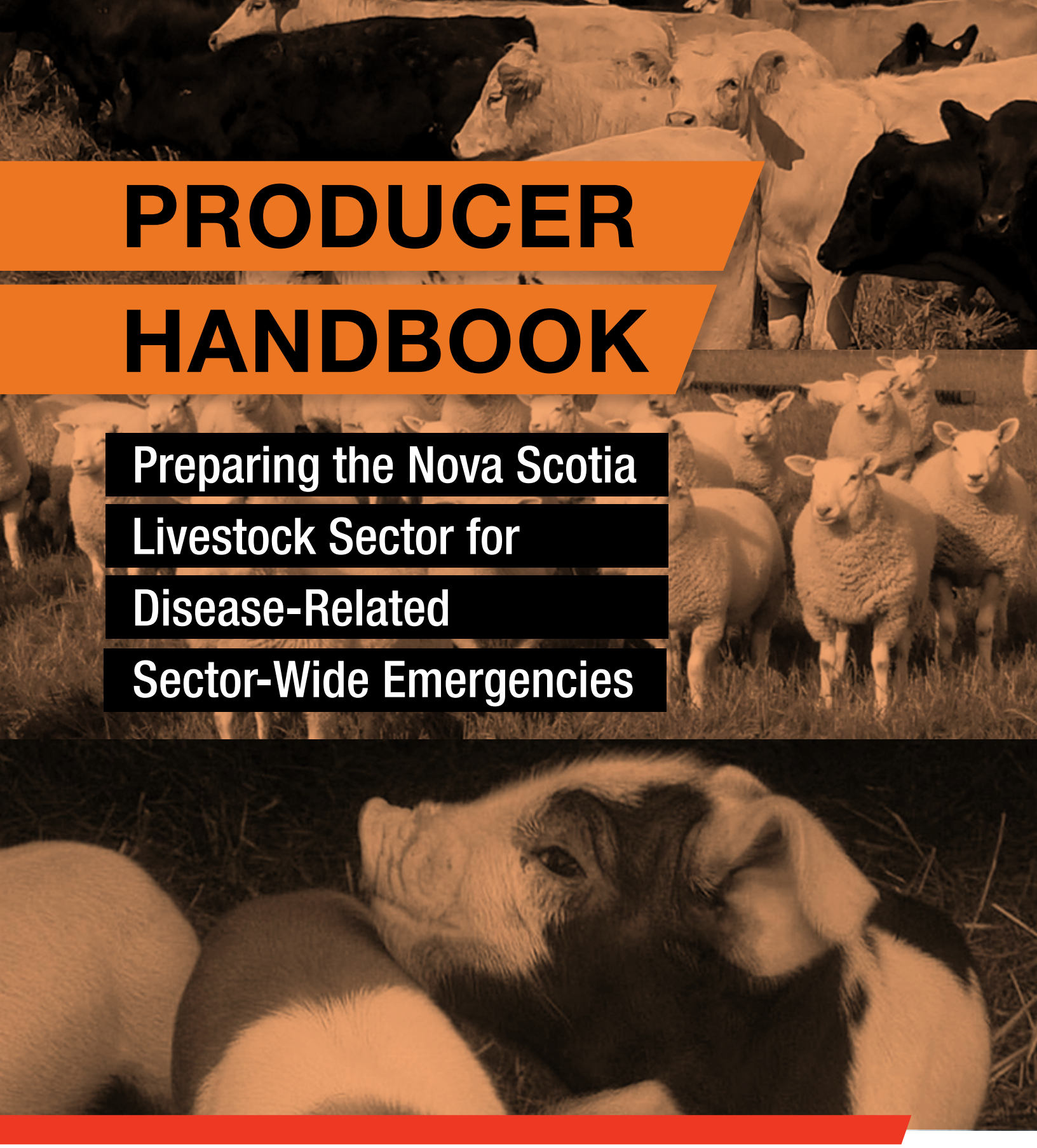

PRODUCER HANDBOOK

Preparing the Nova Scotia Livestock Sector for Disease-Related Sector-Wide Emergencies

Nova Scotia Cattle Producers

PORK Nova Scotia

SPANS Sheep Producers Association of Nova Scotia

Growing Forward 2
A federal-provincial-territorial initiative

Canada

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For information on the Canadian Animal Health Coalition (CAHC) Animal Health Emergency Management project email: info@animalhealth.ca

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March 2018

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INTRODUCTION

The ***Preparing the Nova Scotia Livestock Sector for Disease-Related Sector-Wide Emergencies – Producer Handbook*** has been developed to help operators and staff prepare for disease-related sector-wide emergencies.

The components of this handbook have been collaboratively developed with input and technical support from livestock commodity organizations across Canada, the Canadian Food Inspection Agency (CFIA) and several provincial governments including:

- Alberta Agriculture and Forestry
- BC Ministry of Agriculture
- Manitoba Agriculture
- Nova Scotia Department of Agriculture
- Ontario Ministry of Agriculture Food and Rural Affairs
- Quebec Agriculture Ministry

Overview

While emergencies are nearly impossible to predict, there are things you can do to minimize the impact. This handbook has been developed to help producers plan, prepare, and respond to disease-related events that create a sector-wide emergency.

We all have a role to play in protecting and strengthening our industry. As industry experts, with boots in the dirt, producers and their staff are the first line of defense in an emergency situation. This handbook introduces three key themes to help guide people on the ground who will be required to:

UNDERSTAND

Know the industry risks and impacts of serious animal diseases and the producer requirements during a disease-related sector-wide emergency

PREPARE

Be aware of tools that can better equip an operation for a disease-related emergency

RESPOND

Know specific protocols, roles and responsibilities during a disease emergency

How to Use This Handbook

You will be better prepared for a disease-related emergency if you have worked your way through this handbook. We encourage you to regularly review this document and the tools provided.

For convenience, a glossary explaining various terms and acronyms used throughout this document has been included in Schedule 1. We have also colour coded the individual sections to reflect the **UNDERSTAND**, **PREPARE** and **RESPOND** themes, and to draw attention to producer **RESOURCES**.

Throughout the handbook, you will see various suggested PROTOCOLS. These items contain helpful step-by-step prompts that should be considered and implemented as appropriate.

Producers will also want to look out for sections containing the TOOL symbol. If you see this sign, it means a customizable tool has been made available in the **RESOURCES** section. We encourage you to tailor these templates for your operation.

PROTOCOL/PROCESS

Processes or Protocols have been highlighted with a YELLOW outline and an ORANGE clipboard icon.

WHAT TO DO WITH THESE ITEMS:
Please remove or copy the page, laminate it and post it prominently.

CUSTOMIZABLE TOOL

Customizable Tools have been highlighted with a solid GRAY outline and a GRAY tool icon.

WHAT TO DO WITH THESE ITEMS:
Please ***complete and customize*** the form to your operation, and then remove or copy the page, laminate it and post it prominently.

Best Results

The information contained in this document is only of use if it is kept current and shared with staff. With this in mind, producers are encouraged to:

- **Commit to reviewing this handbook annually**
    - Revisit the information and tools when you review and renew your insurance policies each year
- **Ensure that information collected here is available and understood by farm personnel**
    - The content in this handbook is easily incorporated into farm personnel training. Many of the elements can be copied, laminated and posted prominently, and/or inserted into your existing training material
- **Use the following information as the basis for establishing a relationship with first responders in your local area**
    - These agencies may request copies of some of the information you have gathered to help them prepare for an emergency at your operation

It is important to note that the information and resources set out herein are samples that have been made available by your industry association. Specific protocols and procedural requirements may vary depending on the situation.

In the event of a **disease-related sector-wide emergency**, necessary steps will be clearly communicated by **industry associations** and/or municipal, provincial and federal regulatory bodies. To access the information and resources contained in this handbook online please visit your provincial livestock website:

- Sheep Producers Association of Nova Scotia - ***www.nssheep.ca***
- Pork Nova Scotia - ***www.porknovascotia.ca***
- Nova Scotia Cattle Producers - ***www.nscattle.ca***

UNDERSTAND

We are in this Together

Your farm is important – to you, to the industry and to communities around the world. Across Canada, there are thousands of individual livestock operations that are building our international reputation and economic advantage and making a significant contribution to the global food system.

Given this important connection, it follows that if an incident occurs at one operation, there could be a ripple effect across the entire industry. This handbook has been designed to equip operators and staff with up-to-date information and resources that can be used during the various phases of an emergency.

Industry Risks

Be it adverse weather, natural disasters, fluctuations in global markets, or even deliberate damage, producers must contend with challenging and unpredictable circumstances.

- **Terrorism** – deliberate introduction of disease or water/feed contamination
- **Border closure** – resulting from disease in either the importing or exporting region
- **Lost social license** – a change in consumer preferences of certain industry practices
- **Flood or fire** – similar to those experienced in Australia and increasingly in Canada
- **Weather** – such as hurricanes, ice or severe hailstorms
- **Power loss** – including widespread grid failure
- **Earthquake** – potentially in certain regions

Relative to a major disease outbreak, the risks identified above are generally considered less likely to cause sector-wide emergencies. The most widely recognized and likely scenario that will cause a sector-wide emergency event in the livestock industry is a serious animal disease outbreak.

Disease-Related Sector-Wide Emergencies

Serious animal disease outbreaks are recognized as the livestock industry's greatest vulnerability because they have the potential to impact the industry and the livestock sector as a whole. These types of emergencies can negatively affect consumer preferences and industry practices, and can restrict Canada's trade and export capacity.

While the threat of Foot and Mouth Disease (FMD) is widely recognized by most producers, there are a number of serious animal diseases such as Bovine Spongiform Encephalopathy (BSE), Bovine Tuberculosis (bovine TB), Rift Valley Fever (RVF), or Bluetongue that have the potential to cripple the industry indefinitely. More information about these specific diseases can be found in Schedule 2.

> ***QUICK FACT***
>
> *In a 2016 national survey of livestock associations in Canada, 97% indicated that their sector was vulnerable to disease-related emergencies.*

A zoonosis outbreak – a disease affecting both humans and animals – or other health related events such as feed/water contamination, or a newly 'emerging' disease would also be classified as disease-related sector-wide emergencies. This is due to the costly, widespread and prolonged impact on the market and the potential for border closure.

Reportable and Notifiable Diseases

Canadian producers have a duty of care, but they also have **a legal requirement to report all suspected cases of certain diseases**.

The serious animal diseases in this section are primarily federally or provincially reportable diseases. In fact, these are listed specifically in the regulations that accompany the *Health of Animals Act (Canada)* and its provincial counterpart, the *Animal Health and Protection Act*.

Producers will appreciate that not all serious animal diseases are created equal. Some have greater impact than others; some are better known; and some are not commonly considered in connection with Canada or North America - although, the disease landscape is continuing to change. With globalized travel, international trade, climate change and the emergence of new and unlisted diseases, such as the Schmallenberg Virus that occurred in 2012 in the EU, we all need to stay informed and aware.

FEDERALLY REPORTABLE DISEASES

- African Swine Fever
- Anaplasmosis
- Anthrax
- Bluetongue
- Bovine Spongiform Encephalopathy (BSE)
- Bovine Tuberculosis (Bovine TB)
- Brucellosis
- Chronic Wasting Disease
- Classical Swine Fever
- Contagious Bovine Pleuropneumonia
- Cysticercosis
- Foot-and-Mouth Disease (FMD)
- Lumpy Skin Disease
- Peste des petits ruminants
- Pseudorabies
- Rift Valley Fever
- Rinderpest
- Scrapie
- Sheep and goat pox
- Swine vesicular disease
- Trichinellosis
- Vesicular Stomatitis

Your Responsibility

As a producer, you know your operation inside out. When an animal is unwell, there will be signs and it is your responsibility to act on those cues.

Reporting suspected disease not only helps to reduce animal and human health impacts, it is integral to protecting our industry. Serious animal disease outbreaks require extensive resources and expert assistance to contain and eradicate the disease, so it is important to alert the appropriate authorities as early as possible.

Emergency Phases

A disease-related sector-wide emergency will generally move through the following six key phases – some of which are more involved than others. Depending on the disease and particular incident, some phases may occur quickly and go unnoticed, while others may extend over a period of time due to heightened risk of contracting a disease or difficulty managing an outbreak.

This handbook contains information pertaining to all of the above phases with the exception of Prevention. For more details on how to protect your animals from disease, please review the NSDA Farm Animal Health & Welfare page at ***www.novascotia.ca/agri/programs-and-services/farm-animal-welfare***

Alert

An **Unusual Animal Health** event has been reported. Industry may be asked to remain vigilant and to voluntarily adopt risk mitigation measures to safeguard against a potential **serious animal disease outbreak**.

Suspicion

A serious animal disease is suspected. A formal **Notice of Suspicion** may be issued by the CFIA or the provincial government (NSDA). Industry may be asked to adopt **Voluntary Movement Controls**.

Confirmation

A serious animal disease is confirmed. A formal **Notice of Confirmation**, may be announced by the Chief Veterinary Officer (Canada), mental he, or either federal or provincial Ministers. Mandatory containment strategies may follow.

Response

Industry professionals, government, and producers may all have a role to play in various key response components including: Containment, Investigation/Tracing, Vaccination, Depopulation/Disposal, Valuation/Compensation, Cleaning/Disinfection, and Lifting of Restrictions.

Recovery

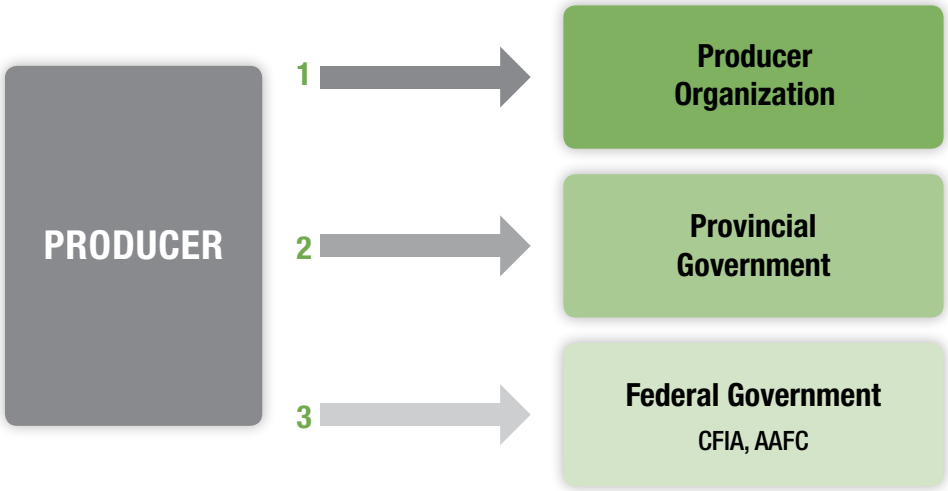
Immediate emergency has passed. Operators and industry may now focus on demonstrating absence of disease and regaining/resuming market access.

Prevention

Nova Scotia production is unaffected by a disease incidence or occurrence, also known as 'peace time'. Farms and other related industries must remain vigilant for Unusual Animal Health Events and adopt risk mitigation measures to safeguard against a potential serious animal disease outbreak.

Who Can Help

During an emergency, there are three important entities that producers should turn to for clarification, direction and necessary resources. As illustrated below, the first point of call should be your respective producer organization. From there, you may be forwarded to the relevant government agency.



Working Together

Emergency management requires diverse skills, experience and knowledge to ensure an appropriate and effective response. Figure 1, on the following page, outlines the key structures, relationships and joint response required during an emergency.

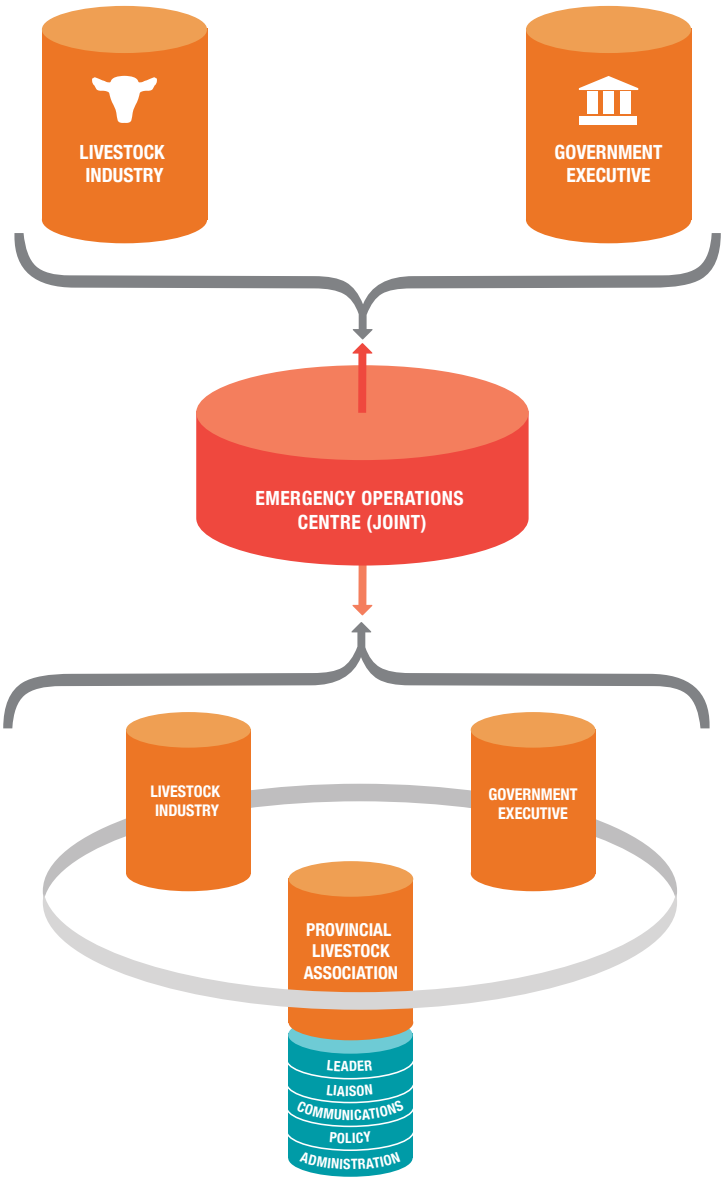
In a disease-related sector-wide emergency, the **first response organizations** are Nova Scotia Department of Agriculture (NSDA) and the Canadian Food Inspection Agency (CFIA), supported by Agriculture and Agri-Food Canada (AAFC), Nova Scotia Emergency Management Office (EMO) and Public Safety Canada (PSC). Public health services will also be kept aware and may be involved if the disease affects humans as well as animals.

An Emergency Operations Centre (**EOC**) may be established by first response organizations during the suspicion or confirmation phases. The EOC is the temporary venue that is established to provide strategic leadership, manage operational decision-making, and coordinate the efforts of all collaborating organizations. If multiple levels of government are involved, a Joint EOC will be formed.

Representatives from your producer organization will be a part of EOC/JEOC discussion and decisions. In addition to advocating on behalf of the industry and providing sector expertise and insight, the association will help communicate updates to producers and confirm required action as the situation unfolds.

Everyone within the EOC/JEOC works together using the **Incident Command System (ICS)**. This command and control system is used to manage emergencies of all types throughout North America and most of the world. ICS integrates a combination of facilities, equipment, personnel, procedures and communications operating within a common organizational structure. It allows people from various backgrounds to come together when required and to work as an effective unit.

Figure 1. The Emergency Operations Centre and its Relationship with Government, Industry and the Livestock Sector



STRATEGIC

WHAT HAPPENS AT THE STRATEGIC LEVEL?

Discussion, as required, around existing and proposed strategies such as:

- Size of Primary Control Zone
- Use of vaccination
- Use of welfare slaughter

OPERATIONAL

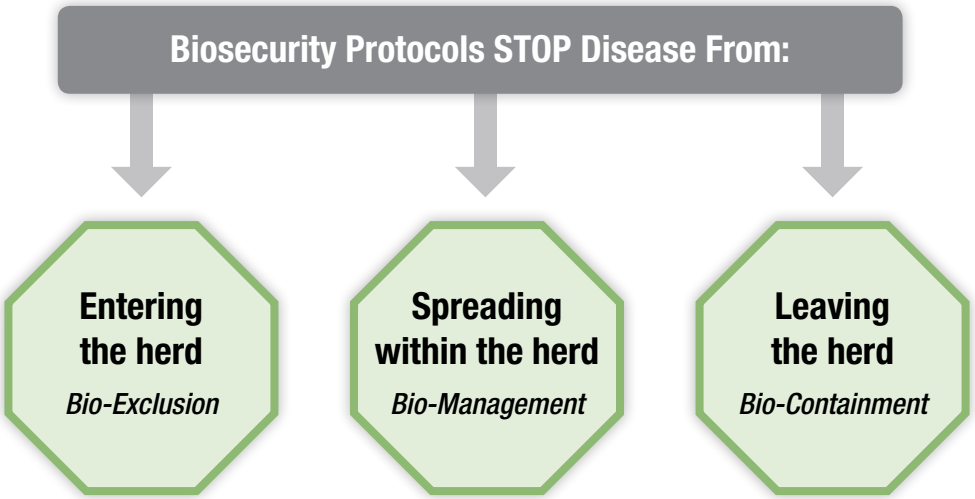
WHAT HAPPENS AT THE OPERATIONAL LEVEL?

Issues and actions decided at the EOC may include:

- Provision of movement permits and licenses
- Routing of feed, deadstock, milk trucks
- Development of key communications messages
- Implementation of vaccination strategy
- Process and logistics for depopulation and carcass disposal

Biosecurity Protocols

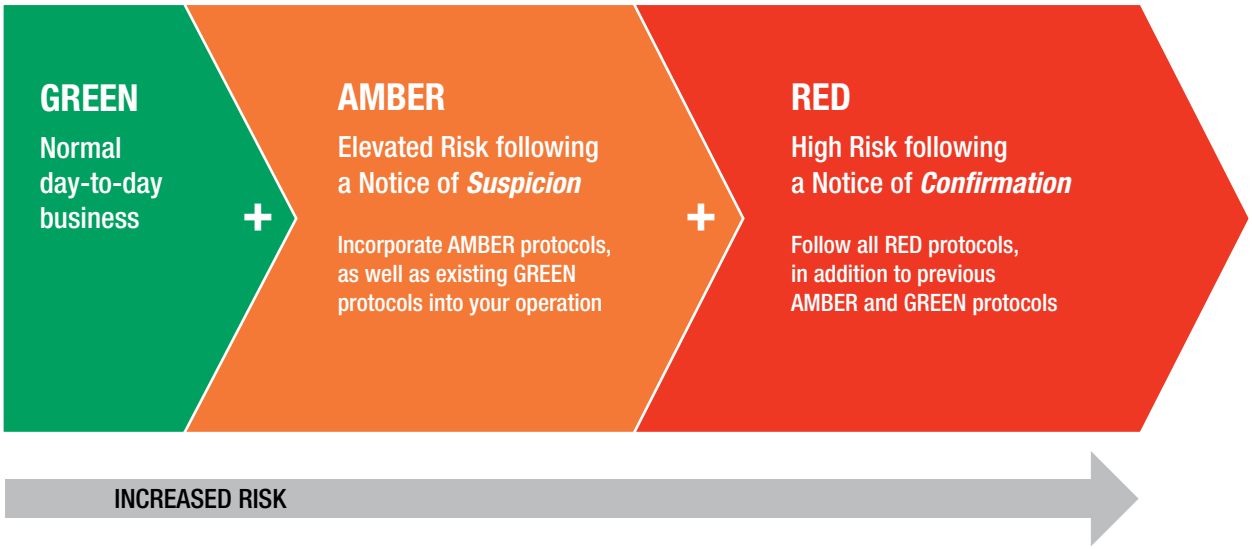
As a producer, you are in a unique position to prevent disease exposure and transmission. By knowing and implementing the appropriate biosecurity protocols, you are not only helping to protect your farm, but also ensuring the health and vitality of Canada's livestock industry.



Some degree of biosecurity is likely already incorporated into your farm routines. Be it good hygiene, vehicle management or staff training, there are quick and simple steps that can safeguard your operation. As shown in Figure 2, biosecurity protocols are colour coded according to risk. Producers will want to ensure that all staff know the various protocols for each risk level. This is especially important when a disease is suspected within the trading area.

More detailed information about specific Biosecurity Protocols is covered in the RESPOND section on ***page 40***.

Figure 2. Escalating Biosecurity Levels



Zoning

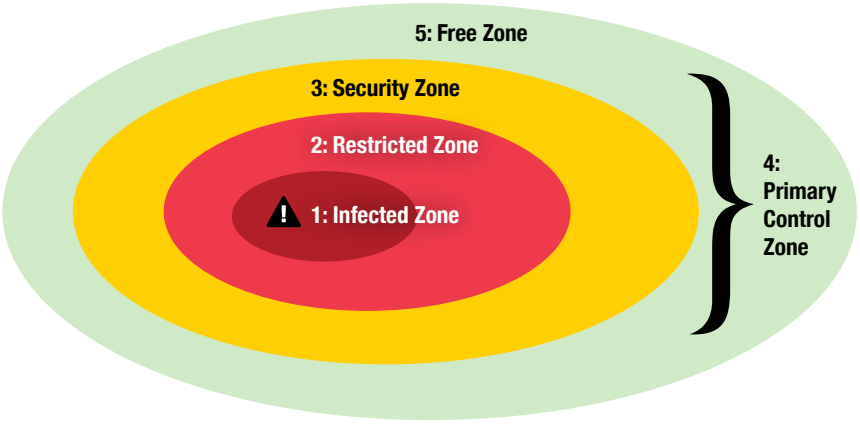
In order to limit the effects of a disease-related event, the federal Minister of Agriculture may establish control zones through the Canadian Food Inspection Agency (CFIA). This is an internationally recognized practice that helps manage disease risk and keep trade relationships viable.

CFIA's zoning strategy is determined after careful consideration of the type of disease, its presence in wildlife or the environment, potential for spread, geographical features such as waterways, roads, and terrain as well as the commodities and business flows or movements in the areas that are affected. Zoning will only be implemented upon disease confirmation.

While zone size and shape may vary, the most intensive disease control strategies will always take place within the inner most circle where infection has been confirmed.

Producers should be aware that once control zones are established, permits will be required for movement within areas. People seeking access to controlled zones will need to demonstrate that they meet specific conditions and criteria.

Figure 3. Primary Control Zone and Zoning Strategy for Animal Disease Control in Canada



1. Infected Zone

- Main focus of control efforts
- Encompasses all known Infected Places
- Outer perimeter is up to 5 km beyond affected premises

2. Restricted Zone

- Surrounds Infected Zone
- Has an outer perimeter up to 10 km from any known Infected Places

3. Security Zone

- Falls in between the outer perimeter of Restricted Zone and edge of Primary Control Zone
- No restrictions on size

4. Primary Control Zone

- Includes Infected, Restricted and Security Zones
- As large as reasonably expected over duration of outbreak so that future changes only reduce its size

5. Free Zone

- Area outside the Primary Control Zone

At a Glance

The following few paragraphs briefly summarize a serious animal disease event resulting in a sector-wide emergency.

In this scenario we have 'ABC Hogs', a typical Nova Scotia farrow-to-finish operation that is facing industry's greatest vulnerability – an outbreak of Foot and Mouth Disease (FMD). We also have 'DEF Hogs', a 300-head farrow-to-finish operation that is located within the trading area and potentially at risk. Please note that this is an example only.

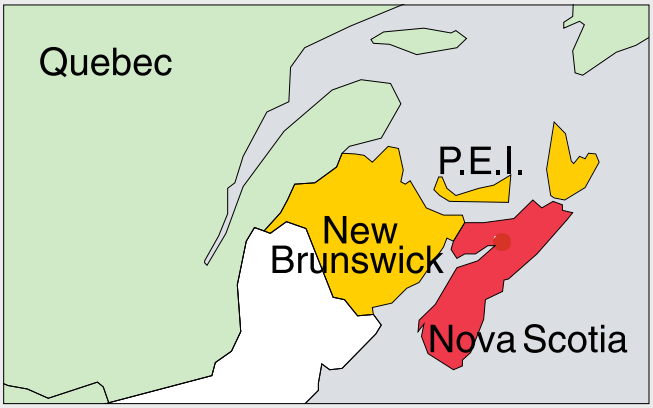
*On Friday, after noticing that a number of animals are limping and have backed off feed, ABC farm staff proceed with protocol for an **Unusual Animal Health Event** and contact their local veterinarian to come and look at the animals.*

*The veterinarian suspects FMD, a federally reportable disease, and notifies the regulatory authority (CFIA). A senior veterinary officer with the CFIA visits the farm very shortly afterwards, clinically diagnoses FMD and declares that ABC Hogs is an 'Infected Place'. Canada's Chief Veterinary Officer issues a formal **Notice of Suspicion** setting out very limited and general information related to the incident.*

*Within days, the National Centre for Foreign Animal Disease in Winnipeg confirms the disease and Canada's Chief Veterinary Officer issues a formal **Notice of Confirmation**. Again, the information provided is quite limited and general.*

*As part of the **Disease Control Plan**, the Minister of Agriculture and Agri-Food establishes a **Primary Control Zone**. This zone includes Nova Scotia, New Brunswick and PEI.*

*Several **Infected Zones** have been declared around the Infected Place located near Truro. The RCMP are enforcing a ban on all movements of livestock and livestock-related products such as feed and bedding within/to/from/through these Zones. Licenses are required for these movements and may be obtained from the **Joint Emergency Operations Centre**, which has been established in Truro.*



*A larger **Restricted Zone** extends around all of the Infected Zones, essentially all of Nova Scotia except Cape Breton Island. Specific permits are required for all livestock and livestock-related movements within/to/from/through this Restricted Zone. These are also being enforced by RCMP.*

*The **Security Zone** extends outwards from the Restricted Zone and covers the remainder of the Primary Control Zone. General Permits are required for all livestock and livestock-related movements into or within the Security Zone and these too are enforced by police.*

With the CFIA's operational restrictions now in place, hogs are not moving anywhere in the Maritimes without a permit. Movements into or through the Restricted Zones are even more limited and require specific permits; and there are almost no movements into, from or through the Infected Zones. The same is true for movements of other susceptible livestock including cattle, sheep, goats and dairy cattle. Permits are also required for horse movements, as the disease may be carried on their body or the trailer even though they don't contract the disease itself.

*DEF Hogs is a 300-sow farrow-to-finish operation located within the **Restricted Zone**, near Shubenacadie. DEF Hogs' hogs are all raised on DEF's premises.*

*To protect the hogs, **Movement Controls** and **Biosecurity Protocols** requested by Pork Nova Scotia, NSDA and the CFIA are being strictly followed and all activity is being monitored closely. Vehicles entering the premises are washed and disinfected prior to entry and when leaving. A temporary washing station has been installed at the main entry as well as a structure to shelter a 24/7 security guard who is responsible for enforcement of the perimeter security, logging of all movements and overseeing vehicle washing.*

*Other than the main entry, all access points have been gated and locked. **Red Biosecurity Protocols** have been implemented and posted clearly to advise visitors of the risk. Where possible, drivers have been instructed to remain in their cabs.*

***Mass Vaccination** has also been ordered for operations located near the Infected Place. A CFIA designated site supervisor has arrived at DEF Hogs and is overseeing farm staff who are vaccinating animals according to a strict protocol.*

*While DEF Hogs staff continue to vaccinate and monitor their herd, a **Destruction Order** has been issued and **Depopulation** of hogs on ABC Hogs and other Infected Places has commenced. All hogs on the Infected Places are being slaughtered with the assistance of farm staff and under the oversight of a CFIA representative. Resulting carcasses may be rendered depending on capacity, while other mortalities will be moved to burial sites.*

***Valuation** teams sent to the Infected Places are establishing a fair market value on a per hog basis based on pre-outbreak prices for the different classes of hogs present. **Compensation** is being provided for all livestock ordered depopulated.*

*Prior to restocking, all of the Infected Places must be thoroughly **Cleaned and Disinfected** in accordance with a CFIA protocol. Infected pens and barns also require a fallow period and the building needs to be disinfected before animals can return.*

*Once there is no longer a chance of contracting the disease and all identified requirements have been met, CFIA will officially **Lift Restrictions** and give approval to restock the premises with animals.*

It is important to note that in this bleak but realistic scenario, it may take a year to manage the outbreak and eradicate the disease. It will likely take considerably longer to regain disease free status and to negotiate international trade market access and fully resume exports.

Although the above scenario is fictitious, it captures many of the elements that apply to producers once a disease-related sector-wide emergency is confirmed. For more information about producer-specific responsibilities and associated resources please refer to the RESPOND section on ***page 23***.

Testing Your Readiness

The following self-assessment is designed to help producers gauge whether their operation is prepared for a sector-wide emergency. Please take a moment to answer the following questions.

YES ☐ NO ☐ Are you aware of the indicators and initial response actions for an Unusual Animal Health Event on your farm?

YES ☐ NO ☐ Are you and your staff aware of signs and symptoms of the serious animal diseases most likely to spur a disease-related sector-wide emergency?

YES ☐ NO ☐ Are you aware of the official triggers used by response agencies to signify a disease-related sector-wide emergency?

YES ☐ NO ☐ Have you discussed and shared information about specific biosecurity protocol levels with staff?

YES ☐ NO ☐ Do you know what it means to Voluntarily Cease Movement and when it is appropriate?

YES ☐ NO ☐ Are you aware of primary personal safety guidelines and mental health support resources available for producers?

YES ☐ NO ☐ Are you aware of operational responsibilities associated with a mass vaccination directive?

YES ☐ NO ☐ Are you aware of the expectations on personnel in the event mass depopulation and disposal are required?

YES ☐ NO ☐ Are the farm's objectives for responding to an animal health-related sector-wide emergency clearly identified and communicated to staff?

YES ☐ NO ☐ Is a farm plan in the form of a schematic or aerial photo immediately available so that first responders can see the location of key emergency management items?

YES ☐ NO ☐ Is the operation's inventory available for immediate provision to first responders, advising them of personnel, animals and assets to be safeguarded or removed, plus equipment and other items of potential use?

YES ☐ NO ☐ Are the contacts and key decision-makers within the business identified and listed, together with other staff, so first responders can immediately contact them?

YES ☐ NO ☐ Are key contacts outside the business, such as suppliers and service providers, identified and listed so others can contact them while primary decision-makers are occupied with emergency management decisions?

YES ☐ NO ☐ Do you have established relationships and contact details for local and possibly provincial and federal government first response organizations?

YES ☐ NO ☐ Can you control visitor movements in an emergency, e.g. access control, signage, logs or records, risk assessments?

YES ☐ NO ☐ Are you aware of the key recovery actions, such as the requirement for cleaning and disinfecting before restocking can occur?

If you answered no to any of the above questions, there may be some work to do in preparing your operation for a disease-related emergency. The next sections of this handbook contain all the information you need to get started.

Notes:

PREPARE

When the unexpected happens, it is important to be prepared. The aim of the following section is to get producers and staff thinking about the specifics of their operation, well before a crisis strikes. By being proactive, your operation will be in a better position to respond and convey important details to emergency personnel as the situation unfolds.

It's in Your Hands

Being prepared for a disease emergency not only makes sense, it is **necessary due diligence** for farm operators who are ultimately responsible for the care and well-being of their animals.

Taking these steps now demonstrates a reasonable level of preparedness on your part. This is especially important for potential insurance claims but also extremely helpful for all involved.

While you may know your operation like the back of your hand, someone less connected to the farm will require more background in order to quickly orient themselves and understand unique features. The ability to access detailed information about your operation will make a difference when it matters most. This investment of time and energy before an emergency situation arises is well worth it.

Spread the Word

We recommend that producers clearly define their farm objectives, plan, inventory, contacts and visitor controls well in advance. This information should be discussed with staff and reviewed annually. You may also choose to share this information with local first responders and other emergency management professionals. Whether it's a package at the time of the emergency that enables them to better understand your operation, or well beforehand, as a way to build a relationship and help them to be proactive, this forethought will be appreciated.

Premises Identification

Across Canada, governments use premises identification numbers to distinguish parcels of land and farm locations. PID systems can serve as an early warning mechanism to notify animal owners of a natural disaster such as a flood or fire that could affect their animals or operations. They also provide a way to connect livestock to specific pieces of land, which is very helpful during a disease-related emergency.

During a disease outbreak, a PID will help ensure a quick, accurate and cost-effective emergency response. To register your farm and receive a PID, visit ***www.novascotia.ca/agri/programs-and-services/industry-protection***

Farm Objectives

Emergencies can escalate quickly. For this reason, it is important to know and to communicate the business objectives you want to achieve during a disease-related event. Clearly defining these objectives will help to guide efforts during the response, minimize incorrect assumptions and enhance outcomes.

When considering your own objectives, it helps to know the priorities of others. The primary objectives of first response agencies are listed below. Producers should note that these agencies are not responsible for the personal property involved, such as animals and buildings.

IN ALL EMERGENCIES
1. Save lives and minimize the impact on people, including first responders, survivors and others indirectly impacted
2. Protect property, commencing with critical infrastructure
3. Protect the environment and subsequently restore and enhance its quality
4. Protect the economy, reducing disruption to lessen the impact

IN ANIMAL HEALTH EMERGENCIES
5. Control the spread of disease
6. Eliminate the disease

The foremost responsibility of your business is to **minimize the risk to humans directly involved.** This is also the primary focus of first response agencies in such an event. While first response agencies may assist or provide direction relative to animals, farm operators are ultimately accountable for:

- The well-being of the animals under their care
- Farm equipment
- The farm itself

Your business objectives should include maintaining human safety and maintaining the health and safety of the animals in your care. They may also focus on the resumption of normal business operations as soon as possible, although for some the event itself may spark a desire to grow, downsize, transition or even exit the business. Understanding and knowing your objectives before an adverse event happens will help to minimize overall impact.

Farm Plan

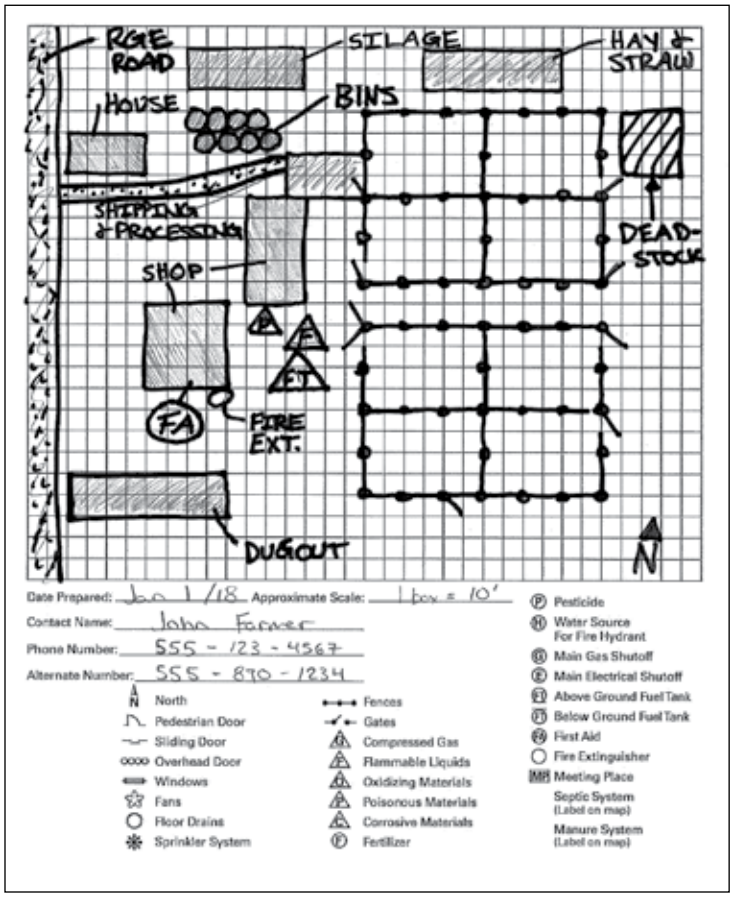
First responders need to know the unique features of your farm and where key items are located. This helps to ensure their own safety and it enables them to effectively address unexpected events on your operation. Responders will be far more effective, with less risk to life, if they can consult a farm plan while determining their approach to the situation at hand.

Your farm plan can be created from a one-page aerial photo or a hand-drawn schematic. If you've previously developed an Environmental Farm Plan, you may already have this information documented.

Preparing the plan may help you to identify additional risks as you mark out boundaries and add key items that are critical to effective emergency management. The plan should include a map of areas where the animals are currently grazing as well as important features such as legal land locations, entryways, neighbouring livestock, terrain features, and other obstacles. Your plan can be enhanced with outward arrows to relevant pasture and range locations.

An example is shown below and a **Farm Plan Grid** is provided in the **RESOURCES** section for preparation of a hand-drawn schematic, as an alternative to an aerial photo. **Use the symbols in the legend as they are widely recognized by emergency management professionals**. Don't forget to include the following key elements:

- Scale
- Buildings
- Recognized symbols
- Scrape out pile
- Hazardous materials
- North arrow
- Meeting place
- Mortality storage
- Access routes/barriers
- Potential contaminants
- Manure pits



Once your plan is complete, laminate it and put a copy in your emergency management file and/or post it in a prominent location for staff to see.

Work Cycle

Every operation is unique. During an emergency, producers and response personnel will benefit from knowing what to expect in terms of flow on and off the farm and regularly scheduled activities. A clearly defined work cycle will help increase everyone's understanding of potential disruptions as well as opportunities for action. This should include:

- The frequency of various activities such as deliveries and shipments
- Flow of people and other farm traffic
- Animal health checks (calving/pregnancy)
- Other husbandry protocols (vaccinations, dehorning etc.)

Inventory

Knowing the equipment and personnel resources available at your operation along with the general livestock inventory, enables first responders and other emergency management professionals to be more efficient and effective.

Producers can decide whether to provide this at the time of an emergency or earlier for agencies to hold on file. Supplying the information in advance gives responders the chance to plan and be more strategic in their approach. Your farm inventory will include:

- Specifics about personnel (specific roles, number living onsite, and any physical limitations)
- An itemized list of equipment (machinery) and resources (generators, first aid, fire extinguishers, etc.)
- A grazing land summary

Decision Makers and Contacts

There is no time for ambiguity during an emergency. For this reason, information about key contacts and decision makers should be clearly defined and accessible.

The **Primary Contact** is someone who is authorized and able to make quick decisions on behalf of the operation. This is likely the owner or senior manager, who is available in an emergency, and can make decisions or direct the issue to the most appropriate person. A **Secondary Contact** should also be designated in case the primary decision maker is unavailable. This information may be captured in the template provided and should be regularly reviewed.

The ability to notify and follow up with staff, key external organizations and individuals is also paramount. Keeping up-to-date records and having contact information posted and readily available can be helpful as it enables others to make calls on behalf of owners or key decision makers. It also allows potential risks to be identified and promptly addressed.

In addition to a current staffing list, producers will want to keep contact details handy for first responders, local veterinarian, livestock industry professionals, utility providers, relevant government departments, service contractors and neighbouring operations. Helpful **Contact List Templates** may be found on ***pages 74-76***.

Visitor Controls

Visitors may amplify the spread of disease on your farm and beyond to the industry at large. With this in mind, it is important to control visitor access and movements during a disease outbreak; and to implement clear protocols in production areas, animal holding spaces and areas where feed and animal medications are stored. If visitors are allowed entry, they must comply with strict control measures.

CROWN LAND

Limiting visitors on Crown land is challenging since producers cannot prevent people from accessing public areas. To discourage access during an outbreak, producers may post signage to warn visitors about the dangers of spreading the disease and encourage people to request access prior to entry.

VISITOR RISK ASSESSMENT

Producers need to assess whether visitors, service providers or others connected to the operation present a risk. The following **Visitor Risk Assessment Guide** and **Visitor Control Protocol** will help you determine how best to proceed.

A **Visitor Log** has also been included on ***page 77*** of the **RESOURCES** section.

VISITOR RISK ASSESSMENT GUIDE

Farm Name: _____ PID #: _____

RISK CATEGORY	CRITERIA	DESCRIPTION	EXAMPLE	BIOSECURITY REQUIREMENTS
LOW	Within the past 14 days: • 0 livestock contact • 0–1 visits to livestock operations	Visitor is from urban area and does not have livestock contact	Old acquaintance in the area and decides to stop by for a visit	• Record visits
MODERATE	Within the past 14 days: • Livestock contact at one operation	Contractor outside of agriculture that typically does not visit farming operations	A utility provider that entered a pen to fix a light	• Minimize access to production area • Prevent all but essential contact to livestock • Before access is permitted, ensure clean footwear/clothing/ tires/surfaces, all visibly clean of organic matter
	Within the past 14 days: • Visited more than one livestock operation	Travel from or are transported from farm to farm, but do not enter the production area or come into direct contact with livestock or manure	Service personnel that may enter the production area but rarely come into contact with livestock manure	
	Neighbouring livestock operator	Producer who shares a fence-line with your operation		

HIGH	Within the past 14 days:
	• Livestock contact at multiple operations
		• Individuals who travel from or are transported from farm to farm
		• Individuals who enter the production area and have direct contact with livestock or manure
			Veterinary and livestock inspection professionals who enter the production area and generally come into direct contact with livestock manure	Producers must apply biosecurity practices to these visitors
				• Prevent all but essential access to the production area or contact with livestock
				• Before access or contact is permitted, ensure:
				  • Tires/surfaces are visibly clean of organic matter
				  • The person wears clothing and footwear dedicated to the operation, or wears fresh coveralls or clean clothing and disinfects footwear
				  • The person disinfects off-farm equipment or tools contacting livestock, or provide site specific tools

	Other livestock operator (including employee)		Custom manure cleaning operators and equipment that may transport manure from one production area to another	
	Persons from other countries where reportable diseases are a concern		Personnel who work with livestock at their own or another operation	
	Person who has handled sick or segregated animals at this or other operations		Personnel working with animals in the segregation or sick facility	

VISITOR CONTROL PROTOCOL

Farm Name: _____ PID #: _____

- ☐ Establish control at recognizable primary access points on and off the farm with a lockable gate or some form of moveable barrier. Be sure to identify these new items on the farm plan.
- ☐ Establish control at access points to the pastures, barns, pens or fields, and also at areas where feed and medications are stored.
- ☐ Post signage prominently at all access points to the farm. All signage should prohibit unauthorized entry and indicate that biosecurity is in effect.
- ☐ Ensure signage at primary access points directs entrants to the office. Signage at other points should discourage access and redirect entrants to primary access points.
- ☐ Record all visitor access on a Visitor Log to facilitate follow up in an emergency.
- ☐ Use a Visitor Risk Assessment Guide to identify and manage the different potential risks associated with the range of visitors, equipment or vehicles entering the farm on a daily basis.

Connecting with First Response Agencies

First responders will be more effective if they have a good understanding of the premises they are accessing, the way in which business is conducted, and farm specific objectives in an emergency.

Some of the distinct characteristics or systems on your farm will play a key role in the risk reduction and personal safety strategies of various first responders. This information may also help limit the overall impact of the evolving situation.

FIRST RESPONSE AGENCY PROTOCOL

Farm Name: _____ PID #: _____

- ☐ **Get acquainted with members of your local government first response agencies**
  - The fire department is a good place to start
- ☐ **Familiarize yourself with the organizations that are initially responsible for different sector-wide emergencies**
  - Disease-related emergencies: provincial association, Program Veterinarian, CFIA regional offices, CFIA Chief Veterinary Officer
  - Other emergencies: Nova Scotia Emergency Management
- ☐ **Offer to share your plans with local government first response agencies**
  - Of particular interest will be your Farm Plan, Farm Inventory, and Decision Makers (Primary and Secondary contacts)
  - They may be able to keep it on file or stored digitally for access before and on route to an event

RESPOND

The following section has been developed to help producers understand their role and expectations relative to specific situations that may arise during a disease-related sector-wide emergency.

Alert

- Unusual Animal Health Event Indicators
- Response Protocols
- Producer Declaration

Suspicion/ Confirmation

- Communication Channels
- Custom Operator/Community Pasture Responsibilities
- Triggers
- Personal Safety
- Mental Health and Well-Being

Response

1. Containment

- Voluntary Cease Movement
- Biosecurity Protocols

2. Investigation and Tracing

- Disease Follow-Up
- Traceability
- Premises Identification

3. Vaccination

- Mass Vaccination
- Staff Roles

4. Depopulation and Disposal

- Destruction Orders
- Methods

5. Financial Considerations

- Valuation
- Compensation
- Additional Support

6. Cleaning and Disinfection

- Cleaning and Disinfection Steps
- Suggested Protocol

7. Lifting of Restrictions

- Communication from the Regulatory Authority
- Association Roles

Recovery

- Demonstrating Absence of Disease
- Re-establishing Market Activity

Alert

Initial recognition of a serious animal disease usually starts with a producer or their staff sensing that something is not right. This section contains information about indicators, initial response protocols and producer declaration responsibilities.

UNUSUAL ANIMAL HEALTH EVENT INDICATORS

Whether it is behavioural changes or physical symptoms, producers may get cues that their animals are unwell. Staff should be made aware of specific indicators within your operation that signal a cause for concern. Basic signs and symptoms of serious animal diseases specific to the livestock commodity are set out in Schedule 2. This information will help improve awareness and early identification.

The following **Indicator Protocol** can be customized in consultation with your veterinarian and staff to suit the specific needs of your farm. When these indicators are observed in individual animals or the herd, notify your veterinarian immediately and take their direction.

QUICK TIPS

- ✓ *Know indicators and initial response protocols*
- ✓ *Recognize primary serious animal disease symptoms*
- ✓ *Discuss concerns with your veterinarian*

UNUSUAL ANIMAL HEALTH EVENT INDICATOR PROTOCOL

Farm Name: _____ PID #: _____

Veterinarian: _____ Cell: _____

If any of the following indicators are observed, then the farm's veterinarian will be contacted immediately to investigate further:

- ☐ Unexplained or sharp increase in sickness, lameness, behavioural changes, death loss.
  - Exceeds normal acceptable level of this many head per week/day: _____ (head/%)
- ☐ Animals backed off feed/water (daily intake is down for reasons not related to weather or seasonality)
- ☐ Disease or symptoms not previously encountered
- ☐ Typical disease or symptoms with abnormal severity or non-responsive to treatment
- ☐ Rapid spread throughout herd
- ☐ Reportable/notifiable disease suspected on farm
- ☐ Any death of unknown cause
- ☐ Other events, as determined with your veterinarian

INITIAL RESPONSE PROTOCOL

The initial response for unusual animal health events cannot be stressed enough. An effective and rapid response can play a vital role in:

- Limiting the possible spread of disease
- Reducing staff and family member risk
- Containing the incident
- Decreasing the impact on your business and the industry as a whole

Prior to developing your **Initial Response Protocol** you will want to connect with your veterinarian and staff. Ensure that the steps you've collaboratively identified reflect the specific needs and features of your operation.

If these indicators are observed in any of the animals, notify your veterinarian and take their direction. If you are uncertain of what actions or precautions to take, seek clarification from your producer organization, provincial government, or CFIA.

UNUSUAL ANIMAL HEALTH EVENT INITIAL RESPONSE PROTOCOL

Farm Name: _____ PID #: _____

1. Notify Staff and Family Members

- ☐ An Unusual Animal Health Event exists on the farm
- ☐ Review and strictly follow biosecurity protocols currently in place, or as established by management in consultation with veterinarian (e.g. Green, Amber and Red Biosecurity Protocols)
- ☐ Minimize/avoid contact with animals of the same species

2. Call Veterinarian and Act on Advice, for example

- ☐ Isolate sick animals
- ☐ Submit samples for diagnosis
- ☐ Stop livestock movements on/off the Infected Place
- ☐ Limit and monitor other movements on/off (e.g. staff, equipment, manure spreading etc.)
- ☐ Gather information/documentation as required (e.g. visitor log, livestock inventory, identification record including purchases/sales within the last 30 days, individual treatment log, herd health protocol)
- ☐ Other_____

3. Identify a Primary Contact within your organization. This will be the point person or coordinator to be available for key decisions

4. Contact External Stakeholders. External notifications may be made after consultation with your veterinarian

- ☐ Farm veterinarian to notify regulatory authority as/if appropriate
  - CFIA District Veterinarian called (suspect reportable disease)
  - Program Veterinarian
- ☐ Self-declaration by producer to industry association and neighbouring livestock producers (depending on suspected disease)
  - Provincial association
  - Neighbouring livestock producers
  - Notify suppliers and other contracts (e.g. feed suppliers, livestock transporters, utility companies with access rights)

PRODUCER SELF DECLARATION

If an unusual animal health event were to evolve into a disease-related sector-wide emergency, professionals in your industry association, government representatives, the veterinary community and fellow producers will benefit from transparency regarding your situation. An awareness of basic details may help to reduce broader industry impacts and limit the spread of disease.

Federal and provincial privacy and confidentiality legislation requires that you authorize the release and sharing of your personal information. By self-declaring, you are permitting the use of your information in this manner, in the best interests of the industry at large.

An example of a **Producer Self Declaration** is provided on ***page 85***. Please note that this is a sample and may need to be altered to suit your operation.

Suspicion/Confirmation

Timely and accurate information is crucial in an emergency. As rumours and misinformation circulate, producers need to know who they can trust, whether the situation requires immediate action, and how they can protect themselves and others.

OFFICIAL COMMUNICATION

To minimize the spread of conflicting messages, producers should not react to hearsay and instead wait for communication from:

- Provincial livestock association
- National livestock organizations
- Nova Scotia Department of Agriculture
- CFIA

QUICK TIPS

- ✓ *Distinguish rumour from fact*
- ✓ *Be aware of Sector-Wide Triggers*
- ✓ *Share information*
- ✓ *Take care of yourself and your staff*

SECTOR-WIDE TRIGGERS

The two precursors for a sector-wide emergency declaration are a formal **Notification of Suspicion** followed by a **Notification of Confirmation**. More details as well as the producer tasks that go hand in hand with these two triggers are listed in the following two **Response Protocols**.

NOTICE OF SUSPICION RESPONSE PROTOCOL

Farm Name: _____ PID #: _____

WHO:

CFIA's Chief Veterinary Officer or Program Veterinarian issues formal Notice of Suspicion for a serious animal disease

WHERE:

Anywhere within the area where a producer regularly does business (trading area)

WHEN:

A federal or provincial government veterinarian has reason to believe a federal or provincially reportable disease is present

WHAT:

May be referred to as 'the gray period' when an outbreak is suspected but not confirmed and movement controls have not been announced

PRODUCER RESPONSE:

- ☐ Implement **AMBER Elevated Risk** biosecurity protocols, visitor manuals, etc.
- ☐ Review **RED High Risk** biosecurity protocols and Voluntary Cease Movement
- ☐ Implement **Voluntary Cease Movement**, if recommended by government and industry leaders
- ☐ Seek additional guidance specific to the situation from veterinarian
- ☐ Monitor CFIA, NSDA , provincial association and national association websites and other media for updates

NOTE:
Additional and more restrictive requirements would be ordered for 'Infected Place(s)', as announced by veterinary authorities.

NOTICE OF CONFIRMATION RESPONSE PROTOCOL

Farm Name: _____ PID #: _____

WHO:

CFIA's Chief Veterinary Officer or Program Veterinarian issues formal Notice of Confirmation for a serious animal disease

WHERE:

Anywhere within the area where a producer regularly does business (trading area)

WHEN:

A serious animal disease is confirmed, at the National Centre for Foreign Animal Disease, Canada's most highly specialized and widely recognized animal disease laboratory

WHAT:

Once Notice of Confirmation is issued, the Minister usually establishes a Primary Control Zone and movement controls. Permits or licenses for all livestock, related materials and equipment will be required for movement into or within the Primary Control Zone

PRODUCER RESPONSE:

- ☐ Implement **RED High Risk** protocol
- ☐ Implement **Voluntary Cease Movement**, if recommended by government and industry leaders
- ☐ Seek additional guidance specific to the situation from veterinarian
- ☐ Monitor CFIA, NSDA , provincial association and national association websites and other media for updates

CUSTOM OPERATOR /COMMUNITY PASTURE RESPONSIBILITIES

Owners of livestock at custom operations or on community pastures should be advised of any emergency situation that affects or presents a risk to their animals. In addition to being part of the land manager's duty of care, this may be a contractual requirement.

Most contracts provide the operator or pasture manager with the authority, and often the responsibility, to make decisions on behalf of the owner in the event of an emergency. While advice to owners may be provided by phone or in person, it should also be documented for legal purposes.

A sample **Owner Advisory Template** can be found in the RESOURCES section on ***page 86***.

PERSONAL SAFETY

Personal safety should always come first. While this is well accepted, it is sometimes easily forgotten or overlooked in a moment of crisis.

Farm owners are responsible for the safety of personnel and residents, relative to risks that are within their capacity to control or mitigate. **This responsibility takes precedence over the care and needs of the livestock that may be on the farm.**

Farm owners and management should:

- Be aware of the evolving emergency events
- Understand the risks that these events represent to human safety
- Take the steps necessary to ensure the safety of farm personnel and residents who may be living on the premises, including the delivery of training relative to these risks

To put this in context, a farm owner may choose to remain on the premises after an evacuation order has been issued, or may decide not to wear Personal Protective Equipment (PPE) in the event of a disease outbreak. However, the same farm owner cannot instruct staff to disregard an evacuation order, nor can staff be asked to work without the necessary or appropriate PPE. Your industry association can advise you about PPE recommendations and where it can be obtained.

Farm family members warrant special mention in view of the significant role they play on many operations. This is particularly important for children, as they cannot remain on the premises after an evacuation order has been given.

MENTAL HEALTH AND WELL-BEING

Unanticipated events can be extremely upsetting and stressful. People react in different ways to trauma and can experience a wide range of physical and emotional changes that can affect mental health and well-being. It is important to monitor your health and to access the appropriate resources as required.

EMOTIONAL AND PSYCHOLOGICAL SYMPTOMS	PHYSICAL SYMPTOMS
• Shock, denial, or disbelief • Confusion, difficulty concentrating • Anger, irritability, mood swings • Anxiety and fear • Guilt, shame, self-blame • Withdrawing from others • Feeling sad or hopeless • Feeling disconnected or numb	• Insomnia or nightmares • Fatigue • Being startled easily • Difficulty concentrating • Racing heartbeat • Edginess and agitation • Aches and pains • Muscle tension • Loss of appetite

If you or anyone you know is exhibiting the symptoms above, the first thing to do is ask for help. The following are services available in the province:

- **Nova Scotia Mental Health Mobile Crisis Telephone Line** provides a toll-free line that offers mental health crisis or mental distress services. Call 902-429-8167 or 1-888-429-8167
- **Farm Family Support Line** provides a confidential, short-term counselling and advisory service that connects Nova Scotia farmers, and their immediate family members, to a network of professionals — to help manage and reduce the stresses in life, including mental health, legal, financial issues and more. The line is open 24 hours a day 1-844-880-9142, TTY: 1-877-338-0275
- **Farm Safety Nova Scoti**a is a resource for farmers relating to the health and safety. Call 902-893-2293 or visit ***www.farmsafetyns.ca***, email info@farmsafetyns.ca

Response

1. CONTAINMENT

Well before a disease is confirmed, producers are able to take steps to reduce potential transmission. Be it voluntarily stopping flow in and around the potentially affected area, complying with mandatory movement controls or implementing biosecurity protocols, there are ways to protect your farm and others.

VOLUNTARY CEASE MOVEMENT

At the outset of an outbreak, shortly after a Notice of Suspicion or Notice of Confirmation is declared, industry leaders may recommend a Voluntary Cease Movement (VCM).

Stopping movements early on will not only help to contain and limit the spread of disease, but it may also reduce the length of market interruption and facilitate faster market recovery.

QUICK TIPS

- ✓ *Voluntarily stop operational movements*
- ✓ *Comply with Movement Restrictions*
- ✓ *Know relevant Biosecurity Protocols*

VOLUNTARY CEASE MOVEMENT PROTOCOL

Farm Name: _____ PID #: _____

A Voluntary Cease Movement (VCM) may be recommended by industry associations or government:

WHO does the VCM apply to:

- All susceptible livestock operations, auctions and sale yards, slaughter facilities etc., within that province or trading area
- All hooved animals, including cattle (beef and dairy), bison, sheep, goats, pigs, cervids, horses and the operations where these animals are located

WHAT does a VCM mean:

- Essentially a standstill on all livestock movements
- All animals will remain on their current operation when a VCM is ordered
- Animals will not be brought on or off the farm, whether to slaughter or other

WHY is a VCM recommended by industry leaders:

- In the early stages of a potentially major disease outbreak, reduced movements are critical to the industry's long-term well-being by ensuring effective response, rapid recovery and reduced time out of the market

HOW is the VCM applied:

- Initially for three days, unless extended or rescinded by industry leadership
- Participation is voluntary

IN GENERAL, the following will apply:

Livestock in transit within the province:	• If not commingled subsequent to departure then return to point of origin • If commingled or reloaded subsequent to departure, then continue to destination and hold segregated on arrival
Livestock in transit *TO* Nova Scotia from another Canadian province:	• Return to point of origin for load
Livestock in transit *FROM* Nova Scotia to another Canadian province:	• Return to point of origin
For feed or other deliveries:	• Farm to consider use of a 'transfer station' • Drivers to remain in cab • Vehicles clean and ideally washed prior to coming on farm premises • Vehicles not to enter the production area
Deadstock	• Pickup suspended for duration of VCM

Whoever is in possession/oversight of the animals will be responsible for their well-being

MOVEMENT RESTRICTIONS

As the situation evolves, a VCM may be replaced by official movement restrictions that coincide with the Minister's establishment of a Primary Control Zone (PCZ). As discussed in the zoning section on ***page 16***, the PCZ will include a Security Zone, Restricted Zone and Infected Zone.

Movement Restrictions will vary according to the risk associated with the item being moved and the origin of travel/final destination. A range of permits and/or licenses setting out these restrictions will be required for the various different movements within, to or from these zones. Permits with more general restrictions may be available on-line, while licenses and permits with more specific restrictions will be available from the EOC.

The RCMP and other national, provincial or municipal enforcement services may be tasked with enforcing movement restrictions. Failure to comply with permit or license restrictions may result in fines and/or legal action.

Whether restrictions are voluntary or mandatory, full compliance is essential. In addition to minimizing the impact of the potential outbreak, it shows our trading partners that we are responding quickly and effectively to the situation.

BIOSECURITY PROTOCOLS

Whether on boots, clothing, equipment or livestock supplies, staff and visitors can unknowingly spread disease. Biosecurity protocols can lower the risk. Developed in collaboration with a veterinarian, biosecurity protocols provide clear instruction on how to manage:

- Animal health practices
- Animal movement risks
- The movement of people, vehicles, equipment and tools

GREEN biosecurity protocols should be a part of your **Normal day-to-day** business while **AMBER** and **RED** protocols will coincide with **Elevated Risk** and **High Risk** emergencies. A sample **Biosecurity Protocol** can be found on the next page.

Producers should note that prior to a **Notice of Confirmation**, an operation may be declared an 'Infected Place' if a serious animal disease is suspected. Specific movement restrictions and biosecurity measures will be ordered and enforced. Other premises nearby or in close association to the 'Infected Place' may also be affected.

*The **National Biosecurity Standards and Biosecurity Principles** found on the CFIA website are good starting points for determining appropriate on-farm biosecurity measures.*

BIOSECURITY PROTOCOL

Farm Name: _____ PID #: _____

GREEN	AMBER	RED
Normal day-to-day	**Use of this AMBER Elevated Risk biosecurity protocol should be reviewed when:** • There is concern that an unconfirmed disease may be present in the trading area • A formal **Notice of Suspicion** has been declared for a relevant serious animal disease within the trading area **What to Do:** • Review and verify current biosecurity practices and compare with industry biosecurity standard • Ensure biosecurity standard is known by staff and understand the importance of following the standard	**Use of this RED High Risk biosecurity protocol should be reviewed when:** • There is **SIGNIFICANT** concern that a disease is present in the trading area • A formal **Notice of Confirmation** has been declared for a relevant serious animal disease within the trading area **What to Do:** • STRICTLY adhere to the biosecurity standard

FARM ACCESS

GREEN	AMBER	RED
Normal	• Restrict primary access points where farm offices or personnel are present to monitor access • Use Visitor logs in accordance with risk assessment tool and ensure they are placed at entry/exit points • Bar or otherwise prevent access through all secondary access points where the farm does not have an ongoing presence • Post biosecurity signage at access points	• Additional as recommended at time of Confirmation

SICK ANIMALS

GREEN	AMBER	RED

Normal	• Isolate to the extent possible
	• Minimize contact or potential for contact with healthy animals/pens
	• Assign dedicated clothing, equipment, pens, feed and water stations
	• Designate staff to handle as follows:
	  • No contact of other animals after treating sick animals
	  • Change of outerwear/footwear
	  • Wash hands before and after treatment
		• Additional as recommended at time of Confirmation

INCOMING/OUTGOING TRAFFIC

GREEN	AMBER	RED
Normal	• Ensure disinfection prior to entering farm and before leaving • Have drivers consider additional biosecurity protocols • Document truck movements on and off the farm • Ensure drivers are recording dates and times of farm pickups	• No incoming livestock • Postpone arrivals pending more information on outbreak and conditions under which animals may be moved

STAFF

GREEN	AMBER	RED
Normal	• Remind staff of Indicators and Immediate Response Protocol for Unusual Animal Health Events • Ensure those owning and/or in contact with livestock have dedicated clothing and footwear for the farm and change clothing/footwear when entering or leaving the farm premises • All staff to wash hands and feet prior to entering or leaving the farm	• Staff to make alternate arrangements for care of personal livestock or be moved into a position having no contact with operation's animals • All staff to wash hands again, and boots, when entering production area for the purposes of working with animals or entering pens, processing or hospital unit

DEADSTOCK

GREEN	AMBER	RED
Normal	• Designate specific staff to handle and remove animals from pens • Instruct staff to wash hands and clothing after handling deadstock • Ensure separation from other farm practices for equipment • Refer to Depopulation and Disposal section for more information about deadstock burial • Monitor key websites for information and recommendations (e.g. provincial association, national association, NSDA , CFIA and AAFC)	• No pickup of deadstock on-farm • Additional as recommended at time of Confirmation

PRODUCTION AREA e.g. pens, milking parlour, processing unit, feed mill

GREEN	AMBER	RED
Normal	• No visitors • No external animals, vehicles or personnel beyond main office/delivery area	• Additional as recommended at time of Confirmation

2. INVESTIGATION AND TRACING

A critical component of containing a disease is determining how it was introduced and how far it has spread. This section highlights steps that producers can take both before and during an emergency to assist investigators and protect their farm.

DISEASE FOLLOW-UP

Epidemiologists are specially trained to get to the bottom of a disease outbreak. During an adverse event, these specialists will conduct interviews with key staff, review all available data and documentation, monitor affected animals and collaborate with other authorities.

As they review the situation, they will try to identify the following:

WHEN

- Incubation period
- Time of onset (first signs)

HOW

- Location and spatial distribution
- Species and numbers
- Economic and social relationships on the farm
- Supply and disposal practices
- Disease prevention systems
- Hygiene

WHERE and WHEN

- Animal and staff movements
- Deliveries, vehicles, equipment, feed, water, airborne potential

TRACEABILITY

Traceability is an integral component of contemporary agriculture operations. Knowing where animals can be found, where they have been, and who they have had contact with, helps to protect animals and public health as well as the safety of our food system.

Bringing together animal identification, animal movement and premises identification (PID) data, traceability systems yield valuable information that can be used to identify risks and improve outcomes during an emergency.

QUICK TIPS

- ✓ *Keep up-to-date records*
- ✓ *Consider traceability options*
- ✓ *Register your land with a PID*

By enhancing the speed and precision of a response, traceability systems help to reduce the overall impact of an event in terms of size and scale. Clearly this is something that is of great benefit to livestock, producers and consumers alike.

PREMISES IDENTIFICATION

Across Canada, governments use premises identification numbers to distinguish parcels of land and farm locations. PID systems can serve as an early warning mechanism to notify animal owners of a natural disaster such as a flood or fire that could affect their animals or operations. They also provide a way to connect livestock to specific pieces of land, which is very helpful during a disease-related emergency.

During a disease outbreak, a PID will help ensure a quick, accurate and cost-effective emergency response. To register your farm and receive a PID, visit ***www.novascotia.ca/agri/programs-and-services/industry-protection***

3. VACCINATION

Vaccination can play an important role in slowing the spread of disease. By vaccinating animals, producers are able to strengthen the buffer area around the Infected Place, protect animals at risk, and safeguard the industry.

MASS VACCINATION

During a major disease event, provincial or federal authorities may order mass vaccination. If ordered, compliance is required under the federal *Health of Animals Act* and its related regulations or similar provincial legislation.

Vaccinated animals will be identified and their individual animal ID recorded. Depending upon the disease, vaccinated animals may need to be slaughtered and even diverted from the food chain.

The CFIA will state the necessary protocol once the mass vaccination program is ordered. The CFIA is responsible for providing vaccine and dosage guidelines to producers who then must vaccinate their animals accordingly. If vaccination is ordered, a comprehensive vaccination strategy will be discussed with and accepted by industry leaders. The strategy would set out:

- The type of premises, species and even class of animals to be vaccinated
- Location within the Primary Control Zone
- Recordkeeping requirements
- Subsequent use restrictions for vaccinated animals

QUICK TIPS

- ✓ *Understand your duty to comply with orders*
- ✓ *Take direction from your appointed Site Supervisor*
- ✓ *Follow the CFIA's dosage guidelines*
- ✓ *Ensure staff are familiar with vaccination technique and requirements*

For example, vaccination may be ordered at all operations within the Infected Zone, for all livestock regardless of their sex or class. Producers may be required to use onsite farm personnel to carry out the vaccination. This will free up qualified government and emergency staff to focus on other necessary control measures. In this scenario, a Site Supervisor will be designated by CFIA or NSDA to ensure compliance with required protocols.

Our industry's continued livelihood hinges on the CFIA and/or AAFC's ability to state with certainty that protocols have been completed in strict compliance with the conditions that international animal and public health authorities require for Canada to regain domestic and international market access. For this reason, **100% compliance with the CFIA or AAFC protocol is essential.** A sample vaccination protocol is provided on the next page.

MASS VACCINATION PROTOCOL

Farm Name: _____ PID #: _____

☐ **Farm owner/manager to review and accept the vaccination protocol with a Site Supervisor appointed by CFIA or NSDA , setting out all requirements including:**

- Species/class to be vaccinated
- Method
- Dosage
- Record-keeping requirements
- Booster requirements
- End use
- Oversight
- Other control factors

☐ **All personnel acknowledge their acceptance of regulatory oversight whether provided by CFIA or NSDA**

☐ **All personnel agree to apply protocol as directed by CFIA or NSDA site supervisor**

☐ **Farm staff will:**

- Record receipt of vaccine doses and ensure oversight of vaccine as directed
- Vaccinate all animals, as set out in the vaccination protocol and directed by the Site Supervisor
- Record individual animal identification of each vaccinate, at time of vaccination, together with date and place and members of vaccination crew and vaccination oversight personnel
- Identify vaccinates, as required by regulatory authority: this may be a temporary or permanent identifier (e.g. ear tag or brand)
- Record unused vaccine doses and return to regulatory authority if required
- Provide CFIA or NSDA site supervisor with record of animal identification for all animals vaccinated
- Apply second or booster vaccination if directed, using similar protocol, in the time frame required

4. DEPOPULATION AND DISPOSAL

Provincial or federal authorities may order mass depopulation and disposal of carcasses in response to a major outbreak. This is an unfortunate but necessary strategy to stop disease spread and to protect our industry.

DESTRUCTION ORDERS

Destruction orders will be issued for each of the designated premises. If ordered, compliance is required under the *Health of Animals Act* and its related regulations, or similar provincial legislation. A Site Supervisor appointed by CFIA or NSDA will provide regulatory oversight.

Depopulation and disposal strategies will be discussed with and accepted by industry leaders. This collaborative process will involve a detailed evaluation of the risks to human and animal health, and economic and environmental considerations. The means and methods to be used will be prescribed in a strict protocol, after consideration of the various alternatives and the conditions at hand including: numbers of animals, location, facilities, soil types, water table, and other key elements.

QUICK TIPS

- ✓ *Understand your duty to comply with orders*
- ✓ *Follow protocols agreed to by industry leaders provided by CFIA*

METHODS

There are various methods used to depopulate and dispose of animals. The most likely strategy involves use of a designated slaughter facility and some form of on-farm, high volume slaughter. Potential disposal methods may include:

- Burial at a central location and/or approved secondary landfill sites
- Incineration
- Rendering
- Processing for food (depending on the disease)

Farm personnel will have a role in both depopulation and disposal processes. Staff with livestock handling skills and equipment familiarity will be guided by an NSDA or CFIA appointed Site Supervisor. Using internal resources will allow qualified government and professional staff to work on other necessary control measures.

Strict compliance with the protocols set out by CFIA or NSDA is essential. In order to regain domestic and international market access, CFIA and/or NSDA will need to state with certainty that prescribed depopulation and disposal protocols have been carried out in strict compliance with the conditions specified by international animal, public health, and environment authorities.

While the CFIA or NSDA will state the necessary protocol at the time of the mass depopulation and disposal program, a sample depopulation and disposal protocol is provided below so producers can be aware of the requirements of such a program ahead of time.

Nova Scotia producers wanting to familiarize themselves with additional information this topic encouraged to review the following:

- On-farm Livestock Mortality Management
  www.nsfa-fane.ca/wp-content/uploads/2011/06/mort_manage_narrow.pdf
- NS Environmental Farm Plan (EFP)
  www.nsfa-fane.ca/efp

MASS DEPOPULATION AND DISPOSAL PROTOCOL

Farm Name: _____ PID #: _____

Once a Destruction Order is issued, operators and personnel will need to:

☐ **Review** and **accept** the overall depopulation and/or disposal strategies required by Regulatory Authority CFIA or NSDA	Owner/ Manager
☐ **Follow** directives from the Regulator's Designate (Site Supervisor) who will provide regulatory oversight and instructions regarding: • Species/class involved • Depopulation and/or disposal protocols (method and means) • Record-keeping requirements, etc. ☐ **Assist** with the assembly, movement, restraint, and processing of animals, whether depopulation takes place at the farm or elsewhere ☐ **Prepare** and **provide** records of animals depopulated and/or disposed of, as set out in the protocol. Examples of the type of records that should be taken can be found in Figure 4 – Information Protocol for Valuation/Compensation ☐ **Apply** animal biosecurity practices as prescribed ☐ **Follow** personal biosecurity requirements as prescribed and which may include any or all of the following and other requirements: • Showering before and after each shift • Hand washing before putting on and after removal of Personal Protective Equipment (PPE) • Wearing of PPE • Taking any vaccine or prophylactic medication, if any is recommended by public health officials • Self-monitoring for any signs of personal sickness and seeking medical care if symptoms appear • Having NO CONTACT with other livestock for a prescribed period of time after these operations ☐ **Report** any spillage of material (urine, manure, hide, other) that might potentially contain contaminant (virus, bacteria, other), outside the prescribed area for disposal	All personnel

5. FINANCIAL CONSIDERATIONS

A disease outbreak can place significant stress and financial pressure on affected producers. While depopulation orders are never welcome, producers may be compensated for some of their losses. There may also be support available through other sources such as insurance and government aid.

COMPENSATION

The Federal Minister may order compensation when a destruction order is issued for particular animals. The amount is determined and paid in accordance with the *Health of Animals Act (Canada)* or provincial legislation.

Compensation under the *Health of Animals Act* has limits and is not intended as insurance or full recompense. It covers:

- The fair market value of animals ordered destroyed less any salvage value
- Other things that may be ordered destroyed such as contaminated feed or animal products
- Disposal costs

QUICK TIPS

- ✓ *Keep accurate and up-to-date animal records*
- ✓ *Contact your association for help finding a qualified evaluator*
- ✓ *Check your insurance coverage*
- ✓ *Know your financial aid options*

Compensation is reduced by any salvage value derived from the carcasses, which is also paid to the producer.

The current limit are:

- *Beef cattle up to $4,500 for non-registered and up to $10,000 for registered animals*
- *Sheep up to $825 for non-registered and up to $1,200 for registered animals*
- *Swine up to $2,000 for non-registered and up to $5,000 for registered animals*

VALUATION

Fair and accurate valuation of the animals is a necessary step in determining the compensation due to the owners of the animals ordered destroyed. The valuation process involves two evaluators, one selected by the operator and the other selected by the CFIA.

Operators can identify their own evaluator, or choose one from a list made available by the respective provincial association. Industry associations may also assist in the administration of the valuation process, particularly if multiple premises are involved.

Evaluators will base their findings upon the animals and relevant records, as presented by the operator. Their valuation is presented to the CFIA Veterinarian responsible for the valuation process.

The table below contains some common queries related to compensation:

QUESTION	RESPONSE
Will value be based upon pre-outbreak prices or current prices?	Valuations are historically based upon prices in effect just prior to the outbreak
How is value determined?	Fair Market Value is used, typically based on either: factors such as age, weight, class, etc.; or the animals' point in the production cycle at time of destruction as determined in the valuation
What special attributes might be considered that add value?	Organically raised, specialty breeds, purebred lines, pregnant animals, etc.
How long does payment take?	In recent outbreaks compensation has been provided in approximately six weeks, however this will vary depending upon the situation

Other issues may surface during the compensation process, which will be addressed jointly by the Industry and Government Executive. The CFIA will work with the industry to ensure that the compensation process runs as smoothly as possible.

Figure 4. Information Protocol for Valuation/Compensation

When compensation is sought, farm personnel will be asked to assist the valuation process by providing the following information from all animals being valued:

- Date animals born or purchased
- Description (e.g. Number of head, class, sex, species, breed of animal)
- Production/quality records or parameters
- Individual ID if available, or other (group) identifiers
- Owner details, e.g. Name and contact information
- Premises ID (farm)
- Date of quarantine and depopulated
- Depopulation method
- Premises ID (depopulation location, if different)
- Disposal method
- Premises ID (disposal location, if different)
- Salvage value received, if any (payment received for animal/carcass)

ADDITIONAL EXPENSES

While compensation can help cover animal losses, there are other expenses associated with a disease-related emergency such as: cleaning and disinfecting or decontaminating the premises and equipment; lost income or business interruption costs; and ancillary costs related to restocking. Since these items are not part of the compensation process, producers need to be aware of all other avenues for financial aid.

INSURANCE

Commercial insurance provided in the private sector may be available to producers depending on individual policy specifics. Producers should review their coverage with an experienced broker annually and consider adjustments that would better protect them from disease-related emergencies.

If coverage is available, some losses to consider are those related to: mortality, disease, livestock relocation, infrastructure losses, flood, weather such as hail or fire, and business interruption.

Producers should know the specifics of what perils or events are covered by their insurance and what costs are addressed.

INSURANCE CHECKLIST:

- ☐ Have you checked to ensure your coverage is current?
- ☐ Have you reviewed your operation with your insurance broker, with specific consideration for coverage of potential perils or events?
- ☐ Do you have records of the individual animal identifiers that are within your possession e.g: Canadian Cattle Identification Agency Radio Frequency Identification (CCIA RFID)?
- ☐ Have you assessed the risks associated with actions you might take in response to certain perils and the coverage available should you do so? For instance, moving animals off premise from a flood zone or fire path?
- ☐ Do you have business interruption coverage that would cover you in the event of a sustained border closure or market collapse?
- ☐ Have you documented your various protocols, including your emergency management protocols, so that if necessary, you can demonstrate due diligence to the insurer?

GOVERNMENT PROGRAMS

In response to certain disasters or emergencies, the federal and provincial governments may make funds available for individuals and in some cases business operators. These funds are in addition to those made available for compensation and are typically provided to the recipient, through provincial authorities.

Federal and provincial governments have also partnered to develop and deliver a suite of risk management programs. While these programs are not intended to address a sector-wide emergency, they may provide limited coverage.

For more information about any of these programs please visit: Agriculture and Agri-Food Canada ***www.agr.gc.ca/eng/home/?id=1395690825741***

AgriInvest	AgriStability	AgriRecovery
Provides a 'savings account' for producers that may cover small income declines	Covers losses associated with increased feed costs or reduced revenue from sale of livestock	Disaster relief on a case-by-case basis

Nova Scotia producers can learn more about the Nova Scotia Disaster Assistance by visiting ***www.novascotia.ca/dma/emo/disaster_financial_assistance***

6. CLEANING AND DISINFECTION

In the event that a serious animal disease is reported on your farm, you will be required to clean and disinfect the premises after the disease is eradicated.

Cleaning and disinfection actions and costs are the responsibility of the owner of the premises in question. In some cases, this might be the landlord of the property even if they do not personally own the affected livestock.

Your premises will continue to be designated as an 'Infected Place' until cleaning and disinfection are completed to the satisfaction of the province or CFIA. After that time, restocking can begin to take place.

QUICK TIPS

- ✓ *Have cleaning and disinfecting supplies on hand*
- ✓ *Develop your Standard Operating Procedure (SOP) with input from CFIA*
- ✓ *Work with CFIA inspectors*

Although cleaning and disinfection protocols are typically site specific, producers can expect to move through the following steps:

PREMISES PLAN FOR CLEANING AND DISINFECTION	CFIA ROLES
Producer develops Standard Operating Procedures (SOP) for the cleaning and disinfecting of all barns, equipment, service rooms, etc. on the premises	CFIA Site Visit #1: Review, Recommendations and Approval of SOP
Dry Clean	CFIA Inspection
Wet Clean and Rinse	CFIA Inspection
Dry, Disinfect, Rinse	CFIA Inspection
Dry	CFIA Sign Off

Fallow period if required or declaration that a place has ceased to be infected

During a disease event, the CFIA or AAFC will provide producers with clear guidance and cleaning and disinfection instructions. The requirements and expectations for cleaning and disinfection will differ considerably between diseases. Below is a sample checklist that may be considered when developing a protocol for cleaning and disinfection on your farm.

CLEANING AND DISINFECTING PROTOCOL

Farm Name: _____ PID #: _____

IDENTIFY:

- ☐ Areas that need to be cleaned and disinfected (barns, storage, garages, offices, entrances, feed bins/feeding equipment, etc.)
- ☐ Materials, equipment and machinery to be cleaned and disinfected

DEVELOP:

- ☐ A list of area(s) or equipment that are difficult to clean
- ☐ Entry and exit procedures

DETERMINE:

- ☐ Application method and required equipment

SELECT:

- ☐ Appropriate methods of cleaning – dry and wet, including application method and required equipment

Response

7. LIFTING OF RESTRICTIONS

Once the outbreak situation has stabilized and the risk has diminished, the appropriate regulatory authority will begin lifting disease response conditions. This decision will be made after discussion with industry leaders.

A statement will be released by the NSDA or CFIA indicating that the disease-related sector-wide emergency is now over. This information will be welcome news to producers and will come by way of the industry associations or public media.

The provincial association will communicate changes to conditions and sector-wide disease-related emergency status, to its members and others within the livestock sector using a variety of communication tools.

QUICK TIPS

- ✓ *Keep your eye out for updates from your producer organization*
- ✓ *Regularly visit your association's website*

Recovery

As conditions are removed, focus will turn to the recovery process. CFIA, the federal government, and industry leaders will be working diligently to gain formal recognition of Canada's 'disease-free' status by our trading partners around the world. This is an involved process that may take months and even years.

Once Canada has successfully demonstrated an absence of the disease for the required time frame, and our 'disease-free' status is recognized by the World Organisation for Animal Health and national regulatory authorities of our various trading partners, industry stakeholders can begin to re-establish market share. This too will take time.

CONCLUSION

Although the prospect of dealing with any phase of a disease-related sector-wide emergency is daunting, there are things we can all do to strengthen and protect our industry. This handbook has been developed to help producers understand important concepts, be as prepared as possible in the event of an outbreak situation, and to respond appropriately.

The provincial associations are committed to advocating on behalf of the livestock industry as a whole and providing producer support. If you have any questions or concerns about the information contained in this document please contact:

Nova Scotia Cattle Producers
Pork Nova Scotia
Sheep Producers Association of Nova Scotia

Agri-Commodity Management Association

60 Research Drive
Perennia Innovation Park
Bible Hill, Nova Scotia B6L 2R2

Tel: 902-893-7455
Alternate: 902-895-0581

www.nscattle.ca
www.porknovascotia.ca
www.nssheep.ca
www.agricommodity.ca

Notes:

SCHEDULE 1. GLOSSARY AND DEFINITIONS

Glossary

AAFC	Agriculture and Agri-Food Canada
ACMA	Agri-Commodity Management Association
ADM	Assistant Deputy Minister
AERT	Area Emergency Response Team
BOD	Board of Directors
Bovine TB	Bovine Tuberculosis
BSE	Bovine Spongiform Encephalopathy
CBSA	Canada Border Services Agency
CCVO	Council of Chief Veterinary Officers
CFIA	Canadian Food Inspection Agency
CVO	Chief Veterinarian Officer of Canada
ED	Executive Director
EIS	Enforcement and Investigation Services
EMC	Emergency Management Committee
EMO	Emergency Management Office
EOC	Emergency Operations Centre, modified by (J) Joint, (G) Government, (N) National or (R) Regional, (A) Area
FAD	Foreign Animal Disease
FADES Plan	Foreign Animal Disease Emergency Support Plan
FCC	Federal Coordination Centre
FMD	Foot and Mouth Disease
FSAHD	Food Safety and Animal Health Division
GIS	Geographic Information System
HAA	Health of Animals Act – Federal
ICS	Incident Command System
JIC	Joint Information Centre
LCD	Liquid Crystal Display
LMIS	Livestock Market Interruption Strategy
NCFAD	National Centre for Foreign Animal Disease
NERT	National Emergency Response Team
NSDA	Nova Scotia Department of Agriculture
OIE	Office International des Epizooties/World Organisation for Animal Health
PAHS	Plant and Animal Health Strategy
PCZ	Primary Control Zone
PHAC	Public Health Agency of Canada
POC	Provincial Operations Centre
PPE	Personal Protective Equipment

PSC	Public Safety Canada
RCMP	Royal Canadian Mounted Police
RVF	Rift Valley Fever
PHAC	Public Health Agency of Canada
POC	Provincial Operations Centre
PPE	Personal Protective Equipment
PSC	Public Safety Canada
RCMP	Royal Canadian Mounted Police
RVF	Rift Valley Fever

Definitions

Animal health emergency	An outbreak or epizootic of a serious animal disease requiring immediate action to contain, control and eradicate the disease, including: • Animal movement controls • Slaughtering of animals known to be or suspected of being infected • Disposal of carcasses or infected products • Cleaning and disinfecting of the Infected Place and transport • Application of measures aimed at limiting the spread of the disease and • Tracing the origin of the disease, etc.
Confirmed Case	Confirmation of disease by National Centre for Foreign Animal Disease on samples obtained at the farm by CFIA staff by: • Virus isolation • Antigen identified from animals showing clinical signs or • Linked to confirmed outbreak, or antibodies from other than vaccination with clinical signs.
Emergency Operations Centre (EOC, NEOC, PEOC, REOC)	Site of decision-making, leadership and management for the event are administered using the Incident Command System. May be implemented on a (N) national, (P) provincial or (R) regional basis, in which case it will be preceded by the letter N, P, A or R.
Emergency Management Committee	During an emergency, an industry organization's Emergency Management Committee is authorized to make decisions on behalf of the organization. The committee may be comprised of Chair/President, General Manager/Executive Director, Vice Chair/President or Animal Health Committee Chair, and/or other executive members or staff as required; a quorum of three is required. All members have voting rights. Decisions require a majority. Meetings will be chaired by the Chair/President and decisions recorded.
EOC Director of Field Operations Centre	The person named as EOC Director responsible for the Emergency Operations Centre and responsible for the management of disease control or eradication operations.
Infected Place	A place declared infected pursuant to the federal *Health of Animals Act.*
Livestock Market Interruption Strategy	LMIS is a national strategy developed by federal, provincial, and territorial governments and the livestock industry to enhance preparedness to manage any large-scale livestock market interruption focused on the impact to healthy animals. The strategy is made up of a variety of tools and information to support government and industry planning, decision-making and action.
Local Authority	The council of a city, town, village, local government or Indigenous group.
Plant and Animal Health Strategy (PAHS)	The strategy of government, industry, academia and other stakeholders to strengthen Canada's protection of plant and animal health by collaboration, innovation and risk prevention.
Production Area	The operation's corrals, pens, barns, and pastures where livestock are or may be kept.

Reportable diseases	Reportable diseases are outlined in the *Health of Animals Act* and *Reportable Diseases Regulations* and are usually of significant importance to human or animal health or to the Canadian economy. Anyone having care and control of an animal (e.g. owner, veterinarian, laboratory) is required to immediately report the presence of an animal that is contaminated or suspected of being contaminated with one of these diseases to a CFIA district veterinarian. **Foreign Animal Diseases (FAD)** are reportable diseases that are not found in Canada. Note: Provinces may also have a reportable disease list that may include diseases that are not in the federal *Reportable Diseases Regulations*.
Serious animal diseases	Serious animal diseases are diseases that are more severe than common animal health illnesses and that can have significant impacts to trade and industry operations.
Special premises	Premises such as an abattoir, artificial insemination centre, sales yard, zoo, game farm, shipping yard or any other premises where animals are kept or assembled.
Suspect Case	The presence of clinical signs or post-mortem lesions in susceptible animals consistent with a specific disease reported by a private practitioner, an owner, a provincial laboratory, or a veterinarian in charge or district veterinarian, and determined as high risk in consultation with the disease specialists or all susceptible animals epidemiologically determined to have been exposed to the virus.
Trade(ing) Area	The geographic area that either directly or indirectly interacts with the province in consideration and includes areas where bulk of animals bought from or sold to. An interruption or outbreak in any portion of the trading area would impact the province in consideration.

SCHEDULE 2. KEY SERIOUS ANIMAL DISEASE SYMPTOMS

For more information on individual livestock diseases and tips for recognizing their signs, visit the Center for Food Security and Public Health (***www.cfsph.iastate.edu***) and search Animal Disease Information or see ***www.inspection.gc.ca/animals/terrestrial-animals/diseases/eng/1300388388234/1300388449143***

Foot and Mouth Disease (FMD)

DESCRIPTION & SYMPTOMS

A viral disease causing fever and vesicles (similar to blisters), that quickly pop and cause erosions in the mouth or on the feet, resulting in excessive salivation or lameness. Because they pop quickly, these blisters are not always easy to see.

Teat lesion

These signs may appear in affected animals during an FMD outbreak:

Tongue Lesions

- Cattle backed off feed and eating less, or not eating, because of painful tongue and mouth blisters
- Vesicles that rupture and discharge clear or cloudy fluid, leaving raw, eroded areas surrounded by ragged fragments of loose tissue
- Sticky, foamy, stringy saliva
- Lameness with reluctance to move
- Great increase in body temperature for two to three days
- Other indicators include: abortions, low milk production in dairy cows, and heart disease and death in newborn animals
- It will take many months for animals to regain weight lost during the illness, and recovered animals suffer lower milk production, conception rates and rates of gain

HOW IS FMD SPREAD?

FMD is an infectious and highly contagious viral disease that is spread by aerosol, sometimes at a distance of several miles. The virus can also exist for several days on metal, cloth or other surfaces or in organic matter including manure. FMD is commonly introduced through the movement of infected livestock or manure, or contaminated equipment/vehicles/clothing.

HOW IS FMD CONTROLLED OR ERADICATED?

FMD is difficult to control or eradicate, other than by slaughter of the affected and exposed animals. Vaccines may be used to slow the spread, but vaccinated animals are ineligible for export.

WHY IS FMD A CONCERN?

FMD is not a disease of concern to humans but poses a significant risk to the health of our livestock industry. Although animals may recover from FMD, international borders are closed to countries that are affected by this disease. If FMD were to occur in Canada, the loss of international exports would result in a significant market interruption resulting in a sector-wide emergency for several years.

Bovine Spongiform Encephalopathy (BSE)

DESCRIPTION & SYMPTOMS

BSE is a slow developing prion disease. Affected cattle may not show any signs of the disease for up to three to six years after they have been exposed to BSE prions. Since the average time between an animal's infection with the prion and the onset of clinical signs normally ranges from four to five years, clinical signs of BSE are found in adult animals. Symptoms may last for a period of two to six months before the animal dies.

Animals with BSE may demonstrate some of the following symptoms:

- Nervous or aggressive behaviour
- Depression
- Hypersensitive to sound and touch, twitching, tremors
- Abnormal posture
- Lack of co-ordination and difficulty in rising from a lying position
- Weight loss, or decreased milk production

HOW IS BSE SPREAD?

BSE is not a contagious disease and is slow moving. It is spread through consumption of feed that is contaminated with infectious material.

HOW IS BSE CONTROLLED/ERADICATED?

BSE typically exists in live animals for a long period before it is evident. There is no test for the disease in live animals. Accordingly, it is difficult to control or eradicate other than by slaughter of the affected animals and cohorts that also consumed infected feed.

WHY IS BSE A CONCERN?

BSE is a human health concern, although the disease itself is not found in humans. The disease results in the death of affected animals, and depopulation or slaughter of any/all animals thought to have consumed infected feed. International borders are closed to countries that do not demonstrate adequate controls relative to BSE.

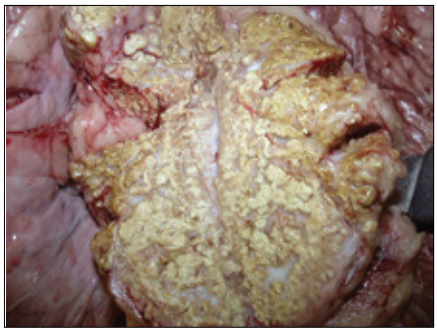
Struggling to stand

Bovine Tuberculosis (Bovine TB)

DESCRIPTION & SYMPTOMS

Bovine TB usually has a prolonged course, and symptoms take months or years to appear. The usual clinical signs include:

- Weakness
- Loss of appetite
- Weight loss
- Fluctuating fever
- Intermittent hacking cough
- Diarrhea
- Large prominent lymph nodes



Lung lesions

It is also important to know that the bacteria can lie dormant in the host without causing disease.

HOW IS IT SPREAD?

Bovine TB is typically spread by aerosol from diseased animals to other commingled animals. It may also be spread from diseased animals to others who subsequently share their bedding and feed grounds.

HOW IS BOVINE TB CONTROLLED/ERADICATED?

Bovine TB is a persistent disease that is difficult to control or eradicate from any herd. As well, it can exist in a latent state for months or years, making eradication difficult.

Canada has employed a 'test and slaughter' approach to Bovine TB confirmation in domestic cattle. Confirmation of Bovine TB in any herd would likely result in extensive testing for several years with all animals being slaughtered.

WHY IS BOVINE TB A CONCERN?

Bovine TB is different from the disease in humans, however it is still a human health concern.

Canada has come close to attaining a bovine TB disease-free status in domestic cattle but the disease still exists at a very low level in some isolated wildlife populations, e.g. Riding Mountain National Park (elk) and Wood Buffalo National Park (buffalo).

Occasional interaction has resulted in a very infrequent and limited number of cases in domestic cattle. These few cases to date have not impacted our exports as our trading partners continue to consider us to be 'disease-free'. Additional cases and the potential loss of disease-free status for bovine TB in cattle would result in significant and costly testing requirements for international trade and for the population at risk.

Despite these usually manageable impacts and costs, Bovine TB can have significant impacts on the country's industry as a whole and certainly has significant and at times devastating impacts and costs to individual producers affected.

Rift Valley Fever (RVF)

Given recent rapid spread of African Swine Fever across Asia, Rift Valley Fever is now on the radar. This disease is a concern due to its potential for shift in locale as has been observed with other diseases like Bluetongue Virus which travelled northward into various parts of Europe.

DESCRIPTION & SYMPTOMS

RVF is a virus, evident in young calves that develop a fever, become weak and die very suddenly. The mortality rate in young animals is very high (more so than in adult animals). Adult cattle may have nasal discharge, excess salivation, and loss of appetite, weakness, or diarrhea.

Adults (moderately susceptible):

- May be low-grade or acute infection
- Fever lasting 24–96 hours
- Dry and/or dull coat
- Lachrymation, nasal discharge and excessive salivation
- Anorexia
- Weakness
- Bloody/fetid diarrhea
- Fall in milk yield
- Abortion rate may reach 85% in the herd

Calves (highly susceptible):

- Fever (40–41°C)
- Inappetence
- Weakness and depression
- Bloody or fetid diarrhea
- More icterus than in lambs

HOW IS RVF SPREAD?

RVF is spread by infected midges, similar to other diseases such as Bluetongue.

WHY IS RVF A CONCERN?

Migration of other diseases northward with changing climates has resulted in speculation that the presence of RVF might at some time be confirmed off the continent. Confirmation in Canada would initially result in border closures from the international community and the U.S.

Bluetongue (BTV)

Bluetongue is an insect-borne, viral disease primarily of sheep, occasionally goats and deer and, very rarely, cattle. The disease is non-contagious and is only transmitted by insect vectors. A virus belonging to the Reoviridae family causes the disease.

DESCRIPTION & SYMPTOMS

While the blue tongue that gives the disease its name occurs only in small number of cases, other
BTV signs include:

- Fever
- Widespread hemorrhages of the oral and nasal tissue
- Excessive salivation
- Nasal discharge

In acute cases:

- The lips and tongue become swollen and this swelling may extend below the lower jaw
- Lameness, due to swelling of the cuticle above the hoofs
- Emaciation, due to reduced feed consumption because of painful inflamed mouths

HOW IS IT SPREAD?

The virus cannot be transmitted between susceptible animals without the presence of the insect carriers. The incidence and geographical distribution of bluetongue depends on seasonal conditions, the presence of insect vectors, and the availability of the susceptible species of animals. The insect carriers, biting midges, prefer warm, moist conditions and are in their greatest numbers and most active after rain.

Persistence of the virus

Bluetongue virus does not survive outside the insect vectors or susceptible hosts. Animal carcasses and products such as meat and wool are not a method of spread. Survival of the virus within a location is dependent on whether the vector can overwinter in that area.

Control strategy

The strategy is to contain the outbreak and minimize trade impact by:

- Using a combination of quarantine and movement controls to prevent spread
- Treatments and husbandry procedures to control vectors, reduce transmission and protect susceptible animals
- Tracing and surveillance to determine the extent of virus and vector distribution
- Zoning to define infected and disease-free areas
- Some animals may need to be destroyed for welfare reasons as it is not possible to eradicate the bluetongue vectors

Vesicular stomatitis (VT)

DESCRIPTION & SYMPTOMS

Vesicular stomatitis (VT) is a viral disease affecting horses, ruminants such as cattle and sheep, members of the deer and llama families, and swine. It is most significant because it closely resembles foot and mount disease.

VT causes mild fever, and the formation of blister-like lesions on the inside of the mouth, and on the lips, nose, hooves, and udder. The blisters break, leaving raw, sore areas. Affected animals often salivate profusely, and are unwilling to eat or drink. Lactating animals show a marked decrease in milk production. Some animals may also become lame.

VT is diagnosed by laboratory tests on samples of fluids from the vesicles of the affected animals, or by testing a blood sample taken from the animal.

HOW IS IT SPREAD?

Animals are infected with the virus by eating or coming into contact with substances contaminated with saliva or fluid from lesions of infected animals. Spread in dairy herds may also occur as a result of milking procedures. In some regions, insects play a significant role in the spread of the disease.

The disease may also be transmitted to humans who come into contact with infected animals. It causes influenza-like symptoms.

HOW CAN VT BE CONTROLLED AND ERADICATED?

VT is a reportable disease in Canada. Any animals suspicious of infection should be kept separate from healthy animals, preferably indoors. Those working with the animals should wear protective clothing when handling suspect animals to help prevent exposure to the virus.

If VT is diagnosed on a Canadian farm, a quarantine would be imposed to restrict movement of the animals. The quarantine would be lifted 30 days after all clinical signs have disappeared.

Brucellosis

DESCRIPTION & SYMPTOMS

Brucellosis is a disease that is chronic and contagious. It can affect many species of mammals, particularly cattle, swine, sheep, goats, horses and other ruminants.

Following infection, the bacteria spread through the blood and lymphatic system of the animal, infecting many issues – particularly the reproductive organs, mammary glands, and joints. This can cause abortions, weakened offspring, and infertility.

Any infected animal may carry brucellosis for life. Various blood tests can be used to identify the presence of brucellosis.

HOW IS IT SPREAD?

Animals can become infected with brucellosis in several ways, including:

- Through direct contact with infected tissues or fluids from an infected animal;
- By consuming colostrum or milk from an infected animal; or
- By consuming feed or water that has been contaminated by infected tissues or fluids.

HOW CAN IT BE CONTROLLED AND ERADICATED?

Brucellosis is a reportable disease in Canada, meaning that anyone who suspects that an animal has brucellosis must notify the CFIA immediately.

If the disease is detected in a livestock herd in Canada, the CFIA immediately implements disease control measures. This includes the humane destruction and disposal of all infected animals and animals that were exposed to the infection.

The bacteria that cause brucellosis are susceptible to certain antibiotics. However, treatment of animals does not effectively eliminate the infection. Vaccines have been developed to prevent the disease symptoms (i.e. abortion). However, these vaccines do not necessarily prevent animals from becoming infected with bacteria.

WHY IS BRUCELLOSIS A CONCERN?

Brucellosis is a zoonotic disease, which means it can be spread from animals to humans. Human cases are rare in Canada.

Anthrax

DESCRIPTION & SYMPTOMS

Anthrax is a naturally occurring disease caused by spore-forming bacterium.

One of the first signs of an anthrax outbreak is one or more sudden deaths in affected livestock. In highly susceptible animals, the time between the onset of mild symptoms (such as feed refusal and/or lower milk production) and death can be a matter of hours.

Animals that do not die suddenly may:

- Appear distressed;
- Have difficulty breathing;
- Stop eating or drinking;
- Develop swelling, often under the jaw where the head joins the neck and the lower abdominal areas; or
- Have normal or elevated temperature.

After death, the animal carcass may leak bodily fluids from body openings and bloat rapidly. Rigor motris might not occur, and blood may not clot.

HOW IS IT SPREAD?

The bacterium that causes anthrax is shed by an animal when it dies. This provides the source of infection for other animals. It can be inhaled or it can enter the body through an existing break in the skin or mucous membrane.

Livestock are most commonly infected by ingesting the spores from contaminated pastures, feed or soil.

HOW CAN IT BE CONTROLLED AND ERADICATED?

Anthrax can be treated with antibiotics, such as penicillin. Control and treatment is intended to break the cycle of infection.

Vaccinating livestock is the best protection from anthrax. The Sterne vaccine is licensed for use in Canada and it prevents anthrax is most animals for about one year.

WHY IS ANTHRAX A CONCERN?

Humans are susceptible to anthrax. However, human cases associated with an animal outbreak are rare if proper precautions are taken when handling and moving affected animals and carcasses.

Peste Des Petits Ruminants (PPR)

DESCRIPTION & SYMPTOMS

Peste des petits ruminants (PPR) is a viral disease of sheep and goats.

PPR is characterized by the following clinical signs:

- Diarrhea
- Fever
- Pneumonia
- Sores in the mouth, and
- Death

The disease usually has a sudden onset with the following clinical signs:

- Clear nasal discharge
- Fever
- Loss of appetite, and
- Severe depression

As the disease progresses the following additional signs can be observed:

- Thick yellow discharge crusting and blocking the nostrils
- Severe eye infections
- Swelling of the tissues in the mouth
- Ulcers on the lower gums; dental pad, hard palate, cheeks and tongue, and
- Severe diarrhea, resulting in dehydration and severe weight loss

Pneumonia is common in later stages. Pregnant animals may abort. The prognosis of PPR is poor – death can occur three to eight days after the onset of the fever. Young animals are the most severely affected.

HOW IS PESTE DES PETITS RUMINANTS SPREAD?

The disease is not highly contagious and transmission requires direct contact between animals. Sources of the virus include:

- Feces from infected animals
- Nasal discharge
- Secretions from coughing, and
- Tears

Although close contact is the most likely mode of transmission, it is suspected that water, feed troughs, and bedding can also be contaminated with secretions and become additional sources of infection.

HOW IS PESTE DES PETITS RUMINANTS CONTROLLED/ERADICATED?

There is no specific treatment for this disease. To eradicate the disease, CFIA would use a “stamping out” policy which would include the humane destruction of all infected and exposed animals.

Notes:

RESOURCES

Farm Objectives

FARM OBJECTIVES: DISEASE-RELATED SECTOR-WIDE EMERGENCY

Farm Name: _____ PID #: _____

In a sector-wide emergency, real or perceived, the principal objectives are to:

1. Keep personnel safe

- Including staff, management, owners, and their families, and residents on the farm

2. Minimize animal losses

- Avoid or minimize animal loss within the barns or pastures
- Avoid or limit impacts of the event spreading from the farm

3. Minimize animal health and welfare impacts

- Avoid or minimize introduction of disease into the farm
- Avoid or minimize the spread of disease within the farm
- Avoid or minimize the spread of disease from the farm
- Avoid or minimize animal stress on the farm

4. Determine best direction for the operation:

- Resume or grow business activities as quickly and as safely as possible
    - Regain normal operations at the farm, as soon as practical and safe for staff and residents
    - Expand as opportunities present
- Downsize or exit operations as efficiently and safely as possible
    - Consider potential productivity versus input costs
    - Consider shutdown costs, sale of facilities/equipment and impacts on staff

5. Other:

Farm Plan Grid

FARM PLAN

Farm Name: _____ PID #: _____

Legal Land Description: _____ Address: _____

One Time Capacity: _____ Normal Operating Capacity: _____

Date Prepared: _____

Approximate Scale: _____

Contact Name: _____

Phone Number 1: _____

Phone Number 2: _____

N	North
V	Visitor Parking
S	Staff Parking
	Fences
	Gates
G	Compressed Gas
F	Flammable Liquids
O	Oxidizing Materials
P	Poisonous Materials
C	Corrosive Materials
F	Fertilizer

P	Pesticide
H	Water Source for Fire Hydrant
G	Main Gas Shutoff
E	Main Electrical Shutoff
FT	Above Ground Fuel Tank
FA	First Aid
	Fire Extinguisher
MP	Meeting Place
	Septic System (label location)
	Manure System (label location)

Farm Work Cycle

TYPICAL WORK CYCLE

Farm Name: _____ PID #: _____

ACTIVITY	FREQUENCY	QUANTITY
Example: Feed Delivery	*Daily*	*2 loads @ 15 Mt per load*
Feed Delivery		
Shipment of Animals		
Movement of People		
Calving Check (Seasonal)		
Other Traffic		
Pregnancy Check		
Husbandry Protocols (vaccinations, dehorn, etc)		

FARM INVENTORY OF PEOPLE AND EQUIPMENT

Farm Name: _____ PID #: _____

PEOPLE

Number of people living here:		**Number of people employed:**	
Number of disabled persons:		**Nature of disability:**	
Number of heavy-duty equipment operators:		**Number of stockmen (excl. owner/operator):**	

GRAZING AREA SUMMARY

Legal Land Description	Head on Land

Feed Storage/Bin	Inventory/Capacity

BARN SUMMARY

Barn Number	Head in Barn

EQUIPMENT & RESOURCES ON HAND (Description, Number & Location)

Bulldozers/Scrapers/Skidder:	
Front-End Loaders:	
Backhoes:	
Vaccines/Medicines:	
Portable Water Pumps:	
Portable Generators:	
Fire Extinguishers:	
Absorbent Material (Shavings, straw, etc.)	
Sand Bags:	
First Aid:	
Personal Protection Equipment:	
Other:	

Farm Decision Makers

PRIMARY/SECONDARY ON-FARM CONTACTS

Farm Name: _____ PID #: _____

IN CASE OF EMERGENCY

Primary Contact: _____

Farm Name: _____

Land Phone: _____ Cell Phone: _____

Legal Land Location: _____

Municipality: _____ 911 Address: _____
(if available)

Directions to this location: _____

Secondary Contact: _____

Land Phone: _____ Cell Phone: _____

Community Pasture Manager: _____

Land Phone: _____ Cell Phone: _____

Off Site Contact: _____

Land Phone: _____ Cell Phone: _____

Notes:

Farm Contact List Templates

STAFF CONTACT LIST

Farm Name: _____ PID #: _____

Name	Title	Contact Phone	Contact Email	Lives on Farm (Y/N)	Owns Animals (Y/N)	HD Equip. Operator (Y/N)

Farm Contact List Templates

EXTERNAL CONTACT LIST

Farm Name: _____ PID #: _____

WHO	PRIMARY CONTACT	PHONE & CELL	EMAIL
Primary Emergency Organizations			
Police/RCMP			
Fire			
Ambulance			
Veterinarian			
Municipal Emergency Management			
Provincial Livestock Association			
National Livestock Organization			
Canadian Cattle Identification Agency		1-877-909-2333 Toll Free	
Utilities			
Electricity Supplier			
Internet Provider			
Telephone Service			
Natural Gas			

continued >>

>> CONTINUED

Government Offices			
CFIA Emergency Line		1-877-814-2342	
Chief District Office		204-945-7684	
NSDA Laboratory			
NSDA (local office)			
Nova Scotia Emergency Management Office			
Municipal Office			
Service Providers			
Deadstock Provider			
Fuel			
Insurance Broker			
Feed 1			
Feed 2			
Feed 3			
Livestock Transporter			
Electrician			
Plumber			
Lenders			
Livestock Owners			

Visitor Log

VISITOR LOG

Farm Name: _____ PID #: _____

FOR BIOSECURITY PURPOSES, ALL VISITOR ENTRIES ARE RECORDED

Entry is recorded at the earliest point of entering the operation.

Visitors include all people entering with permission (e.g. service providers and professionals, school tours, international visitors, etc.) Excludes personnel (owner/operators, staff, family, etc.)

Date	Name	Company	Contact Number	License Plate No.	Comments	Previous livestock/farm contact? (Y/N)	Entered Production Area? (Y/N)	Animal Contact? (Y/N)

Visitor Control Protocol

VISITOR CONTROL PROTOCOL

Farm Name: _____ PID #: _____

- ☐ Establish control at recognizable primary access points on and off the farm with a lockable gate or some form of moveable barrier. Be sure to identify these new items on the farm plan.
- ☐ Establish control at access points to the pastures, barns, pens or fields, and also at areas where feed and medications are stored.
- ☐ Post signage prominently at all access points to the farm. All signage should prohibit unauthorized entry and indicate that biosecurity is in effect.
- ☐ Ensure signage at primary access points directs entrants to the office. Signage at other points should discourage access and redirect entrants to primary access points.
- ☐ Record all visitor access on a Visitor Log to facilitate follow up in an emergency.
- ☐ Use a Visitor Risk Assessment Guide to identify and manage the different potential risks associated with the range of visitors, equipment or vehicles entering the farm on a daily basis.

VISITOR RISK ASSESSMENT GUIDE

Farm Name: _____ PID #: _____

RISK CATEGORY	CRITERIA	DESCRIPTION	EXAMPLE	BIOSECURITY REQUIREMENTS
LOW	Within the past 14 days: • 0 livestock contact • 0–1 visits to livestock operations	Visitor is from urban area and does not have livestock contact	Old acquaintance in the area and decides to stop by for a visit	• Record visits
MODERATE	Within the past 14 days: • Livestock contact at one operation	Contractor outside of agriculture that typically does not visit farming operations	A utility provider that entered a pen to fix a light	• Minimize access to production area • Prevent all but essential contact to livestock • Before access is permitted, ensure clean footwear/clothing/ tires/surfaces, all visibly clean of organic matter
	Within the past 14 days: • Visited more than one livestock operation	Travel from or are transported from farm to farm, but do not enter the production area or come into direct contact with livestock or manure	Service personnel that may enter the production area but rarely come into contact with livestock manure	
	Neighbouring livestock operator	Producer who shares a fence-line with your operation		

HIGH	Within the past 14 days:
	• Livestock contact at multiple operations
		• Individuals who travel from or are transported from farm to farm
		• Individuals who enter the production area and have direct contact with livestock or manure
			Veterinary and livestock inspection professionals who enter the production area and generally come into direct contact with livestock manure	Producers must apply biosecurity practices to these visitors
				• Prevent all but essential access to the production area or contact with livestock
				• Before access or contact is permitted, ensure:
				  • Tires/surfaces are visibly clean of organic matter
				  • The person wears clothing and footwear dedicated to the operation, or wears fresh coveralls or clean clothing and disinfects footwear
				  • The person disinfects off-farm equipment or tools contacting livestock, or provide site specific tools

	Other livestock operator (including employee)		Custom manure cleaning operators and equipment that may transport manure from one production area to another	
	Persons from other countries where reportable diseases are a concern		Personnel who work with livestock at their own or another operation	
	Person who has handled sick or segregated animals at this or other operations		Personnel working with animals in the segregation or sick facility	

First Response Agency Protocol

FIRST RESPONSE AGENCY PROTOCOL

Farm Name: _____ PID #: _____

☐ **Get acquainted with members of your local government first response agencies**

- The fire department is a good place to start

☐ **Familiarize yourself with the organizations that are initially responsible for different sector-wide emergencies**

- Disease-related emergencies: provincial association, Program Veterinarian, CFIA regional offices, CFIA Chief Veterinary Officer
- Other emergencies: Nova Scotia Emergency Management

☐ **Offer to share your plans with local government first response agencies**

- Of particular interest will be your Farm Plan, Farm Inventory, and Decision Makers (Primary and Secondary contacts)
- They may be able to keep it on file or stored digitally for access before and on route to an event

Unusual Animal Health Events

UNUSUAL ANIMAL HEALTH EVENT INDICATOR PROTOCOL

Farm Name: _____ PID #: _____

Veterinarian: _____ Cell: _____

If any of the following indicators are observed, then the farm's veterinarian will be contacted immediately to investigate further:

- ☐ Unexplained or sharp increase in sickness, lameness, behavioural changes, death loss.
  - Exceeds normal acceptable level of this many head per week/day: _____ (head/%)
- ☐ Animals backed off feed/water (daily intake is down for reasons not related to weather or seasonality)
- ☐ Disease or symptoms not previously encountered
- ☐ Typical disease or symptoms with abnormal severity or non-responsive to treatment
- ☐ Rapid spread throughout herd
- ☐ Reportable/notifiable disease suspected on farm
- ☐ Any death of unknown cause
- ☐ Other events, as determined with your veterinarian

UNUSUAL ANIMAL HEALTH EVENT INITIAL RESPONSE PROTOCOL

Farm Name: _____ PID #: _____

1. Notify Staff and Family Members

- ☐ An Unusual Animal Health Event exists on the farm
- ☐ Review and strictly follow biosecurity protocols currently in place, or as established by management in consultation with veterinarian (e.g. Green, Amber and Red Biosecurity Protocols)
- ☐ Minimize/avoid contact with other livestock

2. Call Veterinarian and Act on Advice, for example

- ☐ Isolate sick animals
- ☐ Submit samples for diagnosis
- ☐ Stop livestock movements on/off the Infected Place
- ☐ Limit and monitor other movements on/off (e.g. staff, equipment, manure spreading etc.)
- ☐ Gather information/documentation as required (e.g. visitor log, livestock inventory, identification record including purchases/sales within the last 30 days, individual treatment log, herd health protocol)
- ☐ Other_____

3. Identify a Primary Contact within your organization. This will be the point person or coordinator to be available for key decisions

4. Contact External Stakeholders. External notifications may be made after consultation with your veterinarian

- ☐ Farm veterinarian to notify regulatory authority as/if appropriate
  - CFIA District Veterinarian called (suspect reportable disease)
  - Program Veterinarian
- ☐ Self-declaration by producer to industry association and neighbouring livestock producers (depending on suspected disease)
  - Provincial association
  - Neighbouring livestock producers
  - Notify suppliers and other contracts (e.g. feed suppliers, livestock transporters, utility companies with access rights)

Sector-Wide Triggers

NOTICE OF SUSPICION RESPONSE PROTOCOL

Farm Name: _____ PID #: _____

WHO:

CFIA's Chief Veterinary Officer or Program Veterinarian issues formal Notice of Suspicion for a serious animal disease

WHERE:

Anywhere within the area where a producer regularly does business (trading area)

WHEN:

A federal or provincial government veterinarian has reason to believe a federal or provincially reportable disease is present

WHAT:

May be referred to as 'the gray period' when an outbreak is suspected but not confirmed and movement controls have not been announced

PRODUCER RESPONSE:

- ☐ Implement **AMBER Elevated Risk** biosecurity protocols, visitor manuals, etc.
- ☐ Review **RED High Risk** biosecurity protocols and Voluntary Cease Movement
- ☐ Implement **Voluntary Cease Movement**, if recommended by government and industry leaders
- ☐ Seek additional guidance specific to the situation from veterinarian
- ☐ Monitor CFIA, NSDA , provincial association and national association websites and other media for updates

NOTE:
Additional and more restrictive requirements would be ordered for 'Infected Place(s)', as announced by veterinary authorities.

NOTICE OF CONFIRMATION RESPONSE PROTOCOL

Farm Name: _____ PID #: _____

WHO:

CFIA's Chief Veterinary Officer or Program Veterinarian issues formal Notice of Confirmation for a serious animal disease

WHERE:

Anywhere within the area where a producer regularly does business (trading area)

WHEN:

A serious animal disease is confirmed, at the National Centre for Foreign Animal Disease, Canada's most highly specialized and widely recognized animal disease laboratory

WHAT:

Once Notice of Confirmation is issued, the Minister usually establishes a Primary Control Zone and movement controls. Permits or licenses for all livestock, related materials and equipment will be required for movement into or within the Primary Control Zone

PRODUCER RESPONSE:

- ☐ Implement **RED High Risk** protocol
- ☐ Implement **Voluntary Cease Movement**, if recommended by government and industry leaders
- ☐ Seek additional guidance specific to the situation from veterinarian
- ☐ Monitor CFIA, NSDA , provincial association and national association websites and other media for updates

Producer Self Declaration

SAMPLE PRODUCER SELF DECLARATION

As owner of the following animals, hereafter referred to as 'the Animals'

Species: _____

Approximate number: _____

PID #: _____

Location: _____

In the town of: _____ Province of: _____,

hereafter referred to as 'the Province,' and duly represented as a livestock producer by the following association

_____ hereafter referred to as 'the Association.'

I, (owner name) _____, hereby authorize the Canadian Food Inspection Agency and/or the Government of Nova Scotia to share confidential details about my operation during the course of a disease investigation with the Association as necessary, with the understanding that this information will only be used to aid in the investigative process.

I agree to release the Association from any and all claims I may have as a result of the disclosure of the disease information as set out in this Direction, provided that such disclosure shall not apply with respect to any negligent or intentionally wrongful act of omission on the part of any of the Recipients.

I further agree to allow the Association to utilize and share such confidential information about my operation during the disease outbreak and investigation, as it determines to be in the best interests of the industry at large.

Dated at _____, in the province of _____,

this _____ day of _____, 20 _____.

_____ _____

Witness' Signature Owner's Signature

Definition of Terms:

Inventory Owner: Individual or Corporation that is the legal owner of the animals located at the premises identified.

Premises: Location of the barn/barns or pastures at which the disease testing has taken place.

PPID#: Provincial Premises Identification Number assigned to each livestock production premises within the province.

Owner Advisory Template

EMERGENCY COMMUNICATION TO OWNERS (CUSTOM OPERATION/COMMUNITY PASTURE)

Farm Name: _____ PID #: _____

Date: _____ Contract #: _____

Operation Name: _____

Livestock Owner: _____

Description of animals affected:

Nature of emergency or risk:

Authority to make decisions to protect animal well-being (reference to specific contract section):

Contact information:

Voluntary Cease Movement

VOLUNTARY CEASE MOVEMENT PROTOCOL

Farm Name: _____ PID #: _____

A Voluntary Cease Movement (VCM) may be recommended by industry associations or government:

WHO does the VCM apply to:

- All susceptible livestock operations, auctions and sale yards, slaughter facilities etc., within that province or trading area
- All hooved animals, including cattle (beef and dairy), bison, sheep, goats, pigs, cervids, horses and the operations where these animals are located

WHAT does a VCM mean:

- Essentially a standstill on all livestock movements
- All animals will remain on their current operation when a VCM is ordered
- Animals will not be brought on or off the farm, whether to slaughter or other

WHY is a VCM recommended by industry leaders:

- In the early stages of a potentially major disease outbreak, reduced movements are critical to the industry's long-term well-being by ensuring effective response, rapid recovery and reduced time out of the market

HOW is the VCM applied:

- Initially for three days, unless extended or rescinded by industry leadership
- Participation is voluntary

IN GENERAL, the following will apply:

Livestock in transit within the province:	• If not commingled subsequent to departure then return to point of origin • If commingled or reloaded subsequent to departure, then continue to destination and hold segregated on arrival
Livestock in transit *TO* Nova Scotia from another Canadian province:	• Return to point of origin for load
Livestock in transit *FROM* Nova Scotia to another Canadian province:	• Return to point of origin
For feed or other deliveries:	• Farm to consider use of a 'transfer station' • Drivers to remain in cab • Vehicles clean and ideally washed prior to coming on farm premises • Vehicles not to enter the production area
Deadstock	• Pickup suspended for duration of VCM

Whoever is in possession/oversight of the animals will be responsible for their well-being

Biosecurity Protocol

BIOSECURITY PROTOCOL

Farm Name: _____ PID #: _____

GREEN +	AMBER +	RED
Normal day-to-day	**Use of this AMBER Elevated Risk biosecurity protocol should be reviewed when:** • There is concern that an unconfirmed disease may be present in the trading area • A formal **Notice of Suspicion** has been declared for a relevant serious animal disease within the trading area **What to Do:** • Review and verify current biosecurity practices and compare with industry biosecurity standard • Ensure biosecurity standard is known by staff and understand the importance of following the standard	**Use of this RED High Risk biosecurity protocol should be reviewed when:** • There is **SIGNIFICANT** concern that a disease is present in the trading area • A formal **Notice of Confirmation** has been declared for a relevant serious animal disease within the trading area **What to Do:** • STRICTLY adhere to the biosecurity standard

FARM ACCESS

GREEN +	AMBER +	RED
Normal	• Restrict primary access points where farm offices or personnel are present to monitor access • Use Visitor logs in accordance with risk assessment tool and ensure they are placed at entry/exit points • Bar or otherwise prevent access through all secondary access points where the farm does not have an ongoing presence • Post biosecurity signage at access points	• Additional as recommended at time of Confirmation

SICK ANIMALS

GREEN +	AMBER +	RED

Normal	• Isolate to the extent possible
	• Minimize contact or potential for contact with healthy animals/pens
	• Assign dedicated clothing, equipment, pens, feed and water stations
	• Designate staff to handle as follows:
	  • No contact of other animals after treating sick animals
	  • Change of outerwear/footwear
	  • Wash hands before and after treatment
		• Additional as recommended at time of Confirmation

INCOMING/OUTGOING TRAFFIC

GREEN	AMBER	RED
Normal	• Ensure disinfection prior to entering farm and before leaving • Have drivers consider additional biosecurity protocols • Document truck movements on and off the farm • Ensure drivers are recording dates and times of farm pickups	• No incoming livestock • Postpone arrivals pending more information on outbreak and conditions under which animals may be moved

STAFF

GREEN	AMBER	RED
Normal	• Remind staff of Indicators and Immediate Response Protocol for Unusual Animal Health Events • Ensure those owning and/or in contact with livestock have dedicated clothing and footwear for the farm and change clothing/footwear when entering or leaving the farm premises • All staff to wash hands and feet prior to entering or leaving the farm	• Staff to make alternate arrangements for care of personal livestock or be moved into a position having no contact with operation's animals • All staff to wash hands again, and boots, when entering production area for the purposes of working with animals or entering pens, processing or hospital unit

DEADSTOCK

GREEN	AMBER	RED
Normal	• Designate specific staff to handle and remove animals from pens • Instruct staff to wash hands and clothing after handling deadstock • Ensure separation from other farm practices for equipment • Refer to Depopulation and Disposal section for more information about deadstock burial • Monitor key websites for information and recommendations (e.g. provincial association, national association, NSDA , CFIA and AAFC)	• No pickup of deadstock on-farm • Additional as recommended at time of Confirmation

PRODUCTION AREA e.g. pens, milking parlour, processing unit, feed mill

GREEN	AMBER	RED
Normal	• No visitors • No external animals, vehicles or personnel beyond main office/delivery area	• Additional as recommended at time of Confirmation

Mass Vaccination

MASS VACCINATION PROTOCOL

Farm Name: _____ PID #: _____

☐ **Farm owner/manager to review and accept the vaccination protocol with a Site Supervisor appointed by CFIA or NSDA , setting out all requirements including:**

- Species/class to be vaccinated
- Method
- Dosage
- Record-keeping requirements
- Booster requirements
- End use
- Oversight
- Other control factors

☐ **All personnel acknowledge their acceptance of regulatory oversight whether provided by CFIA or NSDA**

☐ **All personnel agree to apply protocol as directed by CFIA or NSDA site supervisor**

☐ **Farm staff will:**

- Record receipt of vaccine doses and ensure oversight of vaccine as directed
- Vaccinate all animals, as set out in the vaccination protocol and directed by the Site Supervisor
- Record individual animal identification of each vaccinate, at time of vaccination, together with date and place and members of vaccination crew and vaccination oversight personnel
- Identify vaccinates, as required by regulatory authority: this may be a temporary or permanent identifier (e.g. ear tag or brand)
- Record unused vaccine doses and return to regulatory authority if required
- Provide CFIA or NSDA site supervisor with record of animal identification for all animals vaccinated
- Apply second or booster vaccination if directed, using similar protocol, in the time frame required

Mass Depopulation and Disposal

MASS DEPOPULATION AND DISPOSAL PROTOCOL

Farm Name: _____ PID #: _____

Once a Destruction Order is issued, operators and personnel will need to:

☐ **Review** and **accept** the overall depopulation and/or disposal strategies required by Regulatory Authority CFIA or NSDA	Owner/ Manager
☐ **Follow** directives from the Regulator's Designate (Site Supervisor) who will provide regulatory oversight and instructions regarding: • Species/class involved • Depopulation and/or disposal protocols (method and means) • Record-keeping requirements, etc. ☐ **Assist** with the assembly, movement, restraint, and processing of animals, whether depopulation takes place at the farm or elsewhere ☐ **Prepare** and **provide** records of animals depopulated and/or disposed of, as set out in the protocol. Examples of the type of records that should be taken can be found in Figure 4 – Information Protocol for Valuation/Compensation ☐ **Apply** animal biosecurity practices as prescribed ☐ **Follow** personal biosecurity requirements as prescribed and which may include any or all of the following and other requirements: • Showering before and after each shift • Hand washing before putting on and after removal of Personal Protective Equipment (PPE) • Wearing of PPE • Taking any vaccine or prophylactic medication, if any is recommended by public health officials • Self-monitoring for any signs of personal sickness and seeking medical care if symptoms appear • Having NO CONTACT with other livestock for a prescribed period of time after these operations ☐ **Report** any spillage of material (urine, manure, hide, other) that might potentially contain contaminant (virus, bacteria, other), outside the prescribed area for disposal	All personnel

Cleaning and Disinfection Protocol

CLEANING AND DISINFECTING PROTOCOL

Farm Name: _____ PID #: _____

IDENTIFY:

- ☐ Areas that need to be cleaned and disinfected (barns, storage, garages, offices, entrances, feed bins/feeding equipment etc.)
- ☐ Materials, equipment and machinery to be cleaned and disinfected

DEVELOP:

- ☐ A list of area(s) or equipment that are difficult to clean
- ☐ Entry and exit procedures

DETERMINE:

- ☐ Application method and required equipment

SELECT:

- ☐ Appropriate methods of cleaning – dry and wet, including application method and required equipment