

“Protecting Animals, Food, and People”

Manitoba’s Animal Health and Food
Safety Strategy for the Future

Office of the Chief Veterinary Officer

Index

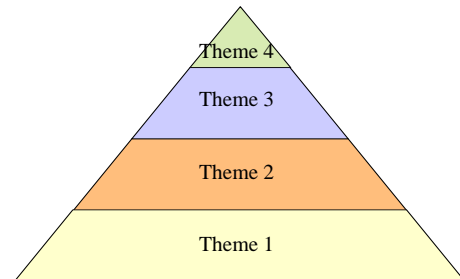
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Executive Summary

The purpose of this paper is to provide a strategic framework for animal health and welfare, food safety, and veterinary public health programs and services within the Province of Manitoba. It outlines a long-term vision that will guide the Office of the Chief Veterinary Officer (CVO) over the next decade.

The vision for the Office of the CVO can be summed up as:
“Protecting animals, food and people”.

Within that vision, **four strategic themes** form the basis for all of our programs and services. These can be illustrated as forming a pyramid, with each theme building upon the preceding foundational layer.



Strategic Themes:

1. **Protect the health of the public from diseases of animals that can pass directly or indirectly to people.** This forms the basis upon which all of our programs are built. Diseases such as avian influenza have directly caused significant human health concerns over the last several years. Control of these diseases in animals is the first step towards controlling the risk to humans.
2. **Protect the safety of food to guard against contamination with pathogens, toxins or hazardous materials.** The public expects their food to be safe. Ensuring that we meet that expectation will enhance Manitoba’s reputation domestically and abroad as a producer of safe food.
3. **Protect the health and welfare of animals for economic or intrinsic benefit.** By protecting the health of animals we avert unnecessary suffering and disease. By raising animals in a humane manner we respect the sanctity of life. By preventing and controlling major animal diseases we support the economic well-being of agricultural producers.
4. **Protect trade in agriculture through health certification or food safety assurance programs.** Health certification and food safety assurance programs are the official stamps of approval that our customers look for when buying our products. With the adoption of on-farm food safety programs, health certification programs, good manufacturing practices and Hazard Analysis Critical Control Point (HACCP) programs, we build consumer confidence and promote trade.

Adapting the template used for emergency management, we outline **four major activity categories** within each theme area:

- A. Effective early warning detection and surveillance systems;
- B. Situation analysis and policy development;
- C. Timely response capacity; and
- D. Prevention and preparedness.

Some examples are given of specific activities within each category that will be undertaken by the Office of the CVO.

Finally, how will we measure our progress? Measuring the strategic improvement in health outcomes can be a difficult task, as this involves quantifying an absence of problems (ex: how many outbreaks were prevented?).

The White House Office of Management and Budget have addressed this issue by drafting key questions against which such programs can be assessed:

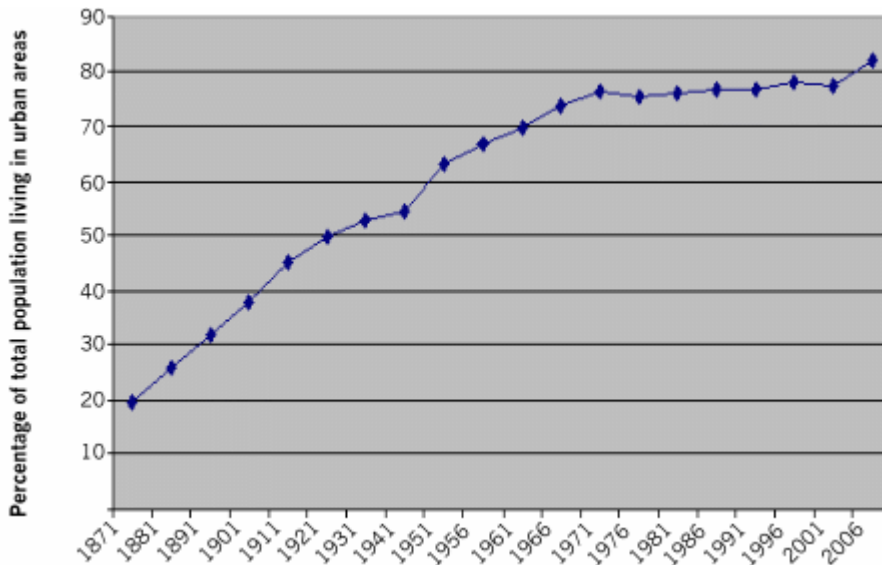
- Is the program important? Is its purpose clear?
Our vision is to protect the health and welfare of animals, the safety of food and the health of people.
- What would happen in the absence of the program?
The health and welfare of animals in Manitoba would be compromised, food safety could not be assured, and protection of the public would be hindered.
- Who are the beneficiaries?
The beneficiaries are the people of Manitoba. This includes food producers, processors, and consumers, as well as animal owners, those who come into contact with animals, and the animals themselves.
- Is the program one of many contributors to the desired outcome?
The Office of the CVO integrates animal health and welfare, food safety and veterinary public health in a holistic approach. It occupies the key role in safeguarding the animal-human linkages by working to:
 - *reduce the impact of serious endemic diseases in animals;*
 - *prevent or mitigate the effects of serious exotic, foreign animal diseases;*
 - *reduce the incidence of zoonotic diseases in animals that might harm humans;*
 - *improve animal welfare;*
 - *reduce the burden of illness of humans from food-borne threats; and*
 - *increase consumer confidence in Manitoba’s animal health and food safety programs.*

Background and Introduction

Society has changed

As modern societies evolved and became increasingly isolated from their agricultural roots, they drifted into the age of specialization and division of labour. This led to increasing urbanization, especially in developed countries, so that now less than 2% of Canada’s population is involved in primary agricultural production. Sometime between 1921 and 1931, the majority of Canadians became urban dwellers and now 80% of people reside in cities and towns (Fig. 1). As a result, many in our culture have lost the intuitive recognition that safe food results from the production of healthy animals and plants, and that some diseases affecting animals can be direct threats to human health.

Figure 1. The Urbanization of Canada



Sources:

Statistics Canada, CANSIM

*UNDP, Human Development Report, 1997

**UNDP, Human Development Report, 1999

** WHO, World Health Report 1998

Source: The Sustainability Report. Available at: http://www.sustreport.org/signals/canpop_urb.html . Accessed April 2007.

Renewed interest in food safety and emerging disease threats

In the last decade we have witnessed the discovery of a number of newly emerging diseases of animals that pose a direct threat to human health – diseases such as monkey pox, West Nile encephalitis, Severe Acute Respiratory Syndrome (SARS), and Eurasian strain H5N1 Avian Influenza.

It has been estimated that 75% of newly emerging diseases are zoonotic, meaning they affect both animals and man. In a study of nearly 1,100 disease investigations from 1988-1999, the Centers for Disease Control in Atlanta, Georgia, identified 44 outbreaks involving agents with bioterrorism potential, including 11 involving plague, 18 involving cholera and two involving botulism. A further 41 outbreaks were characterized by gastrointestinal symptoms, rash or fever involved unknown agents. In that paper, Ashford *et al* made the statement that “veterinarians may be the first to see evidence of bioterrorism because pets and livestock may be more susceptible than humans to agents released in the environment, or because susceptible animal population may be high in the affected area.”

Similarly, recent examples of food and feed-borne illness have been widely publicized. In 2006, the discovery of *E. coli* in spinach prompted a continent-wide recall of spinach from all grocery store shelves. Shortly afterward, carrot juice was found to be contaminated with *Clostridium botulinum*, and in Winnipeg, hamburger was found to be contaminated with *E. coli* O157:H7. This has been highlighted in 2007 with the discovery of melamine in wheat and rice products imported from China.

These issues have not been confined to human foods, however, several years ago, dioxin-contaminated pig feed effectively shut down Belgium’s export market for pork. This year, we are dealing with the aftermath of melamine-contaminated imported wheat and gluten that made its way into pet foods. As the investigation continues, it appears that sick dogs and cats were the “canary in the coal mine” that alerted us to this issue. It is sobering to contemplate what would have happened if that grain had been incorporated into human food. With the advent of modern large-scale processing and the global trade in products, contaminated food or feed can affect consumers far away from where it is produced or processed.

In the last few years there has been increasing recognition, in human and veterinary medicine alike, of the strong inter-relationships among protecting the health of animals, protecting the safety of food and protecting the health of people.

Historical roots of veterinary public health

This idea is not new, having been recognized by the German physician and pathologist Rudolf Virchow back in the 1850’s (Fig. 2). Virchow promoted the concept of **comparative pathology** – an observation that human and animal diseases are intimately linked by the laws of biology. He coined the term **zoonosis** to describe this commonality of disease that can pass between animals and man. Becoming a strong advocate for the improvement of meat inspection, sewage systems and housing conditions, Virchow recognized the interconnectivity between human health, safe food and a clean environment.



Figure 2. Dr. R.L.K. Virchow

Building on this foundation, the American veterinary epidemiologist Calvin Schwabe developed his view of *one medicine* in the 1960s (Fig 3).

Inspired by his work with Dinka pastoralist healers in Sudan who cared for humans and animals alike, Schwabe recognized the pool of knowledge in anatomy, physiology and pathobiology that is common among animals and humans. His concept of **one medicine** applied these principles to food safety and nutrition, zoonotic disease, epidemiology and population medicine, environmental health and social wellness.



Figure 3. Dr. Calvin Schwabe

This holistic notion has gained international acceptance and is now widely referenced whenever we speak of **veterinary public health**. In 1999, the World Health Organization (WHO) defined veterinary public health as being “*the sum of all contributions to the physical, mental and social well-being of humans through an understanding of veterinary science*”.

Recent trends affecting animal health and food safety policy

In the last few years, there have been significant developments globally concerning the development of integrated animal health and food safety policy. Recent zoonotic diseases, outlined above have reinforced the need for human and animal health agencies (including wildlife) to consult and work with each other.

Some of the impetus for this inter-agency cooperation was precipitated by the discovery of anthrax spores (white powder) found in posted letters several years ago. These incidents focused public opinion on our vulnerability to bioterrorists attacks on food and water supplies. This has led to increased security measures to protect our livestock populations against the introduction of a serious disease and to protect our food supply against contamination with toxins.

At the international level, the Food and Agriculture Organization (FAO), the World Organization for Animal Health (OIE) and the WHO have banded together to tackle specific zoonotic threats such as bovine spongiform encephalopathy (BSE) and Eurasian H5N1 avian influenza. This concept is mirrored in Manitoba at the provincial level within our Zoonotic Diseases Steering Committee. This group functions as the link between animal, wildlife and human health agencies in Manitoba. The dialogue established facilitates joint decision-making and paves the way for cooperative action when issues cross jurisdictional boundaries. There is not yet a comparable forum at the national level, but steps have been taken by the Chief Medical Officers of Health and Chief Veterinary Officers to meet jointly at least twice a year.

Traceability is an essential tool

Maintaining healthy animals and crops is just the beginning of the farm-to-fork continuum (Fig. 4). To safeguard human health, we must ensure that the integrity of the food supply is protected throughout the entire chain, from production to processing to manufacturing to distribution and finally, to retail. An agri-food traceability system is essential to ensure not only that we can track products forward as they move through the various stages, but also that we can track products backward to their previous steps. This will be a vital component of the infrastructure we need to manage emergencies, such as animal disease outbreaks or food contamination events,

to prepare for those emergencies and to certify the safety of our products to the consumer.



Figure 4. The animal health-food safety continuum

Animal health and food strategies

A number of countries have enunciated national animal health and food safety strategies that list the principles by which future policy and programs will be developed. A number have also set out vision statements describing the outcomes they expect to achieve. Vision statements and strategies comprise a roadmap for the future. They chart where we want to go and how we propose to get there.

Canada has initiated this process with the Council of Chief Veterinary Officers and the Canadian Food Inspection Agency’s (CFIA) project to develop a National Animal Health Strategy (NAHS) framework. It will provide an umbrella under which will nest animal health sub-strategies for wildlife, aquatic animals, farmed domestic animals and perhaps companion animals. A similar strategic document for food safety is being envisioned. This document will form the basis of the strategic vision for the Office of the CVO in Manitoba.

A strategic vision for Manitoba

By bringing together the roles of animal health, food safety and veterinary public health, we are truly moving “back to the future”. With the creation of the Office of the CVO, Manitoba clearly signaled that it would adopt a holistic, integrated approach to food safety and multi-species health issues.

Vision Statement for the Office of the CVO

A vision statement outlines the outcomes that we want to achieve in the long term. It is our reason for being, our purpose. Visions are never fully attained, but we constantly strive to reach them.

<p>The vision for the Office of the CVO can be summed up as: “Protecting animals, food and people”.</p>
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We will work to ensure that our animal population is healthy and well cared for, that our food is safe and the supply is secure, and that the public is protected from zoonotic diseases, food contamination and other hazards associated with animals. We seek to ensure that animal production and use observes good welfare practices, is environmentally and socially sustainable, and is economically viable. We seek to increase consumer confidence in the food supply and promote a stable infrastructure and regulatory environment that fosters good production practices and innovation.

Scope

Animal Health and Welfare

This strategy applies to animals that are under the control of people. This will include animals kept or raised for food, animal products, companionship, exhibition, trade, sport or pleasure. Research animals fall under the jurisdiction of the Canadian Council on Animal Care, and will not be specifically included unless broader issues of animal welfare or protection of animal or public health are involved. Disease issues related to wildlife will be tackled in cooperation with other agencies and organizations. The definition of animal is taken from Manitoba’s Animal Diseases Act where an animal is defined as “any creature not human”.

Food Safety

This strategy also applies to food products of animal and plant origin that are grown, processed, distributed or offered to the public, whether they are sold or not. Food safety issues related to pathogens of animal origin or contamination from toxic compounds such as pesticides and antimicrobials will form our primary concern. We will not focus on food quality attributes, such as taste or appearance, unless they pose a hazard to consumers.

Veterinary Public Health

Veterinary public health is the field of study that directly improves human health by reducing exposure to hazards arising from interactions with animals and animal products. Examples of these hazards include zoonoses (diseases that can pass from animals to people), vector-borne infections such as West Nile Virus, chemical and drug residues in animal products, and injuries resulting from exposure to animals. This strategy will apply to the realm of veterinary public health as delivered by the Office of the CVO.

Core Values

The Office of the CVO will adopt as its core values:

- ***Holistic thinking.***
We will ensure integration in programs of animal health and welfare, food safety and veterinary public health in all of our programs and policies. We will ensure that all policies are complementary.
- ***Integrity and excellence.***
We will strive for integrity all that we do, and we will promote excellence in our staff. We will seek to put Manitoba at the forefront of animal health and welfare, food safety and veterinary public health.
- ***Cooperation.***
We will work with other departments and agencies to achieve the desired outcomes to protect animals, food and people. Wherever we can, we will coordinate our activities with others.
- ***Pro-active intervention.***
We will first seek to prevent or mitigate potential problems, and once discovered we will actively investigate issues before they become major problems. We will promote prevention and risk mitigation in our programs. We will take decisive action when necessary.
- ***Smart regulation.***
We will adopt risk-based inspection and outcome-based regulations. We will promote high standards without stifling innovation, while adhering to our primary goal, namely to protect the safety of the public.

Our clients

We first serve the people of Manitoba. But we also serve to promote confidence in Manitoba by those who consume products grown, processed, or sold here.

Our Strategy for attaining the Vision

Strategic themes overview

Four strategic themes are being proposed. These can be illustrated as forming a pyramid (Fig. 5), with each subsequent theme building on the confidence of the preceding one. We propose that, in order for our programs to be effective, the pyramid must be built layer upon layer, with each being dependent on the previous one. For example, recent experience has shown us that there is little use in promoting trade in agricultural products if consumers cannot be assured that the animals or their products will not make them sick.

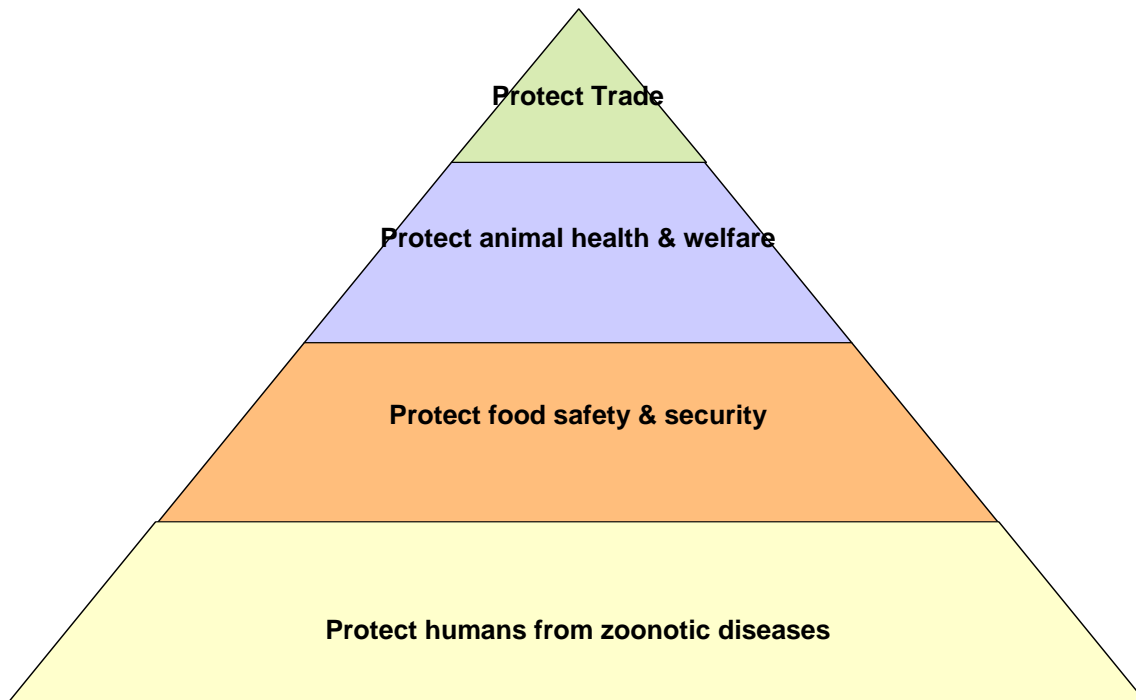


Figure 5. Strategic themes of the Office of the CVO

Strategic themes:

- 1. Protect the health of the public from diseases of animals that can pass directly or indirectly to people.**

This forms the basis upon which all of our programs are built. Diseases such as avian influenza have directly caused significant human health concerns over the last several years. Control of these diseases in animals is the first step towards controlling the risk to humans.

2. Protect the safety of food to guard against contamination with pathogens, toxins or hazardous materials.

The public expects their food to be safe. Ensuring that we meet that expectation will enhance Manitoba’s reputation domestically and abroad as a producer of safe food.

3. Protect the health and welfare of animals for economic or intrinsic benefit.

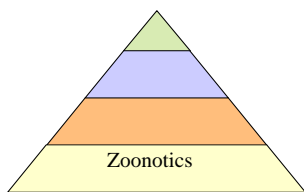
By protecting the health of animals we avert unnecessary suffering and disease. By raising animals in a humane manner we respect the sanctity of life. By preventing and controlling major animal diseases we support the economic well-being of agricultural producers.

4. Protect trade in agriculture through health certification or food safety assurance programs.

Health certification and food safety assurance programs are the official stamps of approval that our customers look for when buying our products. With the adoption of on-farm food safety programs, health certification programs, good manufacturing practices and Hazard Analysis Critical Control Point (HACCP) programs, we build consumer confidence and promote trade.

Strategic Theme 1

Protect the health of the public from diseases of animals that can pass directly or indirectly to people.



Stated simply, this principle ensures that diseases of animals will not pass to people. Evidence suggests that the rate of discovery of new and emerging diseases is increasing.

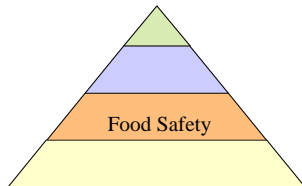
Since 1980, there have been over 35 new diseases identified in humans. This equates to, on average, one new disease every eight months. The emergences of SARS and Ebola virus have been very dramatic examples of such diseases, both of which have their origins in an animal host.

A similar pattern has been seen in animals. For many years, we have controlled diseases in animals, such as bovine tuberculosis and brucellosis, which could be contracted by humans. Recently, however, we have seen the emergence of new and especially virulent pathogens that can be carried by animals and humans alike. *Clostridium difficile* and methicillin-resistant *Staphylococcus aureus* (MRSA) are two examples of bacteria that can be carried by animals, which can cause life-threatening infections in humans, but which cause little disease in animals.

Outside the realm of infectious agents, we have also witnessed the tragic consequences of dog attacks on young children in recent years. Because of the close association of pets with people, especially children, there is a role for provincial animal health officials to work closely with public health in developing joint programs for protecting human health from animal threats. This goes beyond the traditional role of agricultural animal health and is a new area of concern.

Strategic Theme 2

Protect the safety of food to guard against pathogens, toxins or contaminants.



It has been said that “you are what you eat”. If that is so, then this principle seeks to ensure that the food people consume will not make them sick.

The goal of the WHO Global Strategy for Food Safety is “to reduce the health and social burden of food borne illness” through three principal lines of action:

- developing risk-based, sustainable and integrated food safety systems;
- implementing measures along the entire food chain that prevent or reduce hazards; and
- developing partnerships with other sectors to manage food-borne risks.

Our food system has long recognized that food safety is an important component of human health, as demonstrated by the fact that meat inspection services have been in operation for more than a century. Traditionally, these systems were designed to detect diseases that could be seen or felt in the carcass via organoleptic inspection. More recently, the emphasis has shifted to eliminate cross-contamination during slaughtering and processing by implementing quality and control systems such as HACCP programs.

Food safety programs must begin with healthy animals and plants and carry forward throughout the entire processing, manufacturing and distribution system. Many departments of agriculture have now incorporated the word “food” in their titles and in their responsibilities. The Blair review in Australia recognized the need to have a “through chain approach to food safety that included agricultural production”.

On-farm food safety programs link animal health, biosecurity and food safety issues. These began as industry-led initiatives designed to promote higher health and biosecurity standards among agricultural producers. Although these programs have been well intentioned, the uptake among producers has been spotty, albeit with a few notable exceptions. One success story involves the egg layer industry. Over 98% of Manitoba’s egg producers are now enrolled in the “Start Clean-Stay Clean” program - truly a shining example to other producer groups striving to introduce similar programs.

While these on-farm food safety programs are a step in the right direction, many could be significantly improved to make them more effective. First of all, these are much more than food safety programs - they are really animal/plant health and quality assurance programs – and they should be renamed as such.

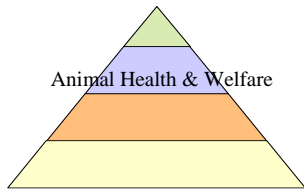
Second, these programs are hampered by the lack of a common design. The programs developed by the various producer groups would benefit from following a common overall template and auditing format so that multiple commodities on a farm could be audited at the same time.

And third, these programs could be improved so that add-on modules could be developed for say, controlling a specific disease, or certifying that particular animal husbandry standards are being practiced (ex: free-range poultry). This would facilitate flexibility in developing certification programs that would differentiate product attributes at provincial or regional levels.

In summary, these programs need to move from a nice idea to an industry norm. If provincial governments are to offer assistance and official endorsement to these producer-led initiatives, they must be included in an advisory and audit capacity.

Strategic Theme 3

Protect the health and welfare of animals for economic or intrinsic benefit.



Protecting the health and welfare of animals is the traditional role of animal health agencies and departments of agriculture. Many programs have been

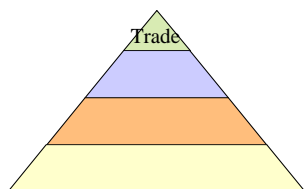
developed to control animal diseases in order to avoid severe economic losses to producers. Many of our foreign animal diseases, such as foot and mouth disease, classical swine fever (hog cholera) are not human health issues or food safety issues.

These diseases are, however, devastating when introduced into a susceptible population of animals, causing widespread morbidity and mortality. Many of the traditional disease surveillance activities, diagnostic support services and disease control programs were originally established to support this principle.

In Manitoba, we are the only province that directly delivers animal welfare services through a provincial program involving civil servants. We respond to complaints of animal abuse or neglect in both domestic farm animals and in companion animals. There have been recent developments on the world stage to ensure that animal welfare standards are enshrined in international agricultural trade agreements under the OIE. Manitoba’s role in protecting animal welfare has placed us on the forefront of this issue in Canada and the Office of the CVO remains committed to promote high standards of animal welfare in companion and commercial animals alike.

Strategic Theme 4

Protect trade in agriculture through health certification or assurance programs.



From an agricultural producer’s point of view, protecting trade may be seen as one of the most important functions of an animal health strategy. Protecting trade, however, must be built upon the basis of the first three principles, otherwise trade will not proceed.

We all recognized just how quickly an animal health issue could become a major trade issue in May of 2003, when many countries closed their borders to Canadian beef after

the discovery of BSE. Manitoba was especially hard hit as we had no major facility where surplus animals could be slaughtered.

Most certification programs are operated nationally by the CFIA. However there is a role for provincial involvement to work with industry in specific areas, such as certification of poultry flocks and certification of on-farm food safety / animal health / biosecurity programs. The Office of the CVO will work with producer organizations to promote Manitoba’s reputation as a source of safe food and healthy animals.

Activities to Support the Strategic Themes:

Within each of the four strategic themes there are four major activity categories:

- A. Effective early warning detection and surveillance systems;
- B. Situation analysis and policy development;
- C. Timely response capacity; and
- D. Prevention and preparedness.

A. Effective early warning detection and surveillance systems

Before anything can be done to address animal health or food safety issues, **they must first be identified**. The creation of effective early warning detection and surveillance systems is the key to effective animal disease control and food safety assurance programs. Traditionally, many animal health and food safety problems have not been detected until they have reached a critical threshold, such as widespread morbidity or mortality. By then, the problem is often already out of control and prompt resolution either requires dramatic action, or else is impossible.

Many highly contagious diseases behave this way. We have witnessed how foot and mouth disease spread throughout most of the United Kingdom via movements of sheep for 6-8 weeks before it was detected. In contrast, it appears that the outbreak of avian influenza in British Columbia was detected quite quickly in 2004, probably in the first flock that was infected. Although the control effort involved the entire Fraser Valley poultry industry, the disease did not spread to other areas of British Columbia or to other provinces.

To create effective early warning detection and surveillance systems, we will expand our capacity to quickly detect animal health and food safety problems before they become widespread. It was an alert veterinary practitioner who teamed up with an inquisitive veterinary pathologist in Saskatchewan to first describe Post-weaning Multisystemic Wasting Syndrome in domestic pigs in the late 1990s. Subsequently, this disease has been covered in many other countries around the world. It was not spread from Canada, but Canadians were the first to identify it.

To develop innovative surveillance systems, we will need to collate disease information from many sources, some of which are unconventional. Therefore, we will participate in, and wherever possible lead, national animal and food safety surveillance systems by enlisting the support of other government departments, federal agencies, private companies, private veterinary practitioners and producers.

Specific activities will include:

- enhancing linkages with veterinary practitioners as our “eyes and ears” in the field to alert us to emerging animal diseases, so that we can investigate promptly.
- linking with pan-Canadian networks such as the Canadian Animal Health Surveillance Network (CAHSN) and the Canadian Network for Public Health Intelligence (CNPHI) to share information across species and across provinces.
- developing a surveillance system for monitoring food-borne pathogens and contaminants such as antimicrobial drugs.
- implementing a surveillance and awareness program for animal welfare, so that animal assembly points are monitored regularly.
- working with the Veterinary Diagnostic Laboratory to develop an enhanced passive surveillance system, based on post mortem submissions.

B. Situation analysis and policy development

Prompt analysis of a situation is critical when dealing with potential animal health emergencies. At the beginning of a suspected outbreak, there is often a great deal of uncertainty as to its cause or magnitude. Timely investigation of outbreaks has often been neglected either due to lack of resources or because it has fallen between the jurisdictional cracks of various agencies.

The Office of the CVO will:

- promptly launch an investigation into any suspected outbreak involving animals or food. If the lead falls to another agency, we will offer our full support. If there is no apparent lead, we will assume it.
- build a centre of expertise for disease investigation. We will develop investigational and analytical tools to support a standardized approach to investigations.
- assemble risk assessment team to assess emerging issues. We will develop templates and standard operating procedures to guide the process.

Animal health and food safety policy has traditionally been developed by regulatory agencies rather than by policy groups. There are a number of initiatives underway to formulate strategic policies on domestic animal health and welfare, food safety and wildlife health.

To support Manitoba’s interests, we will:

- actively participate in national and inter-provincial initiatives to develop animal health and food safety policy.
- develop provincial animal health and welfare, and food safety legislation, regulations and policy to support the goals of our programs. We will promote policy linkages with health, food, and livestock industries. We will encourage policy that supports rural development, environmental sustainability and economic viability.
- create a stable and level regulatory environment.
- adopt a risk-based approach, whereby more resources are directed towards high risk issues and fewer resources are directed towards compliant and low risk situations.
- stress a preventive approach to animal health and food safety issues.

Develop policy to support rural veterinary infrastructure throughout Manitoba. Veterinarians may be the first to see a new or emerging disease, and as such form an integral component of any early warning system. We want to encourage closer working relationships with private veterinarians, and will seek to do that through public-private program delivery whenever possible.

To enhance surveillance and disease control and to support the rural veterinary infrastructure, we will:

- create a provincial accreditation program for veterinarians who wish to participate in provincial programs.
- encourage rural practice viability through new animal health delivery models, including the greater use of paraprofessionals.
- encourage veterinary educators to incorporate the public practice model into veterinary education. We will also encourage the development of innovative methods of delivering post-graduate and continuing education to practitioners who wish to upgrade or re-tool their skills.
- support and encourage our students who wish to pursue a career in veterinary medicine.

C. Preparedness and timely response capacity

It is recognized that provincial resources to respond to animal health and food safety emergencies may be limited. Therefore we will develop inter-departmental, inter-agency, and public-private partnerships that can be brought to bear using an “all hazards” approach.

Our main activities will be to:

- promote strategic thinking for emergency response involving animal health and food safety issues. We will embed with other agencies, such as CFIA, whenever practical.
- develop emergency response capacities in areas of surveillance, mass carcass disposal, specified risk material (SRM) disposal, and personal protective equipment training for responders.
- provide scientific assessment and epidemiological advice for disease control efforts.
- develop simulation modeling capacity to test various scenarios in advance.
- support the development of the newly created Veterinary Reserve, a corps of private veterinarians who can be mobilized from across Canada to assist with animal health emergencies, such as foreign animal disease outbreaks.
- build the essential infrastructure that will be required in an emergency, including:
 - multi-species, multi-commodity traceability systems that link the entire production chain from farm to fork.
 - up-to-date GIS tools that will be called on during an emergency to provide mapping services.
 - an Emergency Coordination Centre that can be activated on short notice.
 - an Incident Management System, as the organizational basis for all emergency response activities.

D. Prevention and Mitigation

We will work to prevent or mitigate the effects of animal health and food safety threats through education and risk reduction programs.

To accomplish this we will:

- work with partnering agencies to develop public educational materials aimed at reducing the risk to human health whenever animals and people come into close contact. This includes preventing serious dog bite attacks on children and promoting sanitation for petting zoos and pet visitation programs in hospitals.
- promote the welfare of farm animals during transport and at assembly yards.

- develop materials to educate producers on the prudent use of antimicrobials. We will explore a provincial certification system to regulate the sale of antimicrobials in food producing animals.
- work with producer associations to develop improved standards for on-farm food safety programs. We will provide supporting expertise in developing standards of biosecurity and animal health, auditing, and promoting the uptake of these programs.
- develop prevention, control and impact mitigation programs for specific disease threats, such as Johne’s disease.
- develop an inventory of food production in Manitoba, to assist with emergency planning in the event of a major disruption to the food distribution system.

Measuring success:

Measuring the strategic improvement in health outcomes can be a difficult task, as this involves quantifying an absence of problems. The fundamental issue becomes one of trying to measure how many threats (ex: disease outbreaks or food contaminations) were prevented because of the proactive actions that were taken. Often we will never know.

Having said that, some key questions adapted from a White House Office of Management and Budget paper (2003) are presented below. The answers to these will help to ensure that we are on the right track.

- Is the program important? Is its purpose clear?
Our vision is to protect the health and welfare of animals, the safety of food and the health of people.
- What would happen in the absence of the program?
The health and welfare of animals in Manitoba would be compromised, food safety could not be assured, and protection of the public would be hindered.
- Who are the beneficiaries?
The beneficiaries are the people of Manitoba. This includes food producers, processors, and consumers, as well as animal owners, those who come into contact with animals and the animals themselves.
- Is the program one of many contributors to the desired outcome?
The stated vision is supportive of individual programs operated by other agencies. However, the Office of the CVO integrates animal health and welfare, food safety

and veterinary public health in a holistic approach. It occupies the key role in safeguarding the animal-human linkages by working to:

- reduce the impact of serious endemic diseases in animals;*
- prevent or mitigate the effects of serious exotic, foreign animal diseases;*
- reduce the incidence of zoonotic diseases in animals that might harm humans;*
- improve animal welfare;*
- reduce the burden of illness of humans from food-borne threats; and*
- increase consumer confidence in Manitoba’s animal health and food safety programs.*

Conclusion

In this paper, we have laid out a vision for protecting animals, food and people in Manitoba for the next decade. Four major strategic themes have been identified that will form the basis of programs and services offered by the Office of the CVO:

- Protect the health of the public from diseases of animals that can pass directly or indirectly to people.
- Protect the safety of food to guard against contamination with pathogens, toxins or hazardous materials.
- Protect the health and welfare of animals for economic or intrinsic benefit.
- Protect trade in agriculture through health certification or food safety assurance programs.

Operationally, within each strategic theme we will develop programs and services according to four major areas of activity:

- Effective early warning detection and surveillance systems;
- Situation analysis and policy development;
- Timely response capacity; and
- Prevention and preparedness

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