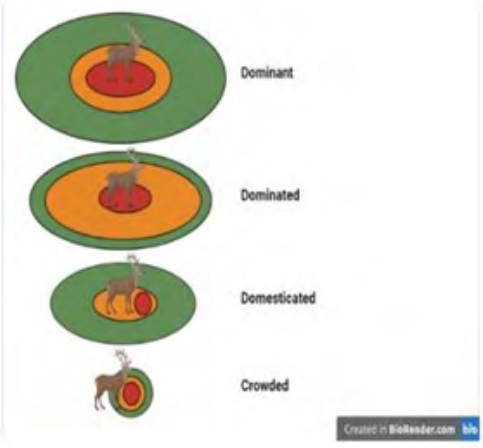
## Regulations Guidance on Humane Animal Handling Specific to Elk

**External ramps and gangways must be:**

- used when needed
- designed and constructed to promote the humane treatment of animals
- designed for the activity and the specific species for which it is intended
- well maintained
- able to bear the weight without collapsing, twisting, breaking or bending
- equipped with side rails strong and tall enough to prevent animal falls
  - side rails are not required if an animal is loaded/unloaded individually in a manner that is not likely to cause the animals suffering, injury or death
- have surfaces that prevent animals from tripping, slipping and falling
- positioned so that there is no gap through which an animal could trip, fall or escape
- the slope-from-horizontal for ramps, unloading apparatus, gangway, or chutes must not exceed
  - 35° in the case of a cervid (includes deer, elk, etc).

## Flight Zone



### Flight Zone

- The flight zone is the critical distance at which an animal, or group of animals, will attempt to escape the approach of another animal, human, or object
  - understanding the flight zone will help to reduce elk stress and prevent accidents or injuries to animals and handlers.
- Since elk become highly stressed and flightier when isolated, it is always best to move elk in groups.
- The flight zone of an elk tends to be much larger than cattle
  - as a result, handlers should be able to move elk with comparatively less noise, speed, and body movement.
- When a handler approaches the flight zone of a group, most elk will usually turn and prepare to move away. However, if some begin to move, an innate follower response will often trigger others to move as well
  - a group of elk can be moved most effectively if handlers apply minimum pressure (e.g., noise or movement) from the flight zone's edge.
- Elk reactions to the penetration of their flight zone will vary depending on group makeup, size, and location (e.g., corral, pen, field)
  - the rank of the animal will also influence the size of its zones
  - handlers should always avoid deep penetration of the flight zone as this may cause panic and trigger escape attempts
  - panic behaviour, typified by excessive and disoriented running, increases the risk of animals colliding with fences and corrals and injuring.
- Elk handlers should always have an escape route available in case elk charge.

### Tips

- Moving elk means directing and leading them, not chasing them.
- Elk are not aggressive by nature unless they feel threatened by a predator or pressured too hard.
- Elk are best handled by a single individual with whom they are familiar.
- More people equal elevated stress.
- Ideally handling systems are set up so handlers are never in an alley or pen with them.

**During transport elk need room and cannot be crowded.**

The link below will bring you to the CRAAQ website.

The site provides a pay-to-watch video regarding Red Deer Handling from the Federation of Quebec Big Game Breeders.

### Red Deer Handling Video

*Click the link to visit the* CRAAQ website.

## SELF EVALUATION

***Evaluate your livestock handling techniques regularly and make improvements to them as needed.***

**"You can only improve what you measure."** - Dr. Temple Grandin

**Factors to consider include the percentage of animals:**

- falling (belly or torso touches the ground) during handling
- stumbling or tripping (knee contacts ground) after being released from the chute
- requiring the use of electric prods to move
- running or jumping when leaving the chute
- vocalizing as a result of restraint.

Increasing levels of the above handling events may indicate a need for lighting, noise levels, equipment, handling methods, or environment changes.

**Indicators of Good Handling**

Assess your handling technique and make/propose improvements to facility design, flooring and handlers' techniques using the following objectives.

**Source:** Gestbeau - *Livestock transport & Auction Market staff training 02-22-2021*

| | 30 head pen | Small trailer (10 head) | Large trailer (35 head) |
|---|---|---|---|
| Balking | ≤ 1-2 /pen | ≤ 1 per 2 trailers | ≤ 1-2 / trailers |
| Slip | ≤ 1 per 3 pens | ≤ 1 per 10 trailers | ≤ 1 per 3 trailers |
| Fall | ≤ 1 per 3 pens | ≤ 1 per 10 trailers | ≤ 1 per 3 trailers |

- less than 5% of animals are balking
- less than 1% of animals slip
- less than 1% of animals fall
- (i.e. their bodies touch the ground)

**Self Audit**

**You can approach the self auditing exercise in a more formal and documented manner.**

**Self audits are a good introspection tool; when well documented, you can track your progress from time to time.**

Here is a more detailed list of items you could use to self assess, inspired by the Bison welfare audit (Appendix E) of the Bison Code of practice.

A. Electric prod usage
B. Collision with head gate
C. Chute exit speed
D. Injury
E. Crowding

**Questions to ask yourself:**

1. Did animals move at a slow pace from the pasture/pens to the holding/loading area?
2. Animals moved into the corral system at a reasonable speed?
3. Were the animals calm in the corral on their way to processing?
4. Personnel moved slowly without making excessive noise?
5. Animals were moved through corral easily with one or two people?
6. Post processing animals received ample space, water and feed?

7. Was panting observed on some animals in the corral or while handling?
8. Excessive pocking, beating on, or multiple electric prod use on animals occurred?
9. Serious animal injuries happened during handling?
10. Did the handling and loading equipment require modifications or repairs?

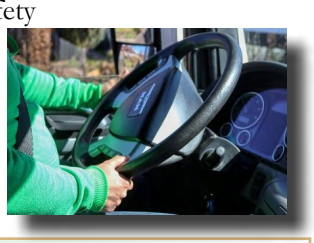
# 4 COMMON CONTINGENCY PLANNING

## COMMON CONTINGENCY

Although the goal of each animal hauler is to get the animals to their destination safely and in a timely manner, risk factors do exist with each load transported. Drivers must not only make themselves aware of these risk factors and try to mitigate them, but they must also have a plan in place to deal with situations if they should occur.

In the event of an emergency, drivers have a responsibility towards the animals, the company and the agriculture industry. These responsibilities include:

- being aware and prepared to handle emergencies
- ensuring the transporter's personal safety and an awareness of public safety
- responding to the situation professionally
- ensuring the well-being and humane treatment of the animals
- protecting company property (i.e. animals, equipment)
- projecting a positive perception of the company and industry.



**Regulations**

***Humane animal transportation is complex and dynamic.***

***Things can go wrong.***

***Responding appropriately to an evolving situation requires knowledge, skill, and planning.***

*Click the link to read*: Health of Animals Regulations Part XII: Amendment to the Transportation of Animals Regulations Guidance Document for Regulated Parties.

Under the Health of Animals Act Part XII, commercial haulers and those who transport animals during business are required to have contingency plans.

By being prepared, the driver will respond effectively when an emergency can't be prevented and lessen the impact of the delay on the animals and on themselves.

**What is a Contingency Plan?**

A **contingency plan** is a set of actions to address unusual or unexpected transport events.

The regulation does not specify what situations a contingency plan must cover specifically.

However, the Health of Animals Act Part XII mentions:

- compliance will be evaluated on whether the contingency plan was available and implemented
- the plan should anticipate events that could happen and decide proactively what actions would need to be taken to address the situation
- everyone concerned by the plan should understand its goal
- the plan must be practical and realistic and include a clear communication plan.

Any person who is required to have a contingency plan will inform all employees and agents or mandataries who load, confine, transport or unload animals or who take part in decision-making or advising the person operating the conveyance, in respect of the loading, confining, transporting or unloading of animals of the contingency plan.

The following section presents the three main components of the emergency plan:

- purpose of the plan
- risk factors and potential hazards
- communication.

**Content of the Emergency Response Plan**

**Purpose of the Plan**

All commercial **haulers** and people **transporting animals** in the course of **business**, or for **financial benefit**, such as producers hauling their animals to assembly, must have a contingency plain in place for the transport of their animals or the animals of their clients.

The main **purpose** of this plan is to **prevent** animal suffering, injury or death in transport.

**The transport of animals is completely different from other types of transport.**

**Working with living beings brings its own set of challenges and unforeseen events.**

- Animals are sentient beings that have biological needs.
- Animals react according to the environment they're in.
- Animal's state changes over time.
- Animals can be unpredictable.

***It is essential to control what we can and try to mitigate the impacts of uncontrollable elements. Consideration should be given to anything that could alter the original transportation plan. Once faced with an emergency, actions must be taken to regain control of the situation and limit repercussions on animals.***

**Risk Factors and Potential Hazards**

Each animal move is different because there are many diverse animal transportation risk factors involved, some that can be controlled, others that cannot:

- fitness of individual animals on-board
- age and characteristics of the animal
- relocation history of the animals
- distance of the planned journey
- environmental conditions
- detours, construction delays
- load configuration (weight & density)
- equipment failure
- sudden and unexpected complications.

By being **prepared** for an emergency before it happens and **understanding** how to **prevent** and **respond** to an incident involving animals effectively, the **welfare** and **safety** of the first responders, the handlers and the animals will improve dramatically.

**A combination of risk factors that go unchecked will increase animal welfare risk at some point during the journey.**

**If the needs of the animals are not taken care of, the result may be injury or death to individual animals or a significant portion of the load.**


| | Hazard Category |
|---|---|
| 1. | Human factor |
| 2. | Animal |
| 3. | Mechanical |
| 4. | Minor delay |
| 5. | Major delay |
| 6. | Environmental conditions |
| 7. | Minor accident |
| 8. | Major accident |
| 9. | Incident at plant |
| 10. | Activists |

**The probability (P) and impact (I) of each risk can be evaluated with respect to humans (H) and animals (A):**

**Probability (P)**

**1 - Very likely**

**2 - Likely**

**3 - Unlikely**

**Impact (I)**

**MH-Major Human**

**mH-minor Human**

**MA-Major Animal**

**mA-minor Animal**

**This exercise allows for completing the emergency plan risk analysis and improving it. It also allows knowing what element should be prioritized to prevent significant risks with the greatest impact on animals and humans.**

**1. Human Factor**

**NOTE 1: This is an example of how it could look in your own contingency plan. Try to keep it simple but informative. A template is provided as an appendix in the manual.**

| Hazard | P | I | Mitigation Measure |
|---|---|---|---|
| Health status | 2 | MH, MA | Annual health check-up |
| Driver fatigue | 1 | MH, MA | • Respect of the maximum working hours (log completed adequately).<br>• Health breaks when necessary.<br>• Etc. |
| Distraction | 1 | MH, MA | • Postpone distractions to a better and more appropriate time. |

The above information results from a 2007 Canadian study of commercial livestock transportation accidents that concluded that driver error was blamed for 85% of the accidents.

**NOTE 2: We have filled up the boxes as an example. Your organization will have to adapt it to its own reality. This format is a suggestion; you are welcome to develop your own, although the principles and outcomes are similar.**

### Health Status

On the road, animal haulers are in charge of their trucks and the animals they transport. The arrival of the animals in good condition is directly related to the ability of the transporters to maneuver their truck properly and safely.

To do this, they must maintain good health. The likelihood of carriers' distress is minor (stroke, fainting, collapsing) but the consequences would be great on them and the animals. A healthy lifestyle and regular checkup are efficient mitigation measures to prevent emergency situations.

### Driver Fatigue

Causes of accident may include driver distraction, speed, poor driving habits and inadequate vehicle maintenance. However, the results of a 2007 study of commercial animal transportation accidents led to the conclusion that most accidents are caused by driver fatigue.

Learn to recognize the signs of fatigue may prevent accidents:

- cannot keep head up
- eyes won't stay open or go out of focus
- drift over the centre line or the shoulder line
- thoughts wander
- miss a road sign, exit or a gear
- don't remember passing certain landmarks or towns
- see things that are not there
- reflexes begin to slow.

### Distraction

**Distractions must be avoided at all times.**

This includes, but is not limited to, texting, eating, drinking, talking on the phone, reading and reaching for items on the floor or across the seat.

Basically, any other task that interferes with your driving and split your focus.

**Becoming aware of the most common human causes of accidents is one of the keys to accident prevention:**

- ensure sufficient sleep is obtained each day
- if you drive during the night, ensure your schedule allows for a quiet, restful sleep during the day
- taking power naps lasting 15 - 20 minutes can be beneficial
- eat a balanced diet and have regular mealtimes. Drink plenty of water and exercise
- regular medical check-ups are important
- if you feel too drowsy to drive pull over and contact your dispatcher and inform them of the situation
- take frequent breaks if necessary. Stop and stretch for 5 minutes
- do not take over-the-counter stimulants to ease drowsiness
- keep the truck cab comfortable, but not too warm. Heat may make a person feel tired. Allow fresh air into the cab and turn on the radio or play music.

**2. Animal Factor**

| Hazard | P | I | Mitigation Measure |
|---|---|---|---|
| Animals becoming non-ambulatory or fatigued during transport | 1 | MA | • Only animals fit for transport are loaded into the trailer.<br>• Positive, nonaggressive handling of animals at all times.<br>• Minimize the use of electric prods and use them only as a last resort. |
| Animal at risk | 3 | MA | • An ambulatory animal, but with some minor risks, may be transported under certain conditions, and if its comfort and safety are not compromised. Driver needs to record animal condition and special conditions taken. |
| Feed, water and rest | 2 | mA | • Ensure that feed and water withdrawal guidelines have been followed. Record details.<br>• Respect transport times accordingly as described in laws and regulations. |

Knowing that the **objective** of a contingency plan is to **prevent animal suffering**, injury or death in transport, animal factors should be a **central component** of it.

Living beings' **states evolve** with time and can **lead to an emergency**.

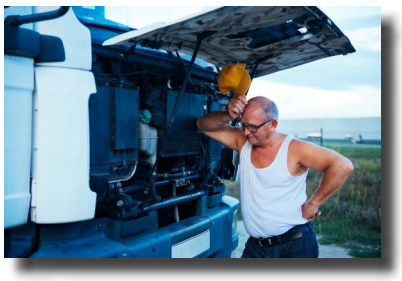
**Unfit** or **compromised animals**, weather, density, equipment and so on are all potential risks that could meddle with safe transport.

**Be sure to:**

- assess the condition of animals entering the trailer
- isolate at-risk animals (e.g., animals showing lameness)
- be aware of the day's weather conditions and adjust accordingly
- work with equipment that is in good condition to prevent animals from falling or escaping during loading and transport.

### 3. Mechanical

No one is immune to mechanical malfunctions. However, some actions can be taken upstream to limit the occurrence of these situations;



- drivers should perform a pre-trip inspection of the truck and trailer
- be satisfied that the motor vehicle is in safe operating condition before leaving
- if applicable, review the last Driver Vehicle Inspection Report and ensure any required repairs have been made.

| Hazard | P | I | Mitigation Measure |
|---|---|---|---|
| Engine failure | 3 | mA | • Mechanical aspect: maintenance done and recorded.<br>• Animal aspect: ventilation, define acceptable delays before requesting a reload in another vehicle. |
| Flat tire | 3 | mA | • Follow company flat tire procedure. |

In the case of a **mechanical breakdown** of the tractor, **determine** the nature of the breakdown and **estimate how long** the repairs will take.

If the **repairs cannot take place** at the site of the breakdown or they will take an extended period, **arrange for another tractor** to be sent to take the trailer.

If the **problem** is with the **trailer** (or if the unit is a straight truck and cannot be repaired on the road), the **animals must be transferred** to another unit to complete the journey.

**There are several considerations when transferring animals to another trailer:**

- assess the safety of the location. If it is a heavy traffic area or on a narrow road, have the unit towed to a safe area for transfer if possible
- can another semi-trailer manoeuvre close enough to do an end-to-end load or will a portable loading ramp be needed requiring the animals to be off-loaded into an open area and then reloaded? There may be circumstances where only smaller stock trailers can get to the disabled unit
- if the animals must be off-loaded and reloaded, ensure proper containment is available to hold the animals between trailers
- before any action takes place, call the local police or fire department for assistance with traffic.

### 4. Minor delay (less than an hour)

### 5. Major Delay

| Hazard | P | I | Mitigation Measure |
|---|---|---|---|
| Plant breakdowns resulting in delays in unloading | 1 | MA or mA | • Keep in touch with the plant dispatcher.<br>• The dispatcher communicates the information to the animal hauler.<br>• In case of a delay greater than one hour have the trucks circulate on the highway. |
| Road construction | 1 | MA or mA | • Research for intended routes.<br>• Look out for alternate routes.<br>• Contact the origin and the destination contact person to inform them of the nature of the delay and determine the best plan of action. |

Any incident that stops a loaded animal unit, from a minor delay at a construction site to a slaughterhouse breakdown resulting in delays, is cause for concern because loaded units depend on airflow to maintain an acceptable environment in the animal compartments.

Time in transit is a critical factor as well, and expedient delivery of a healthy load of animals to the destination point is the goal of every driver.

**Slaughterhouse breakdown resulting in delays.**

***THE TRANSPORTATION OF ANIMALS NEEDS TO BE PLANNED.***

***During transit, there may be delays at the slaughterhouse, delaying the unloading of the animals. Mitigation actions can be taken directly at the slaughterhouse, depending on the delay.***

***If the delay is longer, keeping the vehicle moving or even returning animals to the original loading site may be possible solutions. The animal hauler must communicate with the dispatcher when this situation occurs to determine what is best.***

**Road Construction**

In the case of road construction, the driver should investigate if there are any alternate routes.

If there is concern about the well-being of the animals, the driver should contact the local authorities and explain the animal situation to gain permission to move through or receive assistance to turn around.

Numerous factors need to be taken into consideration when determining how long animals can safely be left on a stationary trailer:

1. weather (see species specific module)
2. fitness of the animals
3. age of the animals
4. elapsed time since consumption of food and water
5. location of the delay (i.e., rural area vs. freeway)
6. time of day
7. safety of animals at current location.

**Main guidelines to follow:**

- Avoid known delays by researching intended routes.
- Plan alternate routes if necessary.
- The well-being and safety of the animals must be considered at all times.
- Do your best to keep the animals comfortable and safe.
- Constantly monitor the comfort and condition of the animal.
- Animals must be protected from extreme weather conditions.
- The driver should contact the origin and the destination contact person to inform them of the nature of the delay and determine the best plan of action.
- Keep the vehicle moving as much as possible.

### 6. Environmental Conditions

If the weather conditions are bad or create poor road conditions, the truck should be pulled over in a safe area, preferably where the animals will be protected from as much weather as possible.

The driver should park the truck far away from other traffic to reduce the risk of other vehicles hitting the unit.

The carrier should contact the dispatcher for steps to be taken based on the emergency.

| Hazard | P | I | Mitigation Measure |
|---|---|---|---|
| Snow storm | 2 | mH, MA | Travel only if safe;<br>• adjust truck tarp to suit conditions to protect animals, while ensuring minimum ventilation<br>• maintain contact with the slaughterhouse dispatcher<br>• re-route when conditions permit<br>• return animals to original loading site. |
| Ice storm | 2 | mH, MA | |
| Strong wind | 2 | mH, mA | |
| Severe thunderstorm | 2 | mH, mA | |
| Reduced visibility (for any reason) | 2 | MH, MA | |

### 7. Minor Accidents

### 8. Major Accidents

| Hazard | P | I | Mitigation Measure |
|---|---|---|---|
| Collision | 2 or 3 | mA, mH | Follow the general incident response procedure. |
| Uncomplicated off-road incident | 2 or 3 | mA, mH | Follow the general incident response procedure. |
| Complicated off-road incident | 2 or 3 | MH, MA | Follow the general incident response procedure. |
| Roll over | 2 or 3 | MH, MA | Follow the general incident response procedure. |

Accidents involving loaded animal units can be very serious, especially if injured and scared animals are accidentally released onto the roadway.

Minor accidents can be treated much like delays.

**Commercial Animal Transportation Accident Statistics**

- 59% of the accidents occurred between 12:00 midnight and 9:00 a.m.
- 80% involved a single vehicle.
- Driver error was blamed for 85% of the accidents.
- In 83% of the accidents, the vehicle rolled over.
- 84% of the trucks rolled to the right.
- Only 1% of the reports identified weather conditions as the cause of the accident and the winter months did not record the highest number of accidents.
- More accidents happened in October, followed by November, August, April and May.
- 56% of all accidents involved cattle trucks; 27% involved pigs and 11% poultry.

### Economic Losses to the Transporter

When a knowledgeable response team handles an accident, the economic losses to the transporter and animal owner can be significantly decreased because:

- fewer animals may need to be put down
- the salvage operation will protect the structural integrity of the trailer whenever possible
- the rescue and recovery procedure is performed efficiently.

### Serious Accidents

Serious accidents such as rollovers or collisions that result in animal escape are further complicated because of three factors:

- the accident scene is classified first as a motor vehicle accident with possible human injury. Within the original accident, there is an animal incident occurring simultaneously
- most first responders have limited or no experience in animal handling and recovery, especially scenarios involving stressed or injured animals
- in turn, most animal handlers have limited experience or training in rescue and recovery of stressed animals at the scene of an accident.

### What to Remember

Once rescue and recovery can begin, there are a few key points to remember.

- 84% of all rollovers roll to the right-hand side.
- Extrication procedures differ based on trailer positioning and style.
- Fire departments are in charge of cutting the trailer open.
- Never tear a trailer apart with a tow truck or winch.
- Never enter a rolled trailer loaded with animals.
- Never upright a loaded trailer.
- Do not load compromised or unfit animals - they must be euthanized at the scene.
- Deadstock removal is a user-pay service.

### Transport Vehicles Should Contain

All transport vehicles should contain:

- the emergency contact sheet
- emergency warning devices
- accident information sheet
- company accident policy sheet / Standard Operating Procedures
- fire extinguisher
- a spill kit.

**Incident Response**

The condition and welfare of the driver is the primary concern. If the driver is uninjured and physically able to do so:

1. Call 911 if the accident occurs on a public roadway or if emergency assistance is required for an on-farm incident. Advise the operator of the location of the incident, the fact you have animals on-board, and the status of any loose livestock. Suggest that police and fire approach the scene with sirens off, if possible.
2. In the event that the vehicle catches fire, call 911 immediately, attend to your personal safety and call your dispatcher. If you leave the vehicle take all documents with you.
3. Set out emergency warning devices immediately.
4. Call the designated company contact. If the company has a dispatch checklist for incidents, proceed through the list. If not, inform the dispatcher of the location of the incident, if there are any injuries, the condition of animals, the position of the trailer, the number of vehicles involved and if first responders are on the scene yet.
5. Call other designated contacts according to company protocol. **These could include but are not limited to:**
   - the insurance companies for the cargo
   - the vehicle
   - the destination.

   **Ensure you provide each contact with the same information.**
6. If the tractor and/or trailer are damaged and unable to move, proceed to point 7. If damage is minor, the trailer is upright and there are no injuries, take photos and record names and addresses of other people involved and witnesses.
7. Herd any loose livestock from the road and gather them in an area as far from traffic as possible.
8. Locate the incident reporting kit and camera. Take photos of the incident as soon as possible. Photographs should include pictures of road conditions, vehicle damage, trailer position, the overall scene, skid marks, curves, intersections and where the vehicle left the road (if applicable).
9. Provide as much protection and comfort for the animals as possible.
10. Release statements only to persons of authority (i.e. police, fire). Do not talk to media or bystanders about the incident or the load you are transporting.
11. **When first responders (fire/police /ambulance) arrive on the scene, brief them on the following incident details:**
    - any human injuries
    - type of animals
    - number of animals
    - status of any loose animals
    - known hazards
    - your company emergency plan (i.e. any resources on the way, company emergency numbers).
12. Respect the accident scene chain of command - assist if needed.
13. **Rescue and Recovery**

- 84% of all roll overs roll to the right-hand side. (Woods, 2007).
- Extrication procedures differ vastly for a liner that rolls on the left-hand side versus the right hand side - or - fat trailers versus standard commercial livestock trailers.
- Fire departments are in charge of cutting the trailer open.
- Never tear a trailer apart with a tow truck or winch.
- Never enter a rolled trailer loaded with animals.
- Never upright a loaded trailer.
- Do not load unfit animals following an incident. They must be euthanized at the scene.
- Deadstock removal is a user-pay service.

If damage is minor, the trailer is upright, and there are no injuries, take photos and record the names and addresses of other people involved and witnesses.

**Preventive actions to take into consideration any time animals are in transit:**

- do not allow the truck or trailer to get too close to the edge of the ditch while driving down the road or turning in or out of driveways
- always drive with care and awareness of the vehicles around you. Posted speed limits should be observed and speeds adjusted for current road, weather and traffic conditions. Do not tailgate, play road games with other drivers, pass illegally or attempt to beat traffic lights or railroad crossings
- a driver must always be aware of the hazards of driving on farm roads, as they are often narrow, with soft shoulders that may collapse under the weight of a heavy truck.

### 9. Incidents at the Plant

**Note: Animals waiting at the slaughterhouse are considered in transit; this section is less pertinent to the transporter but is a key element of the slaughter plant contingency plan.**

| Hazard | P | I | Mitigation Measure |
|---|---|---|---|
| Fire | 1 | MH, MA | • Sprinklers are in place in the animal holding area.<br>• If an evacuation of the premises is required:<br>  • evacuate humans safely<br>  • if possible, assist the fire department in the execution of the animal evacuation plan<br>  • the plan has been communicated and reviewed annually with the municipal fire department. |
| Gas leak | 1 | MH, MA | If evacuation was required:<br>• safely evacuate humans<br>• if possible, assist the fire department in carrying out the animal evacuation plan. |

While the animals are waiting at the slaughterhouse, emergencies such as a fire may occur that would lead to the evacuation of the animals on site.

If this happens, the animal hauler must work with the slaughterhouse to secure the loaded trucks.

These situations are part of the slaughterhouse's emergency plan, and the trucker must follow their procedures.

**10. Activists**

| Hazard | P | I | Mitigation Measure |
|---|---|---|---|
| Activist block the road | 2 | MH, mA | If no safe detour possible:<br>• remain calm and courteous<br>• remain in the vehicle and do not interact with protesters<br>• stop the trailer<br>• call 911<br>• call the recipient<br>• call the dispatcher. |
| Activists surround the trailer and demonstrate | 2 | MH, mA | • Stay in the vehicle and do not interact.<br>• Remain calm and courteous.<br>• Stop the trailer.<br>• Call 911.<br>• Call the recipient.<br>• Call the dispatcher. |

**The Animal Supply Manager will be responsible for promptly contacting truckers in transit to alert them of the situation.**

- Share details of the location of the protesters.
- Do not interact with them (do not talk to them, provoke them).
- The protesters will likely film their presence, as they want to make their actions public.
- If protesters block a truck, the driver should remain calm and call the factory, who will call the police if they are not already there.

## COMMUNICATION

If risk factors arise, despite the prevention measures in place, good communication between animal transport intermediaries must be in place to remedy the situation as quickly as possible.

***When an incident occurs, the condition and welfare of the driver are the primary concern.***

***They can begin the emergency procedure only when the driver is sure that the vehicle is in good condition.***

### Communication Documents

Important communication documents should be available in each truck:

- emergency contact sheet with 24-hour phone numbers for dispatch, insurance companies and deadstock services
- a list of resources that would be required in the event of an animal transport unit rollover such as snow fences for containment and stock trailers which will need to be provided to company dispatch and first responders.

### Emergency Devices

Once the emergency devices have been set, you will need to:

- call the designated company contact
- if the company has a dispatch checklist for incidents, proceed through the list
- if not, inform the dispatcher of the location of the incident, if there are any injuries, condition of animals, position of trailer, number of vehicles involved and if first responders are on scene yet.

### Designated Contacts

Call other designated contacts according to company protocol.

These could include, but are not limited to:

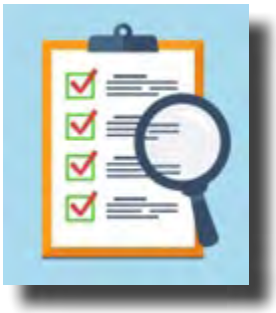
- the insurance companies for the cargo
- the vehicle
- the destination.

Ensure you provide each contact with the same information.

### Relevant Information

While you communicate with the interested parties, make sure to give all information that might be relevant to the situation:

- status of the incident
  - accident
  - undesirable weather conditions
  - activists
  - delay
- type of animals in transit
- number of animals in transit
- state of animal in transit
- human injuries, if any
- status of any loose animals, if any
- known hazards
- your company emergency plan.



# 5 BIOSECURITY

## BIOSECURITY PRINCIPLES AND PRACTICES FOR LIVESTOCK TRANSPORTATION

**The primary objective of this module is to create awareness, educate, and provide a common understanding of the biosecurity practices needed during livestock transport.**

**Although these principles are general to all livestock, we will primarily focus on cattle and swine.**

This module is based on the National Biosecurity Standard for Livestock, Poultry and Deadstock Transportation, which was developed through a consultative process with participation from a broad cross-section of stakeholders, including industry organizations and federal and provincial governments.

The standard is also available online on the Canadian Food Inspection Agency website, besides other national biosecurity standards.

*Click the link to read the* National Biosecurity Standard for Livestock, Poultry and Deadstock Transportation NBS.

*Click the link to be taken to the* Canadian Food Inspection Agency website.

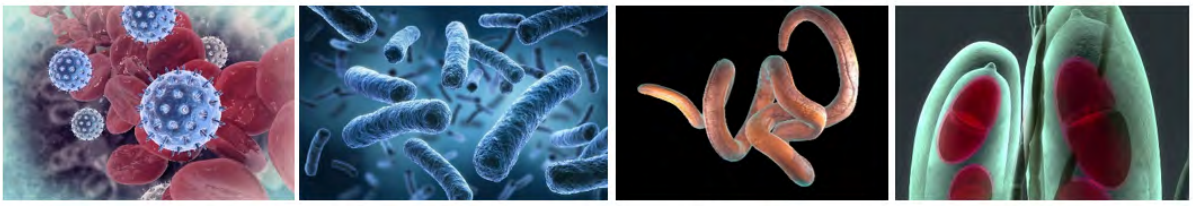
### Introduction to Biosecurity

**This lesson aims to impress upon you the importance of biosecurity and how transporters can play a role in improving animal biosecurity.**

### What is Biosecurity?

Biosecurity refers to measures or sets of principles and practices that reduce the risk of introducing and spreading infectious agents that cause animal disease and the spread of plant pests.

### Infectious Agents

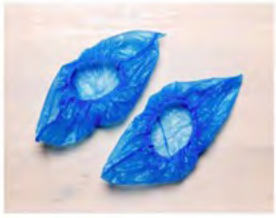


Viruses | Bacteria | Parasites | Fungi

**Objective:** reduce the risk of introducing and spreading infectious agents.

The basic concept is to prevent animals, equipment, transport unit or yourself from becoming contaminated with a disease agent, also called a pathogen. In a situation where contamination occurs, the goal is to prevent its spread to animals, other locations and equipment.

You already know some biosecurity practices, such as:



| | | |
|---|---|---|
| **Washing your hands/using hand sanitizer.**<br>1. Before handling animals.<br>2. After handling animals. | **Using boot covers OR washing your boots** BEFORE and AFTER being on a premise or being in contact with the animals. | **Following biosecurity signs and protocols** at the farms of origin or destination. |

**Why is Biosecurity Important?**

1. Good biosecurity practices minimize the impacts of disease.

   *The benefits of biosecurity outweigh the cost and impact of disease outbreaks.*
2. Contribute to maintaining a healthy plant and animal resource base, consumer confidence, and public trust and maintaining and accessing new markets and opportunities.

Disease and pests can negatively impact the environment and human health for the producer and the agricultural community as a whole (including transporters).

| Disease and pests can INCREASE | Disease and pests can DECREASE | Disease and pests can STOP |
|---|---|---|
| • animal welfare issues<br>• veterinary and labour costs<br>• producers' effort and time to manage and care for sick animals. | • productivity<br>• value of the animals and products<br>• producers and transporters incomes<br>• domestic consumption of a commodity. | • access to export markets. |

**Porcine Reproductive and Respiratory Syndrome**

- Effects on swine health and production: poor reproduction, pneumonia in post-weaned pigs, reduced rate of growth and mortality in all age groups.
- Economic losses: $130 million/year in Canada and $560.32 million/year in the USA.

**Foot and Mouth Disease**

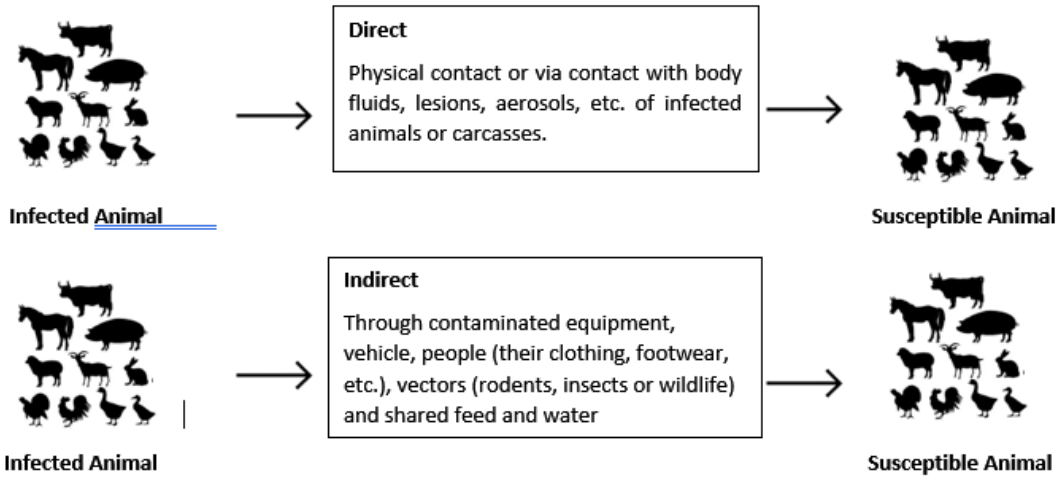
- The last Canadian disease outbreak took place in Saskatchewan in 1952.
- No occurrences in Canada since then.
- Economic losses included: $722 million + one year's loss of trade in livestock and livestock products.
- Today, the estimated net economic impact of an FMD outbreak on the Canadian economy would range between $6.8 to $48 billion.

**Porcine Epidemic Diarrhea Virus**

- Effects on swine health and production include: high mortality rates in young pigs.
- Economic losses:
  - Canada: range from $243 to $432 per sow based on the management practices
  - USA: estimated annual losses of $900 million and $1.8 billion for 3% and 6% annual pig loss scenarios, respectively.

## BASIC PATHWAYS FOR THE SPREAD OF DISEASE

Disease pathogens can be transmitted from infected animals to susceptible animals either directly or indirectly.




**Important to Know about Disease Transmission**

- Not all infected animals will show signs of disease. Animals can appear healthy yet still shed disease agents
  - biosecurity measures must be implemented for all transportation events.
- Note that items may be contaminated even if they do not look dirty
  - (i.e. visible presence of manure, dirt or saliva on vehicles, equipment etc).
- Potential for transmission of diseases to humans
  - for example, ringworm, brucellosis, tuberculosis, salmonellosis, etc.

**The Significance of Animal Transportation**

**Transportation events present an opportunity for various types of direct and indirect disease transmission between infected and healthy animals.**

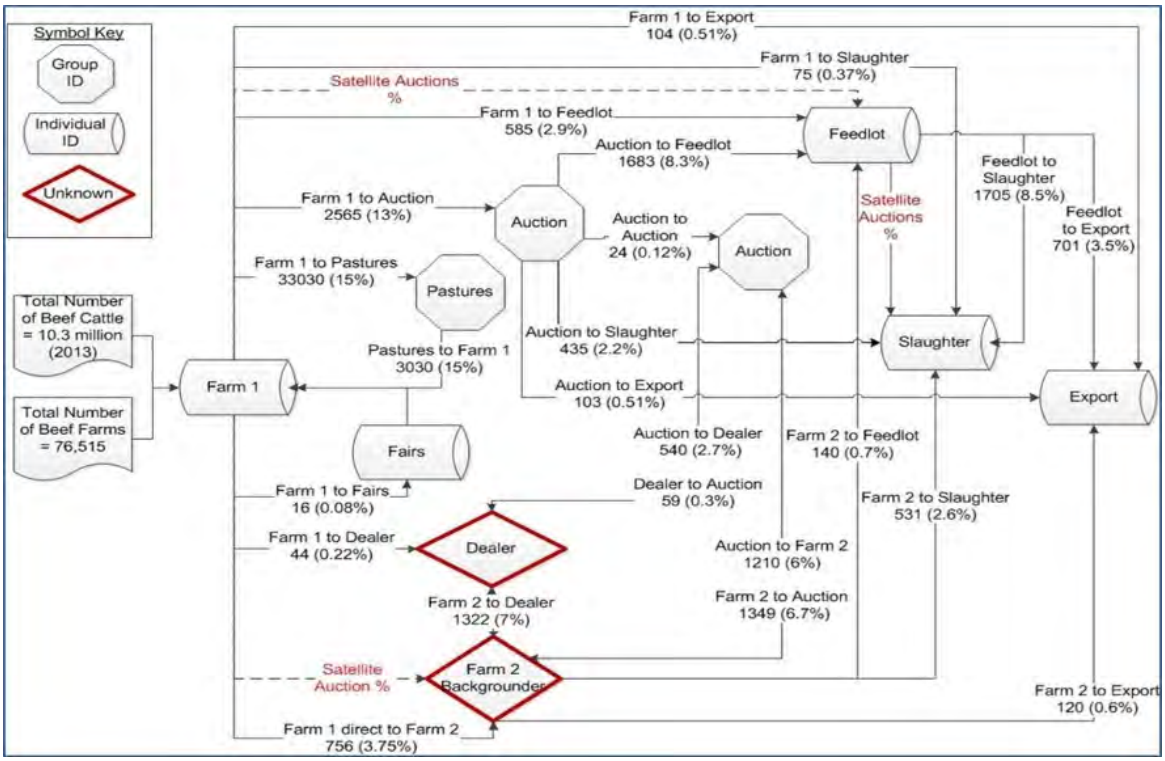
There are a high number of animal movements and transportation events.

- On average, food-producing animals have three to four transport events in their lifetime.
- 67 million annual movements for cattle and swine – based on data from the PigTrace Canada and Serecon movement study
  - movement of 43 million swine (2015 data, Canadian Pork Council)
  - movement of 20 million beef cattle and 4 million dairy and veal cattle (2014 data, Serecon Management Consulting Inc).

**Not only are there many animal movements, but transportation events are complex.**

In 2015, the report from Serecon Management Consulting Inc. described the transportation of farm animals to various locations during their life cycle as the percentage of the national herd.

**This diagram is for beef cattle, but similar diagrams exist for other livestock.**

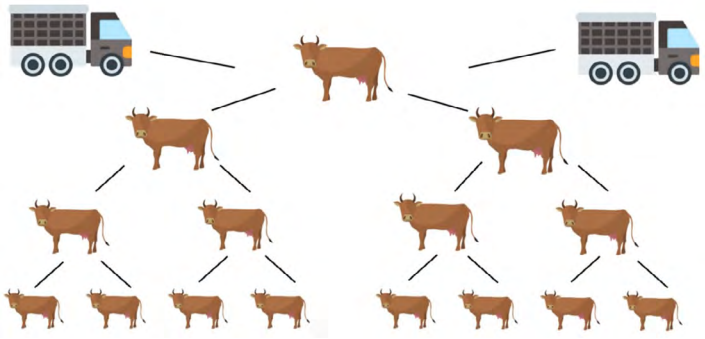



The reason to show this figure is to impress upon you the number and types of movement to and from various locations (farms, fairs, pastures, auctions, feedlots, slaughter and export) and how frequent and complex these can be.

***Every transportation event increases risk of transmission of diseases.***

## ROLE OF TRANSPORTATION

**Consider the spread of disease: If just one animal spreads disease to 2 additional animals, and each additional animal spreads it to 2 animals, it can quickly spread to 32 animals.**



**Now consider the role of transportation.**

If one sick animal is transported, then the infection can reach far away locations across provinces or different countries. It will also result in the transmission of infection within the trailers during transportation and later at the destination site, which can be a farm, a commingling site, or a final life cycle destination.

**Therefore, transporters or drivers have an important responsibility to break this cycle of transmission of diseases by implementing biosecurity measures.**

In reality, the transmission of disease isn't always a 1:2 ratio.


In a situation where healthy animals come into contact with infected animals or a contaminated transport unit or equipment then you can have a transmission rate that's much greater than 1:2 ratio.

Alternatively some healthy animals can get contaminated through excretions and secretions of infected animals on their body surfaces, without getting infected or showing any clinical signs.

These contaminated yet uninfected animals may serve as mechanical vector to indirectly spread pathogens to the other healthy animals in the transport unit.

A few animals in the load may remain uninfected or uncontaminated.

***The load's health status and the equipment's contamination level are determined by the animal with the lowest disease status. Implementing biosecurity practices can break the disease transmission chain.***

***Every bit of effort in applying biosecurity measures helps to prevent disease transmission.***

## ROLE OF TRANSPORTERS

**Producers are best positioned to implement biosecurity on their farms. However, the transporter is responsible for maintaining biosecurity during the transportation event.**

**Did you know that Canada has national biosecurity standards for most farm animals?**

**Standards cover the following:**

- Avian Farms
- Goat Industry
- Beef Cattle Farms
- Cervid Industry
- Dairy Farms
- Equine Industry
- Mink Industry
- Sheep Industry.

**Want to read more about it?** *Click the link to read the* National Biosecurity Standards.

**Biosecurity is also part of many on-farm food safety and animal care programs across Canada.**

**Transporters have an important role in maintaining the national herd health status by preventing the introduction and spread of diseases by:**

- following recommended biosecurity best practices
- encouraging involved parties to apply biosecurity best practices.

## 5 MOST COMMON SCENARIOS WHERE DISEASE TRANSMISSION MAY OCCUR

1. **Loading cattle and swine into a contaminated transport unit.**
2. **Contamination** of the transport unit **at the premises** (either during loading or unloading)
   a. consider any contaminated or infected animal, piece of equipment or personnel that comes into contact with the transport unit and is not part of the shipment
   b. allowing animals that have come into contact with the destination environment (chutes, pens, paddocks) to return to the transport unit during the unloading process
   c. parking the transport unit (for loading and unloading animals) against the manure contaminated ramp.
3. **Contamination of the premises** due to contact with an unclean transport unit or driver
   a. consider anything associated with the transport unit that comes into contact with the premises
   b. not respecting separation zones at the premises
   c. contact with the animals not to be transported.
4. **Contamination of the animals** in the transport unit at a **commingling site**
   a. consider commingling sites where the animals are unloaded
      i. slaughter facilities
      ii. rest stations or areas
      iii. auctions
      iv. assembly yards
      v. feedlots and transfer 'docks'; and
      vi. events such as competitions and exhibition facilities.
   b. consider locations where the loaded transport unit comes into close proximity to other loaded transport units
   c. commingling of other people with drivers at rest stops, restaurants, etc.
5. **Animals are exposed to a pathogen** due to **contact with contaminated** personnel or equipment
   a. contaminated personnel – drivers, facility or service people
   b. contaminated equipment – e.g., handling boards, rattles and shovels, prods, rattle paddles, buckets, etc.

***Key learnings***

***1. The impact and cost of a disease outbreak can far exceed the cost of implementing biosecurity measures to minimize the risk of the introduction and spread of disease.***

***2. Diseases can be transmitted from healthy to susceptible animals via direct (physical contact , body fluids, etc.) and indirect (contaminated driver, vehicle, equipment, etc.) pathways.***

***3. Transporters and transport units can rapidly spread infection across a wide area and to a large number of animals***

***4. Biosecurity measures should be implemented at all times (between load phase, loading phase, on the road, and unloading phase)***

## BETWEEN LOADS

**The between loads phase will focus on activities following unloading and prior to loading subsequent loads.**

It will allow you to be prepared to mitigate biosecurity risks associated with the next transportation event. You will learn about routine vs. enhanced biosecurity measures, identifying the client's biosecurity requirements and planning and preparing for the transportation event.

### ROUTINE VS. ENHANCED BIOSECURITY MEASURES

**What is routine biosecurity?**

**Baseline level of biosecurity measures applied at all times and for all transportation events:**

- implemented for every transportation event, even in the absence of a client specifying any biosecurity requirements
- referred to as the routine biosecurity measures based on basic biosecurity principles
  - loading of animals in clean trailers using clean equipment
  - minimizing cross-contamination between trailers and unloading sites and vice versa
  - minimizing cross-contamination from equipment, clothes and footwear, etc.

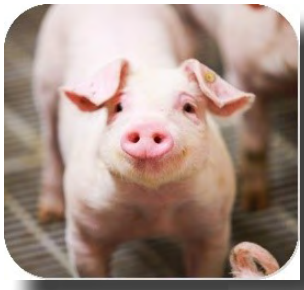
**Due to regional variations within the country and variations between the various commodity groups, it is impossible to define the routine biosecurity measures that would apply to all commodity groups in Canada.** It is recommended that transporters work with the industry associations, provincial representatives and veterinarians to establish routine biosecurity measures that are adapted to their specific risks and challenges.

**Biosecurity measures that are appropriate for a given transportation event should consider the**

- disease risks associated with animal species to be transported or the disease risks of transporting animals from or to a particular geographical area or establishments
- transporters' role during the transportation phases, and
- logistics, including the availability of biosecurity infrastructure: for example, availability of undercarriage wash facility, baking units, etc.

**What are Enhanced Biosecurity Measures?**

In situations where disease is suspected or has been identified, and there is an increase in risk, enhanced biosecurity measures are required to control and possibly eradicate the disease from an area.



**Enhanced biosecurity measures are targeted toward a specific disease**

- for example, during a recent PEDV outbreak, specific cleaning and disinfection protocols for trailers were recommended to prevent spread of disease by trailers.

Transporters are encouraged to work with industry associations, provincial governments and veterinarians to establish enhanced biosecurity measures to address specific disease transmission risks.

### Examples of Enhanced Biosecurity Measures

- designated transport units and equipment for the transportation of diseased animals
- identified routes for transportation
- specific cleaning and disinfection protocols
- specific wash facilities exclusively for trailers transporting diseased animals
- additional controls on manure and used bedding.


***For reportable, notifiable or diseases of economic significance, industry, provincial and/or federal governments will often identify specific biosecurity measures for drivers.***

### Identifying the Client's Biosecurity Requirements

Identify the customer's biosecurity expectations early in the planning phase:

- transporters and their customers need to discuss biosecurity practices
  - customers may have specific biosecurity requirements
  - it may be limited to following particular biosecurity protocols when on their premises whereas in other situations the customer's biosecurity requirements may be more extensive.

Allow drivers to make the necessary arrangements to have required biosecurity supplies, documentation and equipment.

***In situations where the customer has not identified any biosecurity requirements, follow routine biosecurity measures.***

***The drivers should use this as an opportunity to educate and encourage the uptake and implementation of biosecurity within the industry.***

### Factors Influencing a Customer's Biosecurity Requirements

Factors that may influence a customer's perception of the biosecurity measures required for a given transportation event include the following.

#### Awareness

The customer's awareness and understanding of biosecurity risks.

Typically biosecurity awareness increases when a disease outbreak has been identified.

### Animal Host Vulnerability

It isn't the same for all animals. For example, young animals are more susceptible to disease compared to mature animals.

For this reason, customer's requesting the transportation of very young animals (piglets or calves) may have increased biosecurity requirements.

### Perceived Risks

Perceived risks associated with the movement type, for example: when moving pigs or cattle from a farm to a slaughterhouse. In this case, you are going from a premise that is more biosecure to one that's potentially less biosecure.

### Cost

Many biosecurity measures will cost the transporter and their customers little to implement. However, some measures, such as a full cleaning and disinfection, and baking, (baking refers to thermal treatment of transport unit) can add costs to the transportation event. If the customer perceives the risk as being low then they may not be willing to pay more for more stringent biosecurity measures.

### Risk Tolerance

The risk a person is willing to accept varies greatly from one customer to another. It may also vary within the species or class of animals at the farm, the pathogen of concern, etc.

## CUSTOMER'S BIOSECURITY REQUIREMENTS

The customers may have additional biosecurity requirements for cleaning and disinfection during the loading and unloading of animals or while on the road.

### Cleaning and Disinfection

- Use specific truck wash stations.
- Use of specific cleaning and disinfection protocols.
- Non-use timeframe.
- Specific scrape-out location.

### Loading and Unloading

- Follow premises biosecurity protocols.
- Use personnel protective clothing when involved in loading and unloading.

### On the Road

- Use specific routes, driver's stop location, rest stations, etc.

### Trip Information Sheet

Transporters are encouraged to keep records of the biosecurity requirements for a transportation event in a Trip Information Sheet.

Transporters can use the same form to keep track of customers' biosecurity requirements like:

- wash instructions
- biosecurity protocols for entering, loading and unloading
- specific directions.

# PLANNING AND PREPARING FOR THE TRANSPORTATION EVENT

## Planning and Preparing

Various factors that will influence the preparation required for the transportation event include the following.

- **Loading and Unloading Sites**
  Number of loading and unloading sites and the health status of these sites:
  - for multiple loading and unloading sites, the transporter will need to carry more biosecurity supplies.
- **Driver's Involvement**
  Driver's involvement in loading and unloading animals:
  - if the driver is involved in loading and unloading, he/she will need to wear appropriate biosecurity supplies (personal protective equipment) to prevent transmission of infection to the premises and vice versa.
- **Customers' Requirements**
  Customers' requirements and location for scrape-out:
  - customers' requirements were discussed earlier in this lesson. The customer may request a specific scrap-out location for removal of bedding, manure, litter, etc.
- **Route and Driver Stops**
  - Weigh stations, gas stations, restaurants, border crossings, etc. may also influence drivers' preparation.

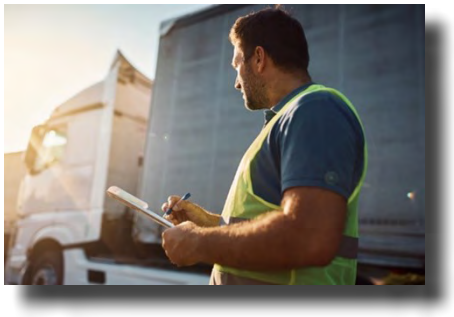
## Multiple Loading or Unloading Sites

The biosecurity risks for the transport unit (power unit, trailer, and premises) increase with each extra loading or unloading event:

- the ideal transport event includes a single loading
- drivers and customers should both be aware of the risks and the biosecurity best practices that mitigate the risks associated with multiple loading and unloading sites.

For multiple loadings, the contamination status of the driver and transportation unit is determined by the lowest health status of the animals loaded.

**Biosecurity risks <u>to animals located on premises</u> visited during the transportation event:**



- contaminated driver, transport unit or equipment
- contamination of subsequent premises
- spread of infection to the animals at the loading site.

**Biosecurity risks to animals loaded within the same transport unit and to animals at destination;**

- commingling of the animals in the transport unit
- transmission between animals of different health status
- spread of infection at the destination site.

***The animals don't have to be physically present in the same transport unit at the same time in order to be at risk of infection or contamination.***

**Multiple Loading and Unloading Sites: <u>Best Biosecurity Practices</u>**

- Driver's vigilance in employing the biosecurity best practices throughout the transportation event.
- Crucial to prevent disease spread.
- Only load animals that are of an equivalent health status.
- For multiple loading sites, first load animals from premises with a higher health status.

***Diseased animals don't always show signs of disease, and customers may not always know or share the disease status of their animals with the driver.***

## BIOSECURITY SUPPLIES

**Biosecurity supplies are required to prevent or minimize exposure or contamination of the driver, equipment or transport unit during loading and unloading time.**

The amount and type of biosecurity equipment required for a particular transportation event are dependent on the following:

- more biosecurity supplies are needed for multiple loading and unloading sites
- the amount of interaction that the driver will have with the animals, equipment and staff at the loading and unloading sites
  - the driver will come into contact with the animals being loaded, then clean footwear for the power unit and an outer layer of clothing, gloves and footwear for activities performed in the trailer is required.

**The basic biosecurity kit at minimum should include:**

- clean footwear designated for use only in the power unit
- rubber boots that can be cleaned and disinfected or disposable footwear for the transport unit or outside
- freshly laundered cloth or disposable coveralls
- gloves
- large disposable garbage bags to store used dirty clothing and other reusable items that need to be laundered and cleaned
- disinfectants and hand sanitizers
- paper towel
- water and wash bucket.

**Equipment for Transportation Event:**

- use designated equipment for loading and unloading
  - new or equipment that has been cleaned and disinfected
  - equipment for handling animals (rattle paddles, shakers and chase boards), a shovel for scraping out the trailer or equipment required to secure the load
  - avoid sharing your equipment with others
- clean and disinfect all equipment after use
- store clean equipment in a clean location on the transport unit
  - kept in totes or plastic bags.

**Documentation Related to Biosecurity for a Transport Event**
From a biosecurity perspective, the documentation requirements for a transportation event are as follows.

- **Customers requirements:**
  - trip information sheet
  - transport unit wash report (cleaning and disinfection process).
- **Provincial or trade requirements:**
  - import/export certificates
  - health certificates.
- **Additional documents:**
  - animal ID
  - transport unit travel history.

***Electronic document exchange is preferred over hard copies from a biosecurity perspective.***

**Bedding and Feed**

**Bedding and feed can transport pests and other vectors hidden in them. Therefore, prior to loading bedding or feed into the transportation unit, ensure that it is clean and free of contaminants and is not at risk of introducing plant pests to another area or region.**

**It is recommended that transporter should:**

- obtain bedding and feed from a reputable commercial supplier
- request confirmation that bedding or feed is
  - dry and free of contamination (wildlife droppings and feathers)
  - stored in an appropriate pest monitored location
- store in a clean area
  - no contact with animals, contaminated equipment or personnel.

**Driver Preparation**

Drivers can be a source of contamination, especially if they've come into contact with pets, farm animals, wildlife or contaminated equipment.

**Drivers should:**

- wash and wear freshly laundered clothing
- wear clean footwear
- avoid contact with any animals (including pets) or wildlife
- do not travel with your personal pets in the cab of the transport unit.

***Key Learning Points***

1. ***Transporters must implement biosecurity measures at all times;***
   - ***crucial role in preventing transmission of disease-causing organisms.***
2. ***Biosecurity protocols should be developed in consultation with specialists and may target specific disease or species or animal type.***
3. ***Identify the customer's biosecurity expectations early in the planning phase.***
4. ***For multiple sites transportation, always load animals with higher health status;***
   - ***ideally do not load animals of different health status together.***
5. ***A biosecurity kit and clean designated equipment should be used for each event.***

## BETWEEN LOADS - PHASE 2

**The between loads phase will focus on activities following unloading and prior to loading subsequent loads. It will allow you to be prepared to mitigate biosecurity risks associated with the next transportation event. In addition, you will learn about the cleaning and disinfection process.**

### Cleaning and Disinfection

The cleaning and disinfection process prevents the spread of disease agents between transport events.

This section aims to provide a basic understanding of the principles and practices for cleaning and disinfection to allow transporters/drivers to make informed decisions.

**Transporters make decisions about cleaning and disinfection, such as:**

- frequency and level of cleaning and disinfection
- choosing a wash station
- storage of transport units following cleaning and disinfection
- cleaning and disinfection records are to be kept.

It is important to understand that not all the protocols and best practices may apply to all transportation events. The protocols and best practices are not directly transferrable between the transportation of different types of animals or within operations that transport multiple species of livestock.

A basic understanding of the cleaning and disinfection principles will allow transporters to adjust to slight changes in day-to-day operations.

### Cleaning and Disinfection Process - What is the objective of cleaning and disinfection process?

To reduce the microbial load to prevent transmission of pathogens and spread of disease between transport events.

**The cleaning and disinfection process is divided into two stages:**

1. Removal of organic matter
2. Inactivation of pathogens.

**Cleaning and Disinfection Process: Steps**

Removal of organic matter and Reduction of the pathogen load up to 80%

- Scrape out
  - dry phase of cleaning
  - removal of organic matter like bedding, manure and litter
- Pre-washing rinse
  - wet phase of cleaning
- Flush out of organic matter that remains after scraping out
  - washing – application of detergent/degreaser to remove remaining organic matter and biofilms
  - post-wash rinse - flush out residual detergent/degreaser and organic matter.

Inactivation of pathogens - Reduction of the pathogen load up to 99%

- **Disinfection** – application of chemical disinfectants
- **Drying**
- **Thermal inactivation** (baking)

**Cleaning and Disinfection Protocols**

Protocols may not need to include all of the cleaning and disinfection steps.

**What should cleaning and disinfection protocols reflect?**

Disease Risk

- The level of disease risk varies considerably based on several factors. It determines the cleaning and disinfection steps required, the selection of effective and compatible detergents and disinfectants, and the frequency of cleaning and disinfection.

Customers' Biosecurity Requirements

- Type of material being cleaned and disinfected
  - rubber vs. plastic and metal.

Condition of the Transport Unit

- Older or damaged units may need more careful cleaning for cracks, crevices and damaged parts.

Available Infrastructure

- The infrastructure needed to achieve the desired level of cleaning and disinfection.

***The degree of organic matter in climatic conditions will influence the cleaning and disinfection protocol.***

### Characteristics of Selected Disinfectants

By having a general understanding of cleaning and disinfection, the transporter can modify protocols to address differences in risk with different transportation events by:

- changing the detergent or disinfectant used
- combination of cleaning and disinfection steps used
- the frequency of cleaning and disinfection.

**This table shows various disinfectants' characteristics, advantages, disadvantages, and effectiveness against different microbes, such as bacteria, viruses, spores, fungi, etc.**

**These resources are valuable tools for deciding the detergents and disinfectants to use for cleaning and disinfection protocols.**

**Characteristics of Selected Disinfectants**

For More Information, see the 'Disinfection 101' document at www.cfsph.iastate.edu

| Disinfectant Category | Alcohols | Aldehydes | Biguanides | Halogens: Hypochlorites | Halogens: Iodine Compounds | Oxidizing Agents | Phenols | Quaternary Ammonium Compounds (QAC) |
|---|---|---|---|---|---|---|---|---|
| Sample Trade Names | Ethyl alcohol Isopropyl alcohol | Formaldehyde Glutaraldehyde | Chlorhexidine Nolvasan® Virosan® | Bleach | Betadyne® Providone® | Hydrogen peroxide Peracetic acid Virkon S® Oxy-Sept 333® | One-Stroke Environ® Phenol-Tek II® Tek-Trol® | Roccal® DiQuat® D-256® |
| Mechanism of Action | •Precipitates proteins •Denatures lipids | •Denatures proteins •Alkylates nucleic acids | •Alters membrane permeability | •Denatures proteins | •Denatures proteins | •Denature proteins and lipids | • Denatures proteins • Alters cell wall permeability | • Denatures proteins • Binds phospholipids of cell membrane |
| Advantages | •Fast acting •Leaves no residue | •Broad spectrum | •Broad spectrum | •Broad spectrum •Short contact time •Inexpensive | •Stable in storage •Relatively safe | •Broad spectrum | • Good efficacy with organic material • Non-corrosive • Stable in storage | • Stable in storage • Non-irritating to skin • Effective at high temperatures and high pH (9-10) |
| Disadvantages | •Rapid evaporation •Flammable | •Carcinogenic •Mucous membranes and tissue irritation •Only use in well ventilated areas | •Only functions in limited pH range (5–7) •Toxic to fish (environmental concern) | •Inactivated by sunlight •Requires frequent application •Corrodes metals •Mucous membrane and tissue irritation | •Inactivated by QACs •Requires frequent application •Corrosive •Stains clothes and treated surfaces | •Damaging to some metals | • Can cause skin and eye irritation | |
| Precautions | Flammable | Carcinogenic | | Never mix with acids; toxic chlorine gas will be released | | | May be toxic to animals, especially cats and pigs | |
| Vegetative Bacteria | Effective | Effective | Effective | Effective | Effective | Effective | Effective | YES—Gram Positive Limited—Gram Negative |
| Mycobacteria | Effective | Effective | Variable | Effective | Limited | Effective | Variable | Variable |
| Enveloped Viruses | Effective | Effective | Limited | Effective | Effective | Effective | Effective | Variable |
| Non-enveloped Viruses | Variable | Effective | Limited | Effective | Limited | Effective | Variable | Not Effective |
| Spores | Not Effective | Effective | Not Effective | Variable | Limited | Variable | Not Effective | Not Effective |
| Fungi | Effective | Effective | Limited | Effective | Effective | Variable | Variable | Variable |
| Efficacy with Organic Matter | Reduced | Reduced | ? | Rapidly reduced | Rapidly reduced | Variable | Effective | Inactivated |
| Efficacy with Hard Water | ? | Reduced | ? | Effective | ? | ? | Effective | Inactivated |
| Efficacy with Soap/ Detergents | ? | Reduced | Inactivated | Inactivated | Effective | ? | Effective | Inactivated |

? Information not found

*Disclaimer: The use of trade names does not in any way signify endorsement of a particular product. For additional product names, please consult the most recent Compendium of Veterinary Products.*

References: Linton AH, Hugo WB, Russel AD. Disinfection in Veterinary and Farm Practice. 1987. Blackwell Scientific Publications; Oxford, England; Quinn PJ, Markey BK. Disinfection and Disease Prevention in Veterinary Medicine, in: Block SS, ed., Disinfection, Sterilization and Preservation. 5th edition. 2001. Lippincott, Williams and Wilkins: Philadelphia.



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### Cleaning and Disinfection Protocols

### SCRAPE OUT

#### What is the Objective?

- Remove loose organic matter (primarily bedding, manure, litter, etc.) from the transport unit.

#### Why is it Important?

- Reduces the pathogen load.
- Easier to remove organic matter that is stuck to the surfaces when loose material has been removed first.
- Reduces potential contamination of the other clean surfaces and wash station during pre-wash rinse and washing steps.

**Best Practices**

- Avoid driving through the potential source of contamination at the scrape-out site.
- Scrape out as soon as possible following unloading.
- Remove all accessories and knock off all manure and bedding waste before scraping out.
- Follow a systematic process (top to bottom, front to back) to ensure that you don't miss any areas and minimize the reintroduction of loose organic material.

**PRE-WASH RINSE**

**What is the Objective?**

- Flush out remaining smaller loose organic matter after scrape-out.

**Why is it Important?**

- Reduces the pathogen load.
- Improve the effectiveness of the detergent or degreaser applied during the wash step.

**Best Practices**

- Use clean, warm water.
- Keep the transport unit on a slight incline to allow water and organic matter to flow out of the back.
- Use high volume, low-pressure hose.
- Rinse in a systematic order to prevent the re-introduction of organic material
  - exterior to the interior
  - top to the bottom
  - front to the back.

**WASHING**

What is the Objective?

- Remove remaining organic material and biofilms until all organic matter has been completely removed from all surfaces.

**Why is it Important?**

- Reduces the pathogen load.
- Use of a detergent or degreaser and brush helps remove organic matter and disrupt any biofilms present in the transport unit.

**Best Practices**

- Follow the manufacturer's instructions for detergent or degreaser.
- Cover all surfaces and allow it to soak.
- Systematically apply detergent or degreaser on a slopped surface
  - exterior to the interior
  - bottom to top
  - front to the back.
- Use low to medium water pressure and/or a brush to loosen any stuck organic material.
- Repeat until all organic matter has been completely removed from all surfaces.
- Wash all items that can be removed from the transport unit separately.
- Wash the undercarriage, wheels and wheel wells to remove organic material.

## POST-WASH RINSE

### What is the Objective?

- Flush out any leftover detergent or disinfectant and organic matter following the washing step.

### Why is it Important?

- The presence of a biofilm, organic matter, and the detergent or degreaser can impede the effectiveness of the disinfectant.

### Best Practices

- Use clean, warm water.
- Keep the transport unit on a slight incline to allow water and organic matter to flow out of the back.
- Use high-volume, low-pressure hose.
- Rinse in a systematic order to prevent the re-introduction of organic material
  - exterior to the interior
  - top to the bottom
  - front to the back.

## INSPECTION

### What is the Objective?

- Examine all surfaces of the transport unit to ensure that they are free of organic matter.

### Why is it Important?

- Verify the effectiveness of cleaning and washing steps.
- Presence of organic matter can impede the effectiveness of the disinfectant.
- Decide if to repeat all or some of the cleaning and washing steps.

### Best Practices

- Wear clean clothes & footwear during the inspection.
- Ensure there is no pooling of water in the trailer
  - pooled water will reduce the effectiveness of the disinfectant.
- Ensure the trailer is well-lit & use a spotlight for low-light areas.
- Move gates or doors so that all areas are visible.
- INSPECT ALL ITEMS WASHED SEPARATELY.

## DISINFECTION

### What is the Objective?

- Inactivate pathogens of concern from all surfaces of the transport unit.

### Why is it Important?

- Reduces the pathogen load
  - even if visibly clean, viable pathogens can still be present and infect animals.

**Best Practices**

- Follow the manufacturer's instructions (concentration, contact time, water temperature).
- Ensure the surfaces are clean, free of pooled water and dry.
- Cover all surfaces.
- Apply the disinfectant in a systematic fashion from bottom to top on vertical or slopped surfaces.
- Keep the disinfectant wet for the required contact time.
- Dry conditions.
- Don't let the disinfectant get dry before recommended contact time
  - repeat the application of disinfectants until the contact time has been achieved.
- Cold weather conditions
  - disinfection should be performed in an enclosed and heated location
  - if not possible, then compatible antifreeze agent should be used.
- Disinfect all items that were removed from the transport unit separately
  - apply another layer of disinfectant to the exterior of the trailer after reassembly
  - while reassembling, be careful not to re-contaminate the trailer trough unclean footwear and clothing.
- Disinfect the undercarriage, wheels and wheel wells.

**DRYING**

**What is the Objective?**

- Remove all moisture from the transport unit.

**Why is it Important?**

- Reduces the pathogen load.
- Inactivates pathogens that are susceptible to desiccation that may be situated in hard-to-reach areas (e.g., cracks, joints and pitted metal) and can replicate in warm and moist environments.

**Best Practices**

- Incline the transport unit at a slight angle (≈ 2%)
  - in wet and cool weather, use heat treatment in drying bays.
- Dry in a clean area away from contaminated transport units, equipment and staff.
- The drying bay should have restricted access.

**HEAT TREATMENT (BAKING)**

**What is the Objective?**

- Using heat to inactivate pathogens.

**Why is it Important?**

- Reduces the pathogen load.
- Useful for some pathogens that escape contact with the disinfectant and require high temperatures to be inactivated.

**Best Practices**

- Ensure the required inactivation temperature can be reached for the appropriate amount of time.
- Baking units should be kept clean and have restricted access.

## SCRAPE-OUT LOCATIONS

Scrape-out should be done:

- at the destination site
- designated scrape-out sites away from the destination site.

***Scrape-out locations are a potential source of infection because they are locations where drivers dispose of potentially infectious material from a variety of locations and for various species.***

**Follow biosecurity best practices for entry and exit to the transport unit and trailer to prevent cross-contamination of the driver, power unit and trailer.**

**Is this Scrape -Out OK (picture on the right)?**

**No, this scrape-out is not ok.**

More organic material could have been removed using a stiff bristle brush or broom during scrape-out.

**Washing**

***Biofilm, organic matter or detergent/degreaser can impede the effectiveness of the disinfectant to be used.***

***Therefore the detergent or degreaser along with the organic matter and biofilm should be rinsed off with clean water.***

### Inspection

Pay attention to the hard-to-reach places that can easily be missed during the cleaning step.

- Hinges
- Areas behind or under doors
- Chains
- Cracks
- Crevices

**It's useful to use a checklist that's specific to the type of trailer being cleaned to ensure that no areas are missed. The checklist should also include an inspection of the power unit.**

**Is this trailer ready for disinfection (picture on the right)?**

**No, this trailer is not ready for disinfection.**

The trailer should be completely free of all organic matter before applying disinfectant.

**What would you do next?**

**If a small amount of organic matter is present only in the back part of the trailer,** then perform cleaning and washing of the back part of the trailer, including physical removal of the organic matter, pre-wash rinse, and application of the organic matter detergent or degreaser and post-wash rinse.

**If small specs of organic matter or feces are present throughout the trailer's surface,** then perform cleaning and washing of the entire trailer, including physical removal of the organic matter, followed by pre-wash rinse, application of detergent/degreaser and post-wash rinse.

### Disinfection

These best practices are there to ensure the best effectiveness of the disinfection.

### Disinfection – Choosing a Disinfectant

**What to consider when selecting a disinfectant:**

- effective against pathogens of concern
- cost and corrosiveness of long-term repeated use
- personal protective equipment is required to use the disinfectant
- outside temperature
- effective on the surface materials present
- safety for humans, animals and the environment
- management of effluent from the disinfection step
- application type.

### Cleaning and Disinfection of the Power Unit

Cleaning and disinfection principles apply to the power unit as well.

- Clean and disinfect things that can be removed from the power unit separately (e.g. seat covers, rugs, floor mats, etc).
- Disinfect using a disinfectant spray or wipes.
- Remove organic matter (vacuum and wipe).

***Pets should never be allowed into the power unit as they can be a source of infection or cross-contamination.***

### Choosing a Wash Station

It is recognized that biosecurity infrastructure, wash station capacity and cleaning and disinfection protocols vary among wash stations. Therefore, it is very important to select a washing station that meets your needs carefully.

It is recommended to incorporate biosecurity criteria, inclu ding customer biosecurity requirements, when selecting a wash station to ensure that it can achieve the required level of cleaning and disinfection of the transport unit and associated equipment.

The following general criteria should be considered for choosing a wash station for cleaning and disinfection:

- access pathways
- site organization
- washing areas
- water used
- effluent collection systems
- use of personal protective equipment (PPE).

### Access Road

- Separate lanes or roads for dirty and clean transport units.
- Lanes or roads are free of manure and other organic matter.
- Lanes or roads are graded and made of material that allows drainage.

### Site Organization

- Physical and functional separation between clean and dirty areas
  - avoid cross-contamination.
- Scrape-out locations are completely separated from the wash site.

### Washing Area

- Designed to prevent wash water from contaminating other areas and equipment.
- Floor, walls, and curtains are made of material that can be cleaned and disinfected.
- Wash bays are cleaned and disinfected between transport unit washes.
- Wash area is a drive-through.

**Water**

- Quality and quantity of water that does not contribute to the level of contamination or pathogen load
  - recycled water is treated appropriately before use (pH, degree of hardness of water, etc.).
- Capacity to achieve the manufacturers recommended water temperature for the detergent and disinfectants.

**Effluent Collection System**

- Enough capacity to prevent backup of dirty water.
- Store effluent in a biosecure manner.
- Organic waste and wash water are managed as per local or federal legislation and regulations.

**PPE**

- Staff use appropriate Personal Protective Equipment (PPE) to prevent the introduction of contamination or re-contamination after disinfection step
  - footwear, body waterproof outer wear, masks and respirators, hearing protection, eye protection, hard hat, gloves.
- Follow manufacturers' recommendations for PPE.

**Storage of Clean Transport Units**

**What is the objective? To keep transport units clean prior to loading.**

**Best Biosecurity Practices**

- Physically and functionally separate from the areas that contain transport units that have not been cleaned or disinfected.
- Away from pets, farm animals, rodents and wildlife.
- Away from people, contaminated equipment, feed and bedding.
- Away from exhaust fans and dusty areas.

**Key Learning Points**

- Cleaning and disinfection after each transportation event are critical to prevent spread of disease agents.
- Cleaning and disinfection process includes removal of organic matter and inactivation of pathogens.
  - Cleaning and disinfection steps
    - scrape-out
    - pre-wash rinse
    - washing (application of detergent)
    - post-wash rinse
    - inspection
    - disinfection
    - drying
    - baking, if necessary
  - Cleaning and disinfection protocols may not include all the cleaning and disinfection steps depending on various factors for e.g., disease risk, customers biosecurity requirements, surface material and available infrastructure, etc.
- The transport unit should be free of organic matter before applying disinfectant
  - use an effective and compatible combination of detergents and disinfectant
  - use recommended water temperature, concentration and contact time as per manufacturer's recommendations.

**Key Learning Points(continued)**

- Clean and disinfect all accessories, separated parts, equipment and the power unit.
- Choose a wash station that incorporates biosecurity measures during cleaning and disinfection process.

## LOADING, ON THE ROAD AND UNLOADING PHASES

**The lesson is divided into 3 sections: the loading, on-the-road, and unloading phases. Many biosecurity practices for the loading phase also apply to the unloading phase.**

### LOADING PHASE

#### 1. Accessing the Site

What is the Objective?

- Minimize the risk of contamination of the exterior of the trailer.

Best Practices

- Pay attention to signage.
- Sign visitors log.
- Pick up bedding from designated location if applicable.
- Cleaning and disinfection of wheels and wheel wells.
- Cleaning and disinfection the back of the transport unit.
- Avoid lanes contaminated by manure or organic matter.
- Drive slowly.
- Avoid driving close to barns with live animals.
- Park in the area designated for loading, avoid parking by barn or building exhaust fans and air inlets (if possible).

#### 2. Entering and Exiting the Power Unit

What is the Objective?

- Prevent contamination of the interior of the power unit.

Best Practices

- Wear clean clothes.
- Dedicated footwear for the power unit.
- Keep separate footwear or boot covers (disposable or reusable) for exiting the power unit.
- Wash your hands or sanitize prior to entering the power unit or touching anything in the power unit.

#### 3. Preparing the Trailer for Loading

What is the Objective?

- Minimize the risk of contamination to the interior of the trailer.

Best Practices

- Do not allow potentially contaminated premises or facility staff to enter the trailer.
- Do not come into contact with animals that are not involved in the transport event0
- Ensure the back end of the trailer that meets the ramp is clean and free of visible contaminants such as manure, etc.

- The chute and loading ramp is clean and free of visible debris or manure.
- Use your own equipment rather than use equipment from the premises.

**4. Entering the Trailer**

What is the Objective?

- Prevent contamination of the interior of the trailer.

Best Practices

- Use biosecurity supplies (biosecurity kit).
- Wear a clean outer layer of clothing (coveralls, hat, boots and gloves).
- If not wearing gloves, clean and sanitize hands prior to entering the trailer and handling animals for loading.
- Use only dedicated loading equipment inside the trailer.

**5. Adding the Bedding and Loading Animals**

What is the Objective?

- Prevent contamination of the interior of the trailer.

Best Practices

- Collect the bedding from the designated site either on the farm or outside location before loading animals.
- Add dry and visibly clean bedding to areas where animals will be loaded.
- Follow onsite biosecurity protocols (restricted access on entry, demarcations or separation lines in the loading zone).
- Prevent backward movement of livestock or bedding/manure from transport unit when loading.
- Avoid contact with the animals that are not being moved.
- Use only dedicated loading equipment inside the trailer.

**6. Exiting the Trailer and Re-entering the Power Unit after Handling Animals**

What is the Objective?

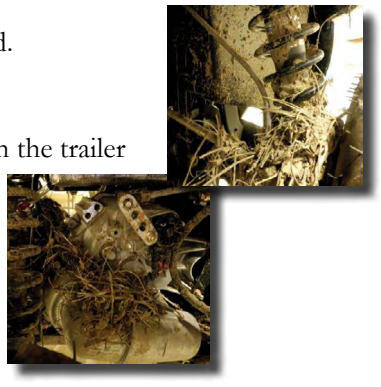
- Prevent contamination of the interior of the power unit.

Best Practices

- Remove the outer layer of clothing, boot covers, and gloves
  - if disposable, dispose of them onsite
  - if reusable, contain them in a sealable container prior to loading them into a compartment of the transport unit.
- Wash your hands or sanitize prior to entering the power unit or touching anything in the power unit.
- Sanitize all contact points within the power unit once you've entered.

**Loading Phase - Accessing the Site**

Accumulation of mud, organic matter and dirt on the tires and underneath the trailer can harbour pathogens or pests that are carried with the transport unit to other locations or premises and spread disease.



### Loading Phase - Entering and Exiting the Power Unit

Example of a protocol for entering and exiting the power unit.

| Prior to Leaving the Power Unit | Prior to Entering the Power Unit |
|---|---|
| • Remove power unit designated footwear.<br>• Open the door and swing your feet out of the truck.<br>• Put on footwear designated for activities outside of the power unit.<br>• Step out of the power unit. | • Remove footwear as you are stepping into the power unit.<br>• Place footwear into a sealed container.<br>• Use hand sanitizer prior to touching anything inside the power unit (door handle, steering wheel, stick shift, etc.).<br>• Put on power unit designated footwear. |

***Protocol may differ based on your own requirements, but it should still establish separation of clean from dirty areas.***

### Loading Phase - Entering the Trailer

Example of a protocol for entering the trailer.


1. Retrieve the biosecurity kit from a clean location (for example; from a storage cubby or plastic storage box) and place it outside the access door to the trailer.

2. Open the biosecurity kit and place the lid topside down in a clean area. Remove shoes while stepping onto the biosecurity kit lid.

3. While ensuring that the contents of the biosecurity kit do not touch the ground, put on clean coveralls, a pair of clean boots and disposable gloves.

4. Step out of the biosecurity kit box and directly into the trailer.

*Click the link to find additional example protocols and videos for entering the trailer.* Protocols Ex.

**ON THE ROAD PHASE - Rest Stations or Commingling Sites**

These rest stations can pose a biosecurity risk since animals of unknown health status may frequent these locations if adequate biosecurity measures are not in place; they may serve as significant contamination points.

Things to consider:

- plan ahead of time
- rest stations vary in capacity and infrastructure to meet biosecurity needs
- identify rest stations that have health status requirements and biosecurity protocols implemented for cleaning and disinfection between loads
- ensure rest stations have a provision of clean and quality feed and water at these locations, if not carried by the transporter
- ensure rest stations have a scrape-out location available on-site.

**UNLOADING PHASE - Scrape-out at Destination**

It is preferable to scrape out at the destination site:

- designated scrape-out locations can serve as a potential contamination point if adequate biosecurity measures are not taken
- eliminates the need for the driver to go to an additional location just to scrape-out.

**The perception that biosecurity requirements are unnecessary for animals transported to a final life cycle destination, such as a slaughter establishment, is short-sighted. The risk of transmitting pathogens at slaughter establishments is equivalent to or greater than at other sites.**

**The slaughter establishment facility, staff and equipment are a potential source of contamination for transport units, drivers and equipment.**

***Follow biosecurity best practices for loading and unloading at slaughter establishments or if available follow site-specific biosecurity protocols.***

***Key Learning Points***

1. ***Cleaning and disinfection after each transportation event are critical to prevent spread of disease agents.***

2. ***Cleaning and disinfection process includes removal of organic matter and inactivation of pathogens.***

   ***2.a. Cleaning and disinfection steps;***

   - ***scrape-out***
   - ***pre-wash rinse***
   - ***wash (application of detergent)***
   - ***post-wash rinse***
   - ***inspection***
   - ***disinfection***
   - ***drying***
   - ***baking, if necessary.***

   ***2.b. Cleaning and disinfection protocols may not include all the cleaning and disinfection steps depending on various factors for e.g., disease risk, customers biosecurity requirements, surface material and available infrastructure, etc.***

3. ***The transport unit should be free of organic matter before applying disinfectant***

   ***3. a. Use an effective and compatible combination of detergents and disinfectant;***

   - ***use recommended water temperature, concentration and contact time as per manufacturer's recommendations.***

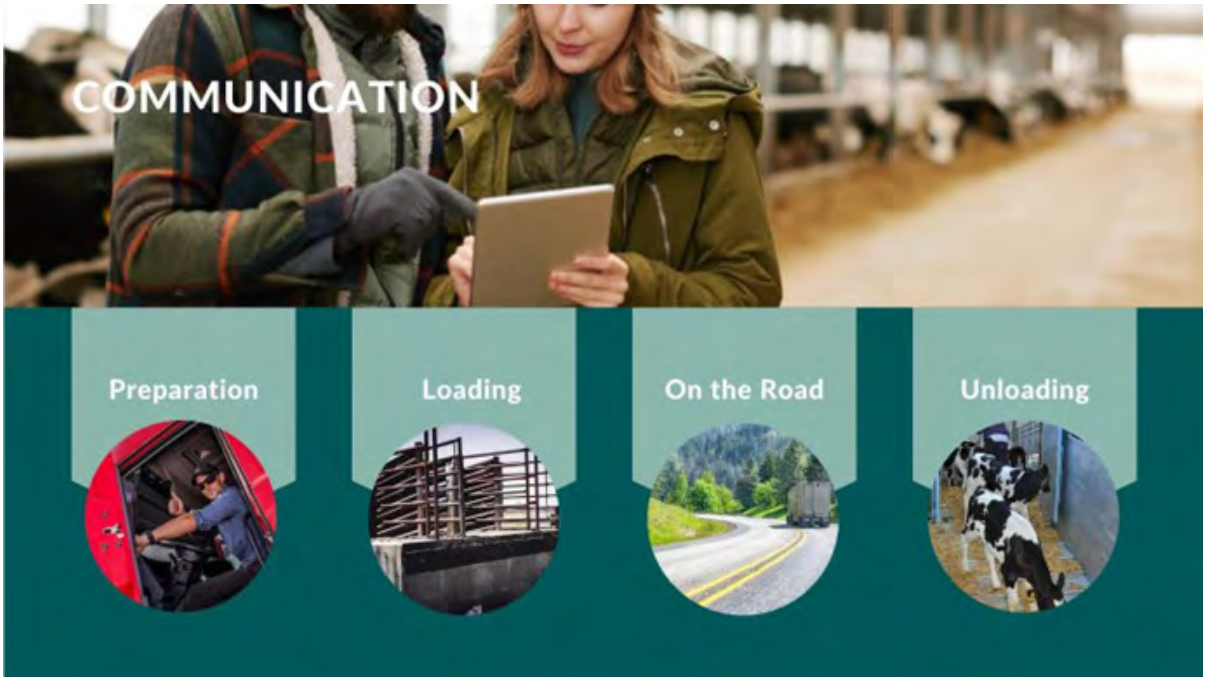
4. ***Clean and disinfect all accessories, separated parts, equipment and the power unit.***

5. ***Cleaning and disinfection protocols may not include all the cleaning and disinfection steps depending on various factors for e.g., disease risk, customers biosecurity requirements, surface material and available infrastructure, etc.***

# 6 THE TRANSPORTATION PROCESS

## COMMUNICATION

In this last module, we will complete the training with an overview of the transport process, where we will apply and consider all the learnings you have acquired since the beginning of this course. We will also provide pertinent insights and tips for livestock transport for each step.




The transport process may be summarized as above.

The previous modules apply at every stage of the transport process.

We will address it orderly, using CFIA's checklist for animal transport.

1. Knowledge about humane transport of animals
2. Knowledge of the species
3. Knowledge of animal handling
4. Contingency plan
5. Clean equipment/biosecurity
6. Animals assessed prior to transport
7. Assess if special handling is required
8. Factors that affect transport
9. Animal monitoring during transport
10. Records

***Effective communication is essential for optimal planning and managing relationships with colleagues, clients and stakeholders. Conversely, poor communication can ruin planning and execution efforts and relationships and potentially result in adverse humane animal transport outcomes, lost contracts and a damaged reputation.***

To begin, we will address the most important common denominator for successful livestock transport: communication. **Communication** is key for normal transport activities but more critical in times of transport issues or biosecurity crises.

## COMMUNICATION PROCESS

Drivers must communicate with a wide variety of people during their drive.

**The following communication process is commonly used:**

**At Loading Site**

1. Make contact with the supervisor upon arrival at the facility
   - present yourself in a professional manner.
2. Ask for instructions
   - special considerations, biosecurity procedures or facility policies.
3. Confirm the directive back to the supervisor
   - establish the loading plans and delegate responsibilities.
4. Request confirmation that only 'fit for transport' animals have been selected, especially when animals are loaded in the absence of the driver
   - confirm the number of animals being loaded.
5. Upon completion of the directive advise the supervisor and ask if there are other instructions before you leave
   - confirm any delivery instructions including expected times of arrival.
6. In the event of a disagreement with the client, especially in regard to animal fitness, the driver is advised to contact dispatch, their supervisor or the plant for assistance.

**While on the Road**

Be ready to communicate with dispatch, shipper or receiver to share information or seek guidance. This means you should have all contact numbers handy.

**At Unloading Site**

1. Confirm with receiving where the animals are to be penned and if there are any special instructions including biosecurity and handling policies such as use of prods. The policies of the receiver being delivered to must be respected at all times.
2. Once unloaded, ensure the animals are securely locked in their receiving pens. Inspect for any ill or injured animals and if any compromised animals are found during unloading or in the receiving pen, inform management of the animal and request further inspection and/or care of the animal.
3. Before departure the driver should:
   - confirm the count
   - turn in all necessary paperwork.
   - contact the owner of the load if necessary.
   - make note of any incidents that may have occurred during unloading and file a report if necessary.
   - notify management of any broken equipment or repairs that need to be made to the facilities.

***Be effective in your communications by applying the seven C's of communication: Be clear, correct, complete, concrete, concise, considered and courteous. Be professional: The way you act is also part of communication!***

## CHECKLIST ITEM #1: KNOWLEDGE ABOUT THE HUMANE TRANSPORT OF ANIMALS

1. ***All persons involved in transport of animals share responsibility under the law (knowledge included).***
2. ***Be knowledgeable and competent – Know your stuff!***
3. ***Regs and good practices apply ALL THE TIME.***
4. ***Never stop caring for the animal under your responsibility.***
5. ***Act as if you were under the camera during the entire process.***

| Preparation | Loading | On the Road | Unloading |
|---|---|---|---|
| • Not all facilities will provide optimal handling and loading conditions, be prepared to adapt and apply good practices based on the situation and the animals presented to you.<br>• Gather information prior to your arrival to come fully prepared.<br>• An ounce of prevention is worth a pound of cure, including having a well-documented contingency plan. | • Know what is right and do it.<br>• Drivers have the last say on animal fitness. | • Know your rights and obligations related to your load of animals.<br>• Monitor your animals, watch for specific risk factors while on the road, and adapt accordingly. | • Not all facilities will provide optimal handling and unloading conditions, be prepared to adapt and apply good practices based on the situation and the animals presented to you.<br>• Gather information prior to your arrival to come fully prepared.<br>• One ounce of prevention is worth a pound of cure.<br>• The receiver must be ready and able to take care of the animals before you start unloading. |

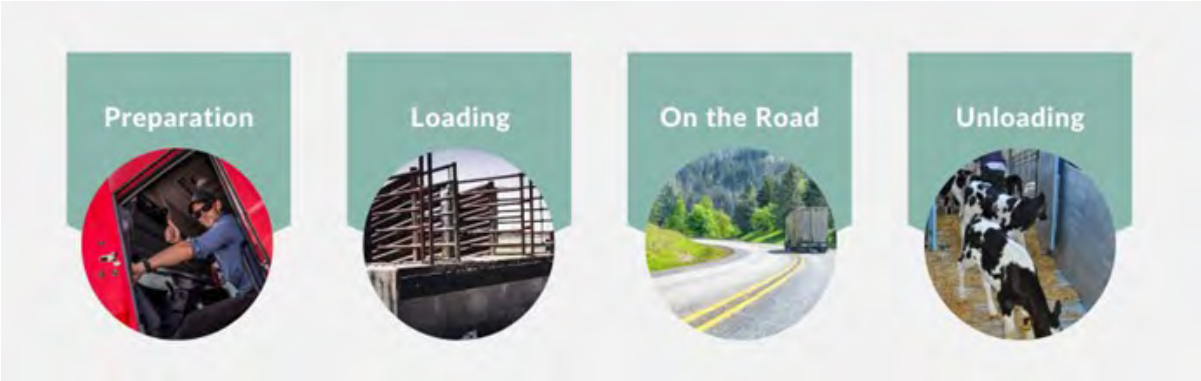
## CHECKLIST ITEM #2: KNOWLEDGE OF THE SPECIES

1. ***Remember that although most livestock are predictive, it might not always be the case. Be ready to adapt.***
2. ***On a regular basis and when preparing for a new species to transport, take the time to review their behaviour and handling characteristics***
3. ***Know their limits and their weaknesses in order to provide the best conditions throughout the process.***
4. ***Master their fitness for transport characteristics and make no compromise on following the regulations.***

| Preparation | Loading | On the Road | Unloading |
|---|---|---|---|
| • Review species characteristics.<br>• Assess if you have everything at hand to be successful at the task.<br>• Know key needs such as footing, bedding, density and climate protection requirements. | • Use the proper flight zone.<br>• Use proper handling tools.<br>• Use proper group size.<br>• Use proper driving pace when handling.<br>• Protect the animals at all times, especially the most vulnerable; adapt accordingly. | • Know your signs of stress and cold.<br>• Read your load, and assess its comfort based on observations, not on assumptions and adapt accordingly. | • Use proper unloading technique.<br>• Use proper handling tools.<br>• Use proper group size.<br>• Use proper driving pace when unloading.<br>• Ensure adequate footing to avoid slips and falls. |

Animals that are most vulnerable to transport stress and post transport stress include:

- young or newly weaned calves and lambs
- geriatric animals
- previously ill animals
- animals with elevated stress levels
- cull dairy cows
- overly fat cattle.



## CHECKLIST ITEM #3: KNOWLEDGE OF ANIMAL HANDLING

1. ***Take time to understand basic handling principles provided earlier.***
2. ***If you rush them because you are in a hurry, it will take more time. Stay calm, follow the animals' pace and be efficient (least amount of energy possible to get them moving).***
3. ***Make sure they have a place to go before applying pressure.***
4. ***If they move in the desired direction, let them progress at their pace, no need to add stimulus.***

| Preparation | Loading | On the Road | Unloading |
|---|---|---|---|
| • Knowledge is key.<br>• Practice makes perfect.<br>• Auto-evaluate yourself and learn from your past experience.<br>• Get help if uneasy with a species prior to engaging in their handling.<br>• Read your animal and assess your route, before engaging in handling. | • Adapt-adapt-adapt.<br>• Be quiet, calm and patient when handling animals. | • Not much handling is required unless you pick up animals on multiple sites.<br>• Secure gates and consider that animals on board might be more nervous than when unloaded. Use extra care. | • Adapt-adapt-adapt.<br>• Transport is physically and mentally tiring for animals. Take it into consideration when unloading.<br>• If you encounter a non ambulatory or unfit animal:<br>• Contact facility management to determine the next plan of action.<br>• Do not remove any other animals in the compartment until management establishes a plan.<br>• If the animal is in the direct path of animals unloading from other compartments, it must be removed from the trailer first or protected from the other animals to prevent further injury.<br>• If the animal is not in the direct path of other animals, it can wait to be dealt with when the rest of the truck is unloaded. |

***Non-ambulatory animals CANNOT be removed from the trailer. Animals that cannot walk off of the trailer unaided should be euthanized on the trailer. File an incident report with your company, the owner and the receiver.***

**Sorting Animals (shipping facilities)**

The transportation process begins with prepping the livestock.

Sorting and mixing should occur at the appropriate interval before loading.

This can be anywhere from two weeks ahead of time for freshly weaned calves to a few hours ahead of time for pre-socialized mature livestock.

Sorting techniques and procedures will impact the behaviour of animals at the time of loading. Therefore, make sure to inquire about this aspect before you start loading.

## CHECKLIST ITEM #4: CONTINGENCY PLAN

| Preparation | Loading | On the Road | Unloading |
|---|---|---|---|
| • Make sure you have a well-documented plan; it's the law.<br>• Be knowledgeable about your plan.<br>• Try to make it a continuous improvement process and improve your plan from real-life experiences and solutions. | • Be ready to recognize the dangers you have assessed in your plan and execute the solutions accordingly.<br>• Communicate with your partners and document your decisions and the outcomes when you execute any item in your plan. | • Always carry a copy of your contingency plan in the cab.<br>• Be ready to recognize the dangers assessed in your plan and execute the solutions accordingly.<br>• Communicate with your partners and document your decisions and the outcomes when you execute any item in your plan. | • Be ready to recognize the dangers you have assessed in your plan and execute the solutions accordingly.<br>• Communicate with your partners and document your decisions and the outcomes when you execute any item in your plan. |

1. ***Every commercial carrier and those persons who transport animals in the course of business or for financial benefit must have a contingency plan. It's the law.***
   - ***The plan establishes measures to be taken to reduce or mitigate avoidable suffering, injury or death of animals during the transport process.***
2. ***Any person who is required to have a contingency plan will inform all employees and agents or mandataries who load, confine, transport or unload animals or who take part in decision-making, or advising the person operating the conveyance, in respect of the loading, confining, transporting or unloading of animals of the contingency plan.***

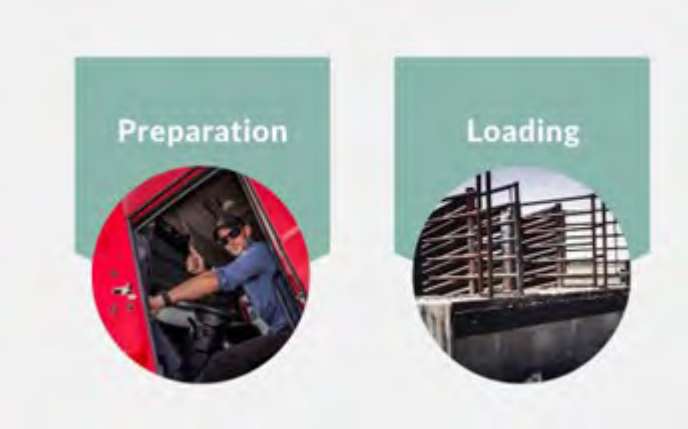
## CHECKLIST ITEM #5: CLEAN EQUIPMENT/BIOSECURITY

1. ***The basic concept of biosecurity is to prevent animals, equipment, transport unit or yourself from becoming contaminated with a disease agent, also called pathogen. In a situation where contamination occurs then the goal is to prevent its spread to animals, other locations and equipment.***
2. ***Diseases can be introduced through transportation, commingling and introduction of new animals into a herd. Areas of high biosecurity risk include auction markets/ gathering places, commingling, back hauling and stops along your transportation route.***
3. ***Trailers should be washed out frequently, with complete disinfectant wash downs occurring often.***
4. ***Keep coveralls clean and wear boot covers where required.***

| Preparation | Loading | On the Road | Unloading |
|---|---|---|---|
| • Proper truck and trailer cleaning will help stop the spread of disease.<br>• The following will influence your preparation:<br>  • number of loading/ unloading sites<br>  • the health status of these sites<br>  • driver's involvement in loading/unloading animals<br>  • multiple loading and unloading sites mean carry more biosecurity supplies<br>  • customers' requirements and location for scrape-out<br>  • route and driver stops.<br>• Check with the facility or manager at the point(s) of loading and unloading for any special biosecurity requirements. | • Follow loading site biosecurity requirements.<br>• When no guidance is provided, use the best practices presented in the biosecurity module. | • Follow loading site biosecurity requirements.<br>• When no guidance is provided, use the best practices presented in the biosecurity module.<br>• Do not ignore the contamination potential from and to your load along your transportation route: stop or park alongside barns, ventilators, and other trucks, or drive in known contaminated areas. | • Follow unloading site biosecurity requirements.<br>• When no guidance is provided, use the best practices presented in biosecurity module. |

## CHECKLIST ITEM #6: ANIMALS ASSESSED PRIOR TO TRANSPORT

1. ***All parties who are directly (handlers, producers, transporters) or indirectly (processors) involved in the transport process are to take measures to ensure that animals are assessed for fitness prior to transit.***
2. ***Applies to:***
   - ***all people who load, confine or transport an animal, or cause one to be loaded, confined, transported***
   - ***any conveyance or container (there are separate rules for animals transport on vessels but it will not be addressed in this course).***
3. ***Animals must not be transported unless they are fit to withstand the entire journey without suffering, injury or death that is caused by, or made worse by, the transport process.***
4. ***<u>Unfit animals MUST NOT be loaded</u>.***




| | |
|---|---|
| • Be knowledgeable and competent in recognizing signs of unfit and compromised animals.<br>• Use the available decision trees to be knowledgeable and competent on the best solutions to apply to any fitness situation.<br>• Ensure that the animals are healthy and conditioned before transportation.<br>• Identification of animals not fit for transport should ideally occur prior to sorting and loading. | • Assess each animal to be loaded. As this is a shared responsibility, the outcomes of loading an unfit animal will backfire on all parties involved.<br>• Each situation is different. Knowledge and judgment are needed to evaluate if an animal is considered unfit.<br>• Document your decision. |

**Check Animals Before Transport**

**Scenario 1 - If Your Animal is Unfit**

It must be isolated in transport, loaded alone without negotiating ramps.

Measures must be taken to prevent unnecessary suffering and must not go to an assembly centre or an abattoir.

Under the advice of a veterinarian and to receive veterinary care only.

**Scenario 2 - If your Animal is Compromised**

It must be isolated in transport, loaded alone without negotiating ramps.

Measures must be taken to prevent unnecessary suffering and the animal must not go to an assembly centre.

Seek nearest place the animal can receive care or be humanely killed.

**Scenario 3 - Animal was Fit for Transport upon Departure**

Go!

**Animal Compromised EnRoute**

**Animal Unfit EnRoute**

While you monitor en route, you realize an animal has become compromised or unfit:

Humanely kill on the truck or nearest place where the animal can receive care, or be humanely killed.

The nearest place could include an assembly centre for these animals.

Have a look at the resources below.

**Try the links and save them for future use.**

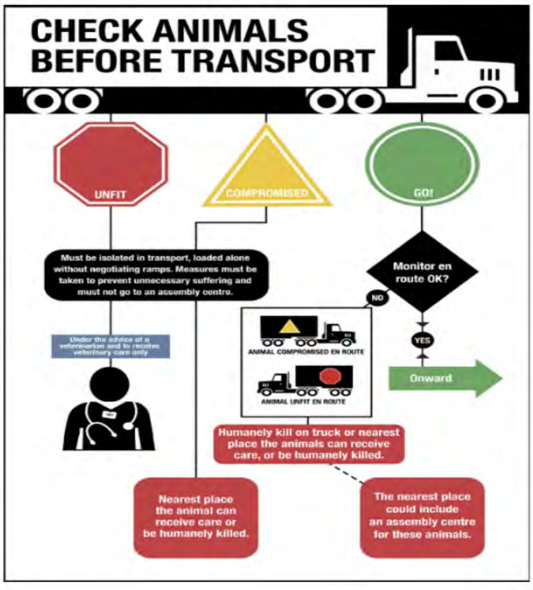
| | |
|---|---|
| Cattle | Pig |
| Dairy | Sheep |
| Veal Cattle | Goat |

**Note: These are links to species-specific decision trees.**

**Source: Codes of Practices**

Animals Assessed Prior to Transport: Still Need Help?

*If you are still determining if an animal is fit for the trip, contact your veterinarian or a transport specialist, or refer to the NFACC codes of practice.*



| Resources | Type | Website | Downloadable |
|---|---|---|---|
| Regulatory guidance and resources for the humane transport of animals | Documents | link | Some available |
| Transporting unfit or compromised animals (**signs of unfit and compromised animals**) | Document | link | PDF |
| Checking animals before transport | Decision tree | link | Image |
| LIVESTOCK IN CANADA Are you sure that animal is fit for the trip? | Document | link | PDF |
| **Canadian Livestock Transport Manual**, Module 2 (Regs and codes) | Document | | Available |
| National Farm Animal Care Council (**NFACC**) species specific **Codes of Practice** | Document | link | Available |
| Make sure your **calf** is fit for transport | Document | link | PDF |
| Transport of **lactating** animals | Decision tree | link | PDF |
| Assessing **lameness** for transport | Decision tree | link | PDF |
| **Compromised or unfit** animals at **assembly centres** | Decision tree | link | PDF |

**Note:** This information is provided for information purposes.

If there is any discrepancy between our material and the Health of Animals Regulations, the Health of Animals Regulations shall prevail.

# CHECKLIST ITEM #7: ASSESS IF SPECIAL HANDLING IS REQUIRED

1. ***Assess animals prior to transport to identify animals that show signs of being affected with a disease or condition that could prevent their transport or make special handling for welfare reasons necessary.***
2. ***Special handling might also be necessary at destination based on the needs of the animals (from conditions assessed at loading or due to changes in their conditions during transport).The basic concept of biosecurity is to prevent animals, equipment, transport unit or yourself from becoming contaminated with a disease agent, also called pathogen. In a situation where contamination occurs then the goal is to prevent its spread to animals, other locations and equipment.***

| Preparation | Loading | On the Road | Unloading |
|---|---|---|---|
| • You must get information about animals with special needs before you arrive at the loading site.<br><br>• You might have to bring extra materials or decide to address their comfort (extra bedding, extra space, assistance from a vet, or someone else).<br><br>• Compromised animals allowed to be transported sure require most of the time special handling to be transported.<br><br>• Young, geriatric, culled animals often require special handling as well.<br><br>Most of the time, compromised animals allowed to be transported, require special handling and have a reduced transport time (max 12 hrs FWR interval). | • Handle animals with special handling needs with great care.<br><br>• Document your preparation, your actions, and the outcomes of their loading. | • Special handling needs mean more susceptibility during transport. Therefore, monitor more frequently and adapt. | • Handle animals with special handling needs with great care.<br><br>• Document your transport monitoring, your actions, and the outcomes of their unloading.<br><br>• Capture any lessons learned and adapt your procedures for the next occasion.<br><br>• Document the condition of the animals upon arrival on the Transfer of Care. |

**Tips**

**SPECIAL HANDLING REQUIRED FOR COMPROMISED ANIMALS:**

Animals determined to be compromised prior to loading can only be transported directly to the nearest suitable place where they can receive care or be humanely killed, except at an assembly centre. Compromised animals also have a maximum feed, water and rest (FWR) interval of 12 hours.

**Conditions**

- Bloated with no signs of discomfort.
- Acute frostbite.
- Blind in both eyes.
- Not fully healed after a procedure (including dehorning, detusking, or castration).
- Lame other than as described in unfit.
- Has a deformity or fully healed amputation.
- Is in a period of peak lactation.
- Unhealed or acutely injured penis.
- Minor rectal or minor vaginal prolapse.
- Mobility limited by a device to its body.

**Examples of special handling that could be applied to the mentioned conditions.**

- Using specialized loading and unloading processes.
- Last on, first off.
- No ramp climbing within the conveyance.
- Providing the animals with additional bedding.
- Isolating the animal from others (or, in special cases placing the animal in a pen with a familiar companion animal).
- Additional climate control measures appropriate for the conditions.
- Taking steps to prevent hypothermia or hyperthermia (providing a heat source or boarding up some of the ventilation holes).
- Measures to prevent dehydration.
- Transporting the animal locally to the nearest place where it can receive care or be humanely killed.
- Providing the animal with pain medication, applying splints if needed and/or providing other veterinary care relevant to the injury or illness.

## SPECIAL HANDLING REQUIRED FOR YOUNG, GERIATRIC, CULLED ANIMALS

Based on their age or stage of production, some animals may require special handling dictated by regulations or common sense.

**Conditions**

- Livestock, camelids or cervids of 8 days of age or less.

**Special handling that should be applied to the mentioned conditions:**

- load individually, without negotiating ramps within the conveyance
- provide enough space for all animals to lie down, not on top of another animal
- take measures to prevent suffering, injury or death during transport (for example, bedding, ventilation, protection from getting cold, protection from dehydration)
- animals are segregated from other animals that are not similar in age and size.

**Conditions**

- Pigs and cattle less than 3 months of age.

**Special Handling that should be Applied to the Mentioned Conditions**

- Do not use electric prod.

**Conditions**

- Sheep, goats, dogs, horses, camelids, calves and weanling pigs.

**Special handling that should be applied to the mentioned conditions;**

- prod use is prohibited in sheep, goats, dogs, horses, camelids, calves and weanling pigs.

## SPECIAL HANDLING REQUIRED FOR NON-AMBULATORY AND COMPROMISED ANIMALS

**Conditions**

- Non-ambulatory and compromised animals.

**Handling that should be applied to the mentioned conditions:**

- to handle compromised animals (including stressed pigs), those unwilling or unable to move, and those that "go down" on unloading chutes and in lairage
  - animals can be humanely killed where they lie or can be allowed time to recover with protection from stress or injury until they can move under their own power
  - these animals should not be physically encouraged, pushed, or dragged.

## SPECIAL HANDLING REQUIRED FOR FATIGUED/STRESSED/DOWNER PIG

**Conditions**

Stressed pig/ Fatigued pig/ Downer pig

- The transport process is particularly stressful for pigs. Extremely stressed pigs are a serious welfare concern and are not fit to be loaded.

**A pig that shows 2 or more of the following signs is unfit:**

- trembling
- having any form of breathing difficulty such as open-mouth breathing, panting, or gasping)
- patchy discoloration to the skin, such as blotchy skin or irregular skin blanching
- stiffness
- inability to move (with no other visible abnormalities).

**Handling that should be applied to the mentioned conditions:**

- the severity and duration of signs will determine the most humane approach for handling stressed pigs
- less severely affected pigs, where recovery is believed to be possible, can be allowed to rest to recover for a period that is not so unreasonably long as to cause undue stress while being protected from continued stressors, including physical interaction with other pigs, to try to keep them as calm as possible.

***In the case of a severely stressed pig, either ambulatory or non-ambulatory, that is trembling, has patching skin discolouration and laboured breathing, it is unlikely to recover and is to be humanely killed immediately.***

## CHECKLIST ITEM #8: CONSIDER FACTORS THAT AFFECT TRANSPORT

***All those Involved in the Transport of Animals Must Assess;***

- ***the animal's capacity to withstand the transport process and***
- ***the factors that could reasonably be viewed as likely to cause animal injury, suffering or death during the transport process***
- ***the risks prior to loading, confining, transporting or unloading animals.***

***Common Risk Factors to Consider***

1. ***Loading process by itself***
2. ***Space requirements***
3. ***Ventilation***
4. ***Secure footing***
5. ***Compatibility with others***
6. ***Expected time in transport***
7. ***Foreseeable delays***
8. ***Weather conditions and changes***
9. ***Driving conditions***
10. ***Type and condition of transport equipment***
11. ***Facilities***

These risks must be considered during preparation and documented in your procedures and/or contingency plan.

Plan for optimal outcomes and adapt to changing reality along the process.

***An ounce of prevention is worth a pound of cure!***

| Preparation | Loading | On the Road | Unloading |
|---|---|---|---|
| • Have your procedures ready.<br>• Assess the risks and apply your measures accordingly.<br>• Communicate your measures to those involved. | • Execute your plan.<br>• Adapt<br>• Document your decision and actions. | • Execute your plan.<br>• Adapt<br>• Monitor<br>• Document your decision and actions. | • Execute your plan.<br>• Adapt<br>• Document your decision and actions and their outcome. |

### 1. Loading Process by Itself – Loading Tips

Always remember that transportation involves new experiences for animals, many of which can cause distractions preventing them from loading 'smoothly.'

Possible distractions to be considered during loading are:

- improper lighting
- vibration
- cold weather.

The driver should have everything prepared for loading before backing up to the ramp or dock. The trailer must be level and flush with the loading dock/ramp, gates open and the trailer prepared for the animals.

You should minimize the time the animals spend on the trailer; loading should not occur until all other transportation preparations have occurred.

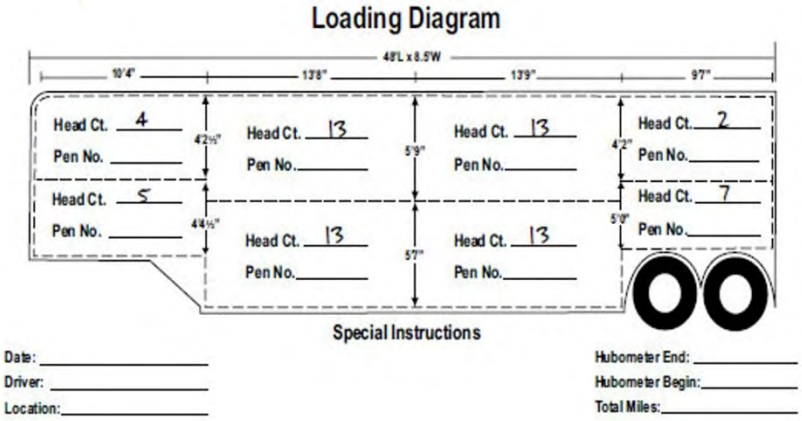
This is extremely important in warm weather conditions.

***Good loading practices include:***
***have a clear, known plan before you begin loading.***

- ***Use a checklist and loading worksheet to load the proper number of animals and related weights on a trailer.***
- ***Shifting and moving animals around a loaded unit is stressful and should be avoided if at all possible.***
- ***Loading and unloading are considered to be the most stressful part of the transport for animals. To alleviate as much stress as possible, handle animals calmly and humanely at all times during loading.***
- ***New or entry-level drivers may find value in seeking out experienced company drivers to assist them in determining the loading calculation for their first few runs.***
- ***When trailers are not full, they should be partitioned into smaller areas to provide stability for the livestock and vehicle.***
- ***Do not overcrowd a compartment. An overcrowded load will not "settle". Animals will scramble for footing, and those that fall or lie down will not be able to get up. The load will continue to be noisy for a prolonged period of time.***
- ***Ensure the crowd gate is securely placed before moving livestock up the internal ramp. Divider gates should be closed for sheep, pigs, horses and lights loads of cattle, feeders, calves and cull cows.***
- ***Secure gates when loading. Do not push animals with the gate; they can kick or push it back at you.***
- ***Sometimes a hauler will be required to transport a split load - this is a load where the driver will make 2 or 3 deliveries off a truckload. Animals must be put on the trailer in the appropriate order for unloading and must be segregated from the other animals. Once a group of animals is unloaded, move the remaining animals, if necessary, to balance the trailer.***

## 2. Space Requirements

It is the driver's responsibility to know the dimensions of their trailer and proper loading density recommendations for the animals they are loading. Determine the loading density for each compartment of the trailer before you begin loading.




**When determining loading density you will need to know the height of each compartment.**

- The doghouse height typically ranges between 52" and 59", depending on the trailer design.
- When the nose has decking, the height can range from 49.5" - 52".
- The area underneath the doghouse will typically have a 57" - 59" clearance.
- Animals should not come in contact with the roof or a deck (i.e. tall cattle in a doghouse).
- Determine the floor space of each compartment on the trailer.

**Know when reductions are required such as:**

- reduce loading density to 85% of the maximum for trips in excess of 24 hours to allow the sheep to lie down
- dairy cattle should be loaded at a lower density than beef cattle (-15% in mild weather) and gated/partitioned into smaller sections.

***To determine proper loading densities, refer to Recommended Code of Practice for the Care and Handling of Farm Animals: Transportation-Appendix 2 Density Charts).***

***Have a look at the resources below. Try the link and save it for future use.***

Recommended Code of Practice for the Care and Handling of Farm Animals: Transportation-Appendix 2 Density Charts

| | |
|---|---|
| • Veal calves (imperial units)<br>• Veal calves (metric units)<br>• Maximum loading density Beef Cattle (imperial units)<br>• Maximum loading density Beef Cattle (metric units)<br>• Maximum loading density Cervids (imperial units)<br>• Maximum loading density Cervids (metric units)<br>• Maximum loading density loose horses (imperial units) | • Maximum loading density loose horses (metric units)<br>• Maximum loading density loose foals (imperial units)<br>• Maximum loading density loose foals (metric units)<br>• Pig maximum loading density (imperial units)<br>• Pig maximum loading density (metric units)<br>• Small pig maximum loading density (imperial units)<br>• Small pig maximum loading density (metric units)<br>• Maximum trailer loading sheep (imperial units)<br>• Maximum trailer loading sheep (metric units) |

From these guidelines, adapt your density to weather considerations (addressed later in this section).

Loading density should be reduced by approximately 20% for trips expected to take longer than 8 hours from the time of loading to the time of unloading.

**3. Ventilation**

The trailer should provide adequate ventilation throughout the transport process.

Most livestock trailers are ventilated by passive ventilation, meaning the pressure difference will move and force air into the trailer. Therefore, a stalled trailer will not offer optimal ventilation that will allow for new air. Take this into consideration when planning your journey.

**4. Secure Footing/Bedding**

Provide safe and secure footholds (footing) or adequate bedding to prevent livestock slipping and falling.

There must be no unprotected gaps between the end of the loading ramp and the vehicle through which an animal could trip, slip, fall or escape.

Per Health of Animals Regulations Part XII, all trailers must have sufficient sand, straw, wood shavings or other bedding material to absorb and prevent water, urine and liquid manure from pooling or to escape. Always add fresh bedding to the floor if required.

Where manure is allowed in the trailer prior to loading, it must not exceed the height of the hoof.

**Bedding information is currently limited other than for hogs.**

| | | OUTSIDE TEMPERATURE | | | | | |
|---|---|---|---|---|---|---|---|
| Type of Load | Trailer Type | 30° C + | 10 to 29° C | 9 to 0° C | -1 to -10° C | 11 to -20° C[d] | -21 to -30° C[d] |
| | | # Units[a, b] | # Units[a, b] | # Units[a, b] | # Units[a, b] | # Units[a, b] | # Units[a, b] |
| Breeding Stock | Straight | 6 | 8 | 12 | 18 | 23 | 29 |
| | Tandem | 8 | 10 | 14 | 21 | 25 | 33 |
| Isoweans Triple Deck | Tandem | 6 | 10 | 16 | 20 | 26 | 28 |
| | Tridem | 7 | 11 | 18 | 22 | 29 | 30 |
| Isoweans Quad Deck | Tandem | 8 | 16 | 20 | 28 | 30 | 32 |
| Weanlings Triple Deck | Tandem | 6 | 9 | 11 | 15 | 20 | 24 |
| | Tridem | 7 | 10 | 12 | 17 | 21 | 25 |
| Weanlings Quad Deck | Tandem | 8 | 12 | 16 | 20 | 22 | 24 |
| Market Hogs Local Hauls[c] | Tandem | 5 | 5 | 8 | 10 | 16 | 18 |
| | Tridem | 5 | 5 | 10 | 12 | 18 | 20 |
| Market Hogs Long Hauls[c] | Tandem | 6 | 6 | 8 | 12 | 16 | 20 |
| | Tridem | 6 | 6 | 8 | 14 | 18 | 22 |
| Cull Sows/Boars | Tandem/Tri | 5 | 5 | 5 | 10 | 12 | 14 |

[a] A unit is a 30 - 35 pound bale of shavings or chopped straw in a bag.
[b] Increase bedding by 30% if doing more than 1 load before wash or if pigs stay on trailer overnight.
[c] A local haul is defined as < 4 hours, a long haul > 4 hours.
[d] Straw is recommended in temperatures below -10° C to avoid frostbite.
* Adapted from Steve's Livestock Transport Bedding Requirements - May 29, 2012

Significant variation in the type and amount of bedding required when transporting pigs exists.

Pig type, age, weather conditions, a distance of transport and bedding type all must be considered when determining the appropriate bedding levels.

This chart provides guidance on recommended bedding levels for all classes of pigs and weather conditions.

- Bedding material used: straw and/or shavings.

Research (Schutte et al. 1996) has also shown that straw bedding improves pig comfort (based on heart rate) during transport at 5 - 10°C.

**Bedding Tips for Calves**

- Calves less than one-month-old, known as Bob calves, should not be bedded in wood shavings or sawdust.

**5. Compatibility with Others**

Load compatible animals to avoid causing injuries or fights during transport. Incompatible animals may be full males (bulls or boars) or animals of different sizes (calves and market-size beef cattle).

**6. Expected Time in Transport**

As seen earlier in the regulations and codes section, you are working under time constraints when transporting animals.

Make sure to evaluate the total transport time during your planning to stay within permitted limits.

***Maximum allowed intervals without feed, water, and rest.***

| Species and Class | Maximum time interval (in hours) without feed, water, rest |
|---|---|
| Compromised animal of any species, size, age, sex, or breed. | 12 |
| Livestock, cervids, and camelids that are 8 days of age or less.<br><br>Ruminants that are too young to be fed exclusively on hay and grain. | 12<br>(single period, not repeated)<br><br>12 |
| Rabbits | 24 for safe water<br>28 for feed |
| Porcine | 28 |
| Equine | 28 |
| Bovine, and other ruminants that can be fed exclusively on hay and grain. | 36 |
| All other animals | 36 |

An interval begins:

- in the case of feed, when the animal was last fed
- in the case of safe water, when the animal was last given safe water
- in the case of rest, when the animal was last rested for a minimum of eight consecutive hours.

**Rest Stop Requirements**

Rest periods, must not be less than 8 consecutive hours (time to next required rest starts after the animal has been rested 8 hours).

**7. Foreseeable Delays**

Your transport planning should establish measures to reduce or mitigate avoidable suffering if any unforeseen delays or circumstances could cause avoidable suffering, injury or death.

**Examples of unanticipated events that can occur when transporting animals to consider when developing your schedule and contingency plan include:**

- road detours, closure or unexpected construction causing delays
- alternate route(s) to avoid long stops in case of accidents, road closure or extended delay
- location of alternate holding areas for animals such as assembly centres (for example, auctions or other slaughter establishments)
- the planned destination has to be changed (for example, plant shutdown) and therefore, what is second option
- you are asked to load animals without knowing when the producer last fed them
- you are asked to load an animal that you have assessed as unfit
- a journey is longer than expected or unloading is delayed
- accident or rollovers involving animals
- a vehicle breakdown or equipment not working
- inclement weather
- sudden illness of the driver
- a labour disruption
- an animal becomes compromised or unfit during transport
- an animal becomes fearful or aggressive during the transport process
- an animal needs to be euthanized.

**8. Weather Conditions and Changes**

Weather can have a significant impact on the welfare of animals during transport. Therefore, transporting livestock in extreme conditions should be avoided whenever possible, and animals must be handled with extra care during temperature extremes.

Temperature variations can be extreme during a single animal move and may require adjusting weather management tools during transport. A driver must monitor the weather conditions throughout the trip and as required, adjust the ventilation and cover protection on the unit to assure positive animal welfare outcomes.

**Heat stress is more dangerous than cold stress.**

**Precautions During Hot Weather Transport**

**When possible, travel during the early morning and evening hours during high temperatures.**

**For this reason, avoid hauling during the day's heat - between 11 am and 4 pm.**

**Loading density should be reduced to allow for more air movement by:**

- **10% for cattle**
- **15% for sheep and horses**
- **10% (if > 16°C) and 25% (extreme heat) for calves.**

Recommended Reductions in Stocking Density Based on Humidex for Hogs

The Humidex Calculator can be accessed at www.csgnetwork.com/canhumidexcalc.html

| HUMIDEX* | RECOMMENDED REDUCTION |
|---|---|
| 25°C | 5 - 10% |
| 30°C | 10 - 15% |
| 35°C | 15 - 20% |
| 40°C | 20 - 25% |
| 45°C | 25% |
| 50°C+ | Consider loading at night or cancelling loads |

This chart shows the recommended reductions in stocking density for hogs based on the humidex. As you can see, it ranges from 5% up to 25% for extreme heat and humidity.

**Other precautions during hot weather transport include:**

- being aware of vacuum ventilation and adjusting vents to extreme heat or cold conditions
- a loaded trailer **SHOULD NOT** sit idle in warm/hot weather for more than 15 minutes. Avoid stopping when possible. Keep the trailer moving
- handle animals with extra care in hot weather. Especially calves that must be protected from direct sunlight, high temperatures and high humidity. These weather conditions can cause breathing difficulties, stress, and potentially death.

**Signs of Heat Stress in Livestock**

**Conditions**

- Rapid, open mouth, shallow breathing (panting)
- Tongue hanging out
- Gasping
- Profuse sweating on their nose.

**Sheep** are quite susceptible to heat stress which, along with the signs above, you can add the following:

- neck extended
- lethargic
- increased salivation.

**Cooling Strategies**

Sheep and pigs can be cooled by watering the floor of the trailer or by using a fine mist spray in areas of low humidity. In areas of high humidity, this will be detrimental to the environment of the trailer.

Recent research showed that sprinkling pigs 5 min after loading and 5 min before unloading resulted in less fatigue and improved pork quality starting from 20°C ambient temperature (Fox et al., 2012; Nannoni et al., 2012).

Do not mist the pigs but use large droplets of water.

### Precautions During Cold Weather Transport

- Variations in temperature can be extreme in the course of a single move, especially in western Canada. Depending on the animal type, age, physical condition and applicable weather conditions, environmental protection including bedding and or winter slats must be put in place before loading for cold weather transport.
- Take advantage of daylight hours for winter transport. Avoid transporting livestock in extreme wind or cold conditions.
- Ensure trailer is clean and that it has adequate bedding/sawdust in order to avoid slippery surfaces.
- Depending on the age and physical condition of the animals and the applicable weather conditions, environmental protection must be put in place before loading. This may be in the form of bedding or winter slats.
- Consider reducing loading density that would allow animals to move away from the sides of the trailer, where instance of exposure would be greatest.
- Young and recently shorn sheep, calves, geriatric animals, dairy cattle and pigs are particularly susceptible to frostbite and loss of body heat during transport.
- Long-distance moves may require extra bedding in cold weather. If the animals are expected to lie down, or if they are not conditioned to winter weather such as barn-raised animals, cull dairy cows, calves, or freshly shorn sheep) the driver will need to bed each compartment heavily (example: ankle-deep straw).
- During winter travel, openings that allow drafts or freezing rain and snow to enter the vehicle box should be covered.
- Weather conditions should be observed, and ventilation adjusted accordingly. Too much cold air entering the vehicle could cause vulnerable animals to suffer from frostbite, but not enough air could cause suffocation.

### Signs of Cold Stress in Livestock

- Shivering
- Eating bedding
- Fluid froze to face or nostrils

**Animals must NEVER become wet during winter moves.**

Unloading wet animals into an outdoor pen in freezing conditions is extremely uncomfortable for the animals and can lead to cold stress and increased sickness. Instead, adjust for the current temperature if necessary.

### Winter Boards

| Temperature | Windward3 | Leeward4 |
|---|---|---|
| 0 degrees and warmer | All out | All out |
| -1 to -9° C | Every 4th in | Every 4th in |
| -10 to -15 ° C | Every 3rd in | Every 3rd in |
| -16 to -23° C | All in | Every 2nd in |
| -24 to -28° C | All in | Two or three boards out |
| -29° C and colder | All in | All in |

Based on a full load of 100 sows, 220 market hogs or 550 weanlings.
[1] For weanlings more boards may be added if there is a strong wind.
[2] Windward is the side of the trailer that the wind is blowing against.
[3] Leeward is the side of the trailer that the wind is not blowing against.

In extreme weather, stopping should be minimized.

If you do stop for a break:

- animals should be protected from the elements (wind, freezing rain)
- park in the shade or where a cross breeze can pass through the trailer in hot weather
- make the stop as brief as possible
- do not park too close to other vehicles or buildings to allow for ventilation and for biosecurity reasons.

**9. Driving Conditions and Driving Style**

***Drivers should demonstrate conservative driving, including gentle turns, throughout the trip so the animals are not thrown off balance which can injure them or lead to bruising.***

**Assessing Driving Conditions**

Assess driving conditions that will be encountered during the trip and adapt accordingly:

- winter road conditions
- spring road conditions
- thaw seasons (affecting maximum load weights)
- highways vs countryside road conditions (adapt your driving accordingly).

**Assessing the Driver's Capabilities**

Assess the driver's capabilities before sending them on the road with animals:

- skill (driving smoothly, avoiding sharp turns, jarring movements) and alert
- training/experience
- knowledge of the best practice
- preparation
- alertness (is the driver rested)
- distraction.

***When qualified livestock truckers are hauling a load, they:***

- ***Slowly pull away from the loading area, allowing animals time to adjust to the movement of the trailer and the other animals***
- ***Drive the first half-hour with extra caution to allow the animals to get situated and gain their footing***
- ***Make sure you take turns wide and slow, avoiding soft or angled shoulders and drive with great caution whenever they leave the pavement***
- ***If the driver manoeuvres in a way that causes the top-heavy trailer to lean over, it can reach its point of no return in seconds. This gives the driver little ti me to react and the consequences can be disastrous***
- ***Ease into a stop to avoid animal pile-ups and always park on level ground.***

## 10. Type and Condition of Transport Equipment

### Truck and Trailer

The trailer should provide adequate ventilation and cover against extreme weather conditions. Ensure that appropriate, weather-related practices are considered when planning for your trip.

- The trailer should be cleaned prior to each new load.
- No sharp edges/protrusions or objects that may injure the animals. Flooring must be solid and non-slip.
- All clean-out traps must be closed.
- Gates and doors must open freely and be secured shut.
- Internal ramps must function properly and extend to the floor.
- The truck should be fuelled up before loading animals. All fluid levels should be checked. The driver should have everything prepared for loading before backing up to the loading dock/ramp.
- The truck may need to be weighed before loading begins.
- The trailer must be backed up, level and flush with the loading dock/ramp.
- Upon arrival at the loading site, open the gates and prepare the trailer for loading.

### Once You Arrive at Your Destination

- The trailer must be lined up and level with the unloading dock.
- There must be no gaps or spaces where animals can get caught, and the engine must be turned off before unloading begins.
- All doors and gates should be opened or closed as required.
- The ramp and alley are clear of debris.
- Facilities checked for any broken or missing parts that may injure animals.
- Waterers were inspected for the presence of and accessibility to water.
- Feed bunks for unsuitable feedstuff.

## 11. Facilities

**Transporters** are **not responsible** for the **facilities** where they **load and unload** animals, but they have to be **aware** of the **conditions** they are about to face and rely on the site **personnel** for optimal conditions.

If **drivers** notice any **issues** with the loading **facilities**, they should speak to the **producer or management before** commencing **loading or unloading**.

**Loading and receiving sites owners and personnel are responsible for:**

- **preparing** the facilities for loading and unloading
- **inspect** the ramps or alleys for required repairs and ensure they are completed before loading begins
- having the **proper handling** equipment available for use
- sorting and loading facilities must be **properly designed and maintained** to prevent injury and undue animal stress during handling.

***A Few Key Points on Loading Facility Design***

1. ***Sharp corners (90° angle) should be avoided in handling facilities - they give the illusion of a dead end to the animals.***
2. ***Unloading ramps should have a level loading dock with sides that are at least 1.5 meters high at the top of the ramp and solid sides to block out distractions. Single width ramps should be 81 cm wide.***
3. ***Concrete ramps must have steps with 30 cm (12 inch) tread width and 10 cm (4 inch) rise on each step. All flooring must be non-slip.***
4. ***Cleats should be placed 8 inches apart and all flooring must be non-slip.***
5. ***All necessary repairs must be made, the area cleaned and the ramp set level at both the top and bottom before sorting or loading begins.***

**Ramps**

The Health of Animals Act part XII stipulates that a ramp must not exceed:

- 20° for pigs
- 25° for cattle
- 30° for equine
- 35° for sheep, goats and cervid.

**Lighting**

Optimal lighting for moving animals is minimally 80 Lux.

Lighting must be provided for night loading and should not create shadows in the loading area. The light should be indirect lighting and must not shine directly into the animal's face.

**Getting a Facility Ready for Unloading**

- All doors and gates should be opened or closed as required.
- Ramp and alley clear of debris.
- Facilities checked for any broken or missing parts that may injure animals.
- Waterers were inspected for presence of and accessibility to water.
- Feed bunks for unsuitable feedstuff.
- Receiving pens must have enough room to allow the animals to lie down comfortably.
- Bedding may be necessary depending on weather, pen conditions and animal type.

## CHECKLIST ITEM #9: PLAN FOR ANIMAL MONITORING PLAN DURING TRANSPORT

| Preparation | Loading | On the Road | Unloading |
|---|---|---|---|
| • Be aware of animal preconditions or risk factors requiring more frequent monitoring than for a fit animal. | Once the animals are loaded:<br>• walk around the trailer and ensure all gates are closed, and animals are ready to go<br>• double-check you have the appropriate and required paperwork<br>• weigh the truck, if necessary, before leaving the facility<br>• load and go - do not leave the animals waiting on the trailer! | • Check the load one hour after departure and every 2-3 hours after that in moderate temperatures. On a hot day, this check stop should be short as the trailer can heat up quickly when stationary.<br>• Check the temperature in the trailer. Make sure it is not too hot or too cold. You may need to adjust winter boards to account for the current temperature.<br>• Walk around the entire trailer and check the top deck. Check whether any animals are injured, ill or down in the trailer and that all gates are shut and secure.<br>• Monitor traffic concerns for the areas you are travelling through and detour to avoid congestion if possible.<br>• Keep in touch with your destination on your estimated time of arrival. | • Upon arrival at your destination, animals should be checked and receiving personnel should be informed of your arrival when applicable.<br>• Advise receiving personnel of any welfare concerns (e.g., hot/cold stress, DOAs) noted during transport monitoring.<br>• The timeliness of unloading is critical to the overall health of the animals; therefore, unloading should begin as soon as possible. |

1. ***Monitoring follows a thorough assessment of the animals in transport because:***
   - ***conditions change over time, and***
   - ***an animal's ability to withstand transportation can change over time.***
2. ***The guiding principles for monitoring of animals during transport ensure animals:***
   - ***are fit for the intended transport process before transport begins***
   - ***are monitored on an ongoing basis throughout the process at a frequency which***
     - ***checks that animal remain fit throughout the journey***
     - ***ensures prompt care if something goes wrong***
   - ***monitored by a regulated party who has knowledge and skills of the specific species involved so that avoidable suffering is prevented.***
3. ***When monitoring the animal en route and it seems OK, continue transport but if the animal seems to be compromised or unfit, options are to humanely kill on truck or to seek the nearest place (including an assembly yard) where the animal can receive care or be humanely killed.***
4. ***You will need monitoring records to document your decisions and rationale made. If your actions are not recorded, they may be deemed as "not done" by CFIA.***

## Tips

### Conditions or Risk Factors Which May Require More Frequent Monitoring than Standard Transport for a Fit Animal

- Unusual physiological characteristics of the animals such as, animal class and age, hyper/hypothermic, pregnant, wet/dry, lactating.
- Climate conditions may affect certain species more than other (for example, transport planning for pigs during hot, humid weather).
- Presence of any pre-existing infirmity, illness or injury.
- Presence of any pre-existing conditions of the animal, such as:
  - coat
    - sheep with wool can be safely transported in colder weather versus freshly shorn sheep
    - animals that are adapted to warm weather will get cold rapidly in Canadian winters (for example, slick coated dairy cows coming out of barns, poultry in temperature-controlled barns, animals from warm climates).
  - Animal temperament and previous experience will affect their handling (must be based on reports or observation of the individual).
- Space requirements for the animal:
  - space/head room requirements
  - natural position of the animal in transport
  - very young and very old animals tire more rapidly and tend to lie down more.
- Compatibility of the animal with other animals can affect how well they transport.
- Foreseeable conditions that may be encountered during transport, that could result in sharp inclines and declines, vibration and shifting of the container, or swaying of the conveyance.

## CHECKLIST ITEM #10: RECORDS

***Documentation you want to use to demonstrate compliance with animal transport regulations could include:***

- ***training records***
- ***content of the training taken***
- ***assessment of training and how often it needs to be reviewed***
- ***references to validate that the training received is supported by science or best practice***
- ***a demonstration of your contingency plan***
- ***a demonstration or record of the risk assessment criteria used and monitoring you did during transport.***

| Preparation | Loading | On the Road | Unloading |
|---|---|---|---|
| Records to consider;<br>• training records<br>• (content, assessment, review, references)<br>• contingency plan<br>• risk assessment<br>• monitoring plan<br>• animal transport records<br>• capture feed, water and rest information from the shipper and receiver. | Records to consider;<br>• loading charts<br>• contingency plan<br>• monitoring records<br>• animal transport records<br>• confirm/update feed, water and rest information from the shipper. | Records to consider;<br>• contingency plan<br>• monitoring records<br>• animal transport records. | Records to consider;<br>• evidence of employee training (may be required by slaughter plants)<br>• contingency plan<br>• monitoring records<br>• animal transport records<br>• confirm/update feed, water and rest information from the receiver.<br>• transfer of care. |

***Documenting on the Go:***

- ***Get into the habit of documenting /taking notes of issues encountered, the solutions you provided and the outcome.***
- ***By doing so, you build records of evidence of your skills and adaptability which you could be used later to demonstrate CFIA how the situation was handled. This information will be very handy if you get investigated many months after the facts.***

***<u>Nobody will judge you on the quality of the writing, we look for factual and honest information, that's all.</u>***

### Transfer of Care

The Transfer of Care (TOC) document helps ensure the humane transport of animals within Canada. Federal regulations require that transporters give the TOC document to the recipient of the animals before leaving the slaughter establishment or assembly centre. This ensures that there is no interruption in responsibility for animal care.

**The TOC document requires the following information:**

- condition of the animals upon arrival
- date, time and place when the animals were last fed, watered and rested
- date and time the animals arrived at the slaughter establishment or assembly centre.

Once the **TOC** document has been **acknowledged** by the **recipient, responsibility** for the **care** of the animals **shifts** from the transporter **to the establishment**.

# APPENDIX

## CONTINGENCY PLAN TEMPLATES

## « Model »


## 2023

# Corporate & Prevention Policy

## CORPORATE POLICY

Employee Health and Safety

…(…)…

Animal Welfare

…(…)… At all times, promote positive and humane handling of animals. Zero tolerance for animal cruelty…

## PREVENTION POLICY

An ounce of prevention is worth a pound of remedies.

Being prepared for an incident before it occurs and understanding how to respond effectively to an incident will make the experience less unpleasant and less perilous for both the humans involved and the animals.

Most front-line responders have little experience with incidents involving livestock carriers. So we have to be prepared to advise them. An emergency plan could be useful to them.

## EMPLOYEE TRAINING

All employees or subcontractors working for our company must have completed the following training and obtained the appropriate certifications.

- Drivers 'licence Class 1-2-3
- Development training XYZ
- Occupational Health and Safety Training
- Emergency response training
- Other trucking-related training
- Training on transport and handling of animals
- Corporate training on our transportation emergency plan

## PREVENTIVE MAINTENANCE PROGRAM

Our preventative maintenance program ensures that our company's vehicles and trailers meet current standards and requirements. Our preventative maintenance program has been recognized by provincial authorities.

**CONTINGENCY PLAN TEMPLATES**
**To be completed by your company.**

# Emergency Contacts

| Company | Contact Person | Telephone Number |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
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| | | |
| | | |
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| | | |
| | | |
| | | |
| | | |

*** This list is available at all times in the vehicle and updated twice a year.**

# List of Potential Hazards

| Hazard Category | Hazard | Update Date | Annual Review Date | Management Signature |
|---|---|---|---|---|
| 1. Human factor | | | | |
| 2. Animal | | | | |
| 3. Mechanical | | | | |
| 4. Minor delay | | | | |
| 5. Major delay | | | | |
| 6. Environmental conditions | | | | |
| 7. Minor accident | | | | |
| 8. Major accident | | | | |
| 9. Incident at the plant | | | | |
| 10. Activisits | | | | |

The probability and impact of each hazard are assessed vis-à-vis humans (H) and the animal (A) :

**Probability (P) :**

1-Very likely 2-Probable 3- Unlikely

**Impact (I) :**

Major for humans (MH), minor for humans (mH), Major for Animals (MA), minor for Animals (mA)

This exercise complements our risk analysis and prioritizes and improves our contingency plan. This exercise is also repeated each year during the annual review.

**NOTE: as an example, we have filled in the below table with some elements for a pig transporter.**

**Human Factor**

| Hazard | P | I | Mitigation Measure |
|---|---|---|---|
| Health status | 2 | MH | Annual health check |
| Trucker fatigure | 1 | MH | Respect of maximum working hours & health breaks when needed |

# Emergency Equipment in Inventory

**All transport vehicles must contain the following items.**

| Item | Available |
|---|---|
| Emergency Contacts | |
| Warning Devices (flares, signal triangles) | |
| Camera | |
| Reference sheet in the event of an accident | |
| Transport company's standard policy/ procedures in the event of an accident | |
| Fire Extinguisher | |
| Anti-Spill Kit | |

# General Procedure for Responding to an Incident

**Note to readers: the complement of information at the end of this document offers other elements you may wish to include in your customized plan. Do not hesitate to extract any pertinent element you may see fit for your situation.**

The condition and welfare of the driver is the primary concern. If the driver is uninjured and physically able:

1. Call 911 if the accident occurs on a public roadway or if emergency assistance is required:
   a. inform the 911 operator of the location of the incident and the fact that there is a load of animals and tell him if there are any animals on the loose
   b. suggest that, where possible, police and firefighters do not operate their sirens.
   c. if the vehicle catches fire, dial 911 immediately, ensure personal safety, call the dispatch centre and take all documents if leaving the vehicle.
2. Activate emergency warning devices immediately.
3. Call your employer's designated person:
   a. if the company has an incident check sheet, review it
   b. if not, inform the dispatcher of the incident site, the presence of injuries, the condition of the animals, the position of the trailer, the number of vehicles involved and the presence, if applicable, of first responders.
4. Call any other person named in company policy:
   a. these people could be [1] load insurance [2] vehicle insurance and [3] the recipient of the load
   b. ensure that all these people are given the same information.
5. If the truck or trailer has been damaged, move on to Step 7.
6. In a situation where the damage is minor, the trailer is still on its wheels and there are no injuries, take photographs and note the names and contact details of other people involved and witnesses.
7. Gather animals in the wild and take them as far away from traffic as possible.
8. Recover the incident reporting kit and the camera:
   a. take pictures of the incident as soon as possible
   b. take pictures of road conditions, damage to the vehicle, trailer position, general accident scene, braking tracks, curves, intersections and where the vehicle left the roadway (if applicable).
9. Provide as much protection and comfort to animals as possible.
10. Make statements only to the authorities (police officers, firefighters):
    a. do not talk to journalists or passers-by about the incident or the load being transported.
11. When first responders arrive (firefighters, ambulances, police officers), provide them with the following information:
    a. the number of injured people and the nature of the injuries
    b. the type of animals & the number of animals
    c. the presence of free animals
    d. known dangers
    e. employer's emergency plan (e.g., resources on the way, emergency phone numbers).

12. Respecting the chain of command—offering help, if necessary.

13. Rescue and recovery:

    a. clearance procedures differ greatly depending on the side on which the trailer overturned
    b. firefighters are responsible for opening the trailer
    c. never remove pieces from the trailer using a tow truck or a winch
    d. never enter a trailer if there are animals inside
    e. never attempt to straighten a loaded trailer
    f. do not load compromised or unfit animals following an incident; euthanize them on the spot. (SEE EUTHANASIA PLAN)
    g. recovering live animals evacuated from the trailer (SEE RECOVERY PLAN FOR EVACUATED ANIMALS)
    h. disposal of dead animals (SEE DISPOSAL PLAN FOR DEAD ANIMALS).

# Recovery Plan for Evacuated Animals

**General Recommendations You Need to Plan and Document**

Provide a recovery "kit" that could be made available to the truck driver:

- **note**: this equipment can be shared by several transport companies
- retractable fencing
  - or snow fences
- tarps (to be used as a screen)
- duct tape!
- additional handling tools
  - rattle/paddles
  - electric prod
- access ramp adapted to load animals back in the trailer.

Ensure the protection and safety of the animals evacuated and under the responsibility of the driver and his company.

**Recovery Procedure:**

1. Install a temporary pen near the trailer.
2. Group the animals in the pen or near the trailer, if possible without overhandling them, which would excite them even more, while increasing fatigue risk and thus hindering their recovery.
3. Always handle them in small groups to keep control of the leaders at the head of the groups.
4. Install the right ramp or any other means which would allow you to give the animals access to the trailer.
5. Load the animals.
6. Get to your destination.

# Euthanasia Plan

The company must plan how it will proceed in the event that animals in the trailer need to be euthanized. This plan may take into account more common cases of non-ambulatory (fatigued or compromised) animals or a complex euthanasia operation following the rollover of the trailer.

**Criteria used to guide decisions about the appropriate time to perform euthanasia:**

- pain and distress of the animal
- inability of the animal to walk.

**Euthanasia equipment:**

- panel or tarp to isolate the animal physically or visually if necessary
- if the company has its own stunners, plan for
  - protocols and maintenance records for stunners
  - list of authorized personnel to use them with recorded proof of training.

**Proceed with euthanasia as demonstrated in corporate training.**

**Confirmation of Death**

Regardless of the method used, it is important to quickly examine the animal to confirm its death to ensure the effectiveness of the method. The manifestation of one or more of the following signs shows that the animal regains consciousness:

- rhythmic breathing
- contracted pupils
- attempts to lift the head (righting reflex)
- vocalization
- palpebral reflex (if the animal blinks when passing the finger along the eyelashes, it is because it has regained its sensitivity)
- corneal reflex
- reaction to a painful stimulus (perforation of the nose with a needle)
- natural blinking
- the presence of tone in the jaw.

# Disposal Plan for Dead Animals

| | |
|---|---|
| **WHO** | Provide an agreement or first contact with a renderer |
| **WHEN** | When will we plan to call him. It's a good idea not to wait until recovery operations are complete to notify them. |
| **HOW** | Who does it? Who is in charge of providing them with the relevant details. |
| **SPECIFIC EQUIPMENT TO EXPECT** | Dependent on your experience. |

## Records

Upon hiring and annually, management and employees sign a log showing that they have read and understood the company's emergency policy and are committed to implementing it and actively participating in its continuous improvement process.

The updated log should accompany the latest version of the company's emergency plan.

# Complement of Information

Source : www.nfacc.ca/codes-of-practice/transportation/code

The National Farm Animal Care Council (NFACC), Recommended code of practice for the care and handling of farm animals – Transportation, 2001.

## Appendix 3 Emergency Procedures

### General

### Vehicle Accidents Involving Livestock

*First responders to motor vehicle accidents involving livestock should employ procedures that facilitate the safe and efficient handling of livestock. Assistance should be sought from people with expertise in handling the type of livestock being carried on the vehicle involved. Such people might be found by contacting federal or provincial departments of agriculture or humane societies where available. Local people with expertise might include private veterinarians, farmers or livestock auction personnel. If animals are injured, veterinary advice should be sought immediately.*

### First Responders, Procedure and Considerations

### Before Assistance Arrives

1. Check for injured persons.

2. Evaluate the livestock truck, try to identify the types of animal and numbers carried.

3. Perform crowd control, traffic direction, maintain a clear path for and assist emergency vehicles. Keep unnecessary people away from the accident site.

4. If rescue of people is involved, avoid using sirens and lights as much as possible near live animals. If traffic controls such as police vehicles with flashing lights or flares are necessary, they should be set up as far from the animals as possible.

5. Always deal with loose, mobile animals first. Such animals will be frightened, disoriented and excited. Frightened animals are unpredictable and will react instinctively by running or fighting. If possible, allow them to calm down before trying to move them.

6. It is very important to remain calm and quiet. Take your time and be patient. Stay alert, you may need to move quickly. Always have an escape route for yourself. Any animal is potentially dangerous.

7. Once the loose animals have quieted down:

- **DO NOT shout, yell or wave arms wildly**
- **DO NOT approach an animal from directly in front** unless you must protect an injured person
- move animals to a safe area slowly and in a group
- move **slowly** toward the animals from the rear half of the animal, and slightly to one side. Once you are in the animal's personal space (flight zone) it will move forward. Move back outside the flight zone to stop forward movement. If you enter the flight zone too deeply, or too quickly, the animal will try to run - you do not want this. This space may be 15 feet or more from the animal; and
- animals may be temporarily penned with portable fencing, snow fencing, trucks, yellow police tape (which resembles electric fencing), or at sales yards, factory yards, well-constructed sheds, etc.

8. Deal with conscious, badly injured animals second. Keep people away. Injured animals are less likely to struggle to their feet if left alone.

9. To quiet a struggling injured animal which is lying down (e.g. broken leg), place a blanket 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 and gently stroking or scratching it may also help.

10. Comatose animals are not aware of any pain and may be left for last. Animals lying down with seizures or paddling of the legs may indicate serious head injuries. Unless these animals show signs of regaining consciousness, such as lifting the head, looking about, or trying to rise, they may be left.

11. If a comatose animal does not blink when the clear part of the eye is touched, it may be dead. Check for breathing by positioning yourself at the animal's back, near the shoulder and place a hand on the chest.

12. Spilled animal fluids and body fat may result in hazardous road conditions.

13. Injured animals may bite, particularly horses and pigs. Such animals should be muzzled by some method such as a bridle, rope, belt, etc.

14. **All animals may kick, bite or attack if frightened or injured.**

15. Diversified livestock species such as bison, deer, elk, wild boar, emu, ostrich, mink, foxes, and others present additional complexities in an emergency situation. Many of these species retain and exhibit "wild behaviour traits" and are more likely to respond with "fright, flight, or fight" reactions in situations of close contact. The flight zone is typically much larger for these species than for more traditional livestock and their reactions to intrusion in that flight zone may be much more violent.

Bison handle like wild, athletic cattle, with a strong herd instinct and an aggressive attitude. They need plenty of space and options for movement. Deer vary substantially in behaviour of the different ages, genders, breeds, and at different times of the year. Generally, males are in hard antler and are most aggressive during the breeding season, from September through November. The larger the animal, the morelikely they are to fight with antlers or kick or strike with their hind and front hooves. Smaller deer are more likely to take flight and their ability to leap can be quite spectacular.

Wild boar will usually choose flight if an avenue of escape is available, but they may attack and bite if cornered. This species is much more athletic than most farmed pigs.

Ostrich and emu appear similar, but their nature is quite different. Emu are more manageable and behave more like a herd animal than do ostrich. Ostrich can be aggressive, and can kick or strike with tremendous force in close quarters. Both species may be slowly and carefully herded.

Furbearers such as mink and foxes are usually transported as breeding stock in separate cages. Because of their more "wild" nature, all of these species are more susceptible to stress. To minimize this concern in emergency situations, use the following techniques:

- crowd control must be a top priority to avoid injuries to both the animals and people
- avoid the use of bright or flashing lights, sirens or loudspeakers. All excited animals handle more easily and remain more calm in conditions of reduced lighting and soft noises
- call for expert advice and assistance. The Canadian Food Inspection Agency may be able to identify someone locally with experience in handling the specific type of animals involved.

**After Assistance Arrives**

1. Ensure loose animals are under control in as secure a manner as possible. Assign someone to watch them to report problems and keep people from approaching them without authorization.

2. Advise police of assistance available, on call, or already at the scene such as veterinarians, department of agriculture staff or humane society/SPCA officers. Assist as required with evacuation, crowd control, and traffic direction.

3. Assist police to control bystanders, vehicle and pedestrian traffic to ensure that animals are not disturbed unnecessarily.

4. Notify trucking company dispatcher, owner and/or receiver to obtain direction. Make arrangements for trucking or have surviving animals moved to a safe location. Loose animals may be moved into a nearby well-fenced enclosure, a well-constructed barn or shed, or onto another vehicle if their injuries are not severe. Temporary strong enclosures are acceptable. Nearby fenced manufacturing premises may also be suitable temporarily. The idea is to confine the loose animals so that people in the area are protected from injury.

5. Seriously injured animals must be examined by a veterinarian if at all possible. Animals in serious pain or with untreatable injuries may need to be euthanized. Recommended methods for euthanasia of mammals in order of preference are administration of a euthanizing drug by a veterinarian; stunning with a captive bolt pistol followed by slitting of the throat performed by experienced personnel; gunshot euthanasia performed by an experienced police officer, conservation officer or SPCA special constable. Gunshot euthanasia is a dangerous procedure and must only be performed as a last resort under controlled conditions (See Appendix 4).

**Types of Injuries You May See**

**Burns**

Where animals have been exposed to fire or electric shock, expect burns of varying degrees similar to those seen in human beings. Burns cause extreme pain.

The greatest danger with burns is shock. Isolate the animal and keep it calm. As soon as possible, cold water should be poured over the injured area for ten to fifteen minutes. If possible, after cooling a clean, dry cloth or bandage may be laid over the injured area.

Where burns are extensive (most of or entire body) and/or severe (deep down to bones and muscles), the animal should be humanely killed as soon as possible. Where burns are less severe, the animal should be seen by a veterinarian as soon as possible and may be sent for immediate slaughter or treated.

DO NOT apply lotions, oils or salves. DO NOT prick blisters, breathe, cough on, or touch the injured area as this may lead to severe infection.

**Fractures and Dislocations**

Types of fractures seen at accident sites include simple (leg hangs limply at an abnormal angle), compound (a broken bone sticks out of the flesh), or multiple (more than one bone is broken in one animal).

With fractures, the animal may not be able to use a limb, it may move awkwardly or limp severely, one leg may be shortened, deformed or pointing in the wrong direction. You may be able to hear bones rubbing together.

Dislocations (a limb out of its normal joint) may result in loss of use of a limb, one joint larger than the same joint on the other side of the animal, the affected part does not move easily or is deformed. You may not be able to tell a fracture from a dislocation.

Large animals, such as horses or cows, are best left on site until a veterinarian can arrive. If the animal is able to walk, guide or direct the animal to a safe area (for example to a temporary enclosure at the side of a road). If the animal is down on the road it may be necessary to destroy it on site to expedite cleaning of the accident site and prevent further accidents. If the vehicle can be moved and an animal is still on the truck, the vehicle may be directed to the nearest veterinary facility or slaughter plant.

A fractured spine is extremely painful and an animal may be very aggressive. With such a fracture animals are usually unable to rise and there may be no movement in the hind legs. With less severe fractures, an animal may be up and moving normally or have a swaying gait in the hind end. A veterinarian should examine the animal as soon as possible.

Amputations should be dealt with immediately. If the animal cannot be slaughtered immediately, it should be recommended for humane euthanasia. Amputations can result in severe hemorrhage, uncontrollable at an accident site.

**Hemorrhage**

There are three basic types of hemorrhage or bleeding. Arterial bleeding results in bright red blood in a spurting action, venous bleeding results in dark red blood that wells continuously and capillary bleeding results in oozing action.

External bleeding from wounds is obvious and can be dealt with by direct pressure or tourniquets. Open wounds should be kept as clean as possible. They may be flushed with water to clean out any debris, but do not apply any ointments.

Internal bleeding can result in severe shock and death. Signs of internal bleeding are listlessness, unconsciousness, very cold legs or a blue tinge to the pink skin inside the lips or tongue. If the animal is not euthanized it should be kept warm and confined until a veterinarian can attend.

**Consciousness**

Brain injury may result from a skull fracture, hemorrhage inside the skull, suffocation, drowning, shock or electric shock. Signs you may see are confusion, loss of balance, the animal may go into shock, or it could convulse. Until a veterinarian can attend, lay animal on its side and ensure it can breathe by keeping its head and neck in roughly the same position it normally would if standing.

In all cases comatose animals will not respond to yelling or touching. If a comatose animal does not blink when the clear part of the eye is touched it may be dead and should be checked for breathing and heart beat.

Comatose animals are not aware of any pain due to injury. Unless these animals show signs of regaining consciousness, such as lifting the head, looking about, or trying to rise on their own, they may be left, and conscious and mobile animals dealt with first.

**Suffocation**

Suffocation may result from piling of animals against the front, rear or sides of a trailer. Rollovers may result in suffocation of animals on the bottom of a pile-up. Suffocation may also result from smoke inhalation due to carbon monoxide from fires.

Remove live, mobile animals from a pile up as soon as possible. Some of the animals underneath may recover. As they do, they can be removed. Do not attempt to revive those that do not recover on their own. It may be necessary to humanely destroy such animals. Remember that animals involved in this sort of accident may also have other injuries, such as fractures.

## Complement of Information (continued)

**Electric Shock**

Electric shock in a transport accident may result from high tension wires falling on the truck. Electric shock may result in the death of animals, shock, burns and fractures.

**Drowning**

Truck accidents involving bodies of water are rare. Most animals can swim if not injured, but those that are trapped inside a vehicle are likely to drown. Animals in such a situation will panic and should be assisted only where the safety of human handlers can be assured.

**Source: Adapted from *Vehicle Accidents Involving Livestock*, Halton Regional Police Service (Ontario), 1996.**