

**S**tatus of agrifood  
regulatory coordination  
under the North American  
Free Trade Agreement

Ronald D. Knutson

Rene F. Ochoa



UNITED NATIONS

**ECLAC**

ECLAC Office in Washington

Washington, D.C., October 2007

This document was prepared by Professors Ronald D. Knutson and Rene F. Ochoa, Consultants to the Washington Office of the Economic Commission for Latin America and the Caribbean (ECLAC) of the United Nations.

Ronald D. Knutson is Distinguished Professor Emeritus in the Agriculture and Food Policy Center (AFPC) at Texas A&M University. Rene Ochoa is currently Director General for Analysis and Planning at the Under-Secretariat for Agribusiness in the Ministry of Agriculture of Mexico (SAGARPA).

Inés Bustillo, Director of the ECLAC Washington Office, has overseen the preparation of the report as a whole. Raquel Artecona, Fernando Flores and Rex Garcia provided comments.

The views expressed in this document, which has been reproduced without formal editing, are those of the authors and do not necessarily reflect the views of the Organization.

---

United Nations Publication

ISSN printed version: 1727-9909

ISSN online version: 1728-5437

ISBN: 978-92-1-121657-8

LC/L.2797-P

LC/WAS/L.91

Sales No: E.07.II.G.131

Copyright © United Nations, October 2007. All rights reserved

Printed in United Nations, Santiago, Chile

---

Applications for the right to reproduce this work are welcomed and should be sent to the Secretary of the Publications Board, United Nations Headquarters, New York, N.Y. 10017, U.S.A. Member States and their governmental institutions may reproduce this work without prior authorization, but are requested to mention the source and inform the United Nations of such reproduction.

## Contents

---

|  |    |
|--|----|
| Abstract .....   | 5  |
| Introduction .....   | 7  |
| I. State of regulatory coordination in the North American<br>Free Trade Agreement.....                             | 9  |
| II. Explanation and evaluation of NAFTA efforts to achieve<br>greater regulatory harmonization/ compatibility..... | 13 |
| 1. Global efforts to foster a common regulatory framework.....   | 14 |
| 2. Case examples of NAFTA regulatory harmonization efforts....   | 19 |
| III. Summary, conclusions, challenges, and approaches for<br>developing a cohesive NAFTA regulatory policy .....   | 27 |
| 1. Where NAFTA stands with regard to regulatory coordination.  | 27 |
| 2. Areas where trade barriers can be reduced.....  | 28 |
| 3. Challenges to removing regulatory differences .....   | 30 |
| 4. Approaches/mechanisms to ensure greater<br>regulatory coordination .....  | 30 |
| 5. Best institutional mechanisms to move forward .....   | 31 |
| Bibliography .....   | 33 |
| <b>Studies and Perspectives series, Washington Office</b>  |    |
| <b>Issues published</b> .....  | 37 |
| <b>Index of figures</b>  |    |
| Figure 1 Mexican horticultural exports, 1995-2005.....   | 12 |
| Figure 2 Relation between international standard setting<br>organizations, WTO and NAFTA.....                      | 17 |
| <b>Index of maps</b>   |    |
| Map 1 Progression of screwworm eradication program in<br>the Americas .....  | 23 |



## Abstract

---

Since its initiation on January 1, 1994, the agriculture section of the North American Free Trade Agreement (NAFTA) has been controversial, which has led to several trade disputes, suggestions for modification and strengthening, and even Presidential initiatives such as the Security and Prosperity Partnership of North America (SPP). While NAFTA has done much to spur economic growth and development, it has not realized its potential in integrating agrifood markets. Several illustrations are summarized in this report on progress in overcoming sanitary and phytosanitary (SPS) barriers to trade under NAFTA; much remains to be accomplished. The basic problem is the NAFTA agreement itself, which lacks a strong NAFTA Secretariat that is charged with moving the NAFTA agrifood economic and market integration agenda forward. While this could best be accomplished by modifying the NAFTA agreement to form an EU Commission type body, without authorization for a common market or an economic union, this option is not politically feasible in an environment where anti-free trade advocates are prevalent.



## Introduction

---

Since its initiation on January 1, 1994, the agriculture section of the North American Free Trade Agreement (NAFTA) has been controversial, which has led to several trade disputes, suggestions for modification and strengthening, and even Presidential initiatives such as the Security and Prosperity Partnership of North America (SPP). While NAFTA has done much to spur economic growth and development, it has not realized its potential in integrating agrifood markets. Several illustrations are summarized in this report on progress in overcoming sanitary and phytosanitary (SPS) barriers to trade under NAFTA; much remains to be accomplished. The basic problem is the NAFTA agreement itself, which lacks a strong NAFTA Secretariat that is charged with moving the NAFTA agrifood economic and market integration agenda forward. While this could best be accomplished by modifying the NAFTA agreement to form an EU Commission type body, without authorization for a common market or an economic union, this option is not politically feasible in an environment where anti-free trade advocates are prevalent.

Short of a NAFTA Secretariat with a backbone to spearhead the freer trade agenda, the following beneficial steps need to be taken:

- Each country should appoint a ministerial level agriculture focal point for NAFTA coordination. This individual should be the voice for NAFTA in ministry decisions affecting other NAFTA countries. This includes a prime responsibility for seeing, to the extent possible, that issues affecting NAFTA are treated on a trilateral basis. It includes seeing that the technical committees and working groups are formed and operating consistent with the provisions of the NAFTA agreement. These three individuals should be the focal point

for encouraging the development of and advocating common NAFTA positions before international SPS organizations.

- Each country should make a concerted effort to make its agrifood regulations consistent with the related international organizations. In so doing, each country should insist that there be coordination in the standards promulgated by these international organizations.
- Joint laboratories should be established for risk assessment, research, and training related to NAFTA regulatory issues. Ideally, such laboratories should include an economic analysis division responsible for tracking the progress of SPS issues in the NAFTA region and for providing input into dispute settlement deliberations.
- Special effort should be made to create a level technical and scientific playing field related to agricultural regulatory issues across the NAFTA countries. Priority should be given to increasing veterinary training and related research for Mexico.
- Harmonized surveillance, testing, and tracing disease and pest problems that hold the potential for adversely affecting production in each of the NAFTA countries must be adopted. Priority should be given to implementing harmonized animal identification systems and for adoption, at all levels of the food chain, of requirements for Hazard Analysis Critical Control Point (HACCP) methods.
- The formation of a coordinating organization for SPS standards for animal agriculture and its products, comparable to the successful North American Plant Protection Organization (NAPPO), should be initiated and tenaciously pursued.
- There is need for greater uniformity in policy analysis both in each country and within a strengthened NAFTA secretariat. The economic impacts of SPS initiatives of the type suggested here have broad impacts on agriculture, agribusiness, competitiveness, and the general public. These impacts must be subject to policy analysis if public investments are to be made and people are to enter these decisions with their eyes open and without surprises. There is a noticeable lack of policy analysis that could support analytical teams to focus on these and other trade and policy issues, particularly in Mexico.

Each NAFTA country should bear the responsibility for providing the resources required for implementing these actions and strategies to the best of its ability. However, where this is not possible, it is in the interest of the other countries to share in the costs of implementation on an expedited basis.

## **I. State of regulatory coordination in the North American Free Trade Agreement**

---

Controversy over the treatment of agriculture and its policies is by no means limited to NAFTA. Hufbauer and Schott (2005) argue that agriculture is the make-or-break issue for both multilateral and regional trade agreements, which seems to be the case in the current Doha negotiations.

The purpose of this paper is to take stock of the state of regulatory coordination among the NAFTA economies on sanitary and phytosanitary (SPS) measures and to identify ways to move forward to advance market integration. Specific issues to be addressed include:

- Evaluate where NAFTA stands with respect to regulatory coordination and the barriers to integration in agricultural and food markets.
- Identify areas where unnecessary barriers to trade can be reduced or eliminated by means of removing divergent standards and regulations.
- Assess challenges to bridging regulatory differences.
- Review approaches/mechanisms to ensure greater regulatory coordination.
- Provide insight into the best institutional mechanisms to move forward in the regulatory arena and to enhance coordination.

The major agriculture deficiencies of the NAFTA accord include:

- It failed to address the issue of the lack of harmonization of farm programs that subsidize farm prices and/or incomes.
- It failed to provide mechanisms for harmonizing or coordinating regulations/standards relating to the production, processing and marketing of farm products other than formal dispute settlement and voluntary action.

It is common in international trade policy discussions and literature to draw a distinction between the terms harmonized and compatible policies, programs, or regulations. From an agriculture and food policy perspective the most extensive discussion of this distinction is contained in the volume titled *Harmonization/Convergence/Compatibility in Agriculture and Agri-Food Policy: Canada, United States and Mexico*, edited by Loyns and others (1997). Relative to this topic, the most important contributions in this volume are by Josling and by Bredahl and Holleran. Josling defines harmonization as “The process of introducing uniform or essentially similar regulations in different countries” (p. 8). He notes that this can be accomplished either by agreement to enact common policy instruments or by the use of similar instruments within a common framework; a distinction which will subsequently be discussed in the context of SPS regulations. Josling defines compatibility as “The development of policies and instruments which avoid conflict and are designed to be consistent with those of other countries” (p. 9). He notes that the conflict is removed by policy shifts that fall short of harmonization or as a result of dispute settlement. Bredahl and Holleran (1997) discuss compatibility by introducing the “equivalency” recognizing that “different methods may be used to reach the same level of protection” (p. 75).

It is recognized that it is considerably more difficult to harmonize policies and regulations than to make them compatible or equivalent. In the regulatory arena, harmonization may be more important than in the farm policy arena because of the complexity of regulatory standards. It may be equally difficult to accomplish regulatory harmonization because of uncertainties regarding how industry interests will be affected in terms of competitive relationships. For example, geographic patterns of production are affected by agricultural product grades and standards because some regions are better adapted to production than others. Changing the grades and standards may present risk to established production areas of changing competitive positions among farmers and agrifood firms regionally, including those across borders. These disruptive effects may be more important in agriculture than in other industries. Yet there are internationally accepted standards that if more generally adopted in NAFTA can play an important role in achieving compatibility if not harmonization. Such standards will be the subject of further discussion subsequently.

Agriculture is arguably the most highly subsidized and regulated industry in the three countries affecting economic activity. As a result, the deficiencies in the NAFTA accord could have been anticipated and in retrospect should not be surprising. Despite the fact that agriculture accounts for only about 10 percent of total merchandise trade among the NAFTA countries, the political sensitivities were and have been too great to effectively address many of the agricultural issues. Consequently, the farm programs and regulatory issues that existed in 1994 have not yet been fully addressed. In addition, agricultural legislative and regulatory decisions continue to be made without adequate consideration of their impacts on NAFTA trade relations, or for that matter on relations with other countries or blocs (Knutson and others, 2006).

Within U.S. farm policy-making circles, discussion of the progression toward higher levels of policy integration, including customs unions and common markets, raises even higher levels of political sensitivities. This makes their rational consideration extremely difficult. Aside from the political sensitivities, which should not be underestimated, the root cause of NAFTA’s agriculture problem is the lack of NAFTA institutions specifically designated to move in the direction of compatible policies, other than dispute settlement. This very limited function of the NAFTA

Secretariat is described in Raynauld. This institutional deficiency, referred to herein under the rubric of a “weak NAFTA Secretariat,” appears to be characteristic of all U.S. free trade agreements.<sup>1</sup> Remedying this basic problem within the NAFTA accord would require opening the accord to renegotiation, for which there are serious political constraints. However, in the regulatory harmonization/compatibility arena, several weaknesses could be addressed individually or as part of an overall strategy to achieve higher degrees of policy integration without renegotiation of the NAFTA accord. Such an effort is being attempted in the Security and Prosperity Partnership (SPP) accord initiated by President George W. Bush, the progress of which will be evaluated subsequently.

The discussions in this paper emphasize the need and requirements for harmonizing or making regulatory policy more compatible. While it is common to separate discussions of farm program policy from regulatory policy (see for example Barichello, Josling and Sumner, 2005; Green and others, 2006), it is clear that farm subsidies have spillover effects into the regulatory arena because they create tensions that often lead to charges and actions involving dumping and countervailing duty. The resulting increases in tensions can lead to further regulations. In addition, the success of NAFTA in removing tariffs on imports increases protectionist pressures to create SPS and technical barriers to trade.

The economics of these impacts, reactions and interactions are not always well understood. For example, U.S. subsidies for corn and soybeans lead to lower livestock feed prices and increased indirectly subsidized competition, which adversely affects Canadian and Mexican livestock producers. Canadian chicken and milk supply management programs have closed their consumer subsidized markets to supplies from the United States and Mexico. These U.S. feed grain and Canadian livestock programs have complex and often unrecognized impacts that lead to border conflicts and may even extend to fruit, vegetable and nut farmers, hereinafter specialty crops. The result can be the potential for regulatory barriers’ spillovers into both the sanitary and phytosanitary (SPS) and the technical arenas involving livestock and specialty crops. These market distorting impacts have both positive and negative impacts on farmers and on trade, but NAFTA often becomes the scapegoat for any negative effects. This occurs, in part, because of the political sensitivities involved in criticizing farm subsidy programs.

One of these issues in the impending U.S. 2007 Farm Bill debate will be the potential extension of farm subsidy programs to specialty crops. If realized, this development would further exacerbate NAFTA tensions and trade disputes with both Canada and Mexico. All three countries have strong vested interests in specialty crops.

These issues have become even more complex with increased concern about security, food safety, the need to increase control over immigration, and the traditional dependence of agrifood production and processing on migrant labor. These concerns increase populist pressures for both food self sufficiency, increased regulation, and less dependence on trade, with little recognition of the costs to government, efficiency and consumers.

Despite these farm policy and regulatory harmonization issues, agricultural trade, foreign direct investment, greater specialization in areas of comparative advantage, and market integration have sharply increased under NAFTA. During the period, 1991 to 2004, agricultural trade within the region climbed from US\$ 14.0 billion to US\$ 39 billion as agrifood enterprises across North America devoted more attention to an emerging continental market based on complementary consumer preferences. In addition, a burst of foreign direct investment (FDI) in the food and beverage industries of each NAFTA country took place during the first several years following

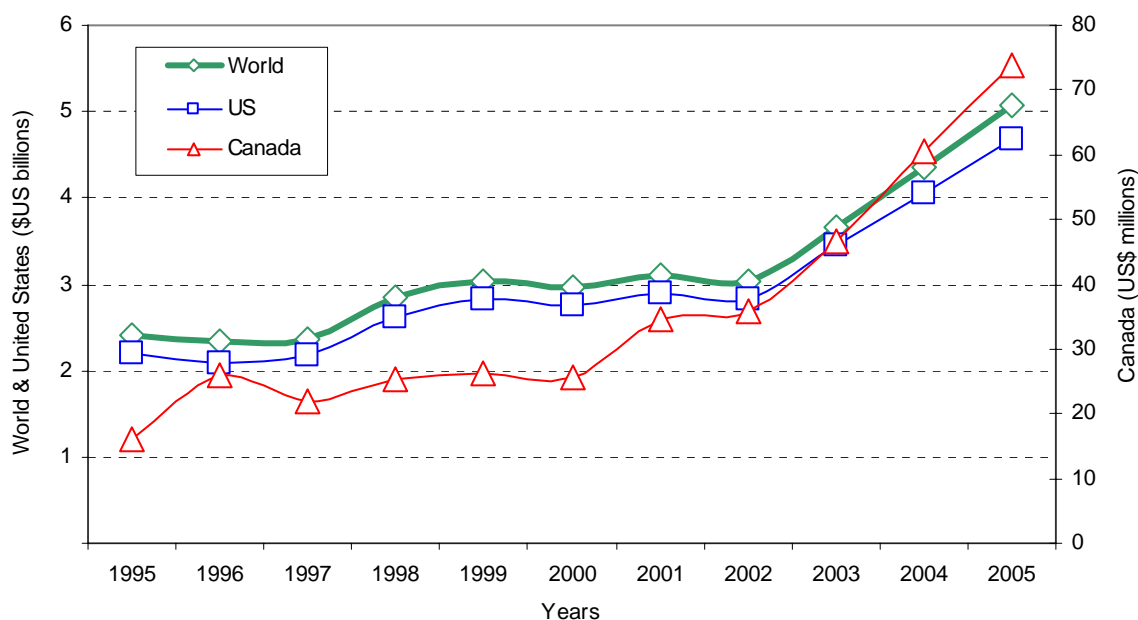
---

<sup>1</sup> While not researched for this paper, it is surmised that the reason for the weak Secretariat lies in political concerns about sovereignty, which may be shared by other countries as well.

NAFTA's implementation as industry took advantage of the opportunity for increased efficiencies and access to expanded expertise and resources. Although this trend appears to have tapered off for the U.S. and Canadian food and beverage sectors, corresponding industries in Mexico continue to attract significant, new inflows of FDI today, some 11 years after NAFTA's inception (Green and others, 2006; Meilke, Rude and Zahnizer, 2007).

According to the FAS/USDA (2006), in 2005, Canada and Mexico were, respectively, the first and second largest export markets for U.S. agricultural products. Exports to the two markets combined were greater than total exports to the next six largest markets. From 1992-2005, the value of U.S. agricultural exports worldwide climbed 46 percent. Over that same period, U.S. farm and food exports to its two NAFTA partners grew by 128 percent. From 1999 to 2005, U.S. farm and food exports to Mexico climbed by US\$ 3.7 billion to US\$ 9.4 billion. At the same time, since 1994, as shown in figure 1, Mexico benefited from a doubling of specialty crop exports to the United States and Canada. Canada has been a steadily growing market for U.S. agriculture under NAFTA and its predecessor CUSTA with U.S. farm and food exports reaching a record US\$ 10.6 billion in 2005, an increase of more than 81 percent since 1990.

**FIGURE 1**  
**MEXICAN HORTICULTURAL EXPORTS, 1995-2005**



Source: Global Trade Information Services, World Trade Atlas.

## **II. Explanation and evaluation of NAFTA efforts to achieve greater regulatory harmonization/compatibility**

---

Agricultural regulatory activities, as treated in this paper, include both SPS and technical regulations. SPS regulations distinguish themselves because they affect the health of humans, animals or plant life. The key issue in determining whether an SPS regulation creates unnecessary barriers to trade involves whether it is based on scientific principles utilizing generally accepted risk assessment techniques and methodologies. Technical barrier to trade (TBT) regulations set standards designed to protect consumers or the environment with the primary issue being whether the regulation is nondiscriminatory to similar goods from any other country and creates unnecessary obstacles to trade.

For either SPS or TBT regulations, the process for setting the standards involves a predominance of scientists from participating countries organized into technical committees that must arrive at a consensus on the specifics of the standard. Both the considerations in arriving at each standard and the standard itself can be highly complex, which requires a concerted and sustained effort by both the scientists, policy analysts, and policy makers. This fact stands out as a major concern for policy analysts and scientists studying the potential for increasing the compatibility/harmonization regulations.

## 1. Global efforts to foster a common regulatory framework

Globalization has resulted in freer movement of people, plants, animals, and their products internationally. As a result, plant and animal disease problems are of a scope, scale, and worldwide impact having no historical precedent. The result is a need for a coordinated risk assessment strategy within NAFTA (Caswell and Sparling, 2005; Sparling and Caswell, 2006).

Four international standard-setting organizations are being utilized by both NAFTA and the World Trade Organization (WTO) to aid in achieving greater regulatory uniformity across countries and trading blocs, thus reducing barriers to trade. The key international organizations, which are the focal point of concern in agriculture, include:

### World Organization for Animal Health (OIE)

OIE (Office International des Epizooties by its previous name's acronym) is the responsible for safeguarding world trade by publishing health standards for international trade in animals and animal products based on veterinary science. The main activity of the OIE is the maintenance of terrestrial and aquatic animal health codes. The aim of the key *Terrestrial Animal Health Code* is to assure the sanitary safety of international trade in terrestrial animals and their products. This is achieved through the detailing of health measures to be used by the veterinary authorities of importing and exporting countries to avoid the transfer of agents pathogenic for animals or humans, while avoiding unjustified sanitary barriers (OIE, 2007a). A key issue in determining the urgency of control measures is whether the animal disease is transmittable to humans, referred to as zoonoses, either from live animals or animal products.

Typically different standards exist for fresh meat than for processed meat because the cooking involved in processing typically kills biological organisms. However, there is uncertainty regarding this issue in cases such as Bovine Spongiform Encephalopathy (BSE or mad cow disease), which is a chronic, degenerative disorder affecting the central nervous system of cattle. There is also concern that BSE may be transmittable to humans as Creutzfeldt-Jakob Disease if certain meat parts of bovines' central nervous system are consumed.

Hazard Analysis and Critical Control Points (HACCP) is a highly recommended science-based biological control and sanitation standard for preventing food borne illnesses. Initially developed for use in processed meats and other manufactured foods, it has since become the food-borne illness, multi-step management control system recommended and often is the compulsory standard for both fresh and processed meats. The basic HACCP steps include (FSIS/USDA, 1999).

- Identifying of all points in the food chain where food-borne illness may originate.
- Determining of the points at which the existence of contamination can be scientifically identified.
- Establishing of biological testing procedures for identifying contamination events based on principles of risk management.
- Establishing of management control procedures for effectively dealing with contamination events including the prevention of the infected products from being consumed.
- Tracing the source of contamination to its origin.
- Eliminating the source of contamination, including steps to prevent future contamination.

HACCP has been recommended for adoption not only by OIE but increasingly by all of the international standard setting organizations that follow. It is increasingly being recommended and

utilized in farm-to-table biological control systems extending from farm production through retail food outlets including retailers, delis, fast-food operators, and restaurants. Its expansion for farm-to-table use throughout NAFTA would be a major step forward in not only reducing food-borne illness, but would also be an important common policy instrument that would serve as a major step in the direction of compatibility if not harmonization of SPS regulations to reduce barriers to trade.

### **Codex Alimentarius Commission (CODEX)**

CODEX develops international food standards for protecting health of the consumers, ensures fair trade practices in the food trade, and promotes coordination of all food standards work undertaken by international governmental and non-governmental organizations. CODEX is one of the main international groups establishing TBT standards for food products. These standards are designed to create greater uniformity in product grading, labeling, packaging, and content, thereby avoiding TBT. A major contemporary issue addressed by CODEX involves how to deal with biotechnology concerns in food, with a current focus on genetically modified organisms (GMO). The food safety activities of CODEX have resulted in increased efforts to coordinate its standard setting process with OIE (CODEX, n.d. and OIE, 2007a).

### **International Plant Protection Convention (IPPC)**

IPPC prevents the spread and introduction of pests of plants and plant products by promoting appropriate phytosanitary measures for their control. IPPC establishes International Standards for Phytosanitary Measures (ISPMs) that are designed to control the spread of plant diseases and pests while maintaining channels of trade that are as open as is feasible. Most plant diseases and pests do not threaten either humans or animals, although they have the potential for adversely affecting food and fiber production, which has implications for food and fiber availability and cost (IPPC, n.d.). In addition, instances of biological contamination of fruits and vegetables, such as spinach, cantaloupe, raspberries and strawberries, has led IPPC to giving greater attention to the application of control measure, such as HACCP, and to working with OIE in their adoption.,

### **International Standard Organization (ISO)**

ISO promotes a free and fair global trading system by providing the underpinning for TBT agreements with quality, technical procedural, safety, and environmental standards. The primary beneficiaries are designed to be consumers, workers, legitimate businesses and the general public.

In contrast with OIE, CODEX, and IPPC, ISO is not specifically mentioned in either the NAFTA or WTO SPS provisions. However, with widespread acceptance of ISO quality management standards and the increased importance of environmental regulations in international agrifood trade, they have become very important standards that need explicit recognition by regulators.

For food industries the key ISO standards are ISO 9000, which has become an international reference for meeting generic quality management requirements in business-to-business dealings. This includes achieving increased uniformity in meeting the customer's quality requirements, in meeting applicable regulatory requirements, enhancing customer satisfaction, ensuring food safety, and in achieving continual improvement of its performance in pursuit of these objectives. ISO 14000 is designed to assist businesses in meeting their environmental challenges, while not restraining trade. Specific attention is given to establishing uniform international standards designed to minimize harmful effects on the environment caused by business activities, and to achieving continual improvement of environmental performance (ISO, n.d.).

Where food safety and plant or animal diseases are concerned, there are five key components in developing a control strategy consistent with the nature, severity and urgency of the threat that play an important role in all standards, including:

- **Risk assessment** determines the nature, severity and urgency of the threat in terms of statistical probabilities. Both the urgency of action and the provisions of the standard are determined by whether the threat is potentially transmittable to humans currently or in the future as a result, for example, of mutations as is the case for avian influenza. For plant diseases and pests, a key consideration involves the potential impacts on production, productivity, and product quality. For both plants and animals, the means and rapidity of transmission are key concerns.
- **Surveillance** standards are included for diseases and pests where the threat is considered to be severe. These standards set tolerance levels and provide a trigger for determining the point at which a country is listed as having a disease or pest and more, intensive and costly control procedures are initiated.
- **Testing** standards impose substantial costs in terms of the cost of performing the test and also affect the efficiency of the performing production and processing operations. In addition, testing the population is not often feasible because the product must be destroyed to perform the test. As a result, testing standards are often specified in terms of statistical sampling.
- **Quarantine** standards reflect the results of risk assessment, surveillance and testing. They reflect the severity of the threat and specify the geographic area covered by it. Effective quarantine becomes a key to reopening trade and eventual eradication.
- **Traceback** standards are becoming increasingly common with the realization that eradication of a disease requires the ability to trace a product to its origin, which increasingly appears to be at the farm level. While food processors and retailers have adjusted to the need for tractability, often voluntarily, as a means to meet ISO 9000 and 14000 standards, farmers have stiffly resisted. In addition, voluntary systems differ in their details making compliance confusing and difficult.

The similarity of these components to the steps in implementing HACCP are readily apparent and no accident. Like HACCP, their adoption are vital steps in reducing the incidence of SPS barriers to trade.

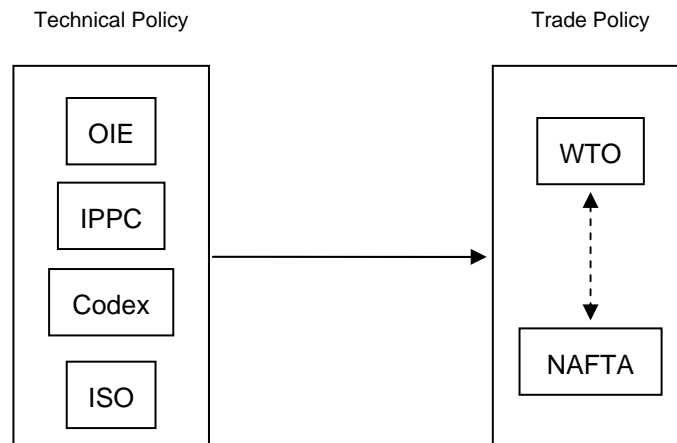
Each of the four international standard setting organizations relates directly to the WTO and NAFTA in that the standards set by them are recognized as the best source of science-based information in arriving at rulings relating to the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (GATT, 1994a; WTO, 1998) and the WTO Agreement on Technical Barriers to Trade (TBT) (GATT, 1994b). Like the WTO, the NAFTA has chapters that specify measures relating to both SPS and TBT (NAFTA, 1994).

The relationship of these technical standard setting organizations to the WTO and the NAFTA is depicted in figure 2. However, the relationships are considerably looser than might be implied by figure 2 for the following reasons:

- All NAFTA countries may not adopt a standard. While each of the NAFTA countries participates in each of the four standard-setting organizations, its adherence to standards set by any of the organizations is voluntary. This is less of a problem for plant diseases, their pests, and related products because of the standard setting and coordination setting activities of the North American Plant Protection Organization (NAPPO). Unfortunately, for animals and their products no comparably standard setting organization exists.

- All NAFTA countries may not have the same standards because they do not agree with the science contained in the international standard. Not agreeing with the science involved in setting a standard may be a result of not having participated in the standard setting process. Discussion by the authors with a major U.S. standard setting government agency indicated that increased realization of the importance of standards to trade has resulted higher levels of involvement in the international organizations' standard-setting process. However, getting a standard changed once it has been agreed to is more difficult than weighing in when it is being negotiated.
- Standards may be set by different agencies having different regulatory jurisdiction. For example, in the United States the Food and Drug Administration (FDA), the Environmental Protection Agency (EPA), and the USDA (different executive cabinet or independent regulatory agencies) have jurisdiction over various aspects of food safety. Within USDA there are at least three different agencies that are involved directly with standard setting and one other having international trade policy jurisdiction. These four agencies report to the Secretary of Agriculture through their respective agency-head Administrators to three different Under Secretaries, who may not agree on the appropriate action. Each USDA agency has its own bureaucracy supported by vested interest groups. Standards may either not be applied/exist, or the regulatory agency may choose not to adhere to the relevant international standard because, for example, it is not in the interest of the affected agency's vested interests to have a standard, the existing standard may have existed for a number of years and become institutionalized with vested interests, or the agency's perspective on what constitutes sound science may be different than that of the relevant international organization.

**FIGURE 2**  
**RELATION BETWEEN INTERNATIONAL STANDARD SETTING ORGANIZATIONS,**  
**WTO AND NAFTA**



Source: prepared by the Author.

The SPS and TBT related governmental organization structure appear to be equally decentralized and complex in the Canada. In contrast with the United States, Canada has a single food inspection agency, the Canadian Food Inspection Agency, a Pest Management Regulatory Agency that regulates pesticides. The agriculture standard setting process, is more decentralized than the United States with a division, for example, between the setting of grain standards by the Canadian Grain Commission and that for other products. In addition, the provinces become more involved in setting standards than in the United States.

In Mexico, the division of responsibility for regulations affective SPS is between SAGARPA and the Health Department (Secretaria de Salud). SAGARPA emphasizes prevention, surveillance and certification of disease free areas. It also certifies that products and commodities for export are compliant with the destination country's requirements for SPS requirements for imports. International organizations (OIE, IPPC and CODEX) play an important role in the setting of standards for both plants, animals and their products. The Health Department becomes involved when issues of diseases and contaminants affecting health become involved. For plants, substantial emphasis is placed on standard setting and coordination through NAPPO. As noted previously, no comparable organization exists for animal SPS issues.

In all three countries, the agricultural vested interests are equally decentralized. They do not have the same regulatory interests because of comparative and competitive advantage differences across the three NAFTA countries.

To help coordinate SPS and TBT regulations, NAFTA established a set of trilateral technical committees and working groups. The SPS area is overseen by the Committee on SPS Measures and TBT is overseen by the Committee on Standards-Related Measures. For both SPS and TBT, a series of technical subcommittees has been formed.

Green and others (2006) have done an excellent job of describing and analyzing both the theory and reality of the operation of the technical committee process under NAFTA. For each of the technical committees and working groups, each country was to designate a national chair and its other representatives. The committee or working group then is supposed to develop a mutual work plan to achieve regulatory uniformity and address issues, report progress, and ultimately agree on standards. The work plan, progress reports and agreed upon standards are to be made generally available and reviewed by country's vested interests with opportunity for comment according to each country's administrative procedures requirements. These functions were to be performed in a transparent setting with all three countries participating on an equitable basis in accordance with their interests.

In reality, Green and others (2006) described the committee and working group system as operating quite different than theoretically anticipated. They found that many regulatory coordination activities have taken place outside of the committees and working groups; that regular interaction with national bureaucracies was required; that issues were frequently handled on a bilateral as opposed to a trilateral basis; that reports were not always made; and that over time meetings became less frequent (pp. 12-13).

The author's efforts to recover copies of work plans and reports met with limited success, suggesting that committee and working group activities were decentralized, were not of high priority, and/or the system was not as transparent as anticipated by the NAFTA agreement. While this process is supposed to be strictly science-based, along the way higher level policy makers get involved in controversial issues and make adjustments. All of these deficiencies were found to be evident in one or more of the case examples that follow.

In March 2005, the Security and Prosperity Partnership of North America (SPP) was launched in March of 2005 as a trilateral effort to increase security and enhance prosperity among the United States, Canada and Mexico through greater cooperation and information sharing. While this initiative is considerably broader than agriculture, two SPP initiatives are designed to ensure the safety and security of the food supply thus relating directly SPS regulations. These include:

- To ensure food safety while facilitating trade, a Food Safety Coordinating Task Force was formed and in 2006 reported was developing a prioritized list of standards to compare for similarities, differences, and scientific bases for the differences. These efforts were designed to facilitate the development of North American standards and, as appropriate, the removal of differences in standards.

- To adopt an integrated and comprehensive approach that incorporates animal and public health aspects in managing avian influenza (AI) and influenza pandemics including sharing information among our governments in an open, timely and transparent manner; to ensure that the imposition and removal of veterinary or public health measures on the movement of people, animals and goods will not be more restrictive or maintained longer than necessary to achieve the veterinary or public health objective; and to base our actions on the best available science and evidence-based decision-making.

At the time this paper was written the following observations appear to be appropriate:

- No additional resources were provided for addressing SPP issues. Agencies already strapped for manpower, unable to fill positions and having insufficient travel funds were either limited in their ability to react or had to drain resources from other activities.
- As inevitable happens with new administrative initiatives the flurry of initial claims of accomplishments were being initiated prior to the SPP was announced. In particular, initiatives with regard to avian influenza had been pursued previously, in part, as a result of the experience with both BSE and AI. However, SPP may have provided increased impetus for pursuing multinational and multi-agency coordination.
- It is typical with Presidential or Ministerial initiatives to begin with a flurry of activity but to lose their steam and rather rapidly become impotent in spite of their accomplishment reporting requirements. This happened previously in the Partnership for Prosperity (P4P) Presidential Initiative, which some assert that SPP was intended to reinvigorate with a security twist.
- Both the P4P and SPP initiatives were very broad, covering many problems and government agencies. Such broad initiatives can logically be expected to be less effective than specifically targeted initiatives for which progress and accountability is easier to pursue.
- Reports indicate that Canada was more aggressive than either the United States or Mexico in seeking longer-term solutions that would require substantial investments, such as joint testing and training laboratories for which no money was readily available.
- In summary, it appears the reported SPP activities may have occurred without this Presidential initiative, although it is possible that some of these actions occurred sooner.

## **2. Case examples of NAFTA regulatory harmonization efforts**

Many examples could be discussed to illustrate the successes and problems associated with the handling of SPS and TBT issues under NAFTA. This discussion includes examples from animals and plants. For animals, particular attention is focused on the handling of BSE because it has been extensively studied and best illustrates the specific needs for improvement in current SPS regulatory systems. For plants, a broader set of examples is addressed but in less detail than for BSE. In each case, the impacts on trade are discussed. The section ends with general conclusions covering the experiences with both plants and animals.

## 2.1 Sanitary regulations

### **Bovine Spongiform Encephalopathy (BSE or mad cow disease)**

Bovine Spongiform Encephalopathy (BSE or mad cow disease) is a chronic, degenerative disorder affecting the central nervous system of cattle over 30 months old. According to the U.S. FDA, “The exact cause of BSE is not known but it is generally accepted by the scientific community that the likely cause is infectious forms of a type of protein, prions, normally found in animals cause BSE. In cattle with BSE, these abnormal prions initially occur in the small intestines and tonsils, and are found in central nervous tissues, such as the brain and spinal cord, and other tissues of infected animals experiencing later stages of the disease” (FDA/HHS, 2004).

BSE is known to be transmitted among cattle that consume rendered meat products, such as bone meal or meat scraps, of infected animals. The human variant of BSE is Creutzfeldt-Jakob Disease (CJDv). There is evidence that BSE may be transmittable to humans by consuming parts of bovines’ nervous system, regardless of whether they are cooked. While the symptom of BSE is animals’ difficulty standing, referred to as a “downed animal,” confirmation of the disease requires killing the animal and sending the head for costly testing to a very limited number of central laboratories.

BSE first emerged in the early 1980s in the European Union (EU). At its peak in 1992 and 1993, the OIE reports that over 35,000 cases of BSE were reported in the United Kingdom alone (OIE, 2007b). In the current decade, 25 countries reported at least one case of BSE in cattle on farms (OIE, 2007c).<sup>2</sup> While the number of cases of BSE has declined sharply, it continues to be a major threat with many unknowns regarding the disease and is a significant and effective SPS barrier to trade.

Despite a history of experience in the European Union with BSE and its regulatory implications throughout the 1990s, the NAFTA countries appear to have been completely unprepared to deal with the consequences of its discovery in Canada and the United States. The details of the NAFTA experience have been extensively analyzed by Caswell and Sparling (2005) and Sparling and Caswell (2006), which served as the primary basis for this discussion.

Prior to the discovery of BSE in Canada in 2003, beef was cited as a prime example of the positive impacts of free trade and almost complete market integration across NAFTA (Doan and others, 2005; Caswell and Sparling, 2005). In reality, this was a bit of an exaggeration. Open borders were limited largely to the beef meat trade between the United States and Canada, cattle moving from Canada to U.S. packing plants, and to the Mexico-U.S. cattle trade.

However, the openness of the borders changed abruptly in 2003 with the U.S. closing its border to trade with Canada in both beef meat and cattle. Mexico likewise closed its border to Canadian beef meat, as did several other countries. Canadian beef prices fell more than 50 percent, while U.S. prices rose to fill the demand from western U.S. markets typically served by Canada (Caswell and Sparling, 2005).

The disruptions created by the Canadian event were compounded when BSE was confirmed in the United States on December 23, 2003, with the effect of closing its export markets for cattle and beef products. While steps consistent with the OIE minimum risk guidelines were taken within NAFTA to resume trade in boxed beef meat trade from cattle less than 30 months old, this did not happen with the rest of the world. Recently beef meat markets have been opened to the important Korean and Japanese markets, although the specific arrangements have proven to be tenuous.

---

<sup>2</sup> Many more countries may have unreported cases of BSE because they do not have surveillance and testing systems.

In accessing the reactions of U.S. and Canadian regulators, Caswell and Sparling (2005) found several flaws in their regulatory system. They concluded that there were major weaknesses in animal tracing systems required to track the affected cows to their source, to tracing offspring and cohorts. In addition, tracking feed sources for rendered beef byproducts proved time consuming, laborious, and in the end not definitive. Canada has beef tracking deficiencies with a mandatory beef traceback system extending to a farm level animal identification system. The establishment of a comparable system in the United States remains entangled in political resistance fostered largely by cattle ranchers. A principal antagonist has been the growing R-CALF cattle ranchers' organization (Ranchers-Cattlemen Action Legal Fund), which has traditionally been opposed to free trade and market integration in the beef and cattle trade.

Caswell and Sparling (2005) also found inadequacies in the U.S. and Canadian risk management systems; an inadequate proportion of animals tested; inadequate testing capabilities requiring samples be sent to the European Union for testing; and a lack of coordinated, transparent, harmonized policies, and regulatory programs.

There are some aspects of the BSE that appear to not have achieved adequate attention. Derivative forms of BSE exist as scrapies in sheep and chronic wasting disease in other ruminants including deer, elk, antelope and buffalo. In the 1990s, the United Kingdom slaughtered hundreds of sheep found to have scrapies because of its link with BSE. While hunters were encouraged to have animals tested for Chronic Wasting Disease (CWD), the migratory nature of wildlife makes a trilateral program of research and testing highly desirable. It is clear that not enough is known about either BSE or these related forms of the malady.

It is also apparent from the Caswell and Sparling (2005) analysis that BSE was treated as a bilateral concern of Canada and the United States as opposed to a trilateral NAFTA problem. This was and is the case despite the large number of cattle that move from Mexico into southwest U.S. feedlots. Consistent with this conclusion is the lack of transparent evidence that NAFTA technical committees and working groups were involved with BSE decisions. In fact, the preponderance of the evidence suggests that the handling of the BSE issue rapidly rose to the top administrative levels of the USDA and of Agriculture and Agri-Food Canada (Ag Canada).

The BSE experience was a wakeup call for concern about other animal diseases that might threaten health, animal production, and trade, although the focal point of concern was on how well individual countries were equipped to deal with the issues as opposed to the need for improved NAFTA capabilities and coordination systems. The principle disease concerns include foot and mouth disease and avian influenza.

### **Foot-and-Mouth Disease (FMD)**

Foot-and-Mouth Disease (FMD) is a severe, highly communicable, viral disease of cattle, sheep, goats, deer, and swine. FMD is not recognized as a zoonotic disease. The disease is characterized by fever and blister-like lesions followed by erosions on the tongue and lips, in the mouth, on the teats and between the hooves. Many affected animals recover, but the disease leaves them debilitated. It causes severe losses in the production of meat and milk. Because it spreads widely and rapidly, it has grave economic as well as clinical consequences. FMD is one of the animal diseases that livestock owners dread most (APHIS/USDA, 2002).

Various types of FMD virus have been identified in Africa, South America, Asia and part of Europe (APHIS/USDA, 2002). The NAFTA countries have been free of FMD since 1929 in the United States, 1952 in Canada and 1954 in Mexico, when the last of outbreaks were eradicated in each country. While the disease is widespread around the world; North America, Central America, Australia, New Zealand, Chile and some other countries in Europe also are considered free of FMD.

FMD is one of the most difficult animal infections to control. Because the disease occurs in many parts of the world, there is always a chance of its accidental introduction into North America. It may be spread by animals, people or materials that bring the virus into physical contact with susceptible animals. An outbreak can occur when people wearing contaminated clothes or footwear or using contaminated equipment pass the virus to susceptible animals; animals carrying the virus are introduced into susceptible herds; contaminated facilities are used to hold susceptible animals; or contaminated vehicles are used to move susceptible animals. Additional means of transmission include feeding raw or improperly cooked garbage containing infected meat or animal products to susceptible animals; exposing susceptible animals to hay, feedstuffs, hides, water or biologics contaminated with the virus; or inseminated semen into a susceptible cow is from an infected bull (APHIS/USDA, 2002).

Within NAFTA, strategies for detecting and preventing the spread of FMD are on an individual country basis, although the BSE event has fostered greater interest in developing a coordinated strategy. Clearly, the discovery of a case of FMD in any of the NAFTA countries would hold the potential of spreading the disease to the other countries and for substantial trade disruption.

### **Avian influenza**

Avian influenza (AI) is an infectious disease of birds caused by type A strains of the influenza virus. Migratory birds are the natural reservoir of avian influenza viruses, and these birds are also the most resistant to infection. Domestic poultry, including chickens and turkeys, are particularly susceptible to epidemics of rapidly spreading AI.

AI may be of either low or high pathogen strains. Recent research has shown that viruses of low pathogenicity, after circulation for sometimes short periods in a poultry population, can mutate into highly pathogenic viruses (WHO, 2006). Highly pathogenic AI has the ability to be transmitted to humans by coming in direct contact with infected birds, with a high probability of being fatal to both the birds and humans. High pathogen AI is known to have spread from Asia to many European and non-European countries (APHIS/USDA, 2006).

The quarantine of infected farms and destruction of infected or potentially exposed flocks in a region are standard control measures aimed at preventing spread to other farms and potential expansion of the virus to the country's entire poultry population. Apart from being highly contagious, avian influenza viruses are readily transmitted from farm to farm by mechanical means, such as by contaminated equipment, vehicles, feed, cages or clothing. Highly pathogenic viruses can survive for long periods in the environment, especially when temperatures are low. Stringent sanitary measures on farms can, however, confer some degree of protection. In the absence of prompt control measures backed by good surveillance, epidemics can last for years (WHO, 2006).

The United States and Mexico have had considerable experience in implementing AI quarantine measures on low pathogen forms, an excellent description of which is contained in Moore and Morgan (2006). These measures include identification and containment of the affected flocks and region affected by the disease, immediate depopulation, controlled depopulation over time, or by strict biosecurity with vaccination, depending on the type of flocks affected and the unique circumstances of the outbreak.

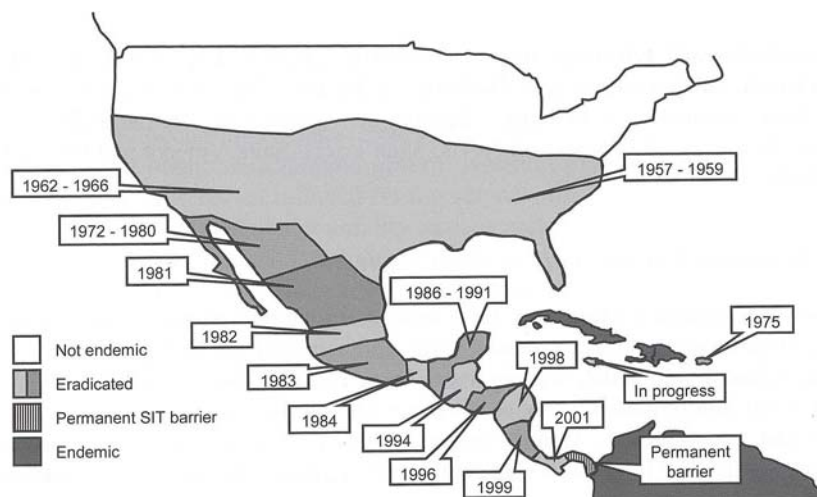
U.S. outbreaks in 2004 initially caused countrywide bans on all poultry meat by a number of important U.S. export markets including Mexico, which has continued to restrict imports from 11 Texas counties. Aside from the fact that Mexico is an important market for U.S. poultry and has been the subject of dumping charges, there is no clear explanation for this continued SPS restriction. Canada has not imposed U.S. export restriction, but its market is tightly controlled by its supply management farm program.

While AI has been transmitted from birds to humans by direct contact and causes human death, it has not yet demonstrated the ability to move from one human to another. However, the avian influenza virus has the ability to constantly mutate. This poses a clear danger that a strain may develop that is transmittable to humans (WHO, 2006). This danger caused the Bush administration to place a national priority on developing a National Strategy for Pandemic Influenza Preparedness and Response in November 2005 to deal with an outbreak in the United States of AI strains that are transmittable to humans (Executive Office of the President, 2006). While outbreaks of AI have already been isolated in U.S. flocks without seriously disrupting trade with Mexico, the potential for the development of strains that are transmittable to humans presents an entirely different set of problems that would need to be addressed on a NAFTA-wide basis. The White House six-month implementation status report does not mention an intention of developing a NAFTA strategy for dealing with this issue (Executive Office of the President, 2006).

### Screwworm Eradication Program

The Screwworm Eradication Program (SEP) is an example of successful SPS animal agriculture cooperation with Mexico. The screwworm fly is a parasite that affects warm-blooded animals with significant adverse economic effects on the southern portion of livestock sectors of North America.<sup>3</sup> Map 1 indicates the progression of effective screwworm eradication efforts from the central United States through Panama. While the United States has been free of the screwworm fly since 1947, in order to avoid a reinfestation, it initiated an eradication program in 1957 through a State-Federal cooperative agreement. The importance of working with Mexico was recognized, and a collaborative agreement was reached through the Mexico-United States Commission for the Eradication of Screwworms to continue the eradication effort into Mexico. In 1966, the U.S. Congress amended the 1947 Act that supported the FMD collaborative effort with Mexico to include the screwworm eradication plan. This plan established an expense ratio of 80 percent United States and 20 percent Mexico to fund the program activities. The project included the establishment of a sterile-fly plant in Chiapas, Mexico. In February 11, 1991, Mexico was officially declared free of screwworm (Wyss, 2000).

MAP 1  
PROGRESSION OF SCREWWORM ERADICATION PROGRAM IN THE AMERICAS



Source: Vargas-Terán and others (2005) (Note: This is copyrighted material and it is included just as an illustration of a map that is being prepared by the authors).

<sup>3</sup> The screwworm fly appears to be limited by climatic conditions in its distribution north, which stops south of Canada.

This effort has been further continued into Central America with similar collaborative agreements with the countries in the region. Under these agreements, Guatemala and Belize were declared free of screwworm in 1994, El Salvador in 1995, Honduras in 1996, Nicaragua in 1999, Costa Rica in 2000 and North of the Panama Canal in the early 2000s (Galvin and Wyss, 1990 and Wyss, 2000). Map 1 indicates the period of the eradication effort for each country. This is important because it not only indicates that eradication programs not only take time but greatly benefit from cooperative efforts.

The annual economic benefits from this program to producers have been estimated as high as US\$ 796 million for the United States, US\$ 292 million for Mexico, and US\$ 77.9 million for Central America. Estimations indicate that if this effort was to be successfully implemented in South America, the annual benefits would reach US\$ 3.592 billion (Vargas-Terán and others, 2005).

## **2.2 Phytosanitary regulations**

Although there are indications of progress, there are also problems in rationalizing plant SPS regulations and of treating these issues on a cooperative basis. This is the case despite the absence of human health implications. The following provides case examples from avocados, potatoes and wheat.

### **Avocados**

Hass avocados were restricted in entering the United States from Mexico from 1914 through 1997. Then imports initially were allowed only to the Northeast winter season market. Orden (2004) provides an excellent analysis of the avocado SPS issue and a chronology of the negotiations leading to an opening of this market to what now approaches free trade.

Orden (2004) notes that while there were attempts to open the U.S. market to avocados in the 1970s and the 1980s, they were effectively foiled by California vested interests until the enactment of the NAFTA agreement. Even then, it took four years of bilateral NAFTA negotiations to overcome strong political opposition. While there were avocado pest risks that merited resolution, they were easily and effectively overcome utilizing pest-risk mitigation strategies applied from pre-harvest through shipping. In retrospect the resulting expansion in demand was considerably larger than expected to the benefit of consumers and Mexican producers, with less market loss to California producers than expected.

While it was with considerable unnecessary delay, avocados provide an example of a positive SPS outcome utilizing the NAFTA accord as a justification for action. This experience along with substantially expanded direct foreign investment by the U.S. industry in Mexico helps to explain why the U.S. market has become essentially open to Mexican produce/specialty crops. The U.S. fruit and vegetable industry has demonstrated great ability to resist, but then adjust to freer trade and increased competition from Mexico and Chile. This has been accomplished by sharply accelerated U.S. producer investment in the lower cost Mexican industry. There are cases, such as melons and onions, where families expanded their operations to Mexico (Peterson, 2000). The same has happened in Chile.

### **Potato wart**

In the fall of 2000, potato wart was found in some potatoes that were being harvested on Prince Edward Island, Canada (MacDonald, 2004). This discovery was voluntarily reported to local Canadian Food Inspection Agency (CFIA), personnel; and after the disease was confirmed, CFIA officials duly notified their USDA counterparts, all of which took one week. Then the process hit a snag with Prince Edward Island potatoes being shut out of the U.S. market during the shipping

season until the spring of 2001. This was the case despite sound scientific evidence showing that the disease was confined to a small corner of a single field of processing potatoes.

It was clear by fall 2000, that safeguards could be put in place so that trade could safely resume. However, a strong U.S. potato industry lobbying effort stalled the process until most of the 2000-2001 marketing season had finished. The fact that the 2000 North American stocks were high and prices were low likely contributed to the U.S. potato industry lobby effort. After long and arduous negotiations with the U.S. and Canadian officials, the market was finally opened.

The potato wart example indicates that there is a high level of urgency associated with handling trade disputes when perishable crops are involved. Like avocados, it also indicates that the vested interests of industry play a key role in resolving SPS issues.

### **Karnal bunt**

Karnal bunt of wheat is a disease caused by a smut fungus that was first discovered in 1931 in Karnal, India. It is known to exist in parts of Mexico and in the United States. As a result of its known existence in Mexico, the United States had prohibited imports of wheat from Mexico. The following chronicle of events by Riemenschneider (2004) demonstrates the effective handling of this SPS issue and provided important lessons for future SPS events. In the early 1990s, Mexico took quarantine action to prevent Karnal bunt from moving into the disease-free Mexicali Valley area as a means of preventing its spread and opening its export markets. In 1996, Karnal bunt was discovered in the Southwest United States. While the United States immediately quarantined the affected areas, several countries, including Mexico and Canada, closed their borders to U.S. wheat. Pending demonstration that the USDA had control of the situation, this action meant that no wheat was being shipped from the affected area. Within a month, the U.S. wheat export issue with Canada and Mexico was resolved, and the import embargo by these NAFTA countries was lifted. In addition, following the demonstration that the Mexicali Valley was free of Karnal bunt, it was opened to U.S. imports.

The key lessons from the Karnal bunt experience expressed by Riemenschneider (2004), a USDA official, include:

- Immediate quarantine of the affected areas was critical to Mexico and Canada, although it took more time to open other markets.
- There was no substitute for sound scientific data.
- Openness and communication paid off.
- Good lines of communication and working relationships were vital.

It is interesting and important to note that subsequently these lessons have not been universally understood and applied in dealing with NAFTA issues.

The following conclusions may be drawn from these SPS regulatory examples from plants and animals:

- Regulatory issues frequently are not dealt with on a trilateral basis. Even though some issues may be more efficiently handled bilaterally, trilateral involvement would strengthen NAFTA.
- Substantial time is often required to deal with regulatory issues.
- There is little evidence that committees and working groups are consistently utilized as contemplated by the NAFTA accord, although NAFTA has been utilized in some cases as a lever for negotiation. Controversial issues rise rapidly to levels near the Secretary or the Minister.

- The meritorious lessons enunciated for success in dealing with Karnal bunt disease have not been consistently followed.
- Vested interests are important disruptive forces in forestalling effective regulatory decisions.

### **III. Summary, conclusions, challenges, and approaches for developing a cohesive NAFTA regulatory policy**

---

#### **1. Where NAFTA stands with regard to regulatory coordination**

The main conclusion of this analysis is that, while there is ample evidence of NAFTA's success in achieving increased trade and market integration, there is little evidence of continued and substantial progress in the direction of harmonization and compatibility, either in the area of farm programs or regulations relating to agriculture (Knutson and Ochoa, 2004). This conclusion has not changed significantly since 2004 despite the SPP initiative. This appears to be the result of two principal factors:

- The weak NAFTA Secretariat is limited to the single function of dispute settlement. While the agreement provides for the establishment of institutions such as technical committees and working groups to deal with the issues raised by SPS barriers to trade and TBT, there is no mechanism for exercising oversight in seeing that these institutions are operating and effectively performing their functions; that NAFTA issues (other than dispute settlement) are addressed trilaterally; and that the countries are cooperating.

This reality, along with the fact that there exists no authorization for moving in the direction of harmonizing farm policies, means that NAFTA is severely limited in its ability to deal with agriculture issues.

The weak Secretariat is a basic weakness of the agreement itself. However, the weak Secretariat creates a political environment where the United States is clearly dominant—it can either get its way within the agreement or choose to operate outside the agreement on a bilateral basis.<sup>4</sup> Addressing the weak Secretariat issue would require modifying the NAFTA agreement, which at least the current U.S. administration does not appear to be inclined to do. The Bush administration has signed several FTAs, each having a weak Secretariat. In each of these agreements, the United States is the dominant partner.

In the evolving post-2007 election environment, it will take strong presidential leadership to reverse this policy position, which appears to be supported by the U.S. electorate.

- The second factor discouraging moving in the direction of greater harmonization reflects a lack of commitment to trilateral toward greater compatibility and eventual harmonization of regulations. NAFTA is inherently a voluntary agreement requiring cooperative, concerted action to be effective (Maggi and Morelli, 2006).<sup>5</sup> This does not prevent moving forward to create a common framework that would be decisive in the direction of increased compatibility if not harmonization policies if there is a United States will to move NAFTA forward toward freer agricultural trade. The actions required to move forward in this environment are detailed in the remainder of this section.

## 2. Areas where trade barriers can be reduced

There is little doubt that the regulatory issues, of the type discussed in this paper, that have the potential for seriously impeding NAFTA trade will become more important in the future. This is inherent in globalization, and policy makers are not prepared to deal with them on a NAFTA trilateral basis, as history demonstrates. Specific current and prospective areas requiring attention include:

- Expansion and uniform adoption of HACCP principles and procedures throughout the food chain. The first step in this direction involves increased training of officials in ministries of Health, Agriculture and Trade to understand the benefits of expanded and uniform HACCP polices to farmers, consumers and the general economy. A second and simultaneously there needs to be professional training of veterinarians, microbiologists and food scientists needed to implement HACCP. A third step involves the construction of laboratories, preferably jointly staffed and administered relevant agencies in the NAFTA countries. Such laboratories could become the base for pursuing NAFTA-wide research, technical assistance and training on a wide range of SPS, food safety and food security issues.

---

<sup>4</sup> In the case of farm policy, the United States and Canada arguably operate outside the agreement, ignoring the spirit of NAFTA. Mexico is left in a position of trying to keep up with U.S. subsidies, which most directly affect them. This has been accomplished in specialty crops, where Mexico has a comparative advantage. In corn, where they are at a comparative disadvantage, small farmers have been substantial losers, although the Mexican government has done little to facilitate adjustment.

<sup>5</sup> Although Maggi and Morelli (2006) do not appear to directly address the NAFTA issue, their article clearly demonstrates the nature of the problem in voluntary international organizations.

- Dealing with an avian influenza strain that is transmittable among humans requires a NAFTA strategy. Even without globalization, it is folly to think that this issue can be effectively addressed on other than a North American basis when it is recalled that World Health Organization (WHO) identified waterfowl as a primary carrier.
- Given the nature of the live animal markets and the movement of animals across North America, it is likely that under a comprehensive testing program, BSE may be discovered in Mexico. While much was learned from cooperation between the United States and Canada in dealing with the BSE issue, little or nothing has been done to put Mexico in a position where it can effectively deal with this issue. Trilateral harmonization is still a major need required to deal with BSE.
- Many plant and animal diseases have a history of moving from tropical areas through North America. For example, an unknown number of Mexican cattle have their origin in the Central American countries and to the south where Brucellosis, swine fever, and other pests and diseases are neither monitored nor controlled. It is in the interest of both the United States and Canada to deal with such issues in Mexico before they cross the border. The Dominican Republic - Central America Free Trade Agreement (CAFTA) provides an opportunity for extending a concerted pest and disease control policy to the south.
- Organically produced agricultural products are becoming more important and standards differ across the NAFTA countries. While neither SPS nor TBT have yet been encountered, they almost certainly will as this market continues to grow. Trilateral cooperation in fostering regulatory uniformity should be pursued. The USDA should exercise leadership in bringing organic interests from the NAFTA countries together at an early stage of the deliberation. In so doing, the role of science could be a serious and contentious issue that will need to be resolved.
- Many of these diseases and pests have hosts in migratory wildlife. This means of transmission has been little studied with virtually no attention given to control methods. In addition, wildlife in the United States, Canada and Mexico have diseases that are potentially transmittable to domesticated animals and even humans. Brucellosis and Chronic Wasting Disease are known to exist in deer, elk, antelope, sheep and buffalo, which regularly migrate across NAFTA borders.
- Many of the same challenges that exist in animal agriculture are also present in plants and related pests. They mutate and develop resistance to pesticides. Plant diseases are transmitted geographically with wind, pests and migratory wildlife. They also may be introduced into the NAFTA countries by people who illegally, perhaps unknowingly, bring them with them in traveling globally.
- The global threat of terrorism greatly expanded the potential for intentional and rapid transition of diseases and pests. The fact that the 9/11 terrorists apparently had contemplated using crop dusting airplanes to wreak havoc on the United States should not go unnoticed by NAFTA agricultural regulators.
- Last but not least, there is almost a complete lack of policy analysis when it comes to SPS issues, the strength of NAFTA as an institution as it relates to agrifood issues. Were it not for the efforts of the North American Agriculture and Agrifood Consortium (NAAMIC) and its predecessor (PDIC), there would be virtually no policy analysis pointing out the need for change. In this matter, not only does NAFTA need policy analysis capabilities, but each Ministry and the related regulatory agencies have an obligation to support NAFTA policy analysis both internally and in universities.

### **3. Challenges to removing regulatory differences**

Past experience suggests that policy makers have not been inclined to deal with such issues on a trilateral basis. It may be argued that trilateral treatment may not have been necessary to deal with some of the threats, such as potato wart or U.S. avocado imports. However, the nature of the itemized future threats suggests that these challenges can be more effectively dealt with, and trade can be more effectively protected if strengthened national efforts by each of the NAFTA countries are combined with cooperative trilateral NAFTA approaches.

If the United States were to take the leadership in creating a cooperative trilateral NAFTA, it would be less likely to be viewed as the NAFTA policy dictator that always operates in its own interest and gets its own way. This requires a basic change in attitude as well as strategy and tactics.

While the views of vested interests need to be considered, it must be remembered by them and by the policy makers who must listen to them that SPS and TBT regulations are to be determined by science. If NAFTA governments make science-based policy regulatory rule very clear, which the United States has clearly advocated internationally, the vested interests will be put on notice that they need to give greater attention to science and adjusting their operations to it. The NAFTA countries and their agrifood industries will be more competitive over the long run as a result of this strategy.

### **4. Approaches/mechanisms to ensure greater regulatory coordination**

Specific actions and strategies for accomplishing greater NAFTA regulatory coordination include:

- Each country should appoint a ministerial level agriculture focal point for NAFTA coordination. This individual should be the voice for NAFTA in ministry decisions affecting other NAFTA countries. This includes a prime responsibility for seeing, to the extent possible, that issues affecting NAFTA are treated on a trilateral basis. It includes seeing that the technical committees and working groups are formed and operating consistent with the provisions of the NAFTA agreement. These three individuals should be the focal point for encouraging the development of and advocating common NAFTA positions before international organizations such as WTO, OIE, CODEX, IPPC and ISO.
- Each country should make a concerted effort to make its agrifood regulations consistent with the related international organizations (WTO, OIE, CODEX, IPPC and ISO). In so doing, each country should insist that there be coordination in the standards promulgated by these international organizations.
- Joint laboratories should be established for risk assessment, research and training related to NAFTA regulatory issues. Ideally, such laboratories should include an economic analysis division responsible for tracking the progress of SPS issues in the NAFTA region and for providing input into dispute settlement deliberations.
- Special effort should be made to create a level technical and scientific playing field related to agricultural regulatory issues across the NAFTA countries. Priority should be given to increasing veterinary training and related research for Mexico.
- Harmonized surveillance, testing and tracing disease and pest problems that hold the potential for adversely affecting production in each of the NAFTA countries must be adopted. Priority should be given to implementing harmonized animal identification

systems and for adoption at all levels of the food chain requirements for Hazard Analysis Critical Control Point (HACCP) methods.

- The formation of a coordinating organization for SPS standards for animal agriculture and their products, comparable to NAPPO, should be initiated and tenaciously pursued.
- There is need for greater uniformity in policy analysis both in each country and within a strengthened NAFTA secretariat. The economic impacts of SPS initiatives of the type suggested here have broad impacts on agriculture, agribusiness, competitiveness, and the general public. These impacts must be subject to policy analysis if public investments are to be made and people are to enter these decisions with their eyes open and without surprises. There is a noticeable lack of policy analysis that could support analytical teams to focus on these and other trade and policy issues, particularly in Mexico.

Each NAFTA country should bear the responsibility for providing the resources required for implementing these actions and strategies to the best of its ability. However, where this is not possible, it is in the interest of the other countries to share in the costs of implementation on an expedited basis.

## **5. Best institutional mechanisms to move forward**

It is recognized that one or more of these actions and strategies could be best performed by adding them to the NAFTA Secretariat's functions and responsibilities. However, these actions and strategies are too important to await the development of a strong Secretariat, which should be a high priority. In the meantime, resolve on the part of each country's legislative, executive, and regulatory bodies must be relied upon. This does not currently exist. It begins with leadership at the Prime Minister and Presidential level, which then transcends to the Ministry of Agriculture level to put NAFTA concerns at the same level, or at an even higher level than domestic concerns. At a minimum, NAFTA impacts and coordination concerns need to be a factor considered in all domestic farm and regulatory policy decisions. This requires a high level official, at the arm of the Minister of Agriculture, who has this responsibility.



## Bibliography

---

- APHIS/USDA (Animal Plant Health Inspection Service/U.S. Department of Agriculture) (2006), “Highly Pathogenic Avian Influenza Outbreak Summary for non-EU Countries of Europe”, Center for Emerging Issues, Washington, D.C., 3 March, ([http://www.aphis.usda.gov/vs/ceah/cei/taf/iw\\_2006\\_files/foreign/noneusum041306\\_files/hpainoneusummary41306.htm](http://www.aphis.usda.gov/vs/ceah/cei/taf/iw_2006_files/foreign/noneusum041306_files/hpainoneusummary41306.htm)).
- \_\_\_ (2002), “Foot and Mouth Disease”, Fact sheet, Veterinary Services, Washington, D.C., January.
- Barichello, R., T. Josling and D.A. Sumner (2005), “Agricultural Trade Disputes Between Canada and the United States: Costly but Diminishing”, *The Border Papers Series*, N°224, C.D. Howe Institute Commentary, Toronto, Canada, December.
- Caswell, J.A. and D. Sparling (2005), “Risk Management in Integrated NAFTA Market: Lessons from the Case of BSE”, *North American Agrifood Market Integration: Current Situation and Perspectives*, Huff, K.M., and others (eds.), proceedings of the First North American Agricultural Market Integration Workshop, sponsored by Texas A&M University, University of Guelph and Colegio de México, January.
- Bredahl, M. and E. Holleran (1997), “Technical Regulations and Food Safety in NAFTA”, *Harmonization/Convergence/Compatibility in Agriculture and Agri-Food Policy: Canada, United States and Mexico*, Loyns, R.M.A. and others (eds.), proceedings of the Third Agricultural and Policy Systems Information Workshop, sponsored by Texas A&M University, University of Guelph, University of Manitoba and the University of California-Davis, October.
- CODEX (Codex Alimentarius Commission) (n.d.), FAO/WHO Food Standards, (<http://www.codexalimentarius.net>).

- Doan, D. and others (2005), “North American Integration in Agriculture: A Survey”, *North American Agrifood Market Integration: Current Situation and Perspectives*, Huff, K.M. and others (eds.), proceedings of the First North American Agricultural Market Integration Workshop, sponsored by Texas A&M University, University of Guelph and Colegio de México, January.
- Executive Office of the President (2006), *Implementation of the National Strategy for Pandemic Influenza: Six-Month Status Report*, Press release, Washington, D.C., December 18.
- FAS/USDA (Foreign Agriculture Service, U.S. Department of Agriculture) (2006), *North American Free Trade Agreement*, Fact Sheet, Washington, D.C., March.
- FDA/HHS (Food and Drug Administration/U.S. Department of Health and Human Services) (2004), *Commonly Asked Questions About BSE in Products Regulated by FDA’s Center for Food Safety and Applied Nutrition (CFSAN)*, [online], Washington, D.C., updated 14 September 2005, (<http://www.cfsan.fda.gov/~comm/bsefaq.html>).
- FSIS/USDA (Food Safety Inspection Service/U.S. Department of Agriculture) (1999), *Guidebook for the Preparation of HACCP Plans, HACCP-I*, Washington, D.C., September.
- Galvin, T.J and J.H. Wyss (1996), “Screwworm eradication program in Central America”, *Annals of the New York Academy of Sciences*, vol. 791, New York, July.
- GATT (General Agreement on Tariffs and Trade) (1994a), “Agreement on the Application of Sanitary and Phytosanitary Measures”, *Final Act Embodying the Result of the Uruguay Round of Multilateral Trade Negotiations*, Marrakesh, 15 April.
- \_\_\_ (1994b), “Agreement on Technical Barriers to Trade”, *Final Act Embodying the Result of the Uruguay Round of Multilateral Trade Negotiations*, Marrakesh, 15 April.
- Global Trade Information Services (2006), *World Trade Atlas*, Internet version 4.5c, Columbia, South Carolina, (<http://www.gtis.com/>).
- Green, T. and others (2006), “Approaches to Regulatory Coordination Mechanisms”, *Agrifood Regulatory and Policy Integration Under Stress*, Huff, K. M. and others (eds.), proceedings of the Second North American Agricultural Market Integration Workshop, sponsored by Texas A&M University, University of Guelph and the Inter-American Institute for Cooperation on Agriculture-Mexico, May.
- Hufbauer, G. and B. Goodrich (2004), “Lessons from NAFTA”, *Free Trade Agreements: U.S. strategies and priorities*, Schott J. (ed.), Peterson Institute for International Economics, Washington, D.C.
- Hufbauer, G. and J. Schott (2005), *NAFTA Revisited: Achievements and Challenges*, Peterson Institute for International Economics, Washington, D.C.
- IPPC (International Plant Protection Convention) (n.d.) (<https://www.ippc.int>).
- ISO (International Standards Organization) (n.d.) (<http://www.iso.org>).
- Josling, T. (1997), “Policy Dynamics in North American Agriculture: Definitions of and Pressures for Harmonization, Convergence and Compatibility in Policies and Programs Affecting the Agri-Food Sector”, *Harmonization/Convergence/Compatibility in Agriculture and Agri-Food Policy: Canada, United States and Mexico*, Loyns, R.M.A. and others (eds.), proceedings of the Third Agricultural and Policy Systems Information Workshop, sponsored by Texas A&M University, University of Guelph, University of Manitoba and the University of California-Davis, October.
- Knutson, R.D. and R.M.A. Loyns (2004) “A Policy Leadership Commission for NAFTA”, *Keeping the Borders Open*, Loyns, R.M.A. and others (eds.), proceedings of the Eighth Agricultural and Policy Systems Information Workshop, sponsored by Texas A&M University, University of Guelph and Colegio de México, January.
- Knutson, R.D. and R.F. Ochoa (2004), “Convergence, Harmonization, and Compatibility under NAFTA: A 2003 Status Report”, *Keeping the Borders Open*, Loyns, R.M.A. and others (eds.), proceedings of the Eighth Agricultural and Policy Systems Information Workshop, Texas A&M University, University of Guelph and Colegio de México, January.
- Knutson, R.D. and others (2006), “Agrifood Regulatory and Policy Integration Under Stress: Executive Summary”, *Agrifood Regulatory and Policy Integration Under Stress*, in Huff, K.M. and others (eds.), proceedings of the Second North American Agricultural Market Integration Workshop, sponsored by Texas A&M University, University of Guelph and the Inter-American Institute for Cooperation on Agriculture-Mexico, May.
- Loyns, R.M.A. and others (eds.) (1997) *Harmonization/Convergence/Compatibility in Agriculture and Agri-Food Policy: Canada, United States and Mexico*, proceedings of the Third Agricultural and Policy

- Systems Information Workshop, sponsored by Texas A&M University, University of Guelph, University of Manitoba and the University of California-Davis, October.
- Maggi, G. and M. Morelli (2006), “Self Enforcing Voting in International Organizations”, *American Economic Review*, vol. 96, N°4, American Economic Association, 2006.
- MacDonald, R. (2004), “Mexico-U.S. Avocado Trade Expansion-Discussion”, *Keeping the Borders Open*, in Loyns, R.M.A. and others (eds.), proceedings of the Eighth Agricultural and Policy Systems Information Workshop, Texas A&M University, University of Guelph and Colegio de México, January.
- Meilke, K., J. Rude and S. Zahniser (2007), “The Search for NAFTA Plus and a Strategic Bargain in the North American Agrifood Sector”, *Achieving NAFTA Plus*, Huff, K. M. and others (eds.), proceedings of the Third Annual North American Agricultural Market Integration Workshop, sponsored by Texas A&M University, University of Guelph and the Inter-American Institute for Cooperation on Agriculture-Mexico, May.
- Moore, T. and N. Morgan (2006), “Avian Influenza: Trade Issues”, *CAST Commentary* (QTA 2006-2), Council for Agricultural Science and Technology (CAST), Ames, Iowa, April.
- NAFTA (North American Free Trade Agreement) (1994), *Final Agreement*, between the Government of Canada, the Government of the United Mexican States, and the Government of the United States of America, signed on December 17.
- OIE (World Organization for Animal Health) (2007a), (<http://www.oie.int>).
- \_\_\_ (2007b), *Number of cases of BSE reported in the United Kingdom*, [online].
- \_\_\_ (2007c), *Number of cases of BSE reported for farmed cattle worldwide*, [online].
- Orden, D. (2004), “Mexico-U.S. Avocado Trade Expansion”, *Keeping the Borders Open*, Loyns, R.M.A. and others (eds.), proceedings of the Eighth Agricultural and Policy Systems Information Workshop, Texas A&M University, University of Guelph and Colegio de México, January.
- Pastor, R. (2001), *Toward A North American Community: Lessons From The Old World For The New*, Peterson Institute for International Economics (IIE), Washington, D.C., August.
- Patry, B. (2002), *Partners in North America: Advancing Canada's Relations with the United States and Mexico*, Third Report, Standing Committee on Foreign Affairs and International Trade, House of Commons, Government of Canada, Ottawa, December 12. See particularly chapters 4 and 5.
- Peterson, R. A. (2000), “Industry Experience - Starr Produce Co.”, *Policy Harmonization and Adjustment in the North American Agricultural and Food Industry*, Loyns, R.M.A. and others (eds.), proceedings of the Fifth Agricultural and Policy Systems Information Workshop, Texas A&M University, University of Guelph and Colegio de México, February.
- Raynauld, F. (2004), “Trade Dispute Settlement Procedures in NAFTA”, *Keeping the Borders Open*, Loyns, R.M.A. and others (eds.), proceedings of the Eighth Agricultural and Policy Systems Information Workshop, Texas A&M University, University of Guelph and Colegio de México, January.
- Riemenschneider, R. (2004), “Trade and Policy Implications of the Wheat Disease Karnal Bunt”, *Keeping the Borders Open*, Loyns, R.M.A. and others (eds.), proceedings of the Eighth Agricultural and Policy Systems Information Workshop, Texas A&M University, University of Guelph and Colegio de México, January.
- Sparling, D. and J.A. Caswell (2006), “A NAFTA Approach to Animal Health and Biosecurity: Pipe Dream or Possibility”, *Agrifood Regulatory and Policy Integration Under Stress*, Huff, K.M. and others (eds.), proceedings of the Second Annual North American Agricultural Market Integration Workshop, Texas A&M University, University of Guelph and the Inter-American Institute for Cooperation on Agriculture-Mexico, May.
- Vargas-Terán M., H.C. Hofman and N.E. Tweedle (2005), “Impact of Screwworm Eradication Programmes Using the Sterile Insect Technique”, *Sterile Insect Technique Principles and Practice in Area-Wide Pest Management*, Dyck, V.A., J. Hendrichs and A.S. Robinson (eds.), Dordrecht, Netherlands, Springer, pp 629-650.
- WTO (World Trade Organization) (1998), “Understanding the WTO Agreement on Sanitary and Phytosanitary Measures”, [online], ([http://www.wto.org/english/tratop\\_e/sps\\_e/spsund\\_e.htm](http://www.wto.org/english/tratop_e/sps_e/spsund_e.htm)).
- WHO (World Health Organization) (2006), “Avian influenza (“bird flu”) - Fact sheet”, [online], ([http://www.who.int/mediacentre/factsheets/avian\\_influenza/en/index.html](http://www.who.int/mediacentre/factsheets/avian_influenza/en/index.html)).
- Wyss, J.H. (2000), “Screwworm Eradication in the Americas”, *Annals of the New York Academy of Science*, vol. 916, December.





UNITED NATIONS

## Series

ECLAC  
WASHINGTON  
OFFICE

**E C L A C**

**studies and perspectives**

### Issues published

1. Status of agrifood regulatory coordination under the North American Free Trade Agreement, LC/L.2797-P; LC/WAS/L.92. Sales number: E.07.II.G.131 (US\$ 10.00), 2007. [www](#)

- 
- Readers wishing to obtain the above publications can do so by writing to: Distribution Unit, ECLAC, Casilla 179-D, Santiago, Chile, Fax (562) 210 2069, E-mail: [publications@eclac.cl](mailto:publications@eclac.cl).

**www** These publications are also available on the Internet: <http://www.eclac.org/> and <http://www.cepal.org>

|   |
|---|
| Name: .....<br>Activity: .....<br>Address: .....<br>Postal code, city, country: .....<br>Tel.: ..... Fax: ..... E.mail address: ..... |
|---|