

Healthy Swine and Safe Food Production in A Global Canada

W. Robert Morrison

Director, Animal Health and Production Division, Canadian Food Inspection Agency,
59 Camelot Drive, Nepean, ON K1A 0Y9; *Email:* morrisonwr@em.agr.ca

▪ Introduction

In 1995 the Government of Canada consulted extensively with the agri-food industry and all levels of government on a number of options for restructuring. The valuable input coming out of these consultations contributed to the creation of the **Canadian Food Inspection Agency (CFIA)**.

In this paper, the responsibilities of CFIA to pork producers will be described. An attempt will be made to describe the changes that have occurred in food inspection and animal health nationally as well as internationally and explain how these changes contribute to keeping the Canadian livestock industry competitive in a global market.

▪ Canadian Food Inspection Agency (CFIA)

Since April 1, 1997, all inspection services dealing with food safety, including fish inspection, economic fraud, animal health and plant protection, have been consolidated under the Canadian Food Inspection Agency. Previously, these services were shared by four federal departments: Agriculture and Agri-Food Canada, Health Canada, Fisheries and Oceans Canada, and Industry Canada.

Scope of the CFIA Mandate

The Agency reports to Parliament through the Minister of Agriculture and Agri-Food Canada. Although, the Agency is a new hybrid organization, it has the legal authority to administer and enforce those Acts and Regulations that were formerly under Health, Fisheries, Agriculture, and Industry. They are:

- Canada Agricultural Products Act
- Health of Animals Act
- Meat Inspection Act
- Feeds Act
- Seeds Act
- Fertilizers Act
- Plant Protection Act
- Plant Breeders' Rights Act
- Fish Inspection Act
- Food & Drugs Act*
- Administrative Monetary Penalties Act
- Consumer Packaging and Labeling Act*

*as it relates to food

■ **The National Animal Health Program**

The objective of the **National Animal Health Program (NAHP)** is to protect Canada's agricultural industries and the marketability of their products.

The delivery of program services that provide market support while emphasizing food safety and human health is a key function of the CFIA.

Critical to the business of the **Animal Health and Production Division (AH&PD)** is the development of animal health policies that allow all sectors of the livestock industry to remain competitive and becoming increasingly self-reliant.

Through the AH&PD, and the **Food of Animal Origin Division, the Canadian Chief Veterinary Officer**, (Dr. B.R. Evans) is responsible for the negotiation and establishment of sanitary conditions for the import and export of animals and animal products, program planning and evaluation, operational management of laboratories and program coordination.

The NAHP is delivered across Canada through four **Operations Directorates** or Program Network Area Offices (one for the Atlantic area, one each for Quebec and Ontario and one for the West, (Manitoba, Saskatchewan, Alberta and British Columbia).

Import Program

The ***Health of Animals Act and Regulations*** gives the CFIA the authority to restrict or prohibit the entry of animals suspected or found to carry diseases which are a threat to the health of our livestock population and the economy. Several measures are used to reduce this threat:

- Import permits are issued for almost all shipments of foreign animals coming into this country. This allows for the effective control of movement.
- Diagnostic tests and certification by foreign governments are conducted to ensure Canadian import conditions are met.
- Upon entry into Canada, testing, inspection at the border, and quarantine procedures are also required as an additional precaution.

Prior to 1995, the year when the World Trade Organization (WTO) came into effect, trade in livestock and livestock products was conducted essentially on the basis of bilateral sanitary protocols between two countries. In Canada, importation protocols for live swine and pork products were developed in a “zero risk” mind set.

With the signing of the WTO Treaty and the coming into force of the Agreement on the Application of **Sanitary and Phytosanitary Measures (SPS)**, import protocols are now developed on a scientifically based **risk assessment** where a zero risk scenario is less and less an option.

Before the WTO agreement was implemented in 1995, **country freedom** for a given disease meant that the whole country had to be free from that disease. Coinciding with the creation of WTO, international veterinary authorities have taken a second look at the idea of country freedom in favour of a more realistic and less disruptive way that has come to be known as **zoning** or **regionalisation**.

Zoning is defined by the Office International of Epizootics (OIE) as “a part of a country established for disease control purposes”

Regionalisation is defined as a number of countries or parts of contiguous countries, which is established for disease control purposes.

These very significant changes in the way we conceptualize disease prevention and the application of the **risk assessment** have opened the possibilities for producers to obtain swine genetics that a few years ago were difficult to access.

Export Program

Canada's exports are significantly greater in volume and value than its imports. Continued access to world markets is critical to the health of our economy. Exporting any animal not meeting the requirements of an importing country can threaten future exports and have serious immediate and long term economic consequences.

Ensuring export market access through export certification is an important component of the NAHP. For most animal exports, Canada is required to certify that all import requirements of the importing country are met. This may involve inspection, testing and pre-quarantine in Canada.

The National Animal Health Program serves the Canadian livestock industry by providing access to international markets for quality animal genetics developed by producers and breeders in this country. Health certification conditions are established through bilateral negotiations with regulatory veterinary authorities of importing countries. Increasingly, the bilateral agreements are made within the framework of international standards such as the Office International of Epizootics and the Codex Alimentarius Commission.

The export program is mandated under the **Health of Animals Regulations** to ensure compliance with the import requirements of the country to which the animals, embryos, or semen are being exported.

The integrity and credibility of Canada's health certification process is enhanced through the issuance of individual official export health certificates for specific commodities to each country.

In addition, exports are tested and inspected and certified by staff of the Canadian Food Inspection Agency. Export tests and diagnostic services are conducted in federal laboratories, and in some instances, in federally approved laboratories, according to internationally accepted standards.

Other NAHP activities

NAHP officials are also responsible for:

- Establishing policies and procedures for the eradication and control of diseases;
- Regulating humane transportation of livestock, promoting the codes of practice for the care and handling of farm animals, and promoting compliance with animal health, food safety and quality standards;

- Regulating vaccines and other veterinary biologics registered for use in Canada to make sure they are pure, potent and safe;
- Verifying that livestock feeds manufactured, sold or imported into Canada are safe, efficacious and are labeled to avoid fraud.

■ **The Inspection Program for Food of Animal Origin**

The food of animal origin program is based on the **Meat Inspection Act**. This Act was established to regulate trade in meat products and is based on international standards. This has allowed Canadian registered establishments to export their products to more than 80 different markets throughout the world.

The meat inspection regulations deal with basic requirements such as product standards, plant requirements for registration and licensing of operators, maintenance and operations of registered establishments, ante and post mortem inspection, humane slaughter and packaging and labeling requirements.

Countries importing from Canada rely on the ability of the CFIA to carry out the basic inspection procedures and sometimes impose additional requirements before allowing imports. The Meat Inspection Act gives the necessary power to the official veterinarian to implement additional importing country requirements to convince the competent authorities that we will issue certification only once we are satisfied that all applicable requirements are met.

In order for the meat inspection program to be implemented and to permit adaptation to the changing world trade requirements (such as implementation of Hazard Analysis Critical Control Points (HACCP) and the United States Department of Agriculture (USDA) regulations, the program includes the following key elements:

- Regulations and procedures
- Plant and equipment evaluation
- Red meat and poultry meat inspection
- Audit
- Process technology and labeling
- Product assessment and analysis
- Processing inspection
- Import

- Export
- Chemical residues monitoring

By keeping this program in place, Canada can maintain its international reputation for quality and safety of meat products. This, together with our advantageous animal health status, makes our country a major trader in this commodity.

CFIA helps facilitate exports of meat products by:

- helping exporters to understand and meet the requirements of foreign countries;
- negotiating with foreign countries to eliminate differences in interpretation of inspection requirements to reach agreement on market access conditions acceptable to all concerned;
- certifying meat exports as meeting requirements agreed upon with the importing country.

CFIA cooperates with meat industry organizations, Market and Industry Services Branch (MISB) and the Department of Foreign Affairs and International Trade when negotiating market access conditions.

Inspection Standards

CFIA will continue to participate in the Codex Alimentarius Commission, an international body of scientists and regulators funded by the United Nations Food and Agriculture Organization and World Health Organization. Through scientific review and consensus, Codex fosters harmonized inspection standards between nations and recommends international food standards to promote fair trade and protect consumers. For animal health issues, the international organization is the Office International of Epizootics.

Export Certification Programs

The export certification programs ensure that only wholesome products meeting the applicable requirements are traded internationally. Through export certification CFIA communicates to the importing country that we are satisfied that their import requirements are met.

The Canadian seal of inspection and certification is well accepted throughout the world. Some countries have a requirement to inspect plants prior to allow imports. This is to verify if the facility and operational requirements are met. Some have additional certification requirements.

All meat products destined for export must be inspected to ensure that all applicable requirements are met to the satisfaction of the inspector.

To support Canadian exports, CFIA has produced guidelines that summarize the import requirements of foreign countries, which are based on the best available information. Importing country requirements are changing on an ongoing basis and we constantly update the information as it is received. The exporter is responsible for taking the necessary steps to ensure that the product intended for export meets the current importing requirements. It must be understood that the exporter is fully responsible under the law for meeting all the requirements.

■ Foreign Animal Disease Preparedness

Canada's agri-food sector is internationally respected. Because of Canada's excellent livestock health status, exporters have access to more markets in the world than that of any other country. However, this sector of the Canadian economy needs effective protection and this is where the expertise of the CFIA is vitally important.

Foreign Animal Disease Emergency Organization

Canada is free of serious diseases that could restrict international trade in swine genetics and pork products. Animal diseases such as foot-and-mouth disease, African swine fever, hog cholera (OIE List A diseases) are not found in Canada. Canada is also free of pseudorabies and swine brucellosis (OIE List B diseases) and through its **national disease monitoring program** can credibly document its freedom status.

However, should any of these **foreign animal diseases** succeed in entering Canada, our entire agricultural economy would suffer. Eventually, all Canadians would pay the price, since most of our trading partners would stop importing our animals and animal products for fear of importing a disease.

Foreign Animal Diseases Emergency Response Program

The first line of defence against these kinds of diseases lies in import controls and international traveller's baggage inspections. Despite all these precautions, however, the introduction of a foreign animal disease into Canada remains a possibility.

The CFIA has established a second line of defence to protect Canada's economy and livestock. The **Foreign Animal Disease Emergency Organization** is an emergency response network that responds immediately

and effectively should a foreign disease be introduced to Canada. Its experts have developed emergency plans and procedures for most foreign animal diseases. In the face of an outbreak, our first international responsibility is to report a disease to the OIE. Then, nationally, the following procedures are implemented:

- confirming the presence and extent of the disease,
- tracing the origin of the disease,
- containing the disease by controlling the transportation of animals,
- destroying infected and exposed animals,
- eliminating infected carcasses and products,
- cleaning and disinfecting infected premises, and finally,
- re-stocking of the premises with healthy animals.

The CFIA has well-organized teams in every area, trained to deal with foreign animal diseases. These teams also have operational links with emergency-response officials in provincial and other federal agencies. Teams are kept ready through various activities such as: simulation exercises, seminars and other training activities at national and local levels. A procedures manual for responding to foreign animal disease outbreaks has been developed and provides official policies on specific diseases. The response organization also monitors the evolution of outbreaks of these diseases and how they are controlled in other countries.

The Emergency Response Network

The task of the emergency organization is to be prepared for any eventuality. Should a foreign animal disease ever succeed in entering the country, despite import controls, it must act to limit the outbreak. **Area Emergency Response Teams** in the field, supported by a **National Emergency Management Team** at head office, join forces to eradicate the focus of infection as rapidly as possible.

Area Emergency Response Teams which are responsible for eradication operations in the field have one priority: prompt reaction to the first indications of a foreign animal disease. Their job is to contain the outbreak as rapidly as possible and to eliminate it from Canada through organized action, to ensure that damage is kept to a minimum.

A **National Emergency Management Team**, with its head office in Ottawa, is responsible for orienting and coordinating the action taken at the regional level. It oversees the direction and management of the emergency response and

provides support to the regional teams involved. The **National Centre for Foreign Animal Disease** that was relocated in Winnipeg in 1997 is a most important component of the emergency program. This laboratory is equipped with state-of-the-art technology and diagnostic equipment designed to provide maximum biological security and containment.

Emerging Foreign Animal Disease (Nipah)

In the last quarter of 1998 and the first quarter of 1999, a new viral disease called Nipah occurred in Malaysia and Singapore. The little known virus has affected humans and numerous deaths were reported in people having contact with pigs.

Introduction of Nipah virus into Canada is very unlikely, not only due to our privileged geographical location on the globe but also because of our strict import conditions for live animals and products. The impact of an accidental introduction of Nipah into Canada would certainly be less severe than reported elsewhere because of our proactive creation of a functional emergency response and our international links with specialized laboratories in Australia and the USA.

▪ **National and International Multi-Stakeholder Program Activities**

National Program Activities

In recent years, the Animal Health Division has conducted a number of multi-stakeholder consultations. The purpose of these consultations is to involve as many sectors of the Canadian public to participate in the development of federal policies which impact directly on their areas of interest.

For example, a number of on-going initiatives include the:

- National Livestock Identification Program (industry lead initiative)
- National Surveillance Program
- strategies for foreign animal disease preparedness
- shared, revised humane transportation of animals program

International Program Activities

Canada participates actively in multilateral animal health programs through agencies such as the Office International des Epizooties, the Codex Alimentarius Commission, the International American Institute for Cooperation

on Agriculture, the Pan-American Health Organization and the Food and Agriculture Organization of the United Nations.

Officers of the National Animal Health Program have numerous international contacts with whom they exchange animal disease information on incidence, diagnosis and research. They and their counterparts also negotiate the zoosanitary certificate conditions for the import and export of breeding animals, semen, embryos, meat and other animal products. The CFIA maintain memoranda of understanding and official arrangements with a number of countries to ensure formal and regular exchanges and cooperation in animal health and disease research. The following is a outline of some of the consultative forums:

- Canadian Animal Health Consultative Committee
- Animal Health Tripartite Group (Mexico, United States, Canada)
- Animal Health Quadrilateral Group (Australia, New Zealand, United States, Canada)

■ **Health of Animals Laboratories**

Science Advisory and Management Division

The Science Advisory and Management Division (SAMD) is responsible for the management and coordination of diagnostic, laboratory accreditation, quality assurance, technology development, risk assessment and disease surveillance for the National Animal Health Program. SAMD also manages the Matching Investment Initiative (MII) Fund and the research Memoranda of Understanding with Agriculture and Agri-Food Canada's Research Branch and Health Canada on behalf of the CFIA and provides support to the Animal Products Directorate in managing their research and technology development requirements.

■ **Conclusions**

With the creation of WTO and the implementation of multilateral trade agreements that have replaced the traditional bilateral sanitary protocols, livestock producers in Canada are experiencing an increased competition for both the domestic and the international market.

In the current WTO mind set, the significant improvement of the animal health status in important trading blocks has reduced the barriers to potential competitors but, it has at the same time opened opportunities for swine

genetics. Nevertheless, due to the availability of land in Canada and to the knowledge of our producers and their ability to realistically adjust to the changing order, Canadians, will remain competitive and will expand our share of the world market in livestock and livestock products.

▪ **Acknowledgment**

To Christiane Ranger and the Animal Health & Production Division staff for preparing the manuscript.

▪ **References**

Canadian Pork Council, Canadian Quality Assurance Program, Producer manual, 1998

Office International of Epizootics - International Animal Health Code, mammals, birds and bees: Office International des Epizooties, Eighth edition, 1999.

World Trade Organization - The results of the Uruguay round of multilateral trade negotiations, the legal text, World Trade Organization, first published in June 1994 by the General agreement on tariff and Trade, reprinted in 1995 by the World Trade Organization, Centre William Rappard, rue de Lausanne 154, CH -1211, Geneva 21, Switzerland.